

AirSched

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# 1 AirSched Documentation

## 1.1 Getting Started

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- [Linking with AirSched](#)
- [Users Guide](#)
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## 1.2 AirSched at SourceForge

- [Project page](#)
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- [Mailing lists](#)
- [Forums](#)
  - [Discuss about Development issues](#)
  - [Ask for Help](#)
  - [Discuss AirSched](#)

## 1.3 AirSched Development

- [Git Repository](#) (Subversion is deprecated)
- [Coding Rules](#)
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- [Test Rules](#)

## 1.4 External Libraries

- [Boost](#) (C++ STL extensions)
- [Python](#)
- [MySQL client](#)
- [SOCHI](#) (C++ DB API)

## 1.5 Support AirSched

### 1.6 About AirSched

AirSched is a C++ library of classes and functions modeling airline schedules, for instance allowing to retrieve all the flight-based travel solutions corresponding to a given pair of origin and destination points. AirSched mainly targets simulation purposes. [N](#)

AirSched makes an extensive use of existing open-source libraries for increased functionality, speed and accuracy. In particular [Boost](#) (*C++ STL Extensions*) library is used.

The AirSched project originates from the department of Operational Research and Innovation at [Amadeus](#), Sophia Antipolis, France. AirSched is released under the terms of the [GNU Lesser General Public License](#) (LGPLv2.1) for you to enjoy.

AirSched should work on [GNU/Linux](#), [Sun Solaris](#), Microsoft Windows (with [Cygwin](#), [MinGW/MSYS](#), or [Microsoft Visual C++ .NET](#)) and [Mac OS X](#) operating systems.

#### Note

(N) - The AirSched library is **NOT** intended, in any way, to be used by airlines for production systems. If you want to report issue, bug or feature request, or if you just want to give feedback, have a look on the right-hand side of this page for the preferred reporting methods. In any case, please do not contact Amadeus directly for any matter related to AirSched.

## 2 Configuration helper for AirSched programs

```

*/
#ifndef <strong>AIRSCHED_PATHS_HPP</strong>
#define <strong>AIRSCHED_PATHS_HPP</strong>

#define PACKAGE "airsched"
#define PACKAGE_NAME "AIRSCHED"
#define PACKAGE_VERSION "1.00.0"
#define PREFIXDIR "/usr"
#define EXEC_PREFIX "/usr"
#define BINDIR "/usr/bin"
#define LIBDIR "/usr/lib"
#define LIBEXECDIR "/usr/libexec"
#define SBINDIR "/usr/sbin"
#define SYSCONFDIR "/usr/etc"
#define INCLUDEDIR "/usr/include"
#define DATAROOTDIR "/usr/share"
#define DATADIR "/usr/share"
#define DOCDIR "/usr/share/doc/airsched-1.00.0"
#define MANDIR "/usr/share/man"
#define INFODIR "/usr/share/info"
#define HTMLDIR "/usr/share/doc/airsched-1.00.0/html"
#define PDFDIR "/usr/share/doc/airsched-1.00.0/html"
#define STDAIR_SAMPLE_DIR "/usr/share/stdair/samples"

#endif // <strong>AIRSCHED_PATHS_HPP</strong>

/*!

*/
#ifndef <strong>AIRSCHED_PATHS_HPP</strong>
#define <strong>AIRSCHED_PATHS_HPP</strong>

#define PACKAGE "@PACKAGE@"
#define PACKAGE_NAME "@PACKAGE_NAME@"
#define PACKAGE_VERSION "@PACKAGE_VERSION@"
#define PREFIXDIR "@prefix@"
#define EXEC_PREFIX "@exec_prefix@"
#define BINDIR "@bindir@"
#define LIBDIR "@libdir@"
#define LIBEXECDIR "@libexecdir@"
#define SBINDIR "@sbindir@"
#define SYSCONFDIR "@sysconfdir@"
#define INCLUDEDIR "@includedir@"
#define DATAROOTDIR "@datarootdir@"
#define DATADIR "@datadir@"
#define DOCDIR "@docdir@"
#define MANDIR "@mandir@"

```

```
#define INFODIR "@infodir@"
#define HTMLDIR "@htmldir@"
#define PDFDIR "@pdfdir@"
#define STDAIR_SAMPLE_DIR "@sampledir@"

#endif // <strong>AIRSCHED_PATHS_HPP</strong>

/*!
```

## 3 People

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### 3.5 Distribution Maintainers

- **Fedora/RedHat**: Denis Arnaud [denis\\_arnaud@users.sourceforge.net](#) (N)
- **Debian**: Emmanuel Bastien [ebastien@users.sourceforge.net](#) (N)

#### Note

(N) - [Amadeus](#) employees.

## 4 Coding Rules

In the following sections we describe the naming conventions which are used for files, classes, structures, local variables, and global variables.

## 4.1 Default Naming Rules for Variables

Variables names follow Java naming conventions. Examples:

- `lNumberOfPassengers`
- `lSeatAvailability`

## 4.2 Default Naming Rules for Functions

Function names follow Java naming conventions. Example:

- `int myFunctionName (const int& a, int b)`

## 4.3 Default Naming Rules for Classes and Structures

Each new word in a class or structure name should always start with a capital letter and the words should be separated with an under-score. Abbreviations are written with capital letters. Examples:

- `MyClassName`
- `MyStructName`

## 4.4 Default Naming Rules for Files

Files are named after the C++ class names.

Source files are named using `.cpp` suffix, whereas header files end with `.hpp` extension. Examples:

- `FlightDate.hpp`
- `SegmentDate.cpp`

## 4.5 Default Functionality of Classes

All classes that are configured by input parameters should include:

- default empty constructor
- one or more additional constructor(s) that takes input parameters and initializes the class instance
- setup function, preferably named `'setup'` or `'set_parameters'`

Explicit destructor functions are not required, unless they are needed. It shall not be possible to use any of the other member functions unless the class has been properly initiated with the input parameters.

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## 5.1 GNU LESSER GENERAL PUBLIC LICENSE

### 5.1.1 Version 2.1, February 1999

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When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

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(For example, a function in a library to compute square roots has

```
a purpose that is entirely well-defined independent of the
application.  Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)
```

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>
```

```
This library is free software; you can redistribute it and/or
modify it under the terms of the GNU Lesser General Public
License as published by the Free Software Foundation; either
version 2.1 of the License, or (at your option) any later version.
```

```
This library is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY; without even the implied warranty of
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
Lesser General Public License for more details.
```

```
You should have received a copy of the GNU Lesser General Public
License along with this library; if not, write to the Free Software
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```

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright interest in the
library 'Frob' (a library for tweaking knobs) written by James Random Hacker.
```

```
<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice
```

That's all there is to it!

Source

## 6 Documentation Rules

### 6.1 General Rules

All classes in AirSched should be properly documented with Doxygen comments in include (.hpp) files. Source (.cpp) files should be documented according to a normal standard for well documented C++ code.

An example of how the interface of a class shall be documented in AirSched is shown here:

```

/*!
 * \brief Brief description of MyClass here
 *
 * Detailed description of MyClass here. With example code if needed.
 */
class MyClass {
public:
    /*! Default constructor
    MyClass(void) { setup_done = false; }

    /*!
    * \brief Constructor that initializes the class with parameters
    *
    * Detailed description of the constructor here if needed
    *
    * \param[in] param1 Description of \a param1 here
    * \param[in] param2 Description of \a param2 here
    */
    MyClass(TYPE1 param1, TYPE2 param2) { setup(param1, param2); }

    /*!
    * \brief Setup function for MyClass
    *
    * Detailed description of the setup function here if needed
    *
    * \param[in] param1 Description of \a param1 here
    * \param[in] param2 Description of \a param2 here
    */
    void setup(TYPE1 param1, TYPE2 param2);

    /*!
    * \brief Brief description of memberFunction1
    *
    * Detailed description of memberFunction1 here if needed
    *
    * \param[in] param1 Description of \a param1 here
    * \param[in] param2 Description of \a param2 here
    * \param[in,out] param3 Description of \a param3 here
    * \return Description of the return value here
    */
    TYPE4 memberFunction1(TYPE1 param1, TYPE2 param2, TYPE3 &param3);

private:
    bool _setUpDone;          /*!< Variable that checks if the class is properly
                               initialized with parameters */
    TYPE1 _privateVariable1; /*!< Short description of _privateVariable1 here
    TYPE2 _privateVariable2; /*!< Short description of _privateVariable2 here
};

```

### 6.2 File Header

All files should start with the following header, which include Doxygen's \file, \brief and \author tags, \$Date\$ and \$Revisions\$ CVS tags, and a common copyright note:

```

/*!
 * \file
 * \brief Brief description of the file here
 * \author Names of the authors who contributed to this code

```

```

* \date Date
*
* Detailed description of the file here if needed.
*
* -----
*
* AirSched - C++ Airline Schedule Management Library
*
* Copyright (C) 2009-2010 (\see authors file for a list of contributors)
*
* \see copyright file for license information
*
* -----
*/

```

## 6.3 Grouping Various Parts

All functions must be added to a Doxygen group in order to appear in the documentation. The following code example defines the group 'my\_group':

```

/*!
* \defgroup my_group Brief description of the group here
*
* Detailed description of the group here
*/

```

The following example shows how to document the function `myFunction` and how to add it to the group `my_group`:

```

/*!
* \brief Brief description of myFunction here
* \ingroup my_group
*
* Detailed description of myFunction here
*
* \param[in] param1 Description of \a param1 here
* \param[in] param2 Description of \a param2 here
* \return Description of the return value here
*/
TYPE3 myFunction(TYPE1 param1, TYPE2 &param2);

```

## 7 Main features

A short list of the main features of AirSched is given below sorted in different categories. Many more features and functions exist and for these we refer to the reference documentation.

### 7.1 Network generation

- Network/graph generation

### 7.2 Finding travel solutions

- Matching of travel solutions with user requests

### 7.3 Other features

- CSV input file parsing
- Memory handling



## 8 Make a Difference

**Do not ask what AirSched can do for you. Ask what you can do for AirSched.**

You can help us to develop the AirSched library. There are always a lot of things you can do:

- Start using AirSched
- Tell your friends about AirSched and help them to get started using it
- If you find a bug, report it to us. Without your help we can never hope to produce a bug free code.
- Help us to improve the documentation by providing information about documentation bugs
- Answer support requests in the AirSched discussion forums on SourceForge. If you know the answer to a question, help others to overcome their AirSched problems.
- Help us to improve our algorithms. If you know of a better way (e.g. that is faster or requires less memory) to implement some of our algorithms, then let us know.
- Help us to port AirSched to new platforms. If you manage to compile AirSched on a new platform, then tell us how you did it.
- Send us your code. If you have a good AirSched compatible code, which you can release under the LGPL-2.1, and you think it should be included in AirSched, then send it to us.
- Become an AirSched developer. Send us an e-mail and tell what you can do for AirSched.

## 9 Make a new release

### 9.1 Introduction

This document describes briefly the recommended procedure of releasing a new version of AirSched using a Linux development machine and the SourceForge project site.

The following steps are required to make a release of the distribution package.

### 9.2 Initialisation

Clone locally the full [Git project](#):

```
cd ~
mkdir -p dev/sim
cd ~/dev/sim
git clone git://air-sched.git.sourceforge.net/gitroot/air-sched/air-sched airschedgit
cd airschedgit
git checkout trunk
```

### 9.3 Release branch maintenance

Switch to the release branch, on your local clone, and merge the latest updates from the trunk. Decide about the new version to be released.

```
cd ~/dev/sim/airschedgit
git checkout releases
git merge trunk
```

Update the version in the various build system files, replacing the old version numbers by the correct ones:

```
vi CMakeLists.txt
vi autogen.sh
vi README
```

Update the version, add some news in the NEWS file, add a change-log in the ChangeLog file and in the RPM specification files:

```
vi NEWS
vi ChangeLog
vi airsched.spec
```

## 9.4 Commit and publish the release branch

Commit the new release:

```
cd ~/dev/sim/airschedgit
git add -A
git commit -m "[Release 0.5.0] Release of the 0.5.0 version of AirSched."
git push
```

## 9.5 Create distribution packages

Create the distribution packages using the following command:

```
cd ~/dev/sim/airschedgit
git checkout releases
rm -rf build && mkdir -p build
cd build
export INSTALL_BASEDIR=/home/user/dev/deliveries
export LIBSUFFIX_4_CMAKE="-DLIB_SUFFIX=64"
cmake -DCMAKE_INSTALL_PREFIX=${INSTALL_BASEDIR}/airsched-0.5.0 \
  -DCMAKE_BUILD_TYPE:String=Debug -DINSTALL_DOC:BOOL=ON \
  ${LIBSUFFIX_4_CMAKE} ..
make check && make dist
make install
```

This will configure, compile and check the package. The output packages will be named, for instance, airsched-0.5.0.tar.gz and airsched-0.5.0.tar.bz2.

## 9.6 Upload the HTML documentation to SourceForge

In order to update the Web site files, either:

- **synchronise them with rsync and SSH:** Upload the just generated HTML (and PDF) documentation onto the **SourceForge Web site**.

```
cd ~/dev/sim/airschedgit/build
git checkout releases
rsync -aiv ${INSTALL_BASEDIR}/airsched-0.5.0/share/doc/airsched-0.5.0/html/ \
  your_sf_user,air-sched@web.sourceforge.net:htdocs/
```

where `-aiv` options mean:

- `-a`: archive/mirror mode; equals `-rlptgoD` (no `-H`, `-A`, `-X`)
- `-v`: increase verbosity
- `-i`: output a change-summary for all updates
- Note the trailing slashes (/) at the end of both the source and target directories. It means that the content of the source directory (`doc/html`), rather than the directory itself, has to be copied into the content of the target directory.

- or use the **SourceForge Shell service**.

## 9.7 Generate the RPM packages

Optionally, generate the RPM package (for instance, for [Fedora/RedHat](#)):

```
cd ~/dev/sim/airschedgit/build
git checkout releases
make dist
```

To perform this step, rpm-build, rpmlint and rpmdevtools have to be available on the system.

```
cp ../airsched.spec ~/dev/packages/SPECS \
  && cp airsched-0.5.0.tar.bz2 ~/dev/packages/SOURCES
cd ~/dev/packages/SPECS
rpmbuild -ba airsched.spec
cd ~/dev/packages
rpmlint -i SPECS/airsched.spec SRPMS/airsched-0.5.0-1.fc16.src.rpm \
  RPMS/noarch/airsched-* RPMS/i686/airsched-*
```

## 9.8 Update distributed change log

Update the NEWS and ChangeLog files with appropriate information, including what has changed since the previous release. Then commit and push the changes into the [AirSched's Git repository](#).

## 9.9 Create the binary package, including the documentation

Create the binary package, which includes HTML and PDF documentation, using the following command:

```
cd ~/dev/sim/airschedgit/build
git checkout releases
make package
```

The output binary package will be named, for instance, airsched-0.5.0-Linux.tar.bz2. That package contains both the HTML and PDF documentation. The binary package contains also the executables and shared libraries, as well as C++ header files, but all of those do not interest us for now.

## 9.10 Upload the files to SourceForge

Upload the distribution and documentation packages to the SourceForge server. Check [SourceForge help page on uploading software](#).

## 9.11 Make a new post

- submit a new entry in the [SourceForge project-related news feed](#)
- make a new post on the [SourceForge hosted WordPress blog](#)
- and update, if necessary, [Trac tickets](#).

## 9.12 Send an email on the announcement mailing-list

Finally, you should send an announcement to [airsched-announce@lists.sourceforge.net](mailto:airsched-announce@lists.sourceforge.net) (see <https://lists.sourceforge.net/lists/listinfo/airsched-announce> for the archives)

## 10 Installation

### 10.1 Table of Contents

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### 10.2 Fedora/RedHat Linux distributions

Note that on [Fedora/RedHat](#) Linux distributions, RPM packages are available and can be installed with your usual package manager. For instance:

```
yum -y install airsched-devel airsched-doc
```

RPM packages can also be available on the [SourceForge download site](#).

### 10.3 AirSched Requirements

AirSched should compile without errors or warnings on most GNU/Linux systems, on UNIX systems like Solaris SunOS, and on POSIX based environments for Microsoft Windows like Cygwin or MinGW with MSYS. It can be also built on Microsoft Windows NT/2000/XP/Vista/7 using Microsoft's Visual C++ .NET, but our support for this compiler is limited. For GNU/Linux, SunOS, Cygwin and MinGW we assume that you have at least the following GNU software installed on your computer:

- GNU Autotools:
  - [autoconf](#),
  - [automake](#),
  - [libtool](#),
  - [make](#), version 3.72.1 or later (check version with ``make --version``)
- [GCC](#) - GNU C++ Compiler (g++), version 4.3.x or later (check version with ``gcc --version``)
- [Boost](#) - C++ STL extensions, version 1.35 or later (check version with ``grep "define BOOST_LIB_VERSION" /usr/include/boost/version.hpp``)
- [MySQL](#) - Database client libraries, version 5.0 or later (check version with ``mysql --version``)
- [SOXI](#) - C++ database client library wrapper, version 3.0.0 or later (check version with ``soci-config --version``)

Optionally, you might need a few additional programs: `Doxygen`, `LaTeX`, `Dvips` and `Ghostscript`, to generate the HTML and PDF documentation.

We strongly recommend that you use recent stable releases of the GCC, if possible. We do not actively work on supporting older versions of the GCC, and they may therefore (without prior notice) become unsupported in future releases of AirSched.

## 10.4 Basic Installation

Briefly, the shell commands `./cmake .. && make install` should configure, build, and install this package. The following more-detailed instructions are generic; see the `README` file for instructions specific to this package. Some packages provide this `INSTALL` file but do not implement all of the features documented below. The lack of an optional feature in a given package is not necessarily a bug. More recommendations for GNU packages can be found in the info page corresponding to "Makefile Conventions: (standards)Makefile Conventions".

The `cmake` shell script attempts to guess correct values for various system-dependent variables used during compilation. It uses those values to create a `Makefile` in each directory of the package. It may also create one or more `.h` files containing system-dependent definitions. Finally, it creates a `CMakeCache.txt` cache file that you can refer to in the future to recreate the current configuration, and a file `CMakeFiles` containing compiler output (useful mainly for debugging `cmake`).

It can also use an optional file (typically called `config.cache` and enabled with `-cache-file=config.cache` or simply `-C`) that saves the results of its tests to speed up reconfiguring. Caching is disabled by default to prevent problems with accidental use of stale cache files.

If you need to do unusual things to compile the package, please try to figure out how `configure` could check whether to do them, and mail diffs or instructions to the address given in the `README` so they can be considered for the next release. If you are using the cache, and at some point `config.cache` contains results you don't want to keep, you may remove or edit it.

The file `CMakeLists.txt` is used to create the `Makefile`

files.

The simplest way to compile this package is:

1. `cd` to the directory containing the package's source code and type `./cmake ..` to configure the package for your system. Running `cmake` is generally fast. While running, it prints some messages telling which features it is checking for.
2. Type `make` to compile the package.
3. Optionally, type `make check` to run any self-tests that come with the package, generally using the just-built uninstalled binaries.
4. Type `make install` to install the programs and any data files and documentation. When installing into a prefix owned by root, it is recommended that the package be configured and built as a regular user, and only the `make install` phase executed with root privileges.
5. You can remove the program binaries and object files from the source code directory by typing `make clean`. To also remove the files that `configure` created (so you can compile the package for a different kind of computer), type `make distclean`. There is also a `make maintainer-clean` target, but that is intended mainly for the package's developers. If you use it, you may have to get all sorts of other programs in order to regenerate files that came with the distribution.
6. Often, you can also type `make uninstall` to remove the installed files again. In practice, not all packages have tested that uninstallation works correctly, even though it is required by the GNU Coding Standards.

## 10.5 Compilers and Options

Some systems require unusual options for compilation or linking that the 'cmake' script does not know about. Run './cmake -help' for details on some of the pertinent environment variables.

You can give 'cmake' initial values for configuration parameters by setting variables in the command line or in the environment. Here is an example:

```
./cmake CC=c99 CFLAGS=-g LIBS=-lposix
```

### See also

[Defining Variables](#) for more details.

## 10.6 Compiling For Multiple Architectures

You can compile the package for more than one kind of computer at the same time, by placing the object files for each architecture in their own directory. To do this, you can use GNU 'make'. 'cd' to the directory where you want the object files and executables to go and run the 'configure' script. 'configure' automatically checks for the source code in the directory that 'configure' is in and in '..'. This is known as a "VPATH" build.

With a non-GNU 'make', it is safer to compile the package for one architecture at a time in the source code directory. After you have installed the package for one architecture, use 'make distclean' before reconfiguring for another architecture.

On MacOS X 10.5 and later systems, you can create libraries and executables that work on multiple system types-known as "fat" or "universal" binaries-by specifying multiple '-arch' options to the compiler but only a single '-arch' option to the preprocessor. Like this:

```
./configure CC="gcc -arch i386 -arch x86_64 -arch ppc -arch ppc64" \  
CXX="g++ -arch i386 -arch x86_64 -arch ppc -arch ppc64" \  
CPP="gcc -E" CXXCPP="g++ -E"
```

This is not guaranteed to produce working output in all cases, you may have to build one architecture at a time and combine the results using the 'lipo' tool if you have problems.

## 10.7 Installation Names

By default, 'make install' installs the package's commands under '/usr/local/bin', include files under '/usr/local/include', etc. You can specify an installation prefix other than '/usr/local' by giving 'configure' the option '-prefix=PREFIX', where PREFIX must be an absolute file name.

You can specify separate installation prefixes for architecture-specific files and architecture-independent files. If you pass the option '-exec-prefix=PREFIX' to 'configure', the package uses PREFIX as the prefix for installing programs and libraries. Documentation and other data files still use the regular prefix.

In addition, if you use an unusual directory layout you can give options like '-bindir=DIR' to specify different values for particular kinds of files. Run 'configure -help' for a list of the directories you can set and what kinds of files go in them. In general, the default for these options is

expressed in terms of `'${prefix}'`, so that specifying just `'-prefix'` will affect all of the other directory specifications that were not explicitly provided.

The most portable way to affect installation locations is to pass the correct locations to `'configure'`; however, many packages provide one or both of the following shortcuts of passing variable assignments to the `'make install'` command line to change installation locations without having to reconfigure or recompile.

The first method involves providing an override variable for each affected directory. For example, `'make install prefix=/alternate/directory'` will choose an alternate location for all directory configuration variables that were expressed in terms of `'${prefix}'`. Any directories that were specified during `'configure'`, but not in terms of `'${prefix}'`, must each be overridden at install time for the entire installation to be relocated. The approach of makefile variable overrides for each directory variable is required by the GNU Coding Standards, and ideally causes no recompilation. However, some platforms have known limitations with the semantics of shared libraries that end up requiring recompilation when using this method, particularly noticeable in packages that use GNU Libtool.

The second method involves providing the `'DESTDIR'` variable. For example, `'make install DESTDIR=/alternate/directory'` will prepend `'/alternate/directory'` before all installation names. The approach of `'DESTDIR'` overrides is not required by the GNU Coding Standards, and does not work on platforms that have drive letters. On the other hand, it does better at avoiding recompilation issues, and works well even when some directory options were not specified in terms of `'${prefix}'` at `'configure'` time.

## 10.8 Optional Features

If the package supports it, you can cause programs to be installed with an extra prefix or suffix on their names by giving `'cmake'` the option `'-program-prefix=PREFIX'` or `'-program-suffix=SUFFIX'`.

Some packages pay attention to `'-enable-FEATURE'` options to `'configure'`, where `FEATURE` indicates an optional part of the package. They may also pay attention to `'-with-PACKAGE'` options, where `PACKAGE` is something like `'gnu-as'` or `'x'` (for the X Window System). The `'README'` should mention any `'-enable-'` and `'-with-'` options that the package recognizes.

For packages that use the X Window System, `'configure'` can usually find the X include and library files automatically, but if it doesn't, you can use the `'configure'` options `'-x-includes=DIR'` and `'-x-libraries=DIR'` to specify their locations.

Some packages offer the ability to configure how verbose the execution of `'make'` will be. For these packages, running `'./configure --enable-silent-rules'` sets the default to minimal output, which can be overridden with `'make V=1'`; while running `'./configure --disable-silent-rules'` sets the default to verbose, which can be overridden with `'make V=0'`.

## 10.9 Particular systems

On HP-UX, the default C compiler is not ANSI C compatible. If GNU CC is not installed, it is recommended to use the following options in order to use an ANSI C compiler:

```
./configure CC="cc -Ae -D_XOPEN_SOURCE=500"
```

and if that doesn't work, install pre-built binaries of GCC for HP-UX.

On OSF/1 a.k.a. Tru64, some versions of the default C compiler cannot parse its `<wchar.h>` header file. The option `-nodtk` can be used as a workaround. If GNU CC is not installed, it is therefore recommended to try

```
./configure CC="cc"
```

and if that doesn't work, try

```
./configure CC="cc -nodtk"
```

On Solaris, don't put `/usr/ucb` early in your `PATH`. This directory contains several dysfunctional programs; working variants of these programs are available in `/usr/bin`. So, if you need `/usr/ucb` in your `PATH`, put it *after* `/usr/bin`.

On Haiku, software installed for all users goes in `/boot/common`, not `/usr/local`. It is recommended to use the following options:

```
./cmake -DCMAKE_INSTALL_PREFIX=/boot/common
```

## 10.10 Specifying the System Type

There may be some features `configure` cannot figure out automatically, but needs to determine by the type of machine the package will run on. Usually, assuming the package is built to be run on the *same* architectures, `configure` can figure that out, but if it prints a message saying it cannot guess the machine type, give it the `-build=TYPE` option. TYPE can either be a short name for the system type, such as `sun4`, or a canonical name which has the form CPU-COMPANY-SYSTEM

where SYSTEM can have one of these forms:

- OS
- KERNEL-OS

See the file `config.sub` for the possible values of each field. If `config.sub` isn't included in this package, then this package doesn't need to know the machine type.

If you are *building* compiler tools for cross-compiling, you should use the option `-target=TYPE` to select the type of system they will produce code for.

If you want to use a cross compiler, that generates code for a platform different from the build platform, you should specify the `"host"` platform (i.e., that on which the generated programs will eventually be run) with `-host=TYPE`.

## 10.11 Sharing Defaults

If you want to set default values for `configure` scripts to share, you can create a site shell script called `config.site` that gives default values for variables like `CC`, `cache_file`, and `prefix`. `configure` looks for `PREFIX/share/config.site` if it exists, then `PREFIX/etc/config.site` if it exists. Or, you can set the `CONFIG_SITE` environment variable to the location of the site script. A warning: not all `configure` scripts look for a site script.



## 10.12 Defining Variables

Variables not defined in a site shell script can be set in the environment passed to 'configure'. However, some packages may run configure again during the build, and the customized values of these variables may be lost. In order to avoid this problem, you should set them in the 'configure' command line, using 'VAR=value'. For example:

```
./configure CC=/usr/local2/bin/gcc
```

causes the specified 'gcc' to be used as the C compiler (unless it is overridden in the site shell script).

Unfortunately, this technique does not work for 'CONFIG\_SHELL' due to an Autoconf bug. Until the bug is fixed you can use this workaround:

```
CONFIG_SHELL=/bin/bash /bin/bash ./configure CONFIG_SHELL=/bin/bash
```

## 10.13 'cmake' Invocation

'cmake' recognizes the following options to control how it operates.

- '-help', '-h' print a summary of all of the options to 'cmake', and exit.
- '-help=short', '-help=recursive' print a summary of the options unique to this package's 'configure', and exit. The 'short' variant lists options used only in the top level, while the 'recursive' variant lists options also present in any nested packages.
- '-version', '-V' print the version of Autoconf used to generate the 'configure' script, and exit.
- '-cache-file=FILE' enable the cache: use and save the results of the tests in FILE, traditionally 'config.cache'. FILE defaults to '/dev/null' to disable caching.
- '-config-cache', '-C' alias for '-cache-file=config.cache'.
- '-quiet', '-silent', '-q' do not print messages saying which checks are being made. To suppress all normal output, redirect it to '/dev/null' (any error messages will still be shown).
- '-srcdir=DIR' look for the package's source code in directory DIR. Usually 'configure' can determine that directory automatically.
- '-prefix=DIR' use DIR as the installation prefix.

See also

[Installation Names](#) for more details, including other options available for fine-tuning the installation locations.

- '-no-create', '-n' run the configure checks, but stop before creating any output files.

'cmake' also accepts some other, not widely useful, options. Run 'cmake' -help' for more details.

The 'cmake' script produces an output like this:

```

-- Requires Git without specifying any version
cmake -DCMAKE_INSTALL_PREFIX=/home/user/dev/deliveries/airsched-99.99.99 -DLIB_SUFFIX=64 -DCMAKE_BUILD_TYPE:ST
-- The C compiler identification is GNU
-- The CXX compiler identification is GNU
-- Check for working C compiler: /usr/lib64/ccache/gcc
-- Check for working C compiler: /usr/lib64/ccache/gcc -- works
-- Detecting C compiler ABI info
-- Detecting C compiler ABI info - done
-- Check for working CXX compiler: /usr/lib64/ccache/c++
-- Check for working CXX compiler: /usr/lib64/ccache/c++ -- works
-- Detecting CXX compiler ABI info
-- Detecting CXX compiler ABI info - done
-- Requires Git without specifying any version
-- Current Git revision name: 6100bb1479e9c72f807a60067138dfelb71cbec7 trunk
-- Requires Boost-1.41
-- Boost version: 1.46.0
-- Found the following Boost libraries:
--   regex
--   program_options
--   date_time
--   iostreams
--   serialization
--   filesystem
--   unit_test_framework
--   python
-- Found Boost version: 1.46.0
-- Found BoostWrapper: /usr/include (Required is at least version "1.41")
-- Requires MySQL without specifying any version
-- Using mysql-config: /usr/bin/mysql_config
-- Found MySQL: /usr/lib64/mysql/libmysqlclient.so
-- Found MySQL version: 5.5.14
-- Requires SOCI-3.0
-- Using soci-config: /usr/bin/soci-config
-- SOCI headers are buried
-- Found SOCI: /usr/lib64/libsoci_core.so (Required is at least version "3.0")
-- Found SOCIMySQL: /usr/lib64/libsoci_mysql.so (Required is at least version "3.0")
-- Found SOCI with MySQL back-end support version: 3.0.0
-- Requires StdAir-0.35
-- Found StdAir version: 0.38.0
-- Requires Doxygen without specifying any version
-- Found Doxygen: /usr/bin/doxygen
-- Found DoxygenWrapper: /usr/bin/doxygen
-- Found Doxygen version: 1.7.4
-- Had to set the linker language for 'airschedlib' to CXX
-- Test 'AirlineScheduleTestSuite' to be built with 'AirlineScheduleTestSuite.cpp'
--
=====
-- ---      Project Information      ---
-- -----
-- PROJECT_NAME ..... : airsched
-- PACKAGE_PRETTY_NAME ..... : AirSched
-- PACKAGE ..... : airsched
-- PACKAGE_NAME ..... : AIRSCHED
-- PACKAGE_BRIEF ..... : C++ Simulated Airline Schedule Manager Library
-- PACKAGE_VERSION ..... : 99.99.99
-- GENERIC_LIB_VERSION ..... : 99.99.99
-- GENERIC_LIB_SOVERSION ..... : 99.99
--
-- ---      Build Configuration      ---
-- -----
-- Modules to build ..... : airsched
-- Libraries to build/install ..... : airschedlib
-- Binaries to build/install ..... : airsched
-- Modules to test ..... : airsched
-- Binaries to test ..... : AirlineScheduleTestSuite
--
-- * Module ..... : airsched
--   + Layers to build ..... : .;basic;bom;factory;command;service
--   + Dependencies on other layers :
--   + Libraries to build/install . : airschedlib
--   + Executables to build/install : airsched

```

```

-- + Tests to perform ..... : AirlineScheduleTestSuitetst
--
-- BUILD_SHARED_LIBS ..... : ON
-- CMAKE_BUILD_TYPE ..... : Debug
-- * CMAKE_C_FLAGS ..... :
-- * CMAKE_CXX_FLAGS ..... : -Wall -Werror
-- * BUILD_FLAGS ..... :
-- * COMPILE_FLAGS ..... :
-- CMAKE_MODULE_PATH ..... : /home/user/dev/sim/airsched/airschedgithub/config/
-- CMAKE_INSTALL_PREFIX ..... : /home/user/dev/deliveries/airsched-99.99.99
--
-- * Doxygen:
-- - DOXYGEN_VERSION ..... : 1.7.4
-- - DOXYGEN_EXECUTABLE ..... : /usr/bin/doxygen
-- - DOXYGEN_DOT_EXECUTABLE ..... : /usr/bin/dot
-- - DOXYGEN_DOT_PATH ..... : /usr/bin
--
-- -----
-- --- Installation Configuration ---
-- -----
-- INSTALL_LIB_DIR ..... : /home/user/dev/deliveries/airsched-99.99.99/lib64
-- INSTALL_BIN_DIR ..... : /home/user/dev/deliveries/airsched-99.99.99/bin
-- INSTALL_INCLUDE_DIR ..... : /home/user/dev/deliveries/airsched-99.99.99/include
-- INSTALL_DATA_DIR ..... : /home/user/dev/deliveries/airsched-99.99.99/share
-- INSTALL_SAMPLE_DIR ..... : /home/user/dev/deliveries/airsched-99.99.99/share/airsched/samples
-- INSTALL_DOC ..... : ON
--
-- -----
-- --- Packaging Configuration ---
-- -----
-- CPACK_PACKAGE_CONTACT ..... : Denis Arnaud <denis_arnaud - at - users dot sourceforge dot net>
-- CPACK_PACKAGE_VENDOR ..... : Denis Arnaud
-- CPACK_PACKAGE_VERSION ..... : 99.99.99
-- CPACK_PACKAGE_DESCRIPTION_FILE . : /home/user/dev/sim/airsched/airschedgithub/README
-- CPACK_RESOURCE_FILE_LICENSE .... : /home/user/dev/sim/airsched/airschedgithub/COPYING
-- CPACK_GENERATOR ..... : TBZ2
-- CPACK_DEBIAN_PACKAGE_DEPENDS ... :
-- CPACK_SOURCE_GENERATOR ..... : TBZ2;TGZ
-- CPACK_SOURCE_PACKAGE_FILE_NAME . : airsched-99.99.99
--
-- -----
-- --- External libraries ---
-- -----
--
-- * Boost:
-- - Boost_VERSION ..... : 104600
-- - Boost_LIB_VERSION ..... : 1_46
-- - Boost_HUMAN_VERSION ..... : 1.46.0
-- - Boost_INCLUDE_DIRS ..... : /usr/include
-- - Boost required components .. : regex;program_options;date_time;iostreams;serialization;filesystem;unit_
-- - Boost required libraries ... : optimized;/usr/lib64/libboost_regex-mt.so;debug;/usr/lib64/libboost_rege
--
-- * MySQL:
-- - MYSQL_VERSION ..... : 5.5.14
-- - MYSQL_INCLUDE_DIR ..... : /usr/include/mysql
-- - MYSQL_LIBRARIES ..... : /usr/lib64/mysql/libmysqlclient.so
--
-- * SOCI:
-- - SOCI_VERSION ..... : 3.0.0
-- - SOCI_INCLUDE_DIR ..... : /usr/include/soci
-- - SOCI_MYSQL_INCLUDE_DIR ..... : /usr/include/soci
-- - SOCI_LIBRARIES ..... : /usr/lib64/libsoci_core.so
-- - SOCI_MYSQL_LIBRARIES ..... : /usr/lib64/libsoci_mysql.so
--
-- * StdAir:
-- - STDAIR_VERSION ..... : 0.38.0
-- - STDAIR_BINARY_DIRS ..... : /home/user/dev/deliveries/stdair-0.38.0/bin
-- - STDAIR_EXECUTABLES ..... : stdair
-- - STDAIR_LIBRARY_DIRS ..... : /home/user/dev/deliveries/stdair-0.38.0/lib64
-- - STDAIR_LIBRARIES ..... : stdairlib;stdairuiclib
-- - STDAIR_INCLUDE_DIRS ..... : /home/user/dev/deliveries/stdair-0.38.0/include
-- - STDAIR_SAMPLE_DIR ..... : /home/user/dev/deliveries/stdair-0.38.0/share/stdair/samples
--

```

```
-- Change a value with: cmake -D<Variable>=<Value>
-- =====
--
-- Configuring done
-- Generating done
-- Build files have been written to: /home/user/dev/sim/airsched/airschedgithub/build
```

It is recommended that you check if your library has been compiled and linked properly and works as expected. To do so, you should execute the testing process 'make check'. As a result, you should obtain a similar report:

```
[ 0%] Built target hdr_cfg_airsched
[ 96%] Built target airschedlib
[100%] Built target AirlineScheduleTestSuitetst
Scanning dependencies of target check_airschedtst
Test project /home/dan/dev/sim/airsched/airschedgithub/build/test/airsched
  Start 1: AirlineScheduleTestSuitetst
1/1 Test #1: AirlineScheduleTestSuitetst ..... Passed    0.15 sec

100% tests passed, 0 tests failed out of 1

Total Test time (real) = 0.40 sec
[100%] Built target check_airschedtst
Scanning dependencies of target check
[100%] Built target check
```

Check if all the executed tests PASSED. If not, please contact us by filling a [bug-report](#).

Finally, you should install the compiled and linked library, include files and (optionally) HTML and PDF documentation by typing:

```
make install
```

Depending on the PREFIX settings during configuration, you might need the root (administrator) access to perform this step.

Eventually, you might invoke the following command

```
make clean
```

to remove all files created during compilation process, or even

```
cd ~/dev/sim/airschedgit
rm -rf build && mkdir build
cd build
```

to remove everything.

## 11 Linking with AirSched

### 11.1 Table of Contents

- [Introduction](#)
- [Dependencies](#)
- [Using the pkg-config command](#)
- [Using the airsched-config script](#)
- [M4 macro for the GNU Autotools](#)
- [Using AirSched with dynamic linking](#)

## 11.2 Introduction

There are two convenient methods of linking your programs with the AirSched library. The first one employs the `'pkg-config'` command (see <http://pkgconfig.freedesktop.org/>), whereas the second one uses `'airsched-config'` script. These methods are shortly described below.

## 11.3 Dependencies

The AirSched library depends on several other C++ components.

### 11.3.1 StdAir

Among them, as for now, only StdAir has been packaged. The support for StdAir is taken in charge by a dedicated M4 macro file (namely, `'stdair.m4'`), from the configuration script (generated thanks to `'configure.ac'`).



Figure 1: AirSched Dependencies

## 11.4 Using the pkg-config command

`'pkg-config'` is a helper tool used when compiling applications and libraries. It helps you insert the correct compiler and linker options. The syntax of the `'pkg-config'` is as follows:

```
pkg-config <options> <library_name>
```

For instance, assuming that you need to compile an AirSched based program `'my_prog.cpp'`, you should use the following command:

```
g++ `pkg-config --cflags airsched` -o my_prog my_prog.cpp `pkg-config --libs  
    airsched`
```

For more information see the `'pkg-config'` man pages.

## 11.5 Using the airsched-config script

AirSched provides a shell script called `airsched-config`, which is installed by default in ``$prefix/bin'` (``/usr/local/bin'`) directory. It can be used to simplify compilation and linking of AirSched based programs. The usage of this script is quite similar to the usage of the ``pkg-config'` command.

Assuming that you need to compile the program ``my_prog.cpp'` you can now do that with the following command:

```
g++ `airsched-config --cflags` -o my_prog_opt my_prog.cpp `airsched-config --
    libs`
```

A list of ``airsched-config'` options can be obtained by typing:

```
airsched-config --help
```

If the ``airsched-config'` command is not found by your shell, you should add its location ``$prefix/bin'` to the `PATH` environment variable, e.g.:

```
export PATH=/usr/local/bin:$PATH
```

## 11.6 M4 macro for the GNU Autotools

A M4 macro file is delivered with AirSched, namely ``airsched.m4'`, which can be found in, e.g., ``/usr/share/aclocal'`. When used by a ``configure'` script, thanks to the ``AM_PATH_AirSched'` macro (specified in the M4 macro file), the following Makefile variables are then defined:

- ``AirSched_VERSION'` (e.g., defined to 0.23.0)
- ``AirSched_CFLAGS'` (e.g., defined to ``-I${prefix}/include'`)
- ``AirSched_LIBS'` (e.g., defined to ``-L${prefix}/lib -lairsched'`)

## 11.7 Using AirSched with dynamic linking

When using static linking some of the library routines in AirSched are copied into your executable program. This can lead to unnecessary large executables. To avoid having too large executable files you may use dynamic linking instead. Dynamic linking means that the actual linking is performed when the program is executed. This requires that the system is able to locate the shared AirSched library file during your program execution. If you install the AirSched library using a non-standard prefix, the ``LD_LIBRARY_PATH'` environment variable might be used to inform the linker of the dynamic library location, e.g.:

```
export LD_LIBRARY_PATH=<AirSched installation prefix>/lib:$LD_LIBRARY_PATH
```

# 12 Test Rules

This section describes rules how the functionality of the IT++ library should be verified. In the ``tests'` subdirectory test files are provided. All functionality should be tested using these test files.

## 12.1 The Test File

Each new IT++ module/class should be accompanied with a test file. The test file is an implementation in C++ that tests the functionality of a function/class or a group of functions/classes called modules. The test file should test relevant parameter settings and input/output relations to guarantee correct functionality of the corresponding classes/functions. The test files should be maintained using version control and updated whenever new functionality is added to the IT++ library.

The test file should print relevant data to a standard output that can be used to verify the functionality. All relevant parameter settings should be tested.

The test file should be placed in the `'tests'` subdirectory and should have a name ending with `'_test.cpp'`.

## 12.2 The Reference File

Consider a test file named `'module_test.cpp'`. A reference file named `'module_test.ref'` should accompany the test file. The reference file contains a reference printout of the standard output generated when running the test program. The reference file should be maintained using version control and updated according to the test file.

## 12.3 Testing IT++ Library

One can compile and execute all test programs from `'tests'` subdirectory by typing

```
% make check
```

after successful compilation of the IT++ library.

# 13 Users Guide

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## 13.2 Introduction

The `AirSched` library contains classes for airline business management. This document does not cover all the aspects of the `AirSched` library. It does however explain the most important things you need to know in order to start using `AirSched`.

## 13.3 Get Started

### 13.3.1 Get the AirSched library

Clone locally the full [Git project](#):

```
cd ~
mkdir -p dev/sim
cd ~/dev/sim
git clone git://air-sched.git.sourceforge.net/gitroot/air-sched/air-sched airschedgit
cd airschedgit
git checkout trunk
```

### 13.3.2 Build the AirSched project

Link with StdAir, create the distribution package (say, 0.5.0) and compile using the following commands:

```
cd ~/dev/sim/airschedgit
rm -rf build && mkdir -p build
cd build
cmake -DCMAKE_INSTALL_PREFIX=~/dev/deliveries/airsched-0.5.0 \
  -DWITH_STDAIR_PREFIX=~/dev/deliveries/stdair-stable \
  -DCMAKE_BUILD_TYPE:STRING=Debug -DINSTALL_DOC:BOOL=ON ..
make
```

### 13.3.3 Build and Run the Tests

After building the AirSched project, the following commands run the tests:

```
cd ~/dev/sim/airschedgit
cd build
make check
```

As a result, you should obtain a similar report:

```
[ 0%] Built target hdr_cfg_airsched
[ 96%] Built target airschedlib
[100%] Built target AirlineScheduleTestSuitetst
Scanning dependencies of target check_airschedtst
Test project /home/dan/dev/sim/airsched/airschedgithub/build/test/airsched
  Start 1: AirlineScheduleTestSuitetst
1/1 Test #1: AirlineScheduleTestSuitetst ..... Passed    0.15 sec

100% tests passed, 0 tests failed out of 1

Total Test time (real) = 0.40 sec
[100%] Built target check_airschedtst
Scanning dependencies of target check
[100%] Built target check
```

### 13.3.4 Install the AirSched Project (Binaries, Documentation)

After the step [Build the AirSched project](#), to install the library and its header files, type:

```
cd ~/dev/sim/airschedgit
cd build
make install
```

You can check that the executables and other required files have been copied into the given final directory:

```
cd ~/dev/deliveries/airsched-0.5.0
```

To generate the AirSched project documentation, the commands are:



```
cd ~/dev/sim/airschedgit
cd build
make doc
```

The AirSched project documentation is available in the following formats: HTML, LaTeX. Those documents are available in a subdirectory:

```
cd ~/dev/sim/airschedgit
cd build
cd doc
```

## 13.4 Input file of AirSched Project

The schedule input file structure should look like the following sample:

```
// Flights:   AirlineCode; FlightNumber; Date-Range; ; DOW; Legs; Segments;
// Legs:      BoardPoint; OffPoint; BoardTime; ArrivalDateOffset; ArrivalTime;
//            ElapsedTime; LegCabins;
// LegCabins: CabinCode; Capacity;
// Segments:  Specific;
BA; 9; 2007-04-20; 2007-06-30; 0000011; LHR; BKK; 22:00; 15:15 / +1; 11:15; F;
    5; J; 12; W; 20; Y; 300; BKK; SYD; 18:10 / +1; 06:05 / +2; 08:55; F; 5; J; 12; W
    ; 20; Y; 300; 0; F; FA; 1; FA; J; JCIDI; 1; JCIDI; W; WT; 1; WT; Y; YBHKMLSQ; 1;
    YBHKMLSQ;
BA; 9; 2007-04-20; 2007-06-30; 1111100; LHR; BKK; 22:00; 15:15 / +1; 11:15; F;
    5; J; 12; W; 20; Y; 300; BKK; SYD; 18:10 / +1; 06:05 / +2; 08:55; F; 5; J; 12; W
    ; 20; Y; 300; 1; LHR; BKK; F; FA; J; JCIDI; W; WT; Y; YBHKMLSQ; BKK; SYD; F; FA;
    J; JCIDI; W; WT; Y; YBHKMLSQ; LHR; SYD; F; FA; 1; FA; J; JCIDI; 1; JCIDI; W; WT; 1;
    WT; Y; YBHKMLSQ; 1; YBHKMLSQ;
BA; 117; 2007-04-20; 2007-06-30; 1111111; LHR; JFK; 08:20; 11:00; 07:40; F; 5;
    J; 12; W; 20; Y; 300; 0; F; FA; 1; FA; J; JCIDI; 1; JCIDI; W; WT; 1; WT; Y; YBHKM;
    1; YBHKM;
BA; 175; 2007-04-20; 2007-06-30; 1111111; LHR; JFK; 10:55; 13:35; 07:40; F; 5;
    J; 12; W; 20; Y; 300; 0; F; FA; 1; FA; J; JCIDI; 1; JCIDI; W; WT; 1; WT; Y;
    YBHKMRL; 1; YBHKMRL;
BA; 179; 2007-04-20; 2007-06-30; 1111111; LHR; JFK; 18:05; 20:45; 07:40; F; 5;
    J; 12; W; 20; Y; 300; 0; F; FA; 1; FA; J; JCIDI; 1; JCIDI; W; WT; 1; WT; Y;
    YBHKMRVNELSQ; 1; YBHKMRVNELSQ;
BA; 207; 2007-04-20; 2007-06-30; 1111111; LHR; MIA; 09:40; 14:25; 09:45; F; 5;
    J; 12; W; 20; Y; 300; 0; F; FA; 1; FA; J; JCIDI; 1; JCIDI; W; WT; 1; WT; Y;
    YBHKMRVNELSQ; 1; YBHKMRVNELSQ;
BA; 279; 2007-04-20; 2007-06-30; 1111111; LHR; LAX; 10:05; 13:10; 11:05; F; 5;
    J; 12; W; 20; Y; 300; 0; F; FA; 1; FA; J; JCIDI; 1; JCIDI; W; WT; 1; WT; Y;
    YBHKMRVNELSQ; 1; YBHKMRVNELSQ;
```

Each line, beyond the header, represents a schedule entry, i.e., the specification of a given flight-period (see [AIR-SCHED::FlightPeriodStruct](#)). The fields are as follows:

- Flights section
  - AirlineCode (e.g., BA)
  - FlightNumber (e.g., 9)
  - Start of the flight departure period (e.g., 2007-04-20)
  - End of the flight departure period (e.g., 2007-06-30)
  - Day-Of-the-Week for the flight departure period (DOW) (e.g., 0000011)
  - Leg section
  - Segment section
- Leg section
  - BoardPoint (e.g., LHR)
  - OffPoint (e.g., BKK)
  - BoardTime (e.g., 22:00)
  - ArrivalTime (e.g., 15:15)

- `ArrivalDateOffset` (e.g., +1)
- `ElapsedTime` (e.g., 11:15)
- Leg-cabin section
- Leg-cabin section
  - Cabin code (e.g., F, J, W or Y)
  - Capacity (e.g., respectively 5, 12, 20 or 300)
- Segment section
  - Specificity flag:
    - \* 0 means that all the segments behave the same way, i.e., have got the same dressing (distribution and order of the booking classes per cabin)
    - \* 1 means that each segment behave differently. The full specification of each of those segments must therefore be given.
  - Segment-cabin section
  - Fare family section
- Segment-cabin section
  - Cabin code (e.g., F, J, W or Y)
  - List of (one-letter-code) booking classes for the cabin (e.g, respectively FA, JC DI, WT or YBHKMLSQ)
- Fare family section
  - Fare family code (e.g., 1)
  - List of (one-letter-code) booking classes for the fare family (e.g, respectively FA, JC DI, WT or YBHKMLSQ)

Some fare input examples (including the example above named `schedule03.csv`) are given in the `StdAir` project.

## 13.5 The schedule BOM Tree

The schedule-related Business Object Model (BOM) tree is a structure allowing to store all the `AIRSCHEDED::FlightPeriodStruct` objects of the simulation. That is why parsing an input file, containing the specification for all the flight-periods, is more convenient (

### See also

the previous section [Input file of AirSched Project](#)).

As it may be time consuming, and it for sure requires some know-how, to first build such a schedule input file, a small sample BOM tree is provided by default when needed.

### 13.5.1 Build of the schedule BOM tree

First, a BOM root object (i.e., a root for all the classes in the project) is instantiated by the `stdair::STDAIR_ServiceContext` context object, when the `stdair::STDAIR_Service` is itself instantiated (during the instantiation of the `AIRSCHEDED::AIRSCHEDED_Service` object).

The corresponding type (class) `stdair::BomRoot` is defined in the `StdAir` library.

Then, the BOM root can be either constructed thanks to the `AIRSCHEDED::AIRSCHEDED_Service::buildSampleBom()` method:

```
void buildSampleBom();
```

or can be constructed using the schedule input file described above thanks to the `AIRSCHED::AIRSCHED_Service::parseAndLoad` (const stdair::Filename\_T&) method:

```
void parseAndLoad (const stdair::ScheduleFilePath&);
```

### 13.5.2 Display of the schedule BOM tree

#### Note

That feature (of BOM tree display) has not been implemented yet. Do not hesitate to [open a ticket](#) if you would like to have it implemented more quickly.

The schedule BOM tree can be displayed as done in the `batches::airsched.cpp` program:

When the default BOM tree is used (`-b/-builtin` option of the main program `airsched.cpp`), the schedule BOM tree display (for now, corresponding to `schedule01.csv` parsed by `AIRINV::parseInventory`) should look like:

```
=====
BomRoot:  -- ROOT --
=====
+++++
Inventory: SQ
+++++
*****
FlightDate: SQ11, 2010-Jan-15
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
        Elapsed, Distance, Capacity,
SQ11 2010-Jan-15, SIN-BKK, 2010-Jan-15, 08:20:00, 2010-Jan-15, 11:00:00, 07:40:
        00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
        CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 300, 300, 0, 0, 0, 0, 0, 0, 2, 298
        , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 1, 0, 0, 0, 2, 298, 0,
SQ11 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 2, 0, 0, 0, 2, 298, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
        GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SeqAvl,
SQ11 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 1, Y, 300 (0), 0, 0, 0, 2, 0 (0), 0,
        0, 0, 0, 0, 0,
SQ11 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
        0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-16
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
        Elapsed, Distance, Capacity,
SQ11 2010-Jan-16, SIN-BKK, 2010-Jan-16, 08:20:00, 2010-Jan-16, 11:00:00, 07:40:
```

```

00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 1.83244e-319, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-17
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, 08:20:00, 2010-Jan-17, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 1.58896e-319, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-18
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, 08:20:00, 2010-Jan-18, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----

```

```

Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-19
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Jan-19, SIN-BKK, 2010-Jan-19, 08:20:00, 2010-Jan-19, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-20
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Jan-20, SIN-BKK, 2010-Jan-20, 08:20:00, 2010-Jan-20, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****

```

```
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 2, 0, 0, 0, 0, 300, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQL1 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-21
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQL1 2010-Jan-21, SIN-BKK, 2010-Jan-21, 08:20:00, 2010-Jan-21, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-22
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQL1 2010-Jan-22, SIN-BKK, 2010-Jan-22, 08:20:00, 2010-Jan-22, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
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*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-23
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Jan-23, SIN-BKK, 2010-Jan-23, 08:20:00, 2010-Jan-23, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 300, 300, 0, 0, 0, 0, 0, 0, 6.64029e-
      319, 0, 300, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-24
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Jan-24, SIN-BKK, 2010-Jan-24, 08:20:00, 2010-Jan-24, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 1, 0, 0, 0, 0, 300, 0,

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SQL1 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 2, 0, 0, 0, 0, 300, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQL1 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-25
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQL1 2010-Jan-25, SIN-BKK, 2010-Jan-25, 08:20:00, 2010-Jan-25, 11:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQL1 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-26
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQL1 2010-Jan-26, SIN-BKK, 2010-Jan-26, 08:20:00, 2010-Jan-26, 11:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
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Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-27
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ11 2010-Jan-27, SIN-BKK, 2010-Jan-27, 08:20:00, 2010-Jan-27, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-28
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ11 2010-Jan-28, SIN-BKK, 2010-Jan-28, 08:20:00, 2010-Jan-28, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-28, SIN-BKK 2010-Jan-28, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-28, SIN-BKK 2010-Jan-28, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-28, SIN-BKK 2010-Jan-28, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-28, SIN-BKK 2010-Jan-28, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-28, SIN-BKK 2010-Jan-28, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
```

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0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-29
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Jan-29, SIN-BKK, 2010-Jan-29, 08:20:00, 2010-Jan-29, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-29, SIN-BKK 2010-Jan-29, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-29, SIN-BKK 2010-Jan-29, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-29, SIN-BKK 2010-Jan-29, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-29, SIN-BKK 2010-Jan-29, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-29, SIN-BKK 2010-Jan-29, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-30
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Jan-30, SIN-BKK, 2010-Jan-30, 08:20:00, 2010-Jan-30, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-30, SIN-BKK 2010-Jan-30, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-30, SIN-BKK 2010-Jan-30, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-30, SIN-BKK 2010-Jan-30, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-30, SIN-BKK 2010-Jan-30, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-30, SIN-BKK 2010-Jan-30, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-31
*****
*****

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*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Jan-31, SIN-BKK, 2010-Jan-31, 08:20:00, 2010-Jan-31, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-01
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-01, SIN-BKK, 2010-Feb-01, 08:20:00, 2010-Feb-01, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-02
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
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SQL1 2010-Feb-02, SIN-BKK, 2010-Feb-02, 08:20:00, 2010-Feb-02, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-03
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Feb-03, SIN-BKK, 2010-Feb-03, 08:20:00, 2010-Feb-03, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-04
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Feb-04, SIN-BKK, 2010-Feb-04, 08:20:00, 2010-Feb-04, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
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-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-05
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-05, SIN-BKK, 2010-Feb-05, 08:20:00, 2010-Feb-05, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-06
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-06, SIN-BKK, 2010-Feb-06, 08:20:00, 2010-Feb-06, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
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Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-07
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-07, SIN-BKK, 2010-Feb-07, 08:20:00, 2010-Feb-07, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-07, SIN-BKK 2010-Feb-07, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-07, SIN-BKK 2010-Feb-07, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-07, SIN-BKK 2010-Feb-07, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-07, SIN-BKK 2010-Feb-07, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-07, SIN-BKK 2010-Feb-07, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-08
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-08, SIN-BKK, 2010-Feb-08, 08:20:00, 2010-Feb-08, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,

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*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-09
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-09, SIN-BKK, 2010-Feb-09, 08:20:00, 2010-Feb-09, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-10
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-10, SIN-BKK, 2010-Feb-10, 08:20:00, 2010-Feb-10, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-10, SIN-BKK 2010-Feb-10, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,

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SQ11 2010-Feb-10, SIN-BKK 2010-Feb-10, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-10, SIN-BKK 2010-Feb-10, Y, 2, 0, 0, 0, 0, 300, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-10, SIN-BKK 2010-Feb-10, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Feb-10, SIN-BKK 2010-Feb-10, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-11
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Feb-11, SIN-BKK, 2010-Feb-11, 08:20:00, 2010-Feb-11, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-12
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Feb-12, SIN-BKK, 2010-Feb-12, 08:20:00, 2010-Feb-12, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-12, SIN-BKK 2010-Feb-12, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-12, SIN-BKK 2010-Feb-12, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-12, SIN-BKK 2010-Feb-12, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:

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Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-12, SIN-BKK 2010-Feb-12, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ11 2010-Feb-12, SIN-BKK 2010-Feb-12, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-13
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ11 2010-Feb-13, SIN-BKK, 2010-Feb-13, 08:20:00, 2010-Feb-13, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ11 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-14
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ11 2010-Feb-14, SIN-BKK, 2010-Feb-14, 08:20:00, 2010-Feb-14, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,

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SQL1 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-15
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Feb-15, SIN-BKK, 2010-Feb-15, 08:20:00, 2010-Feb-15, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-16
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Feb-16, SIN-BKK, 2010-Feb-16, 08:20:00, 2010-Feb-16, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-17
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*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-17, SIN-BKK, 2010-Feb-17, 08:20:00, 2010-Feb-17, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-18
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-18, SIN-BKK, 2010-Feb-18, 08:20:00, 2010-Feb-18, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-19
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
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    Elapsed, Distance, Capacity,
SQ11 2010-Feb-19, SIN-BKK, 2010-Feb-19, 08:20:00, 2010-Feb-19, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ11 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-20
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ11 2010-Feb-20, SIN-BKK, 2010-Feb-20, 08:20:00, 2010-Feb-20, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 300, 300, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-21
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ11 2010-Feb-21, SIN-BKK, 2010-Feb-21, 08:20:00, 2010-Feb-21, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
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LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-21, SIN-BKK 2010-Feb-21, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-21, SIN-BKK 2010-Feb-21, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-21, SIN-BKK 2010-Feb-21, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-21, SIN-BKK 2010-Feb-21, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-21, SIN-BKK 2010-Feb-21, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-22
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-22, SIN-BKK, 2010-Feb-22, 08:20:00, 2010-Feb-22, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-22, SIN-BKK 2010-Feb-22, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-22, SIN-BKK 2010-Feb-22, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-22, SIN-BKK 2010-Feb-22, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-22, SIN-BKK 2010-Feb-22, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-22, SIN-BKK 2010-Feb-22, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-23
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-23, SIN-BKK, 2010-Feb-23, 08:20:00, 2010-Feb-23, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300

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, 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, Y, 2, 0, 0, 0, 0, 300, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
FlightDate: SQ11, 2010-Feb-24
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ11 2010-Feb-24, SIN-BKK, 2010-Feb-24, 08:20:00, 2010-Feb-24, 11:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
  , 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 2, 0, 0, 0, 0, 300, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ11 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
FlightDate: SQ11, 2010-Feb-25
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ11 2010-Feb-25, SIN-BKK, 2010-Feb-25, 08:20:00, 2010-Feb-25, 11:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
  , 9, 0, 0, 0, 0, 0,
*****
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 2, 0, 0, 0, 0, 300, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
FlightDate: SQ11, 2010-Feb-26
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Feb-26, SIN-BKK, 2010-Feb-26, 08:20:00, 2010-Feb-26, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-26, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-26, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-26, Y, 2, 0, 0, 0, 0, 300, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-26, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-26, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
FlightDate: SQ11, 2010-Feb-27
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Feb-27, SIN-BKK, 2010-Feb-27, 08:20:00, 2010-Feb-27, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-27, SIN-BKK 2010-Feb-27, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
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Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-27, SIN-BKK 2010-Feb-27, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-27, SIN-BKK 2010-Feb-27, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-27, SIN-BKK 2010-Feb-27, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ11 2010-Feb-27, SIN-BKK 2010-Feb-27, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-28
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ11 2010-Feb-28, SIN-BKK, 2010-Feb-28, 08:20:00, 2010-Feb-28, 11:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-28, SIN-BKK 2010-Feb-28, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-28, SIN-BKK 2010-Feb-28, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-28, SIN-BKK 2010-Feb-28, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-28, SIN-BKK 2010-Feb-28, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ11 2010-Feb-28, SIN-BKK 2010-Feb-28, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-15
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ12 2010-Jan-15, SIN-HND, 2010-Jan-15, 09:20:00, 2010-Jan-15, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-15, SIN-HND 2010-Jan-15, Y, 200, 200, 2.082e+121, 5.53287e-48, 5.
  20268e-90, 0, 1.31346e-47, 1.05119e-153, 2.78986e+179, 0, 200, 9, 3.66962e-62, 1
  .0854e-71, 6.74783e-67, 6.9835e-77, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-15, SIN-HND 2010-Jan-15, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-15, SIN-HND 2010-Jan-15, Y, 2, 0, 0, 0, 0, 200, 0,
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Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-15, SIN-HND 2010-Jan-15, Y, 1, Y13856, 200 (0), 0, 0, 0, 0, 0 (0)
    , 0, 0, 0, 0, 0, 0,
SQ12 2010-Jan-15, SIN-HND 2010-Jan-15, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-16
*****
*****
Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ12 2010-Jan-16, SIN-HND, 2010-Jan-16, 09:20:00, 2010-Jan-16, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 2.63638e-319, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-17
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ12 2010-Jan-17, SIN-HND, 2010-Jan-17, 09:20:00, 2010-Jan-17, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 2.39291e-319, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,

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SQL2 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Jan-18
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL2 2010-Jan-18, SIN-HND, 2010-Jan-18, 09:20:00, 2010-Jan-18, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 2.14469e-319, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Jan-19
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL2 2010-Jan-19, SIN-HND, 2010-Jan-19, 09:20:00, 2010-Jan-19, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
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*****
FlightDate: SQ12, 2010-Jan-20
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-20, SIN-HND, 2010-Jan-20, 09:20:00, 2010-Jan-20, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-21
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-21, SIN-HND, 2010-Jan-21, 09:20:00, 2010-Jan-21, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-21, SIN-HND 2010-Jan-21, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-21, SIN-HND 2010-Jan-21, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-21, SIN-HND 2010-Jan-21, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-22
*****
*****
Leg-Dates:
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-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-22, SIN-HND, 2010-Jan-22, 09:20:00, 2010-Jan-22, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-22, SIN-HND 2010-Jan-22, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-22, SIN-HND 2010-Jan-22, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-22, SIN-HND 2010-Jan-22, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-22, SIN-HND 2010-Jan-22, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-22, SIN-HND 2010-Jan-22, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-23
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-23, SIN-HND, 2010-Jan-23, 09:20:00, 2010-Jan-23, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-23, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-23, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-23, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-23, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-23, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-24
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-24, SIN-HND, 2010-Jan-24, 09:20:00, 2010-Jan-24, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
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*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-24, SIN-HND 2010-Jan-24, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-24, SIN-HND 2010-Jan-24, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-24, SIN-HND 2010-Jan-24, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-24, SIN-HND 2010-Jan-24, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-24, SIN-HND 2010-Jan-24, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-25
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-25, SIN-HND, 2010-Jan-25, 09:20:00, 2010-Jan-25, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, Y, 200, 200, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-26
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-26, SIN-HND, 2010-Jan-26, 09:20:00, 2010-Jan-26, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
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CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-27
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-27, SIN-HND, 2010-Jan-27, 09:20:00, 2010-Jan-27, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-28
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-28, SIN-HND, 2010-Jan-28, 09:20:00, 2010-Jan-28, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
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Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-29
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ12 2010-Jan-29, SIN-HND, 2010-Jan-29, 09:20:00, 2010-Jan-29, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-29, SIN-HND 2010-Jan-29, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-29, SIN-HND 2010-Jan-29, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-29, SIN-HND 2010-Jan-29, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-29, SIN-HND 2010-Jan-29, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ12 2010-Jan-29, SIN-HND 2010-Jan-29, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-30
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ12 2010-Jan-30, SIN-HND, 2010-Jan-30, 09:20:00, 2010-Jan-30, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-30, SIN-HND 2010-Jan-30, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-30, SIN-HND 2010-Jan-30, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-30, SIN-HND 2010-Jan-30, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-30, SIN-HND 2010-Jan-30, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Jan-30, SIN-HND 2010-Jan-30, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
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*****
FlightDate: SQ12, 2010-Jan-31
*****
*****
Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Jan-31, SIN-HND, 2010-Jan-31, 09:20:00, 2010-Jan-31, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
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*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-01
*****
*****
Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Feb-01, SIN-HND, 2010-Feb-01, 09:20:00, 2010-Feb-01, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 2, 0, 0, 0, 0, 200, 0,
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Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-02
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ12 2010-Feb-02, SIN-HND, 2010-Feb-02, 09:20:00, 2010-Feb-02, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
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*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-02, SIN-HND 2010-Feb-02, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-02, SIN-HND 2010-Feb-02, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-02, SIN-HND 2010-Feb-02, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-02, SIN-HND 2010-Feb-02, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ12 2010-Feb-02, SIN-HND 2010-Feb-02, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-03
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ12 2010-Feb-03, SIN-HND, 2010-Feb-03, 09:20:00, 2010-Feb-03, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
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*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-03, SIN-HND 2010-Feb-03, Y, 200, 200, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-03, SIN-HND 2010-Feb-03, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-03, SIN-HND 2010-Feb-03, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
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      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-03, SIN-HND 2010-Feb-03, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-03, SIN-HND 2010-Feb-03, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-04
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-04, SIN-HND, 2010-Feb-04, 09:20:00, 2010-Feb-04, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-04, SIN-HND 2010-Feb-04, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-04, SIN-HND 2010-Feb-04, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-04, SIN-HND 2010-Feb-04, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-04, SIN-HND 2010-Feb-04, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-04, SIN-HND 2010-Feb-04, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-05
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-05, SIN-HND, 2010-Feb-05, 09:20:00, 2010-Feb-05, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,

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*****
FlightDate: SQ12, 2010-Feb-06
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-06, SIN-HND, 2010-Feb-06, 09:20:00, 2010-Feb-06, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-07
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-07, SIN-HND, 2010-Feb-07, 09:20:00, 2010-Feb-07, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
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*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
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*****
FlightDate: SQ12, 2010-Feb-08
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Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-08, SIN-HND, 2010-Feb-08, 09:20:00, 2010-Feb-08, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
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*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 1, Y, 200 (0), 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-09
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-09, SIN-HND, 2010-Feb-09, 09:20:00, 2010-Feb-09, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
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*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 200, 200, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
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SQ12 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-10
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-10, SIN-HND, 2010-Feb-10, 09:20:00, 2010-Feb-10, 12:00:00, 07:40:

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LegCabins:
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Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-10, SIN-HND 2010-Feb-10, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-10, SIN-HND 2010-Feb-10, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-10, SIN-HND 2010-Feb-10, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-10, SIN-HND 2010-Feb-10, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-10, SIN-HND 2010-Feb-10, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-11
*****
*****
Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-11, SIN-HND, 2010-Feb-11, 09:20:00, 2010-Feb-11, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-11, SIN-HND 2010-Feb-11, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-11, SIN-HND 2010-Feb-11, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-11, SIN-HND 2010-Feb-11, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-11, SIN-HND 2010-Feb-11, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-11, SIN-HND 2010-Feb-11, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-12
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-12, SIN-HND, 2010-Feb-12, 09:20:00, 2010-Feb-12, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
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Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
FlightDate: SQ12, 2010-Feb-13
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-13, SIN-HND, 2010-Feb-13, 09:20:00, 2010-Feb-13, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
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LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
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Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
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FlightDate: SQ12, 2010-Feb-14
*****
Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-14, SIN-HND, 2010-Feb-14, 09:20:00, 2010-Feb-14, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
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LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
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*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
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SQ12 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-15
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Feb-15, SIN-HND, 2010-Feb-15, 09:20:00, 2010-Feb-15, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-16
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Feb-16, SIN-HND, 2010-Feb-16, 09:20:00, 2010-Feb-16, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
FlightDate: SQ12, 2010-Feb-17
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Feb-17, SIN-HND, 2010-Feb-17, 09:20:00, 2010-Feb-17, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
FlightDate: SQ12, 2010-Feb-18
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Feb-18, SIN-HND, 2010-Feb-18, 09:20:00, 2010-Feb-18, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 1, 0, 0, 0, 0, 200, 0,

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SQL2 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQL2 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-19
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQL2 2010-Feb-19, SIN-HND, 2010-Feb-19, 09:20:00, 2010-Feb-19, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQL2 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-20
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQL2 2010-Feb-20, SIN-HND, 2010-Feb-20, 09:20:00, 2010-Feb-20, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
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*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-20, SIN-HND 2010-Feb-20, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-20, SIN-HND 2010-Feb-20, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-20, SIN-HND 2010-Feb-20, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
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Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-20, SIN-HND 2010-Feb-20, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-20, SIN-HND 2010-Feb-20, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-21
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ12 2010-Feb-21, SIN-HND, 2010-Feb-21, 09:20:00, 2010-Feb-21, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-21, SIN-HND 2010-Feb-21, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-21, SIN-HND 2010-Feb-21, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-21, SIN-HND 2010-Feb-21, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-21, SIN-HND 2010-Feb-21, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-21, SIN-HND 2010-Feb-21, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-22
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ12 2010-Feb-22, SIN-HND, 2010-Feb-22, 09:20:00, 2010-Feb-22, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
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0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-23
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-23, SIN-HND, 2010-Feb-23, 09:20:00, 2010-Feb-23, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-24
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-24, SIN-HND, 2010-Feb-24, 09:20:00, 2010-Feb-24, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-24, SIN-HND 2010-Feb-24, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-24, SIN-HND 2010-Feb-24, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-24, SIN-HND 2010-Feb-24, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-24, SIN-HND 2010-Feb-24, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-24, SIN-HND 2010-Feb-24, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-25
*****
*****
```

```

*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-25, SIN-HND, 2010-Feb-25, 09:20:00, 2010-Feb-25, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-26
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-26, SIN-HND, 2010-Feb-26, 09:20:00, 2010-Feb-26, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-27
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,

```

```
SQL2 2010-Feb-27, SIN-HND, 2010-Feb-27, 09:20:00, 2010-Feb-27, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-28
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL2 2010-Feb-28, SIN-HND, 2010-Feb-28, 09:20:00, 2010-Feb-28, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
```

## 13.6 Exploring the Predefined BOM Tree

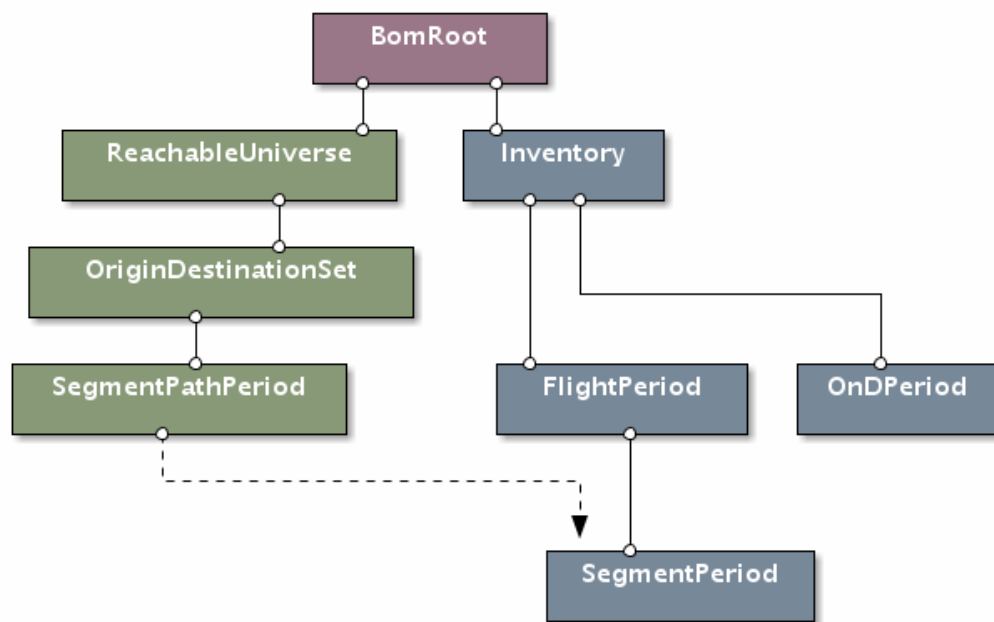


Figure 2: AirSched BOM tree

AirSched predefines a BOM (Business Object Model) tree specific to the airline IT arena.

### 13.6.1 Airline Network BOM Tree

- `AIRSCHEd::ReachableUniverse`
- `AIRSCHEd::OriginDestinationSet`
- `AIRSCHEd::SegmentPathPeriod`

### 13.6.2 Airline Schedule BOM Tree

- `stdair::Inventory`
- `stdair::FlightPeriod`
- `stdair::SegmentPeriod`
- `stdair::OnDPeriod`

## 13.7 Extending the BOM Tree

## 13.8 The travel solution calculation procedure

The project AirSched aims at calculating a list of **travel solutions** for every incoming **booking request**.

## 14 Supported Systems

### 14.1 Table of Contents

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  - [Linux Systems](#)
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    - \* [Gentoo Linux with ACML](#)
    - \* [Gentoo Linux with ATLAS](#)
    - \* [Gentoo Linux with MKL](#)
    - \* [Gentoo Linux with NetLib's BLAS and LAPACK](#)
    - \* [Red Hat Enterprise Linux with AirSched External](#)
    - \* [SUSE Linux 10.0 with NetLib's BLAS and LAPACK](#)
    - \* [SUSE Linux 10.0 with MKL](#)
  - [Windows Systems](#)
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    - \* [Microsoft Windows XP with MinGW, MSYS and AirSched External](#)
    - \* [Microsoft Windows XP with MS Visual C++ and Intel MKL](#)
  - [Unix Systems](#)
    - \* [SunOS 5.9 with AirSched External](#)
- [AirSched 3.9.1](#)
- [AirSched 3.9.0](#)
- [AirSched 3.8.1](#)

### 14.2 Introduction

This page is intended to provide a list of AirSched supported systems, i.e. the systems on which configuration, installation and testing process of the AirSched library has been successful. Results are grouped based on minor release number. Therefore, only the latest tests for bug-fix releases are included. Besides, the information on this page is divided into sections dependent on the operating system.

Where necessary, some extra information is given for each tested configuration, e.g. external libraries installed, configuration commands used, etc.

If you manage to compile, install and test the AirSched library on a system not mentioned below, please let us know, so we could update this database.

### 14.3 AirSched 0.2.x

#### 14.3.1 Linux Systems

##### 14.3.1.1 Fedora Core 4 with ATLAS

- **Platform:** Intel Pentium 4
- **Operating System:** Fedora Core 4 (x86)

- **Compiler:** g++ (GCC) 4.0.2 20051125
- **AirSched release:** 0.2.0
- **External Libraries:** From FC4 distribution:
  - fftw3.i386-3.0.1-3
  - fftw3-devel.i386-3.0.1-3
  - atlas-sse2.i386-3.6.0-8.fc4
  - atlas-sse2-devel.i386-3.6.0-8.fc4
  - blas.i386-3.0-35.fc4
  - lapack.i386-3.0-35.fc4
- **Tests Status:** All tests PASSED
- **Comments:** AirSched configured with:

```
% CXXFLAGS="-O3 -pipe -march=pentium4" ./configure
```
- **Date:** March 7, 2006
- **Tester:** Tony Ottosson

#### 14.3.1.2 Gentoo Linux with ACML

- **Platform:** AMD Sempron 3000+
- **Operating System:** Gentoo Linux 2006.0 (x86 arch)
- **Compiler(s):** g++ (GCC) 3.4.5
- **AirSched release:** 0.2.1
- **External Libraries:** Compiled and installed from portage tree:
  - sci-libs/acml-3.0.0
- **Tests Status:** All tests PASSED
- **Comments:** BLAS and LAPACK libs set by using the following system commands:

```
% eselect blas set ACML
% eselect lapack set ACML
```

AirSched configured with:

```
% export CPPFLAGS="-I/usr/include/acml"
% ./configure --with-blas="-lblas"
```
- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)



## 14.3.1.3 Gentoo Linux with ATLAS

- **Platform:** Intel Pentium M Centrino
- **Operating System:** Gentoo Linux 2006.0 (x86)
- **Compiler:** g++ (GCC) 3.4.5
- **AirSched release:** 0.2.1
- **External Libraries:** Compiled and installed from portage tree:
  - sci-libs/fftw-3.1
  - sci-libs/blas-atlas-3.6.0-r1
  - sci-libs/lapack-atlas-3.6.0
- **Tests Status:** All tests PASSED
- **Comments:** BLAS and LAPACK libs set by using the following system commands:

```
% eselect blas set ATLAS
% eselect lapack set ATLAS
```

AirSched configured with:

```
% ./configure --with-blas="-lblas"
```

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)

## 14.3.1.4 Gentoo Linux with MKL

- **Platform:** Intel Pentium M Centrino
- **Operating System:** Gentoo Linux 2006.0 (x86 arch)
- **Compiler:** g++ (GCC) 3.4.5
- **AirSched release:** 0.2.0
- **External Libraries:** Intel Math Kernel Library (MKL) 8.0.1 installed manually in the following directory:  
/opt/intel/mkl/8.0.1
- **Tests Status:** All tests PASSED
- **Comments:** AirSched configured using the following commands:

```
% export LDFLAGS="-L/opt/intel/mkl/8.0.1/lib/32"
% export CPPFLAGS="-I/opt/intel/mkl/8.0.1/include"
% ./configure
```

- **Date:** February 28, 2006
- **Tester:** Adam Piatyszek (ediap)

## 14.3.1.5 Gentoo Linux with NetLib's BLAS and LAPACK

- **Platform:** Intel Pentium M Centrino
- **Operating System:** Gentoo Linux 2006.0 (x86)
- **Compiler:** g++ (GCC) 3.4.5
- **AirSched release:** 0.2.1
- **External Libraries:** Compiled and installed from portage tree:
  - sci-libs/fftw-3.1
  - sci-libs/blas-reference-19940131-r2
  - sci-libs/cblas-reference-20030223
  - sci-libs/lapack-reference-3.0-r2
- **Tests Status:** All tests PASSED
- **Comments:** BLAS and LAPACK libs set by using the following system commands:

```
% blas-config reference
% lapack-config reference
```

AirSched configured with:

```
% ./configure --with-blas="-lblas"
```

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)

## 14.3.1.6 Red Hat Enterprise Linux with AirSched External

- **Platform:** Intel Pentium 4
- **Operating System:** Red Hat Enterprise Linux AS release 4 (Nahant Update 2)
- **Compiler:** g++ (GCC) 3.4.4 20050721 (Red Hat 3.4.4-2)
- **AirSched release:** 0.2.0
- **External Libraries:** BLAS, CBLAS, LAPACK and FFTW libraries from AirSched External 2.1.1 package
- **Tests Status:** All tests PASSED
- **Date:** March 7, 2006
- **Tester:** Erik G. Larsson

## 14.3.1.7 SUSE Linux 10.0 with NetLib's BLAS and LAPACK

- **Platform:** Intel Pentium 4 CPU 3.20GHz (64-bit)
- **Operating System:** SUSE Linux 10.0 (x86\_64)
- **Compiler(s):** g++ (GCC) 4.0.2
- **AirSched release:** 0.2.0
- **External Libraries:** BLAS, LAPACK and FFTW libraries installed from OpenSuse 10.0 RPM repository:
  - blas-3.0-926
  - lapack-3.0-926
  - fftw3-3.0.1-114

- fftw3-threads-3.0.1-114
- fftw3-devel-3.0.1-114

- **Tests Status:** All tests PASSED
- **Comments:** AirSched configured with:

```
% export CXXFLAGS="-m64 -march=nocona -O3 -pipe"
% ./configure --with-lapack="/usr/lib64/liblapack.so.3"
```

- **Date:** March 1, 2006
- **Tester:** Adam Piatyszek (ediap)

#### 14.3.1.8 SUSE Linux 10.0 with MKL

- **Platform:** Intel Pentium 4 CPU 3.20GHz (64-bit)
- **Operating System:** SUSE Linux 10.0 (x86\_64)
- **Compiler(s):** g++ (GCC) 4.0.2
- **AirSched release:** 0.2.0
- **External Libraries:** Intel Math Kernel Library (MKL) 8.0.1 installed manually in the following directory:  
/opt/intel/mkl/8.0.1
- **Tests Status:** All tests PASSED
- **Comments:** AirSched configured with:

```
% export CXXFLAGS="-m64 -march=nocona -O3 -pipe"
% export LDFLAGS="-L/opt/intel/mkl/8.0.1/lib/em64t"
% export CPPFLAGS="-I/opt/intel/mkl/8.0.1/include"
% ./configure
```

- **Date:** March 1, 2006
- **Tester:** Adam Piatyszek (ediap)

### 14.3.2 Windows Systems

#### 14.3.2.1 Microsoft Windows XP with Cygwin

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, Cygwin 1.5.19-4
- **Compiler(s):** g++ (GCC) 3.4.4 (cygming special)
- **AirSched release:** 0.2.1
- **External Libraries:** Installed from Cygwin's repository:
  - fftw-3.0.1-2
  - fftw-dev-3.0.1-1
  - lapack-3.0-4
- **Tests Status:** All tests PASSED
- **Comments:** Only static library can be built. AirSched configured with:

```
% ./configure
```

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)

## 14.3.2.2 Microsoft Windows XP with Cygwin and ATLAS

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, Cygwin 1.5.19-4
- **Compiler(s):** g++ (GCC) 3.4.4 (cygming special)
- **AirSched release:** 0.2.1
- **External Libraries:** Installed from Cygwin's repository:
  - fftw-3.0.1-2
  - fftw-dev-3.0.1-1

ATLAS BLAS and LAPACK libraries from AirSched External 2.1.1 package configured using:

```
% ./configure --enable-atlas --disable-fftw
```

- **Tests Status:** All tests PASSED
- **Comments:** Only static library can be built. AirSched configured with:

```
% export LDFLAGS="-L/usr/local/lib"
% ./configure
```

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)

## 14.3.2.3 Microsoft Windows XP with Cygwin and ACML

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, Cygwin 1.5.19-4
- **Compiler(s):** g++ (GCC) 3.4.4 (cygming special)
- **AirSched release:** 0.2.2
- **External Libraries:** ACML version 3.1.0 (acml3.1.0-32-win32-g77.exe) installed into a default directory, i.e. "c:\Program Files\AMD\acml3.1.0"
- **Tests Status:** All tests PASSED
- **Comments:** Only static library can be built. AirSched configured with:

```
% export LDFLAGS="-L/cygdrive/c/Progra~1/AMD/acml3.1.0/gnu32/lib"
% export CPPFLAGS="-I/cygdrive/c/Progra~1/AMD/acml3.1.0/gnu32/include"
% ./configure --enable-debug
```

- **Date:** May 15, 2006
- **Tester:** Adam Piatyszek (ediap)

## 14.3.2.4 Microsoft Windows XP with MinGW, MSYS and ACML

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, MinGW 5.0.2, MSYS 1.0.10
- **Compiler(s):** g++ (GCC) 3.4.4 (mingw special)
- **AirSched release:** 0.2.2
- **External Libraries:** ACML version 3.1.0 (acml3.1.0-32-win32-g77.exe) installed into a default directory, i.e. "c:\Program Files\AMD\acml3.1.0"
- **Tests Status:** All tests PASSED
- **Comments:** Only static library can be built. AirSched configured with:

```
% export LDFLAGS="-L/c/Program Files/AMD/acml3.1.0/gnu32/lib"
% export CPPFLAGS="-I/c/Program Files/AMD/acml3.1.0/gnu32/include"
% ./configure --enable-debug
```

- **Date:** May 15, 2006
- **Tester:** Adam Piatyszek (ediap)

## 14.3.2.5 Microsoft Windows XP with MinGW, MSYS and AirSched External

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, MinGW 5.0.2, MSYS 1.0.10
- **Compiler(s):** g++ (GCC) 3.4.4 (mingw special)
- **AirSched release:** 0.2.5
- **External Libraries:** BLAS, CBLAS, LAPACK and FFTW libraries from AirSched External 2.2.0 package
- **Tests Status:** All tests PASSED
- **Comments:** Only static library can be built. AirSched configured with:

```
% export LDFLAGS="-L/usr/local/lib"
% export CPPFLAGS="-I/usr/local/include"
% export CXXFLAGS="-Wall -O3 -march=athlon-tbird -pipe"
% ./configure --disable-html-doc
```

- **Date:** August 11, 2006
- **Tester:** Adam Piatyszek (ediap)

## 14.3.2.6 Microsoft Windows XP with MS Visual C++ and Intel MKL

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2
- **Compiler(s):** Microsoft Visual C++ 2005 .NET
- **AirSched release:** 0.2.5
- **External Libraries:** Intel Math Kernel Library (MKL) 8.1 installed manually in the following directory: "C:\Program Files\Intel\MKL\8.1"
- **Tests Status:** Not fully tested. Some AirSched based programs compiled and run with success.
- **Comments:** Only static library can be built. AirSched built by opening the "win32\airsched.vcproj" project file in MSVC++ and executing "Build -> Build Solution" command from menu.
- **Date:** August 11, 2006
- **Tester:** Adam Piatyszek (ediap)

### 14.3.3 Unix Systems

#### 14.3.3.1 SunOS 5.9 with AirSched External

- **Platform:** SUNW, Sun-Blade-100 (SPARC)
- **Operating System:** SunOS 5.9 Generic\_112233-10
- **Compiler(s):** g++ (GCC) 3.4.5
- **AirSched release:** 0.2.2
- **External Libraries:** BLAS, CBLAS, LAPACK and FFTW libraries from AirSched External 2.1.1 package. The following configuration command has been used:

```
% export CFLAGS="-mcpu=ultrasparc -O2 -pipe -funroll-all-loops"
% ./configure
```

- **Tests Status:** All tests PASSED
- **Comments:** AirSched configured with:

```
% export LDFLAGS="-L/usr/local/lib"
% export CPPFLAGS="-I/usr/local/include"
% export CXXFLAGS="-mcpu=ultrasparc -O2 -pipe"
% ./configure --enable-debug
```

- **Date:** May 15, 2006
- **Tester:** Adam Piatyszek (ediap)

## 15 AirSched Supported Systems (Previous Releases)

### 15.1 AirSched 3.9.1

### 15.2 AirSched 3.9.0

### 15.3 AirSched 3.8.1

## 16 Tutorials

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- [Your first networkBuilde](#)
  - [Summary of the different steps](#)
  - [Result of the Batch Program](#)
- [Network building with an input file](#)
  - [How to build a network input file?](#)
  - [Building the BOM tree with an input file](#)
  - [Result of the Batch Program](#)

## 16.2 Preparing the AirSched Project for Development

The source code for these examples can be found in the `batches` and `test/airsched` directories. They are compiled along with the rest of the `AirSched` project. See the [Users Guide](#) for more details on how to build the `AirSched` project.

### 16.3 Your first networkBuild

#### 16.3.1 Summary of the different steps

All the steps below can be found in the same order in the batch `AirSched.cpp` program.

First, we instantiate the `AIRSCHEd_Service` object:

Then, we construct a default sample list of travel solutions and a default booking request (as mentioned in `ug_procedure_bookingrequest` and `ug_procedure_travelsolution` parts):

```
stdair::TravelSolutionList_T lTravelSolutionList;  
airschedService.buildSegmentPathList (lTravelSolutionList, lBookingRequest);
```

For basic use, the default BOM tree can be built using:

The main step is the network building (see [The travel solution calculation procedure](#)):

#### 16.3.2 Result of the Batch Program

When the `AirSched.cpp` program is run (with the `-b` option), the log output file should look like:

What is interesting is to compare the travel solution list (here reduced to a single travel solution) displayed before:

and after the network building:

Between the two groups of dashes, we can see that a network option structure has been added by the network builder: the price is 450 EUR for the Y class, the ticket is refundable but there are exchange fees and the customer must stay over on Saturday night.

Let's return to our default BOM tree display: the only network rule stored was a match for the travel solution into consideration (same origin airport, same destination airport, flight date included in the network rule date range, same airline "BA", ...).

By looking at the network rule trip type "RT", we can guess we face a round trip network: that means the price given in the default bom tree construction in `stdair::CmdBomManager.hpp` has been divided by 2 because we are considering either an inbound trip or an outbound one.

## 16.4 Network building with an input file

### 16.4.1 How to build a network input file?

The objective here is to build a network input file to network build the default travel solution list built using:

This travel solution list, reduced to a singleton, can be displayed as done before:

We deduce:

- we need a network rule whose origin-destination couple is "LHR, SYD".
- the date range must include the date "2011-06-10".
- the time range must include the time "21:45".
- the airline operating is "BA", so it must be the airline pricing.

We can deduce a part of our network rule file :

```
// Fares: fare ID; OriginCity; DestinationCity; TripType; DateRangeStart;
      DateRangeEnd; DepartureTimeRangeStart; DepartureTimeRangeEnd; POS; CabinCode;
      Channel; AdvancePurchase; SaturdayNight; ChangeFees; NonRefundable; MinimumStay; Price;
      nb Segments
// Segment: AirlineCode; Class;
1; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; ???; ?; ??; ?; ?; ?; ?;
  ?; ???; BA; ?;
```

We have no information about stay duration and advance purchase (such information are contained into the booking request): so let us put "0" to embrace all the requests possible.

No information for the point-of-sale and the channel too: let us consider all the channels ("IN", "DN", "IF" and "DF") and all the points of sale (the origin "LHR", the destination "SYD" and the rest-of-the-world "ROW") existing. To access this information, we could look into the default booking request.

The input file is now:

```
// Fares: fare ID; OriginCity; DestinationCity; TripType; DateRangeStart;
      DateRangeEnd; DepartureTimeRangeStart; DepartureTimeRangeEnd; POS; CabinCode;
      Channel; AdvancePurchase; SaturdayNight; ChangeFees; NonRefundable; MinimumStay; Price;
      nb Segments
// Segment: AirlineCode; Class;
1; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; ?; IN; 0; ?; ?; ?;
  0; ???; BA; ?;
2; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; ?; IF; 0; ?; ?; ?;
  0; ???; BA; ?;
3; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; ?; DN; 0; ?; ?; ?;
  0; ???; BA; ?;
4; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; ?; DF; 0; ?; ?; ?;
  0; ???; BA; ?;
5; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; ?; IN; 0; ?; ?; ?;
  0; ???; BA; ?;
6; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; ?; IF; 0; ?; ?; ?;
  0; ???; BA; ?;
7; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; ?; DN; 0; ?; ?; ?;
  0; ???; BA; ?;
8; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; ?; DF; 0; ?; ?; ?;
  0; ???; BA; ?;
9; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; ?; IN; 0; ?; ?; ?;
  0; ???; BA; ?;
10; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; ?; IF; 0; ?; ?; ?;
  0; ???; BA; ?;
11; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; ?; DN; 0; ?; ?; ?;
  0; ???; BA; ?;
12; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; ?; DF; 0; ?; ?; ?;
  0; ???; BA; ?;
```



Let us say we have just the Economy cabin "Y" and British Airways prices ticket for class "Y".

No information about the trip type, so we duplicate all the network rules for both type: one-way "OW" and round-trip "RT" (to access this information, we could look to the default booking request).

The network options are all set to a default value "T" (meaning true) and the network values are chosen to be all distinct.

We obtain:

```
// Fares: fare ID; OriginCity; DestinationCity; TripType; DateRangeStart;
//         DateRangeEnd; DepartureTimeRangeStart; DepartureTimeRangeEnd; POS; CabinCode;
//         Channel; AdvancePurchase; SaturdayNight; ChangeFees; NonRefundable; MinimumStay; Price;
//         nb Segments
// Segment: AirlineCode; Class;
1; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; IN; 0; T; T; T;
   0; 50; BA; Y;
2; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; IF; 0; T; T; T;
   0; 150; BA; Y;
3; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; DN; 0; T; T; T;
   0; 250; BA; Y;
4; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; DF; 0; T; T; T;
   0; 350; BA; Y;
5; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; IN; 0; T; T; T;
   0; 450; BA; Y;
6; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; IF; 0; T; T; T;
   0; 550; BA; Y;
7; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; DN; 0; T; T; T;
   0; 650; BA; Y;
8; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; DF; 0; T; T; T;
   0; 750; BA; Y;
9; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; IN; 0; T; T; T;
   0; 850; BA; Y;
10; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; IF; 0; T; T; T;
   0; 950; BA; Y;
11; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; DN; 0; T; T; T;
   0; 1050; BA; Y;
12; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; DF; 0; T; T; T;
   0; 1150; BA; Y;
13; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; IN; 0; T; T; T;
   0; 90; BA; Y;
14; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; IF; 0; T; T; T;
   0; 190; BA; Y;
15; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; DN; 0; T; T; T;
   0; 290; BA; Y;
16; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; DF; 0; T; T; T;
   0; 390; BA; Y;
17; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; IN; 0; T; T; T;
   0; 490; BA; Y;
18; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; IF; 0; T; T; T;
   0; 590; BA; Y;
19; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; DN; 0; T; T; T;
   0; 690; BA; Y;
20; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; DF; 0; T; T; T;
   0; 790; BA; Y;
21; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; IN; 0; T; T; T;
   0; 890; BA; Y;
22; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; IF; 0; T; T; T;
   0; 990; BA; Y;
23; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; DN; 0; T; T; T;
   0; 1090; BA; Y;
24; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; DF; 0; T; T; T;
   0; 1190; BA; Y;
```

#### 16.4.2 Building the BOM tree with an input file

The steps are the same as before [Summary of the different steps](#) except the bom tree must be built using the network input file :

#### 16.4.3 Result of the Batch Program

When the `AirSched.cpp` program is run with the `-f` option linking with the file built just above:

```
~/AirSched -f ~/<YourFileName>.csv
```

the last lines of the log output should look like:

```
[D]~/AirSchedgit/AirSched/batches/AirSched.cpp:223: Travel solutions:
[0] [0] BA, 9, 2011-06-10, LHR, SYD, 21:45 --- Y, 145, 1 1 1 ---
```

We have just one network option added to the travel solution. We can deduce from the price value 145 that the network builder used the network rule number 15 to price the travel solution. We have an inbound or outbound trip of a round trip: the total price 290 has been divided by 2.

## 17 Command-Line Test to Demonstrate How To Test the AirSched Project

```
*/
// //////////////////////////////////////
// Import section
// //////////////////////////////////////
// STL
#include <sstream>
#include <fstream>
#include <string>
// Boost Unit Test Framework (UTF)
#define BOOST_TEST_DYN_LINK
#define BOOST_TEST_MAIN
#define BOOST_TEST_MODULE InventoryTestSuite
#include <boost/test/unit_test.hpp>
// Boost Date-Time
#include <boost/date_time/gregorian/gregorian.hpp>
// StdAir
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/basic/BasLogParams.hpp>
#include <stdair/basic/BasDBParams.hpp>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/bom/TravelSolutionStruct.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/service/Logger.hpp>
// AirSched
#include <airsched/AIRSCHEM_Types.hpp>
#include <airsched/AIRSCHEM_Service.hpp>
#include <airsched/config/airsched-paths.hpp>

namespace boost_utf = boost::unit_test;

// (Boost) Unit Test XML Report
std::ofstream utfReportStream ("AirlineScheduleTestSuite_utfresults.xml");

struct UnitTestConfig {
    UnitTestConfig() {
        boost_utf::unit_test_log.set_stream (utfReportStream);
        boost_utf::unit_test_log.set_format (boost_utf::XML);
        boost_utf::unit_test_log.set_threshold_level (boost_utf::log_test_units);
        //boost_utf::unit_test_log.set_threshold_level
        (boost_utf::log_successful_tests);
    }

    ~UnitTestConfig() {
    }
};

// //////////////////////////////////////
const unsigned int testScheduleHelper (const unsigned short iTestFlag,
                                       const stdair::Filename_T&
                                       iScheduleInputFilename,
                                       const stdair::Filename_T&
                                       iODInputFilename,
                                       const bool isBuiltin,
                                       const bool isWithOnD) {

    // Output log File
    std::ostringstream oStr;
    oStr << "AirlineScheduleTestSuite_" << iTestFlag << ".log";
    const stdair::Filename_T lLogFilename (oStr.str());

    // Set the log parameters
    std::ofstream logOutputFile;
    // Open and clean the log outputfile
    logOutputFile.open (lLogFilename.c_str());
    logOutputFile.clear();

    // Instantiate the AirSched service
    const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
    AIRSCHEM::AIRSCHEM_Service airschedService (
```

```

    lLogParams);

stdair::AirportCode_T lOrigin;
stdair::AirportCode_T lDestination;
stdair::AirportCode_T lPOS;
stdair::Date_T lPreferredDepartureDate;;
stdair::Date_T lRequestDate;

// Check whether or not a (CSV) input file should be read
if (isBuiltin == true) {

    // Build the default sample BOM tree (filled with schedules)
    airschedService.buildSampleBom();

    lOrigin = "SIN";
    lDestination = "BKK";
    lPOS = "SIN";
    lPreferredDepartureDate = boost::gregorian::from_string ("2010/02/08");
    lRequestDate = boost::gregorian::from_string ("2010/01/21");

} else {

    if (isWithOnD == false) {

        // Build the BOM tree from parsing input files
        const stdair::ScheduleFilePath lScheduleFilePath (iScheduleInputFilename)
        ;
        airschedService.parseAndLoad (lScheduleFilePath);

        lOrigin = "NCE";
        lDestination = "BKK";
        lPOS = "NCE";
        lPreferredDepartureDate = boost::gregorian::from_string ("2007/04/21");
        lRequestDate = boost::gregorian::from_string ("2007/03/21");

    } else {

        // Build the BOM tree from parsing input files
        const stdair::ScheduleFilePath lScheduleFilePath (iScheduleInputFilename)
        ;
        const stdair::ODFilePath lODFilePath (iODInputFilename);
        airschedService.parseAndLoad (lScheduleFilePath,
                                      lODFilePath);

        lOrigin = "SIN";
        lDestination = "BKK";
        lPOS = "SIN";
        lPreferredDepartureDate = boost::gregorian::from_string ("2009/02/02");
        lRequestDate = boost::gregorian::from_string ("2009/01/01");
    }

}

// Create a booking request structure
const stdair::Duration_T lRequestTime (boost::posix_time::hours(8));
const stdair::DateTime_T lRequestDateTime (lRequestDate, lRequestTime);
const stdair::CabinCode_T lPreferredCabin ("Bus");
const stdair::PartySize_T lPartySize (3);
const stdair::ChannelLabel_T lChannel ("DF");
const stdair::TripType_T lTripType ("RO");
const stdair::DayDuration_T lStayDuration (5);
const stdair::FrequentFlyer_T lFrequentFlyerType ("NONE");
const stdair::Duration_T lPreferredDepartureTime (boost::posix_time::hours(10));
const stdair::WTP_T lWTP (2000.0);
const stdair::PriceValue_T lValueOfTime (20.0);
const stdair::ChangeFees_T lChangeFees (true);
const stdair::Disutility_T lChangeFeeDisutility (50);
const stdair::NonRefundable_T lNonRefundable (true);
const stdair::Disutility_T lNonRefundableDisutility (50);

const stdair::BookingRequestStruct lBookingRequest (lOrigin, lDestination,
                                                    lPOS,
                                                    lPreferredDepartureDate,
                                                    lRequestDateTime,
                                                    lPreferredCabin,
                                                    lPartySize, lChannel,
                                                    lTripType, lStayDuration,
                                                    lFrequentFlyerType,
                                                    lPreferredDepartureTime,
                                                    lWTP, lValueOfTime,
                                                    lChangeFees,
                                                    lChangeFeeDisutility,
                                                    lNonRefundable,
                                                    lNonRefundableDisutility)
;

```

```

// Build the segment path list
stdair::TravelSolutionList_T lTravelSolutionList;
airschedService.buildSegmentPathList (lTravelSolutionList, lBookingRequest);
const unsigned int lNbOfTravelSolutions = lTravelSolutionList.size();

STDAIR_LOG_DEBUG ("The number of travel solutions for the booking request '"
                  << lBookingRequest.describe() << "' is equal to "
                  << lNbOfTravelSolutions << ".");

// Close the Log outputFile
logOutputFile.close();

return lNbOfTravelSolutions;
}

// ////////////////////////////////// Main: Unit Test Suite //////////////////////////////////

// Set the UTF configuration (re-direct the output to a specific file)
BOOST_GLOBAL_FIXTURE (UnitTestFixture);

// Start the test suite
BOOST_AUTO_TEST_SUITE (master_test_suite)

BOOST_AUTO_TEST_CASE (airsched_simple_build) {

    // Input file name
    const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
                                                    "/schedule03.csv");

    // State whether the BOM tree should be built-in or parsed from input files
    const bool isBuiltin = false;
    const bool isWithOnD = false;

    // Try to build a travel solution list
    unsigned int lNbOfTravelSolutions = 0;
    BOOST_CHECK_NO_THROW (lNbOfTravelSolutions =
                          testScheduleHelper (0, lScheduleInputFilename, " ",
                                              isBuiltin, isWithOnD));

    // Check the size of the travel solution list
    const unsigned int lExpectedNbOfTravelSolutions = 4;
    BOOST_CHECK_MESSAGE (lNbOfTravelSolutions == lExpectedNbOfTravelSolutions,
                        "The number of travel solutions is "
                        << lNbOfTravelSolutions << ", but it should be equal to "
                        << lExpectedNbOfTravelSolutions);
}

BOOST_AUTO_TEST_CASE (airsched_default_bom_tree_simple_build) {

    // State whether the BOM tree should be built-in or parsed from input files
    const bool isBuiltin = true;
    const bool isWithOnD = false;

    // Try to build a travel solution list
    unsigned int lNbOfTravelSolutions = 0;
    BOOST_CHECK_NO_THROW (lNbOfTravelSolutions =
                          testScheduleHelper (1, " ", " ", isBuiltin, isWithOnD))
    ;

    // Check the size of the travel solution list
    const unsigned int lExpectedNbOfTravelSolutions = 1;
    BOOST_CHECK_MESSAGE (lNbOfTravelSolutions == lExpectedNbOfTravelSolutions,
                        "The number of travel solutions is "
                        << lNbOfTravelSolutions << ", but it should be equal to "
                        << lExpectedNbOfTravelSolutions);
}

BOOST_AUTO_TEST_CASE (airsched_onD_input_file) {

    // Input file names
    const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
                                                    "/rds01/schedule05.csv");
    const stdair::Filename_T lODInputFilename (STDAIR_SAMPLE_DIR
                                              "/ond01.csv");

    // State whether the BOM tree should be built-in or parsed from input files
    const bool isBuiltin = false;
    const bool isWithOnD = true;

    // Try to build a travel solution list
    unsigned int lNbOfTravelSolutions = 0;
    BOOST_CHECK_NO_THROW (lNbOfTravelSolutions =
                          testScheduleHelper (2, lScheduleInputFilename,

```

```

        lODInputFilename,
        isBuiltin, isWithOnD));

// Check the size of the travel solution list
const unsigned int lExpectedNbOfTravelSolutions = 1;
BOOST_CHECK_MESSAGE(lNbOfTravelSolutions == lExpectedNbOfTravelSolutions,
    "The number of travel solutions is "
    << lNbOfTravelSolutions << ", but it should be equal to "
    << lExpectedNbOfTravelSolutions);
}

BOOST_AUTO_TEST_CASE (airsched_missing_OnD_input_file) {

    // Input file names
    const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
        "/schedule03.csv");
    const stdair::Filename_T lODInputFilename (STDAIR_SAMPLE_DIR
        "/missingFiles.csv");

    // State whether the BOM tree should be built-in or parsed from input files
    const bool isBuiltin = false;
    const bool isWithOnD = true;

    // Try to build a travel solution list
    BOOST_CHECK_THROW (testScheduleHelper (3, lScheduleInputFilename,
        lODInputFilename,
        isBuiltin, isWithOnD),
        AIRSCHED::OnDInputFileNotFoundException
    );
}

BOOST_AUTO_TEST_CASE (airsched_missing_schedule_input_file) {

    // Input file name
    const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
        "/missingFiles.csv");

    // State whether the BOM tree should be built-in or parsed from input files
    const bool isBuiltin = false;
    const bool isWithOnD = false;

    // Try to build a travel solution list
    BOOST_CHECK_THROW (testScheduleHelper (4, lScheduleInputFilename, " ",
        isBuiltin, isWithOnD),
        AIRSCHED::ScheduleInputFileNotFoundException
    );
}

BOOST_AUTO_TEST_CASE (airsched_segment_date_not_found) {

    // Input file name
    const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
        "/scheduleError03.csv");

    // State whether the BOM tree should be built-in or parsed from input files
    const bool isBuiltin = false;
    const bool isWithOnD = false;

    // Try to build a travel solution list
    BOOST_CHECK_THROW (testScheduleHelper (5, lScheduleInputFilename,
        " ",
        isBuiltin, isWithOnD),
        AIRSCHED::SegmentDateNotFoundExpection
    );
}

// End the test suite
BOOST_AUTO_TEST_SUITE_END ()

/*!
```

## 18 Namespace Index

### 18.1 Namespace List

Here is a list of all namespaces with brief descriptions:

<a href="#">airsched</a>	100
<a href="#">AIRSCHED</a>	102
<a href="#">AIRSCHED::OnDParserHelper</a>	108
<a href="#">AIRSCHED::ScheduleParserHelper</a>	110
<a href="#">boost</a>	
Forward declarations	113
<a href="#">boost::serialization</a>	113
<a href="#">stdair</a>	
Forward declarations	113

## 19 Class Index

### 19.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

<a href="#">airsched::Airline_T</a>	113
<a href="#">AIRSCHED::AIRSCHED_Service</a>	116
std::basic_fstream< char >	
std::basic_fstream< wchar_t >	
std::basic_ifstream< char >	
std::basic_ifstream< wchar_t >	
std::basic_ios< char >	
std::basic_ios< wchar_t >	
std::basic_iostream< char >	
std::basic_iostream< wchar_t >	
std::basic_istream< char >	
std::basic_istream< wchar_t >	
std::basic_istreamstream< char >	
std::basic_istreamstream< wchar_t >	
std::basic_ofstream< char >	
std::basic_ofstream< wchar_t >	
std::basic_ostream< char >	
std::basic_ostream< wchar_t >	
std::basic_ostringstream< char >	
std::basic_ostringstream< wchar_t >	
std::basic_string< char >	
std::basic_string< wchar_t >	
std::basic_stringstream< char >	
std::basic_stringstream< wchar_t >	
<a href="#">BomAbstract</a>	120
<a href="#">AIRSCHED::OriginDestinationSet</a>	160
<a href="#">AIRSCHED::ReachableUniverse</a>	172
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<b>AIRSCHEd::FlightPeriodFileParser</b>	<b>140</b>
<b>AIRSCHEd::InventoryGenerator</b>	<b>148</b>
<b>AIRSCHEd::OnDParser</b>	<b>153</b>
<b>AIRSCHEd::OnDPeriodFileParser</b>	<b>155</b>
<b>AIRSCHEd::OnDPeriodGenerator</b>	<b>156</b>
<b>AIRSCHEd::ScheduleParser</b>	<b>178</b>
<b>AIRSCHEd::SegmentPathGenerator</b>	<b>184</b>
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<b>airsched::Date_T</b>	<b>122</b>
<b>airsched::SearchStringParser::definition&lt; ScannerT &gt;</b>	<b>123</b>
<b>AIRSCHEd::OnDParserHelper::OnDParser::definition&lt; ScannerT &gt;</b>	<b>126</b>
<b>AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition&lt; ScannerT &gt;</b>	<b>128</b>
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## 22 Namespace Documentation

## 22.1 airsched Namespace Reference

### Classes

- struct [store\\_place\\_element](#)
- struct [store\\_date](#)
- struct [store\\_airline\\_sign](#)
- struct [store\\_airline\\_code](#)
- struct [store\\_airline\\_name](#)
- struct [store\\_passenger\\_number](#)
- struct [store\\_adult\\_passenger\\_type](#)
- struct [store\\_child\\_passenger\\_type](#)
- struct [store\\_pet\\_passenger\\_type](#)
- struct [SearchStringParser](#)
- struct [Place\\_T](#)
- struct [Date\\_T](#)
- struct [Airline\\_T](#)
- struct [Passenger\\_T](#)
- struct [SearchString\\_T](#)

### Typedefs

- typedef std::vector< [Place\\_T](#) > [PlaceList\\_T](#)
- typedef std::vector< [Date\\_T](#) > [DateList\\_T](#)
- typedef std::vector< [Airline\\_T](#) > [AirlineList\\_T](#)
- typedef std::vector< [Passenger\\_T](#) > [PassengerList\\_T](#)

### Functions

- [SearchString\\_T parseBookingRequest](#) (const std::string &iSearchString)

### Variables

- boost::spirit::classic::int\_parser  
< unsigned int, 10, 1, 1 > [int1\\_p](#)
- boost::spirit::classic::uint\_parser  
< unsigned int, 10, 1, 1 > [uint1\\_p](#)
- boost::spirit::classic::uint\_parser  
< unsigned int, 10, 1, 2 > [uint1\\_2\\_p](#)
- boost::spirit::classic::uint\_parser  
< int, 10, 2, 2 > [uint2\\_p](#)
- boost::spirit::classic::uint\_parser  
< int, 10, 2, 4 > [uint2\\_4\\_p](#)
- boost::spirit::classic::uint\_parser  
< int, 10, 4, 4 > [uint4\\_p](#)
- boost::spirit::classic::uint\_parser  
< int, 10, 1, 4 > [uint1\\_4\\_p](#)

#### 22.1.1 Typedef Documentation

##### 22.1.1.1 typedef std::vector<Place\_T> airsched::PlaceList\_T

List of Place strucutres.

Definition at line 24 of file [BookingRequestParser.hpp](#).



### 22.1.1.2 `typedef std::vector<Date_T> airsched::DateList_T`

List of Date strucutres.

Definition at line 49 of file [BookingRequestParser.hpp](#).

### 22.1.1.3 `typedef std::vector<Airline_T> airsched::AirlineList_T`

List of Airline strucutres.

Definition at line 68 of file [BookingRequestParser.hpp](#).

### 22.1.1.4 `typedef std::vector<Passenger_T> airsched::PassengerList_T`

List of Passenger strucutres.

Definition at line 91 of file [BookingRequestParser.hpp](#).

## 22.1.2 Function Documentation

### 22.1.2.1 `SearchString_T airsched::parseBookingRequest ( const std::string & iSearchString )`

Parse the booking request.

Sample guadeloupe rio de janeiro 07/22/2009 +aa -ua 2 adults 1 dog

Grammar: search\_string ::= places [dates] (preferred\_airlines) (passengers) dates ::= board\_date [off\_date] places ::= [board\_place] off\_place board\_place ::= place\_elements off\_place ::= place\_elements place\_elements ::= country | city | airport country ::= country\_code | country\_name city ::= city\_code | city\_name airport ::= airport\_code | airport\_name preferred\_airlines ::= [+|-] airline\_code | airline\_name passengers ::= adult\_number adult\_description [child\_number child\_description] [pet\_number pet\_description] adult\_description ::= 'adult' | 'adults' | 'pax' | 'passengers' child\_description ::= 'child' | 'children' | 'kid' | 'kids' pet\_description ::= 'dog' | 'dogs' | 'cat' | 'cats'

Definition at line 373 of file [BookingRequestParser.cpp](#).

## 22.1.3 Variable Documentation

### 22.1.3.1 `boost::spirit::classic::int_parser<unsigned int, 10, 1, 1> airsched::int1_p`

1-digit-integer parser

Definition at line 203 of file [BookingRequestParser.cpp](#).

### 22.1.3.2 `boost::spirit::classic::uint_parser<unsigned int, 10, 1, 1> airsched::uint1_p`

1-digit-integer parser

Definition at line 205 of file [BookingRequestParser.cpp](#).

Referenced by [airsched::SearchStringParser::definition< ScannerT >::definition\(\)](#).

### 22.1.3.3 `boost::spirit::classic::uint_parser<unsigned int, 10, 1, 2> airsched::uint1_2_p`

Up-to-2-digit-integer parser

Definition at line 207 of file [BookingRequestParser.cpp](#).

Referenced by [airsched::SearchStringParser::definition< ScannerT >::definition\(\)](#).

### 22.1.3.4 `boost::spirit::classic::uint_parser<int, 10, 2, 2> airsched::uint2_p`

2-digit-integer parser

Definition at line 209 of file [BookingRequestParser.cpp](#).

Referenced by [airsched::SearchStringParser::definition< ScannerT >::definition\(\)](#).

#### 22.1.3.5 `boost::spirit::classic::uint_parser<int, 10, 2, 4> airsched::uint2_4_p`

Up-to-4-digit-integer parser

Definition at line 211 of file [BookingRequestParser.cpp](#).

#### 22.1.3.6 `boost::spirit::classic::uint_parser<int, 10, 4, 4> airsched::uint4_p`

4-digit-integer parser

Definition at line 213 of file [BookingRequestParser.cpp](#).

Referenced by [airsched::SearchStringParser::definition< ScannerT >::definition\(\)](#).

#### 22.1.3.7 `boost::spirit::classic::uint_parser<int, 10, 1, 4> airsched::uint1_4_p`

Up-to-4-digit-integer parser

Definition at line 215 of file [BookingRequestParser.cpp](#).

## 22.2 AIRSCHED Namespace Reference

### Namespaces

- namespace [ScheduleParserHelper](#)
- namespace [OnDParserHelper](#)

### Classes

- class [AIRSCHED\\_Service](#)  
*Interface for the AirSched Services.*
- class [SegmentDateNotFoundException](#)
- class [OnDInputFileNotFoundException](#)
- class [ScheduleInputFileNotFoundException](#)
- struct [FlagSaver](#)
- class [BomDisplay](#)  
*Utility class to display AirSched objects with a pretty format.*
- struct [FareFamilyStruct](#)
- struct [FlightPeriodStruct](#)
- struct [LegCabinStruct](#)
- struct [LegStruct](#)
- struct [OnDPeriodStruct](#)
- class [OriginDestinationSet](#)  
*Class representing a simple sub-network.*
- struct [OriginDestinationSetKey](#)  
*Structure representing the key of a sub-network.*
- class [ReachableUniverse](#)  
*Class representing the root of the schedule-related BOM tree.*
- struct [ReachableUniverseKey](#)  
*Structure representing the key of the schedule-related BOM tree root.*
- struct [SegmentCabinStruct](#)
- class [SegmentPathPeriod](#)  
*Class representing a segment/path.*
- struct [SegmentPathPeriodKey](#)

*Structure representing the key of a segment/path.*

- class [SegmentPeriodHelper](#)
- struct [SegmentStruct](#)
- class [InventoryGenerator](#)
- class [OnDParser](#)

*Class wrapping the parser entry point.*

- class [OnDPeriodFileParser](#)
- class [OnDPeriodGenerator](#)

*Class handling the generation / instantiation of the O&D-Period BOM.*

- class [ScheduleParser](#)
- class [FlightPeriodFileParser](#)
- class [SegmentPathGenerator](#)

*Class handling the generation / instantiation of the network BOM.*

- class [SegmentPathProvider](#)

*Class building the travel solutions from airline schedules.*

- class [Simulator](#)
- class [TravelSolutionParser](#)

*Class filling the TravelSolutionHolder structure (representing a list of classes/travelSolutions) from a given input file.*

- class [FacAIRSCHEDServiceContext](#)

*Factory for the service context.*

- class [FacServiceAbstract](#)
- class [AIRSCHED\\_ServiceContext](#)

*Class holding the context of the AirSched services.*

- class [ServiceAbstract](#)

## Typedefs

- typedef boost::shared\_ptr  
< [AIRSCHED\\_Service](#) > [AIRSCHED\\_ServicePtr\\_T](#)
- typedef char [char\\_t](#)
- typedef  
boost::spirit::classic::file\_iterator  
< [char\\_t](#) > [iterator\\_t](#)
- typedef  
boost::spirit::classic::scanner  
< [iterator\\_t](#) > [scanner\\_t](#)
- typedef  
boost::spirit::classic::rule  
< [scanner\\_t](#) > [rule\\_t](#)
- typedef  
boost::spirit::classic::int\_parser  
< unsigned int, 10, 1, 1 > [int1\\_p\\_t](#)
- typedef  
boost::spirit::classic::uint\_parser  
< unsigned int, 10, 2, 2 > [uint2\\_p\\_t](#)
- typedef  
boost::spirit::classic::uint\_parser  
< unsigned int, 10, 4, 4 > [uint4\\_p\\_t](#)
- typedef  
boost::spirit::classic::uint\_parser  
< unsigned int, 10, 1, 4 > [uint1\\_4\\_p\\_t](#)
- typedef  
boost::spirit::classic::chset  
< [char\\_t](#) > [chset\\_t](#)

- typedef  
boost::spirit::classic::impl::loop\_traits  
< chset\_t, unsigned int,  
unsigned int >::type repeat\_p\_t
- typedef  
boost::spirit::classic::bounded  
< uint2\_p\_t, unsigned int > bounded2\_p\_t
- typedef  
boost::spirit::classic::bounded  
< uint4\_p\_t, unsigned int > bounded4\_p\_t
- typedef  
boost::spirit::classic::bounded  
< uint1\_4\_p\_t, unsigned int > bounded1\_4\_p\_t
- typedef std::set  
< stdair::AirportCode\_T > AirportList\_T
- typedef std::vector  
< stdair::AirportCode\_T > AirportOrderedList\_T
- typedef std::vector  
< FareFamilyStruct > FareFamilyStructList\_T
- typedef std::vector  
< LegCabinStruct > LegCabinStructList\_T
- typedef std::vector< LegStruct > LegStructList\_T
- typedef std::list  
< OriginDestinationSet \* > OriginDestinationSetList\_T
- typedef std::map< const  
stdair::MapKey\_T,  
OriginDestinationSet \* > OriginDestinationSetMap\_T
- typedef std::list  
< ReachableUniverse \* > ReachableUniverseList\_T
- typedef std::map< const  
stdair::MapKey\_T,  
ReachableUniverse \* > ReachableUniverseMap\_T
- typedef std::vector  
< SegmentCabinStruct > SegmentCabinStructList\_T
- typedef std::list  
< SegmentPathPeriod \* > SegmentPathPeriodList\_T
- typedef std::multimap< const  
stdair::MapKey\_T,  
SegmentPathPeriod \* > SegmentPathPeriodMultimap\_T
- typedef std::vector< const  
SegmentPathPeriod \* > SegmentPathPeriodLightList\_T
- typedef std::vector  
< SegmentPathPeriodLightList\_T > SegmentPathPeriodListList\_T
- typedef std::vector  
< stdair::DateOffset\_T > DateOffsetList\_T
- typedef std::vector  
< SegmentStruct > SegmentStructList\_T

## Functions

- const stdair::Duration\_T MINIMUM\_TIME\_BETWEEN\_REQUEST\_AND\_DEPARTURE (4, 0, 0)
- template void OriginDestinationSet::serialize< ba::text\_oarchive > (ba::text\_oarchive &, unsigned int)
- template void OriginDestinationSet::serialize< ba::text\_iarchive > (ba::text\_iarchive &, unsigned int)
- template void OriginDestinationSetKey::serialize< ba::text\_oarchive > (ba::text\_oarchive &, unsigned int)
- template void OriginDestinationSetKey::serialize< ba::text\_iarchive > (ba::text\_iarchive &, unsigned int)
- template void ReachableUniverse::serialize< ba::text\_oarchive > (ba::text\_oarchive &, unsigned int)

- template void [ReachableUniverse::serialize< ba::text\\_iarchive >](#) (ba::text\_iarchive &, unsigned int)
- template void [ReachableUniverseKey::serialize< ba::text\\_oarchive >](#) (ba::text\_oarchive &, unsigned int)
- template void [ReachableUniverseKey::serialize< ba::text\\_iarchive >](#) (ba::text\_iarchive &, unsigned int)
- template void [SegmentPathPeriod::serialize< ba::text\\_oarchive >](#) (ba::text\_oarchive &, unsigned int)
- template void [SegmentPathPeriod::serialize< ba::text\\_iarchive >](#) (ba::text\_iarchive &, unsigned int)
- template void [SegmentPathPeriodKey::serialize< ba::text\\_oarchive >](#) (ba::text\_oarchive &, unsigned int)
- template void [SegmentPathPeriodKey::serialize< ba::text\\_iarchive >](#) (ba::text\_iarchive &, unsigned int)

#### Variables

- const int [DEFAULT\\_NUMBER\\_OF\\_DRAWS\\_FOR\\_MC\\_SIMULATION](#) = 100000
- const std::duration<T> [MINIMUM\\_TIME\\_BETWEEN\\_REQUEST\\_AND\\_DEPARTURE](#)

### 22.2.1 Typedef Documentation

#### 22.2.1.1 typedef boost::shared\_ptr<AIRSCHED\_Service> AIRSCHED::AIRSCHED\_ServicePtr\_T

(Smart) Pointer on the AirSched service handler.

Definition at line 62 of file [AIRSCHED\\_Types.hpp](#).

#### 22.2.1.2 typedef char AIRSCHED::char\_t

Definition at line 31 of file [BasParserTypes.hpp](#).

#### 22.2.1.3 typedef boost::spirit::classic::file\_iterator<char\_t> AIRSCHED::iterator\_t

Definition at line 35 of file [BasParserTypes.hpp](#).

#### 22.2.1.4 typedef boost::spirit::classic::scanner<iterator\_t> AIRSCHED::scanner\_t

Definition at line 36 of file [BasParserTypes.hpp](#).

#### 22.2.1.5 typedef boost::spirit::classic::rule<scanner\_t> AIRSCHED::rule\_t

Definition at line 37 of file [BasParserTypes.hpp](#).

#### 22.2.1.6 typedef boost::spirit::classic::int\_parser<unsigned int, 10, 1, 1> AIRSCHED::int1\_p\_t

1-digit-integer parser

Definition at line 45 of file [BasParserTypes.hpp](#).

#### 22.2.1.7 typedef boost::spirit::classic::uint\_parser<unsigned int, 10, 2, 2> AIRSCHED::uint2\_p\_t

2-digit-integer parser

Definition at line 48 of file [BasParserTypes.hpp](#).

#### 22.2.1.8 typedef boost::spirit::classic::uint\_parser<unsigned int, 10, 4, 4> AIRSCHED::uint4\_p\_t

4-digit-integer parser

Definition at line 51 of file [BasParserTypes.hpp](#).

#### 22.2.1.9 typedef boost::spirit::classic::uint\_parser<unsigned int, 10, 1, 4> AIRSCHED::uint1\_4\_p\_t

Up-to-4-digit-integer parser

Definition at line 54 of file [BasParserTypes.hpp](#).

22.2.1.10 `typedef boost::spirit::classic::chset<char_t> AIRSCHED::chset_t`

character set

Definition at line 57 of file [BasParserTypes.hpp](#).

22.2.1.11 `typedef boost::spirit::classic::impl::loop_traits<chset_t, unsigned int, unsigned int>::type  
AIRSCHED::repeat_p_t`

(Repeating) sequence of a given number of characters: repeat\_p(min, max)

Definition at line 63 of file [BasParserTypes.hpp](#).

22.2.1.12 `typedef boost::spirit::classic::bounded<uint2_p_t, unsigned int> AIRSCHED::bounded2_p_t`

Bounded-number-of-integers parser

Definition at line 66 of file [BasParserTypes.hpp](#).

22.2.1.13 `typedef boost::spirit::classic::bounded<uint4_p_t, unsigned int> AIRSCHED::bounded4_p_t`

Definition at line 67 of file [BasParserTypes.hpp](#).

22.2.1.14 `typedef boost::spirit::classic::bounded<uint1_4_p_t, unsigned int> AIRSCHED::bounded1_4_p_t`

Definition at line 68 of file [BasParserTypes.hpp](#).

22.2.1.15 `typedef std::set<stdair::AirportCode_T> AIRSCHED::AirportList_T`

Define lists of Airport Codes.

Definition at line 16 of file [AirportList.hpp](#).

22.2.1.16 `typedef std::vector<stdair::AirportCode_T> AIRSCHED::AirportOrderedList_T`

Definition at line 17 of file [AirportList.hpp](#).

22.2.1.17 `typedef std::vector<FareFamilyStruct> AIRSCHED::FareFamilyStructList_T`

List of FareFamily-Detail structures.

Definition at line 34 of file [FareFamilyStruct.hpp](#).

22.2.1.18 `typedef std::vector<LegCabinStruct> AIRSCHED::LegCabinStructList_T`

List of LegCabin-Detail strucutres.

Definition at line 36 of file [LegCabinStruct.hpp](#).

22.2.1.19 `typedef std::vector<LegStruct> AIRSCHED::LegStructList_T`

List of Leg strucutres.

Definition at line 52 of file [LegStruct.hpp](#).

22.2.1.20 `typedef std::list<OriginDestinationSet*> AIRSCHED::OriginDestinationSetList_T`

Define the [OriginDestinationSet](#) list.

Definition at line 18 of file [OriginDestinationSetTypes.hpp](#).

22.2.1.21 `typedef std::map<const stdair::MapKey_T, OriginDestinationSet*> AIRSCHED::OriginDestinationSet-  
Map_T`

Define the [OriginDestinationSet](#) map.

Definition at line 25 of file [OriginDestinationSetTypes.hpp](#).

**22.2.1.22** `typedef std::list<ReachableUniverse*> AIRSCHED::ReachableUniverseList_T`

Define the reachable-universe list.

Definition at line 18 of file [ReachableUniverseTypes.hpp](#).

**22.2.1.23** `typedef std::map<const stdair::MapKey_T, ReachableUniverse*> AIRSCHED::ReachableUniverseMap_T`

Define the reachable-universe map.

Definition at line 25 of file [ReachableUniverseTypes.hpp](#).

**22.2.1.24** `typedef std::vector<SegmentCabinStruct> AIRSCHED::SegmentCabinStructList_T`

List of SegmentCabin-Detail strucutres.

Definition at line 43 of file [SegmentCabinStruct.hpp](#).

**22.2.1.25** `typedef std::list<SegmentPathPeriod*> AIRSCHED::SegmentPathPeriodList_T`

Define the segment path list.

Definition at line 20 of file [SegmentPathPeriodTypes.hpp](#).

**22.2.1.26** `typedef std::multimap<const stdair::MapKey_T, SegmentPathPeriod*> AIRSCHED::SegmentPathPeriod-Multimap_T`

Define the segment path map.

Definition at line 27 of file [SegmentPathPeriodTypes.hpp](#).

**22.2.1.27** `typedef std::vector<const SegmentPathPeriod*> AIRSCHED::SegmentPathPeriodLightList_T`

Define the (temporary) containers of segment path period.

Definition at line 30 of file [SegmentPathPeriodTypes.hpp](#).

**22.2.1.28** `typedef std::vector<SegmentPathPeriodLightList_T> AIRSCHED::SegmentPathPeriodListList_T`

Definition at line 31 of file [SegmentPathPeriodTypes.hpp](#).

**22.2.1.29** `typedef std::vector<stdair::DateOffset_T> AIRSCHED::DateOffsetList_T`

Define the vector of boarding date offsets of the member segments of a segment path compare to the boarding date of the first segment.

Definition at line 35 of file [SegmentPathPeriodTypes.hpp](#).

**22.2.1.30** `typedef std::vector<SegmentStruct> AIRSCHED::SegmentStructList_T`

List of Segment strucutres.

Definition at line 44 of file [SegmentStruct.hpp](#).

## 22.2.2 Function Documentation

**22.2.2.1** `const stdair::Duration_T AIRSCHED::MINIMUM_TIME_BETWEEN_REQUEST_AND_DEPARTURE ( 4 , 0 , 0 )`

Default value for the minimum time between the request and the departure time.

**22.2.2.2** `template void AIRSCHED::OriginDestinationSet::serialize< ba::text_oarchive > ( ba::text_oarchive & , unsigned int )`

- 22.2.2.3 `template void AIRSCHED::OriginDestinationSet::serialize< ba::text_iarchive > ( ba::text_iarchive & , unsigned int )`
- 22.2.2.4 `template void AIRSCHED::OriginDestinationSetKey::serialize< ba::text_oarchive > ( ba::text_oarchive & , unsigned int )`
- 22.2.2.5 `template void AIRSCHED::OriginDestinationSetKey::serialize< ba::text_iarchive > ( ba::text_iarchive & , unsigned int )`
- 22.2.2.6 `template void AIRSCHED::ReachableUniverse::serialize< ba::text_oarchive > ( ba::text_oarchive & , unsigned int )`
- 22.2.2.7 `template void AIRSCHED::ReachableUniverse::serialize< ba::text_iarchive > ( ba::text_iarchive & , unsigned int )`
- 22.2.2.8 `template void AIRSCHED::ReachableUniverseKey::serialize< ba::text_oarchive > ( ba::text_oarchive & , unsigned int )`
- 22.2.2.9 `template void AIRSCHED::ReachableUniverseKey::serialize< ba::text_iarchive > ( ba::text_iarchive & , unsigned int )`
- 22.2.2.10 `template void AIRSCHED::SegmentPathPeriod::serialize< ba::text_oarchive > ( ba::text_oarchive & , unsigned int )`
- 22.2.2.11 `template void AIRSCHED::SegmentPathPeriod::serialize< ba::text_iarchive > ( ba::text_iarchive & , unsigned int )`
- 22.2.2.12 `template void AIRSCHED::SegmentPathPeriodKey::serialize< ba::text_oarchive > ( ba::text_oarchive & , unsigned int )`
- 22.2.2.13 `template void AIRSCHED::SegmentPathPeriodKey::serialize< ba::text_iarchive > ( ba::text_iarchive & , unsigned int )`

### 22.2.3 Variable Documentation

22.2.3.1 `const int AIRSCHED::DEFAULT_NUMBER_OF_DRAWS_FOR_MC_SIMULATION = 100000`

Default value for the number of draws within the Monte-Carlo Integration algorithm.

Definition at line 8 of file [BasConst.cpp](#).

22.2.3.2 `const std::duration<T> AIRSCHED::MINIMUM_TIME_BETWEEN_REQUEST_AND_DEPARTURE`

Default value for the minimum time between the request and the departure time.

## 22.3 AIRSCHED::OnDParserHelper Namespace Reference

### Classes

- struct [ParserSemanticAction](#)
- struct [storeOrigin](#)
- struct [storeDestination](#)
- struct [storeDateRangeStart](#)
- struct [storeDateRangeEnd](#)
- struct [storeStartRangeTime](#)
- struct [storeEndRangeTime](#)
- struct [storeAirlineCode](#)
- struct [storeClassCode](#)
- struct [doEndOnD](#)
- struct [OnDParser](#)



## Functions

- [chset\\_t alpha\\_cap\\_set\\_p](#) ("A-Z")
- [repeat\\_p\\_t airport\\_p](#) ([chset\\_t](#)("0-9A-Z").[derived\(\)](#), 3, 3)
- [repeat\\_p\\_t airline\\_code\\_p](#) ([alpha\\_cap\\_set\\_p](#).[derived\(\)](#), 2, 3)
- [bounded4\\_p\\_t year\\_p](#) ([uint4\\_p](#).[derived\(\)](#), 2000u, 2099u)
- [bounded2\\_p\\_t month\\_p](#) ([uint2\\_p](#).[derived\(\)](#), 1u, 12u)
- [bounded2\\_p\\_t day\\_p](#) ([uint2\\_p](#).[derived\(\)](#), 1u, 31u)
- [bounded2\\_p\\_t hours\\_p](#) ([uint2\\_p](#).[derived\(\)](#), 0u, 23u)
- [bounded2\\_p\\_t minutes\\_p](#) ([uint2\\_p](#).[derived\(\)](#), 0u, 59u)
- [bounded2\\_p\\_t seconds\\_p](#) ([uint2\\_p](#).[derived\(\)](#), 0u, 59u)
- [chset\\_t class\\_code\\_p](#) ("A-Z")

## Variables

- [uint2\\_p\\_t uint2\\_p](#)
- [uint4\\_p\\_t uint4\\_p](#)
- [uint1\\_4\\_p\\_t uint1\\_4\\_p](#)

## 22.3.1 Function Documentation

22.3.1.1 [chset\\_t AIRSCHED::OnDParserHelper::alpha\\_cap\\_set\\_p](#) ( "A-Z" )

Sequence of (capital) alphabetic characters: [chset\\_p](#)("A-Z")

22.3.1.2 [repeat\\_p\\_t AIRSCHED::OnDParserHelper::airport\\_p](#) ( [chset\\_t](#)("0-9A-Z").[derived\(\)](#) , 3 , 3 )

Airport Parser: [repeat\\_p](#)(3)[[chset\\_p](#)("0-9A-Z")]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

22.3.1.3 [repeat\\_p\\_t AIRSCHED::OnDParserHelper::airline\\_code\\_p](#) ( [alpha\\_cap\\_set\\_p](#). [derived\(\)](#) , 2 , 3 )

Airline Code Parser: [repeat\\_p](#)(2,3)[[chset\\_p](#)("0-9A-Z")]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

22.3.1.4 [bounded4\\_p\\_t AIRSCHED::OnDParserHelper::year\\_p](#) ( [uint4\\_p](#). [derived\(\)](#) , 2000u , 2099u )

Year Parser: [limit\\_d](#)(2000u, 2099u)[[uint4\\_p](#)]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

22.3.1.5 [bounded2\\_p\\_t AIRSCHED::OnDParserHelper::month\\_p](#) ( [uint2\\_p](#). [derived\(\)](#) , 1u , 12u )

Month Parser: [limit\\_d](#)(1u, 12u)[[uint2\\_p](#)]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

22.3.1.6 [bounded2\\_p\\_t AIRSCHED::OnDParserHelper::day\\_p](#) ( [uint2\\_p](#). [derived\(\)](#) , 1u , 31u )

Day Parser: [limit\\_d](#)(1u, 31u)[[uint2\\_p](#)]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

22.3.1.7 [bounded2\\_p\\_t AIRSCHED::OnDParserHelper::hours\\_p](#) ( [uint2\\_p](#). [derived\(\)](#) , 0u , 23u )

Hour Parser: [limit\\_d](#)(0u, 23u)[[uint2\\_p](#)]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

22.3.1.8 `bounded2_p_t` AIRSCHED::OnDParserHelper::minutes\_p ( `uint2_p. derived()`, 0u , 59u )

Minute Parser: `limit_d(0u, 59u)[uint2_p]`

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

22.3.1.9 `bounded2_p_t` AIRSCHED::OnDParserHelper::seconds\_p ( `uint2_p. derived()`, 0u , 59u )

Second Parser: `limit_d(0u, 59u)[uint2_p]`

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

22.3.1.10 `chset_t` AIRSCHED::OnDParserHelper::class\_code\_p ( "A-Z" )

Class Code Parser: `chset_p("A-Z")`

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

## 22.3.2 Variable Documentation

22.3.2.1 `uint2_p_t` AIRSCHED::OnDParserHelper::uint2\_p

2-digit-integer parser

Definition at line 215 of file [OnDParserHelper.cpp](#).

22.3.2.2 `uint4_p_t` AIRSCHED::OnDParserHelper::uint4\_p

4-digit-integer parser

Definition at line 218 of file [OnDParserHelper.cpp](#).

22.3.2.3 `uint1_4_p_t` AIRSCHED::OnDParserHelper::uint1\_4\_p

Up-to-4-digit-integer parser

Definition at line 221 of file [OnDParserHelper.cpp](#).

## 22.4 AIRSCHED::ScheduleParserHelper Namespace Reference

### Classes

- struct [ParserSemanticAction](#)
- struct [storeAirlineCode](#)
- struct [storeFlightNumber](#)
- struct [storeDateRangeStart](#)
- struct [storeDateRangeEnd](#)
- struct [storeDow](#)
- struct [storeLegBoardingPoint](#)
- struct [storeLegOffPoint](#)
- struct [storeOperatingAirlineCode](#)
- struct [storeOperatingFlightNumber](#)
- struct [storeBoardingTime](#)
- struct [storeOffTime](#)
- struct [storeElapsedTime](#)
- struct [storeLegCabinCode](#)
- struct [storeCapacity](#)
- struct [storeSegmentSpecificity](#)
- struct [storeSegmentBoardingPoint](#)
- struct [storeSegmentOffPoint](#)

- struct [storeSegmentCabinCode](#)
- struct [storeClasses](#)
- struct [storeFamilyCode](#)
- struct [storeFRAT5CurveKey](#)
- struct [storeFFDisutilityCurveKey](#)
- struct [storeFCClasses](#)
- struct [doEndFlight](#)
- struct [FlightPeriodParser](#)

#### Functions

- [repeat\\_p\\_t airline\\_code\\_p](#) ([chset\\_t](#)("0-9A-Z").[derived\(\)](#), 2, 3)
- [bounded1\\_4\\_p\\_t flight\\_number\\_p](#) ([uint1\\_4\\_p](#).[derived\(\)](#), 0u, 9999u)
- [bounded4\\_p\\_t year\\_p](#) ([uint4\\_p](#).[derived\(\)](#), 2000u, 2099u)
- [bounded2\\_p\\_t month\\_p](#) ([uint2\\_p](#).[derived\(\)](#), 1u, 12u)
- [bounded2\\_p\\_t day\\_p](#) ([uint2\\_p](#).[derived\(\)](#), 1u, 31u)
- [repeat\\_p\\_t dow\\_p](#) ([chset\\_t](#)("0-1").[derived\(\)](#).[derived\(\)](#), 7, 7)
- [repeat\\_p\\_t airport\\_p](#) ([chset\\_t](#)("0-9A-Z").[derived\(\)](#), 3, 3)
- [bounded2\\_p\\_t hours\\_p](#) ([uint2\\_p](#).[derived\(\)](#), 0u, 23u)
- [bounded2\\_p\\_t minutes\\_p](#) ([uint2\\_p](#).[derived\(\)](#), 0u, 59u)
- [bounded2\\_p\\_t seconds\\_p](#) ([uint2\\_p](#).[derived\(\)](#), 0u, 59u)
- [chset\\_t cabin\\_code\\_p](#) ("A-Z")
- [repeat\\_p\\_t key\\_p](#) ([chset\\_t](#)("0-9A-Z").[derived\(\)](#), 1, 10)
- [repeat\\_p\\_t class\\_code\\_list\\_p](#) ([chset\\_t](#)("A-Z").[derived\(\)](#), 1, 26)

#### Variables

- [int1\\_p\\_t int1\\_p](#)
- [uint2\\_p\\_t uint2\\_p](#)
- [uint4\\_p\\_t uint4\\_p](#)
- [uint1\\_4\\_p\\_t uint1\\_4\\_p](#)
- [int1\\_p\\_t family\\_code\\_p](#)

#### 22.4.1 Function Documentation

##### 22.4.1.1 [repeat\\_p\\_t](#) AIRSCHED::ScheduleParserHelper::airline\_code\_p ( [chset\\_t](#)("0-9A-Z").[derived\(\)](#) , 2 , 3 )

Airline Code Parser: [repeat\\_p](#)(2,3)[[chset\\_p](#)("0-9A-Z")]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

##### 22.4.1.2 [bounded1\\_4\\_p\\_t](#) AIRSCHED::ScheduleParserHelper::flight\_number\_p ( [uint1\\_4\\_p](#). [derived\(\)](#), 0u , 9999u )

Flight Number Parser: [limit\\_d](#)(0u, 9999u)[[uint1\\_4\\_p](#)]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

##### 22.4.1.3 [bounded4\\_p\\_t](#) AIRSCHED::ScheduleParserHelper::year\_p ( [uint4\\_p](#). [derived\(\)](#), 2000u , 2099u )

Year Parser: [limit\\_d](#)(2000u, 2099u)[[uint4\\_p](#)]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

##### 22.4.1.4 [bounded2\\_p\\_t](#) AIRSCHED::ScheduleParserHelper::month\_p ( [uint2\\_p](#). [derived\(\)](#), 1u , 12u )

Month Parser: [limit\\_d](#)(1u, 12u)[[uint2\\_p](#)]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

22.4.1.5 **bounded2\_p\_t** AIRSCHED::ScheduleParserHelper::day\_p ( uint2\_p. *derived()*, 1u , 31u )

Day Parser: limit\_d(1u, 31u)[uint2\_p]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

22.4.1.6 **repeat\_p\_t** AIRSCHED::ScheduleParserHelper::dow\_p ( chset\_t("0-1").*derived()*.*derived()*, 7 , 7 )

DOW (Day-Of-the-Week) Parser: repeat\_p(7)[chset\_p("0-1")]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

22.4.1.7 **repeat\_p\_t** AIRSCHED::ScheduleParserHelper::airport\_p ( chset\_t("0-9A-Z").*derived()*, 3 , 3 )

Airport Parser: repeat\_p(3)[chset\_p("0-9A-Z")]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

22.4.1.8 **bounded2\_p\_t** AIRSCHED::ScheduleParserHelper::hours\_p ( uint2\_p. *derived()*, 0u , 23u )

Hour Parser: limit\_d(0u, 23u)[uint2\_p]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

22.4.1.9 **bounded2\_p\_t** AIRSCHED::ScheduleParserHelper::minutes\_p ( uint2\_p. *derived()*, 0u , 59u )

Minute Parser: limit\_d(0u, 59u)[uint2\_p]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

22.4.1.10 **bounded2\_p\_t** AIRSCHED::ScheduleParserHelper::seconds\_p ( uint2\_p. *derived()*, 0u , 59u )

Second Parser: limit\_d(0u, 59u)[uint2\_p]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

22.4.1.11 **chset\_t** AIRSCHED::ScheduleParserHelper::cabin\_code\_p ( "A-Z" )

Cabin Code Parser: chset\_p("A-Z")

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

22.4.1.12 **repeat\_p\_t** AIRSCHED::ScheduleParserHelper::key\_p ( chset\_t("0-9A-Z").*derived()*, 1 , 10 )

Key Parser: repeat\_p(1,10)[chset\_p("0-9A-Z")]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

22.4.1.13 **repeat\_p\_t** AIRSCHED::ScheduleParserHelper::class\_code\_list\_p ( chset\_t("A-Z").*derived()*, 1 , 26 )

Class Code List Parser: repeat\_p(1,26)[chset\_p("A-Z")]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

## 22.4.2 Variable Documentation

22.4.2.1 **int1\_p\_t** AIRSCHED::ScheduleParserHelper::int1\_p

1-digit-integer parser

Definition at line 473 of file [ScheduleParserHelper.cpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

#### 22.4.2.2 uint2\_p\_t AIRSCHED::ScheduleParserHelper::uint2\_p

2-digit-integer parser

Definition at line 476 of file [ScheduleParserHelper.cpp](#).

#### 22.4.2.3 uint4\_p\_t AIRSCHED::ScheduleParserHelper::uint4\_p

4-digit-integer parser

Definition at line 479 of file [ScheduleParserHelper.cpp](#).

#### 22.4.2.4 uint1\_4\_p\_t AIRSCHED::ScheduleParserHelper::uint1\_4\_p

Up-to-4-digit-integer parser

Definition at line 482 of file [ScheduleParserHelper.cpp](#).

#### 22.4.2.5 int1\_p\_t AIRSCHED::ScheduleParserHelper::family\_code\_p

Family code parser

Definition at line 518 of file [ScheduleParserHelper.cpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition\(\)](#).

## 22.5 boost Namespace Reference

Forward declarations.

Namespaces

- namespace [serialization](#)

### 22.5.1 Detailed Description

Forward declarations.

## 22.6 boost::serialization Namespace Reference

## 22.7 stdair Namespace Reference

Forward declarations.

### 22.7.1 Detailed Description

Forward declarations.

# 23 Class Documentation

## 23.1 airsched::Airline\_T Struct Reference

```
#include <airsched/batches/BookingRequestParser.hpp>
```

## Public Member Functions

- [Airline\\_T](#) ()
- void [display](#) () const

## Public Attributes

- bool [\\_isPreferred](#)
- std::string [\\_name](#)
- std::string [\\_code](#)

### 23.1.1 Detailed Description

Airline.

Definition at line 52 of file [BookingRequestParser.hpp](#).

### 23.1.2 Constructor & Destructor Documentation

#### 23.1.2.1 airsched::Airline\_T::Airline\_T ( ) [\[inline\]](#)

Constructor.

Definition at line 58 of file [BookingRequestParser.hpp](#).

### 23.1.3 Member Function Documentation

#### 23.1.3.1 void airsched::Airline\_T::display ( ) const [\[inline\]](#)

Definition at line 60 of file [BookingRequestParser.hpp](#).

References [\\_code](#), [\\_isPreferred](#), and [\\_name](#).

Referenced by [airsched::SearchString\\_T::display\(\)](#).

### 23.1.4 Member Data Documentation

#### 23.1.4.1 bool airsched::Airline\_T::\_isPreferred

Definition at line 54 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store\\_airline\\_sign::operator\(\)\(\)](#).

#### 23.1.4.2 std::string airsched::Airline\_T::\_name

Definition at line 55 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store\\_airline\\_name::operator\(\)\(\)](#).

#### 23.1.4.3 std::string airsched::Airline\_T::\_code

Definition at line 56 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store\\_airline\\_code::operator\(\)\(\)](#).

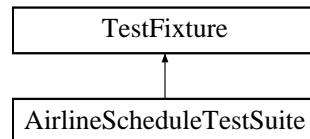
The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.hpp](#)

## 23.2 AirlineScheduleTestSuite Class Reference

```
#include <test/airsched/AirlineScheduleTestSuite.hpp>
```

Inheritance diagram for AirlineScheduleTestSuite:



### Public Member Functions

- void [externalMemoryManagement](#) ()
- void [scheduleParsing](#) ()
- [AirlineScheduleTestSuite](#) ()

### Protected Attributes

- std::stringstream [\\_describeKey](#)

#### 23.2.1 Detailed Description

Definition at line 6 of file [AirlineScheduleTestSuite.hpp](#).

#### 23.2.2 Constructor & Destructor Documentation

##### 23.2.2.1 AirlineScheduleTestSuite::AirlineScheduleTestSuite ( )

Constructor.

#### 23.2.3 Member Function Documentation

##### 23.2.3.1 void AirlineScheduleTestSuite::externalMemoryManagement ( )

Test the Optimisation functionality.

The code is aimed at testing the initialization of airline inventory-related objects which are mainly implemented in the stdair library. That means the memory allocation of these objects will be managed by the calling project and not by the called project.

##### 23.2.3.2 void AirlineScheduleTestSuite::scheduleParsing ( )

#### 23.2.4 Member Data Documentation

##### 23.2.4.1 std::stringstream AirlineScheduleTestSuite::\_describeKey [protected]

Definition at line 26 of file [AirlineScheduleTestSuite.hpp](#).

The documentation for this class was generated from the following file:

- test/airsched/[AirlineScheduleTestSuite.hpp](#)

## 23.3 AIRSCHED::AIRSCHED\_Service Class Reference

Interface for the AirSched Services.

```
#include <airsched/AIRSCHED_Service.hpp>
```

### Public Member Functions

- [AIRSCHED\\_Service](#) (const stdair::BasLogParams &, const stdair::BasDBParams &)
- [AIRSCHED\\_Service](#) (const stdair::BasLogParams &)
- [AIRSCHED\\_Service](#) (stdair::STDAIR\_ServicePtr\_T ioSTDAIR\_ServicePtr)
- void [parseAndLoad](#) (const stdair::ScheduleFilePath &)
- void [parseAndLoad](#) (const stdair::ScheduleFilePath &, const stdair::ODFilePath &)
- [~AIRSCHED\\_Service](#) ()
- void [buildSampleBom](#) ()
- void [clonePersistentBom](#) ()
- void [buildComplementaryLinks](#) (stdair::BomRoot &)
- void [buildSegmentPathList](#) (stdair::TravelSolutionList\_T &, const stdair::BookingRequestStruct &)
- void [simulate](#) ()
- std::string [jsonExportFlightDateObjects](#) (const stdair::AirlineCode\_T &, const stdair::FlightNumber\_T &, const stdair::Date\_T & iDepartureDate) const
- std::string [csvDisplay](#) () const
- std::string [csvDisplay](#) (const stdair::AirlineCode\_T &, const stdair::FlightNumber\_T &, const stdair::Date\_T & iDepartureDate) const

### 23.3.1 Detailed Description

Interface for the AirSched Services.

Definition at line 32 of file [AIRSCHED\\_Service.hpp](#).

### 23.3.2 Constructor & Destructor Documentation

#### 23.3.2.1 AIRSCHED::AIRSCHED\_Service::AIRSCHED\_Service ( const stdair::BasLogParams & *iLogParams*, const stdair::BasDBParams & *iDBParams* )

Constructor.

The `initAirschedService()` method is called; see the corresponding documentation for more details.

A reference on an output stream is given, so that log outputs can be directed onto that stream.

Moreover, database connection parameters are given, so that a session can be created on the corresponding database.

#### Parameters

<i>const</i>	stdair::BasLogParams& Parameters for the output log stream.
<i>const</i>	stdair::BasDBParams& Parameters for the database access.

Definition at line 62 of file [AIRSCHED\\_Service.cpp](#).

#### 23.3.2.2 AIRSCHED::AIRSCHED\_Service::AIRSCHED\_Service ( const stdair::BasLogParams & *iLogParams* )

Constructor.

The `initAirschedService()` method is called; see the corresponding documentation for more details.

A reference on an output stream is given, so that log outputs can be directed onto that stream.



## Parameters

<i>const</i>	stdair::BasLogParams& Parameters for the output log stream.
--------------	---

Definition at line 42 of file [AIRSCHED\\_Service.cpp](#).

## 23.3.2.3 AIRSCHED::AIRSCHED\_Service::AIRSCHED\_Service ( stdair::STDAIR\_ServicePtr\_T ioSTDAIR\_ServicePtr )

Constructor.

The initAirschedService() method is called; see the corresponding documentation for more details.

Moreover, as no reference on any output stream is given, it is assumed that the StdAir log service has already been initialised with the proper log output stream by some other methods in the calling chain (for instance, when the [AIRSCHED\\_Service](#) is itself being initialised by another library service such as [SIMCRS\\_Service](#)).

## Parameters

<i>stdair::STDAIR_ServicePtr_T</i>	Reference on the STDAIR service.
------------------------------------	----------------------------------

Definition at line 84 of file [AIRSCHED\\_Service.cpp](#).

## 23.3.2.4 AIRSCHED::AIRSCHED\_Service::~~AIRSCHED\_Service ( )

Destructor.

Definition at line 100 of file [AIRSCHED\\_Service.cpp](#).

## 23.3.3 Member Function Documentation

## 23.3.3.1 void AIRSCHED::AIRSCHED\_Service::parseAndLoad ( const stdair::ScheduleFilePath &amp; iScheduleInputFilePath )

Parse the schedule input file and load it into memory.

The CSV file, describing the airline schedule for the simulator, is parsed and instantiated in memory accordingly.

## Parameters

<i>const</i>	stdair::ScheduleFilePath& Filename of the input schedule file.
--------------	--

Definition at line 178 of file [AIRSCHED\\_Service.cpp](#).

References [buildComplementaryLinks\(\)](#), [clonePersistentBom\(\)](#), and [AIRSCHED::ScheduleParser::generateInventories\(\)](#).

Referenced by [main\(\)](#), and [parseAndLoad\(\)](#).

## 23.3.3.2 void AIRSCHED::AIRSCHED\_Service::parseAndLoad ( const stdair::ScheduleFilePath &amp; iScheduleInputFilePath, const stdair::ODFilePath &amp; iODInputFilePath )

Parse the schedule and O&D input files, and load them into memory.

The CSV files, describing the airline schedule and the O&Ds for the simulator, are parsed and instantiated in memory accordingly.

## Parameters

<i>const</i>	stdair::ScheduleFilePath& Filename of the input schedule file.
<i>const</i>	stdair::ODFilePath& Filename of the input O&D file.

Definition at line 230 of file [AIRSCHED\\_Service.cpp](#).

References [buildComplementaryLinks\(\)](#), [AIRSCHED::OnDParser::generateOnDPeriods\(\)](#), and [parseAndLoad\(\)](#).

**23.3.3.3 void AIRSCHED::AIRSCHED\_Service::buildSampleBom ( )**

Build a sample BOM tree, and attach it to the BomRoot instance.

The BOM tree is based on two actual inventories (one for BA, another for AF). Each inventory contains one flight. One of those flights has two legs (and therefore three segments).

Definition at line 287 of file [AIRSCHED\\_Service.cpp](#).

References [buildComplementaryLinks\(\)](#), and [clonePersistentBom\(\)](#).

Referenced by [main\(\)](#).

**23.3.3.4 void AIRSCHED::AIRSCHED\_Service::clonePersistentBom ( )**

Clone the persistent BOM object.

Definition at line 344 of file [AIRSCHED\\_Service.cpp](#).

References [buildComplementaryLinks\(\)](#).

Referenced by [buildSampleBom\(\)](#), and [parseAndLoad\(\)](#).

**23.3.3.5 void AIRSCHED::AIRSCHED\_Service::buildComplementaryLinks ( stdair::BomRoot & ioBomRoot )**

Build all the complementary links in the given bom root object.

Definition at line 384 of file [AIRSCHED\\_Service.cpp](#).

References [AIRSCHED::SegmentPathGenerator::createSegmentPathNetwork\(\)](#).

Referenced by [buildSampleBom\(\)](#), [clonePersistentBom\(\)](#), and [parseAndLoad\(\)](#).

**23.3.3.6 void AIRSCHED::AIRSCHED\_Service::buildSegmentPathList ( stdair::TravelSolutionList\_T & ioTravelSolutionList, const stdair::BookingRequestStruct & iBookingRequest )**

Calculate and return a list of travel solutions corresponding to a given product demand.

Definition at line 498 of file [AIRSCHED\\_Service.cpp](#).

Referenced by [main\(\)](#).

**23.3.3.7 void AIRSCHED::AIRSCHED\_Service::simulate ( )**

Perform a small simulation, which uses the Customer Choice Model (CCM).

Currently, that method does nothing.

Definition at line 470 of file [AIRSCHED\\_Service.cpp](#).

**23.3.3.8 std::string AIRSCHED::AIRSCHED\_Service::jsonExportFlightDateObjects ( const stdair::AirlineCode\_T & iAirlineCode, const stdair::FlightNumber\_T & iFlightNumber, const stdair::Date\_T & iDepartureDate ) const**

Recursively dump, in the returned string and in JSON format, the flight-period corresponding to the parameters given as input.

**Parameters**

<i>const</i>	stdair::AirlineCode_T& Airline code of the flight to dump.
<i>const</i>	stdair::FlightNumber_T& Flight number of the flight to dump.
<i>const</i>	stdair::Date_T& Departure date of a flight within the flight period to dump.

**Returns**

std::string Output string in which the BOM tree is JSON-ified.

Definition at line 401 of file [AIRSCHED\\_Service.cpp](#).

23.3.3.9 `std::string AIRSCHED::AIRSCHED_Service::csvDisplay ( ) const`

Recursively display (dump in the returned string) the objects of the BOM tree.

## Returns

`std::string` Output string in which the BOM tree is logged/dumped.

Definition at line 425 of file [AIRSCHED\\_Service.cpp](#).

23.3.3.10 `std::string AIRSCHED::AIRSCHED_Service::csvDisplay ( const stdair::AirlineCode_T & iAirlineCode, const stdair::FlightNumber_T & iFlightNumber, const stdair::Date_T & iDepartureDate ) const`

Recursively display (dump in the returned string) the flight-period corresponding to the parameters given as input.

## Parameters

<i>const</i>	<code>stdair::AirlineCode_T</code> & Airline code of the flight period to display.
<i>const</i>	<code>stdair::FlightNumber_T</code> & Flight number of the flight to display.
<i>const</i>	<code>stdair::Date_T</code> & Departure date of a flight within the flight-period to display.

## Returns

`std::string` Output string in which the BOM tree is logged/dumped.

Definition at line 447 of file [AIRSCHED\\_Service.cpp](#).

The documentation for this class was generated from the following files:

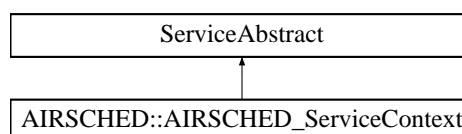
- [airsched/AIRSCHED\\_Service.hpp](#)
- [airsched/service/AIRSCHED\\_Service.cpp](#)

## 23.4 AIRSCHED::AIRSCHED\_ServiceContext Class Reference

Class holding the context of the AirSched services.

```
#include <airsched/service/AIRSCHED_ServiceContext.hpp>
```

Inheritance diagram for AIRSCHED::AIRSCHED\_ServiceContext:



## Friends

- class [AIRSCHED\\_Service](#)
- class [FacAIRSCHEDServiceContext](#)

## 23.4.1 Detailed Description

Class holding the context of the AirSched services.

Definition at line 22 of file [AIRSCHED\\_ServiceContext.hpp](#).

### 23.4.2 Friends And Related Function Documentation

#### 23.4.2.1 friend class AIRSCHED\_Service [friend]

The [AIRSCHED\\_Service](#) class should be the sole class to get access to ServiceContext content: general users do not want to bother with a context interface.

Definition at line 28 of file [AIRSCHED\\_ServiceContext.hpp](#).

#### 23.4.2.2 friend class FacAIRSCHEDServiceContext [friend]

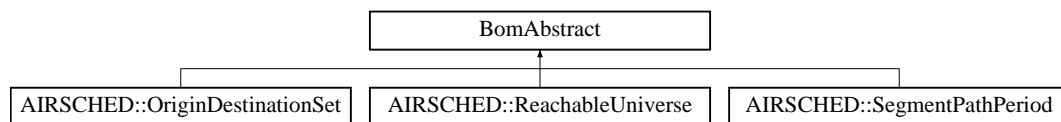
Definition at line 29 of file [AIRSCHED\\_ServiceContext.hpp](#).

The documentation for this class was generated from the following files:

- [airsched/service/AIRSCHED\\_ServiceContext.hpp](#)
- [airsched/service/AIRSCHED\\_ServiceContext.cpp](#)

## 23.5 BomAbstract Class Reference

Inheritance diagram for BomAbstract:



The documentation for this class was generated from the following file:

- [airsched/bom/OriginDestinationSet.hpp](#)

## 23.6 AIRSCHED::BomDisplay Class Reference

Utility class to display AirSched objects with a pretty format.

```
#include <airsched/bom/BomDisplay.hpp>
```

### Static Public Member Functions

- static std::string [csvDisplay](#) (const stdair::BomRoot &)
- static void [csvDisplay](#) (std::ostream &, const [ReachableUniverse](#) &)

#### 23.6.1 Detailed Description

Utility class to display AirSched objects with a pretty format.

Definition at line 26 of file [BomDisplay.hpp](#).

#### 23.6.2 Member Function Documentation

##### 23.6.2.1 std::string AIRSCHED::BomDisplay::csvDisplay ( const stdair::BomRoot & *iBomRoot* ) [static]

Recursively display (dump in the underlying output log stream) the objects of the BOM tree.

## Parameters

<i>std::ostream&amp;</i>	Output stream in which the BOM tree should be logged/dumped.
<i>const</i>	stdair::EventQueue& Root of the BOM tree to be displayed.

Definition at line 43 of file [BomDisplay.cpp](#).

23.6.2.2 void AIRSCHED::BomDisplay::csvDisplay ( std::ostream & oStream, const ReachableUniverse & iReachableUniverse ) [static]

Recursively display (dump in the underlying output log stream) the objects of the BOM tree.

## Parameters

<i>std::ostream&amp;</i>	Output stream in which the BOM tree should be logged/dumped.
<i>const</i>	<a href="#">ReachableUniverse</a> & Root of the BOM tree to be displayed.

Definition at line 81 of file [BomDisplay.cpp](#).

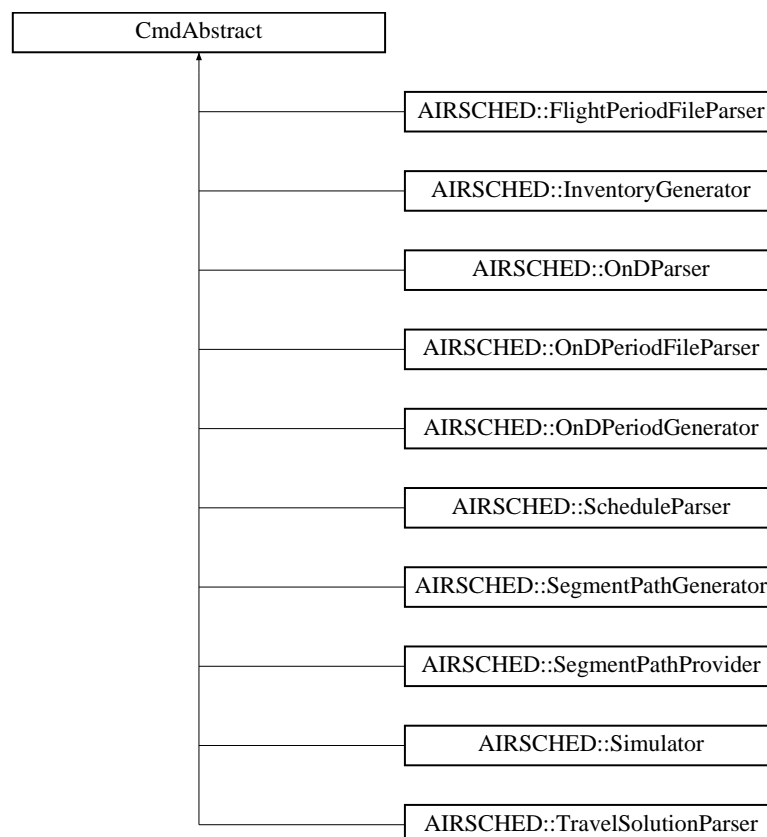
References [AIRSCHED::ReachableUniverse::toString\(\)](#).

The documentation for this class was generated from the following files:

- [airsched/bom/BomDisplay.hpp](#)
- [airsched/bom/BomDisplay.cpp](#)

## 23.7 CmdAbstract Class Reference

Inheritance diagram for CmdAbstract:



The documentation for this class was generated from the following file:

- [airsched/command/OnDPeriodGenerator.hpp](#)

## 23.8 airsched::Date\_T Struct Reference

```
#include <airsched/batches/BookingRequestParser.hpp>
```

### Public Member Functions

- [Date\\_T](#) ()
- void [display](#) () const
- boost::gregorian::date [getDate](#) () const

### Public Attributes

- boost::gregorian::date [\\_date](#)
- unsigned int [\\_reldays](#)
- unsigned int [\\_day](#)
- unsigned int [\\_month](#)
- unsigned int [\\_year](#)

#### 23.8.1 Detailed Description

Date.

Definition at line 27 of file [BookingRequestParser.hpp](#).

#### 23.8.2 Constructor & Destructor Documentation

23.8.2.1 [airsched::Date\\_T::Date\\_T \( \)](#) `[inline]`

Constructor.

Definition at line 35 of file [BookingRequestParser.hpp](#).

#### 23.8.3 Member Function Documentation

23.8.3.1 [void airsched::Date\\_T::display \( \) const](#) `[inline]`

Definition at line 37 of file [BookingRequestParser.hpp](#).

References [\\_date](#), [\\_day](#), [\\_month](#), [\\_reldays](#), and [\\_year](#).

Referenced by [airsched::SearchString\\_T::display\(\)](#).

23.8.3.2 [boost::gregorian::date airsched::Date\\_T::getDate \( \) const](#) `[inline]`

Set the date from the staging details.

Definition at line 43 of file [BookingRequestParser.hpp](#).

References [\\_day](#), [\\_month](#), and [\\_year](#).

Referenced by [airsched::store\\_date::operator\(\)\(\)](#).

#### 23.8.4 Member Data Documentation

##### 23.8.4.1 boost::gregorian::date airsched::Date\_T::\_date

Definition at line 29 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store\\_date::operator\(\)\(\)](#).

##### 23.8.4.2 unsigned int airsched::Date\_T::\_reldays

Definition at line 30 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#).

##### 23.8.4.3 unsigned int airsched::Date\_T::\_day

Definition at line 31 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [getDate\(\)](#).

##### 23.8.4.4 unsigned int airsched::Date\_T::\_month

Definition at line 32 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [getDate\(\)](#).

##### 23.8.4.5 unsigned int airsched::Date\_T::\_year

Definition at line 33 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [getDate\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.hpp](#)

## 23.9 airsched::SearchStringParser::definition< ScannerT > Struct Template Reference

### Public Member Functions

- [definition](#) ([SearchStringParser](#) const &self)
- [boost::spirit::classic::rule](#)  
< ScannerT > const & [start](#) () const

### Public Attributes

- [boost::spirit::classic::rule](#)  
< ScannerT > [search\\_string](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [places](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [place\\_element](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [dates](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [date](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [month](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [day](#)

- boost::spirit::classic::rule  
    < ScannerT > [year](#)
- boost::spirit::classic::rule  
    < ScannerT > [preferred\\_airlines](#)
- boost::spirit::classic::rule  
    < ScannerT > [airline\\_code](#)
- boost::spirit::classic::rule  
    < ScannerT > [airline\\_name](#)
- boost::spirit::classic::rule  
    < ScannerT > [passengers](#)
- boost::spirit::classic::rule  
    < ScannerT > [passenger\\_number](#)
- boost::spirit::classic::rule  
    < ScannerT > [passenger\\_type](#)
- boost::spirit::classic::rule  
    < ScannerT > [passenger\\_adult\\_type](#)
- boost::spirit::classic::rule  
    < ScannerT > [passenger\\_child\\_type](#)
- boost::spirit::classic::rule  
    < ScannerT > [passenger\\_pet\\_type](#)

#### 23.9.1 Detailed Description

template<typename ScannerT>struct airsched::SearchStringParser::definition< ScannerT >

Definition at line 259 of file [BookingRequestParser.cpp](#).

#### 23.9.2 Constructor & Destructor Documentation

23.9.2.1 template<typename ScannerT > airsched::SearchStringParser::definition< ScannerT >::definition ( SearchStringParser const & self ) [inline]

Definition at line 260 of file [BookingRequestParser.cpp](#).

References [airsched::uint1\\_2\\_p](#), [airsched::uint1\\_p](#), [airsched::uint2\\_p](#), and [airsched::uint4\\_p](#).

#### 23.9.3 Member Function Documentation

23.9.3.1 template<typename ScannerT > boost::spirit::classic::rule<ScannerT> const& airsched::SearchStringParser::definition< ScannerT >::start ( ) const [inline]

Definition at line 366 of file [BookingRequestParser.cpp](#).

#### 23.9.4 Member Data Documentation

23.9.4.1 template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::search\_string

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.2 template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::places

Definition at line 360 of file [BookingRequestParser.cpp](#).



23.9.4.3 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::place_element`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.4 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::dates`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.5 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::date`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.6 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::month`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.7 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::day`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.8 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::year`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.9 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::preferred_airlines`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.10 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::airline_code`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.11 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::airline_name`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.12 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::passengers`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.13 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::passenger_number`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.14 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser::definition< ScannerT >::passenger_type`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.15 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser-  
::definition< ScannerT >::passenger_adult_type`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.16 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser-  
::definition< ScannerT >::passenger_child_type`

Definition at line 360 of file [BookingRequestParser.cpp](#).

23.9.4.17 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> airsched::SearchStringParser-  
::definition< ScannerT >::passenger_pet_type`

Definition at line 360 of file [BookingRequestParser.cpp](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.10 AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT > Struct Template Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

### Public Member Functions

- [definition](#) ([OnDParser](#) const &self)
- `boost::spirit::classic::rule  
< ScannerT > const & start () const`

### Public Attributes

- `boost::spirit::classic::rule  
< ScannerT > ond\_list`
- `boost::spirit::classic::rule  
< ScannerT > ond`
- `boost::spirit::classic::rule  
< ScannerT > segment`
- `boost::spirit::classic::rule  
< ScannerT > ond\_key`
- `boost::spirit::classic::rule  
< ScannerT > ond\_end`
- `boost::spirit::classic::rule  
< ScannerT > date`
- `boost::spirit::classic::rule  
< ScannerT > time`

### 23.10.1 Detailed Description

```
template<typename ScannerT> struct AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >
```

Definition at line 133 of file [OnDParserHelper.hpp](#).

## 23.10.2 Constructor &amp; Destructor Documentation

23.10.2.1 `template<typename ScannerT > AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition ( OnDParser const & self )`

Definition at line 267 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDParserHelper::airline\\_code\\_p\(\)](#), [AIRSCHED::OnDParserHelper::airport\\_p\(\)](#), [AIRSCHED::OnDParserHelper::class\\_code\\_p\(\)](#), [AIRSCHED::OnDParserHelper::day\\_p\(\)](#), [AIRSCHED::OnDParserHelper::hours\\_p\(\)](#), [AIRSCHED::OnDParserHelper::minutes\\_p\(\)](#), [AIRSCHED::OnDParserHelper::month\\_p\(\)](#), [AIRSCHED::OnDParserHelper::seconds\\_p\(\)](#), and [AIRSCHED::OnDParserHelper::year\\_p\(\)](#).

## 23.10.3 Member Function Documentation

23.10.3.1 `template<typename ScannerT > boost::spirit::classic::rule< ScannerT > const & AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::start ( ) const`

Entry point of the parser.

Definition at line 330 of file [OnDParserHelper.cpp](#).

## 23.10.4 Member Data Documentation

23.10.4.1 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::ond_list`

Definition at line 137 of file [OnDParserHelper.hpp](#).

23.10.4.2 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::ond`

Definition at line 137 of file [OnDParserHelper.hpp](#).

23.10.4.3 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::segment`

Definition at line 137 of file [OnDParserHelper.hpp](#).

23.10.4.4 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::ond_key`

Definition at line 137 of file [OnDParserHelper.hpp](#).

23.10.4.5 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::ond_end`

Definition at line 137 of file [OnDParserHelper.hpp](#).

23.10.4.6 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::date`

Definition at line 137 of file [OnDParserHelper.hpp](#).

23.10.4.7 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::time`

Definition at line 137 of file [OnDParserHelper.hpp](#).

The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.11 AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT > Struct Template Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

### Public Member Functions

- [definition](#) ([FlightPeriodParser](#) const &self)
- [boost::spirit::classic::rule](#)  
< ScannerT > const & [start](#) () const

### Public Attributes

- [boost::spirit::classic::rule](#)  
< ScannerT > [flight\\_period\\_list](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [flight\\_period](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [not\\_to\\_be\\_parsed](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [flight\\_period\\_end](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [flight\\_key](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [airline\\_code](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [flight\\_number](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [date](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [dow](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [time](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [date\\_offset](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [leg](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [leg\\_key](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [operating\\_leg\\_details](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [leg\\_details](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [leg\\_cabin\\_details](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [segment\\_section](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [segment\\_key](#)
- [boost::spirit::classic::rule](#)  
< ScannerT > [full\\_segment\\_cabin\\_details](#)

- boost::spirit::classic::rule  
< ScannerT > [segment\\_cabin\\_details](#)
- boost::spirit::classic::rule  
< ScannerT > [full\\_family\\_cabin\\_details](#)
- boost::spirit::classic::rule  
< ScannerT > [family\\_cabin\\_details](#)
- boost::spirit::classic::rule  
< ScannerT > [generic\\_segment](#)
- boost::spirit::classic::rule  
< ScannerT > [specific\\_segment\\_list](#)

### 23.11.1 Detailed Description

template<typename ScannerT>struct AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >

Definition at line 287 of file [ScheduleParserHelper.hpp](#).

### 23.11.2 Constructor & Destructor Documentation

23.11.2.1 template<typename ScannerT > AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition ( FlightPeriodParser const & self )

Definition at line 542 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::ScheduleParserHelper::airline\\_code\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::airport\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::cabin\\_code\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::class\\_code\\_list\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::day\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::dow\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::family\\_code\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::flight\\_number\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::hours\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::int1\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::key\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::minutes\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::month\\_p\(\)](#), [AIRSCHED::ScheduleParserHelper::seconds\\_p\(\)](#), and [AIRSCHED::ScheduleParserHelper::year\\_p\(\)](#).

### 23.11.3 Member Function Documentation

23.11.3.1 template<typename ScannerT > bsc::rule< ScannerT > const & AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::start ( ) const

Entry point of the parser.

Definition at line 701 of file [ScheduleParserHelper.cpp](#).

### 23.11.4 Member Data Documentation

23.11.4.1 template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::flight\_period\_list

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.2 template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::flight\_period

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.3 template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::not\_to\_be\_parsed

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.4 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::flight_period_end`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.5 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::flight_key`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.6 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::airline_code`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.7 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::flight_number`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.8 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::date`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.9 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::dow`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.10 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::time`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.11 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::date_offset`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.12 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::leg`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.13 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::leg_key`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.14 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::operating_leg_details`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.15 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::leg_details`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.16 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::leg_cabin_details`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.17 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::segment_section`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.18 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::segment_key`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.19 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::full_segment_cabin_details`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.20 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::segment_cabin_details`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.21 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::full_family_cabin_details`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.22 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::family_cabin_details`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.23 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::generic_segment`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

23.11.4.24 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::specific_segment_list`

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

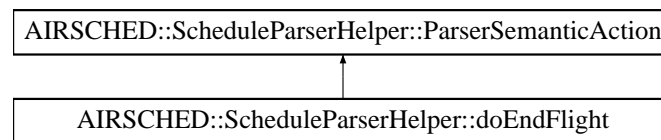
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.12 AIRSCHED::ScheduleParserHelper::doEndFlight Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::doEndFlight:



### Public Member Functions

- [doEndFlight](#) (stdair::BomRoot &, [FlightPeriodStruct](#) &)
- void [operator\(\)](#) (iterator\_t iStr, iterator\_t iStrEnd) const

### Public Attributes

- stdair::BomRoot & [\\_bomRoot](#)
- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.12.1 Detailed Description

Mark the end of the flight-period parsing.

Definition at line 224 of file [ScheduleParserHelper.hpp](#).

#### 23.12.2 Constructor & Destructor Documentation

##### 23.12.2.1 AIRSCHED::ScheduleParserHelper::doEndFlight::doEndFlight ( stdair::BomRoot & *ioBomRoot*, [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 440 of file [ScheduleParserHelper.cpp](#).

#### 23.12.3 Member Function Documentation

##### 23.12.3.1 void AIRSCHED::ScheduleParserHelper::doEndFlight::operator() ( iterator\_t *iStr*, iterator\_t *iStrEnd* ) const

Actor Function (functor).

Definition at line 448 of file [ScheduleParserHelper.cpp](#).

References [\\_bomRoot](#), [AIRSCHED::LegStruct::\\_cabinList](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itLeg](#), [AIRSCHED::FlightPeriodStruct::\\_legAlreadyDefined](#), [AIRSCHED::FlightPeriodStruct::\\_legList](#), and [AIRSCHED::FlightPeriodStruct::describe\(\)](#).

#### 23.12.4 Member Data Documentation

##### 23.12.4.1 stdair::BomRoot& AIRSCHED::ScheduleParserHelper::doEndFlight::\_bomRoot

Actor Specific Context.

Definition at line 230 of file [ScheduleParserHelper.hpp](#).

Referenced by [operator>\(\)](#).



## 23.12.4.2 FlightPeriodStruct&amp; AIRSCHED::ScheduleParserHelper::ParserSemanticAction::flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [operator\(\)](#).

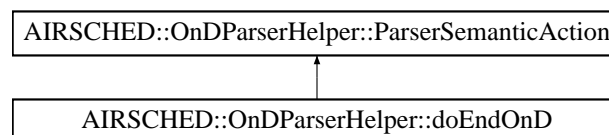
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.13 AIRSCHED::OnDParserHelper::doEndOnD Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::doEndOnD:



## Public Member Functions

- [doEndOnD](#) (stdair::BomRoot &, [OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

## Public Attributes

- stdair::BomRoot & [\\_bomRoot](#)
- [OnDPeriodStruct](#) & [\\_onDPeriod](#)

## 23.13.1 Detailed Description

Mark the end of the O&D parsing.

Definition at line 106 of file [OnDParserHelper.hpp](#).

## 23.13.2 Constructor &amp; Destructor Documentation

23.13.2.1 AIRSCHED::OnDParserHelper::doEndOnD::doEndOnD ( stdair::BomRoot & *ioBomRoot*, OnDPeriodStruct & *ioOnDPeriod* )

Actor Constructor.

Definition at line 193 of file [OnDParserHelper.cpp](#).

## 23.13.3 Member Function Documentation

23.13.3.1 void AIRSCHED::OnDParserHelper::doEndOnD::operator() ( iterator\_t *iStr*, iterator\_t *iStrEnd* ) const

Actor Function (functor).

Definition at line 199 of file [OnDParserHelper.cpp](#).

References [\\_bomRoot](#), and [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#).

## 23.13.4 Member Data Documentation

## 23.13.4.1 stdair::BomRoot&amp; AIRSCHED::OnDParserHelper::doEndOnD::\_bomRoot

Actor Specific Context.

Definition at line 112 of file [OnDParserHelper.hpp](#).

Referenced by [operator\(\)\(\)](#).

## 23.13.4.2 OnDPeriodStruct&amp; AIRSCHED::OnDParserHelper::ParserSemanticAction::\_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)\(\)](#), and [operator\(\)\(\)](#).

The documentation for this struct was generated from the following files:

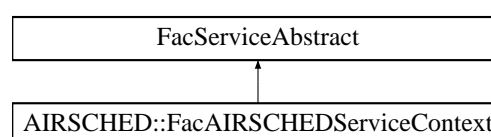
- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.14 AIRSCHED::FacAIRSCHEDServiceContext Class Reference

Factory for the service context.

```
#include <airsched/factory/FacAIRSCHEDServiceContext.hpp>
```

Inheritance diagram for AIRSCHED::FacAIRSCHEDServiceContext:



#### Public Member Functions

- [~FacAIRSCHEDServiceContext](#) ()
- [AIRSCHED\\_ServiceContext](#) & [create](#) ()

#### Static Public Member Functions

- static [FacAIRSCHEDServiceContext](#) & [instance](#) ()

#### Protected Member Functions

- [FacAIRSCHEDServiceContext](#) ()

#### 23.14.1 Detailed Description

Factory for the service context.

Definition at line 19 of file [FacAIRSCHEDServiceContext.hpp](#).

#### 23.14.2 Constructor & Destructor Documentation

##### 23.14.2.1 AIRSCHED::FacAIRSCHEDServiceContext::~~FacAIRSCHEDServiceContext ( )

Destructor.

The Destruction put the `_instance` to NULL in order to be clean for the next [FacAIRSCHEDServiceContext::instance\(\)](#).

Definition at line 17 of file [FacAIRSCHEDServiceContext.cpp](#).

##### 23.14.2.2 AIRSCHED::FacAIRSCHEDServiceContext::FacAIRSCHEDServiceContext ( ) [inline],[protected]

Default Constructor.

This constructor is protected in order to ensure the singleton pattern.

Definition at line 54 of file [FacAIRSCHEDServiceContext.hpp](#).

Referenced by [instance\(\)](#).

#### 23.14.3 Member Function Documentation

##### 23.14.3.1 FacAIRSCHEDServiceContext & AIRSCHED::FacAIRSCHEDServiceContext::instance ( ) [static]

Provide the unique instance.

The singleton is instantiated when first used.

#### Returns

`FacServiceContext&`

Definition at line 22 of file [FacAIRSCHEDServiceContext.cpp](#).

References [FacAIRSCHEDServiceContext\(\)](#).

##### 23.14.3.2 AIRSCHED\_ServiceContext & AIRSCHED::FacAIRSCHEDServiceContext::create ( )

Create a new ServiceContext object.

This new object is added to the list of instantiated objects.

#### Returns

ServiceContext& The newly created object.

Definition at line 34 of file [FacAIRSCHEDServiceContext.cpp](#).

The documentation for this class was generated from the following files:

- [airsched/factory/FacAIRSCHEDServiceContext.hpp](#)
- [airsched/factory/FacAIRSCHEDServiceContext.cpp](#)

## 23.15 AIRSCHED::FacServiceAbstract Class Reference

```
#include <airsched/factory/FacServiceAbstract.hpp>
```

#### Public Types

- typedef std::vector  
< [ServiceAbstract](#) \* > [ServicePool\\_T](#)

#### Public Member Functions

- virtual [~FacServiceAbstract](#) ()
- void [clean](#) ()

#### Protected Member Functions

- [FacServiceAbstract](#) ()

#### Protected Attributes

- [ServicePool\\_T](#) \_pool

### 23.15.1 Detailed Description

Base class for the (Service) Factory layer.

Definition at line 16 of file [FacServiceAbstract.hpp](#).

### 23.15.2 Member Typedef Documentation

23.15.2.1 typedef std::vector<[ServiceAbstract](#)\*> **AIRSCHED::FacServiceAbstract::ServicePool\_T**

Define the list (pool) of Service objects.

Definition at line 20 of file [FacServiceAbstract.hpp](#).

### 23.15.3 Constructor & Destructor Documentation

23.15.3.1 **AIRSCHED::FacServiceAbstract::~~FacServiceAbstract** ( ) [virtual]

Destructor.

Definition at line 13 of file [FacServiceAbstract.cpp](#).

References [clean\(\)](#).

### 23.15.3.2 AIRSCHED::FacServiceAbstract::FacServiceAbstract ( ) [inline],[protected]

Default Constructor.

This constructor is protected to ensure the class is abstract.

Definition at line 31 of file [FacServiceAbstract.hpp](#).

### 23.15.4 Member Function Documentation

#### 23.15.4.1 void AIRSCHED::FacServiceAbstract::clean ( )

Destroyed all the object instantiated by this factory.

Definition at line 18 of file [FacServiceAbstract.cpp](#).

References [\\_pool](#).

Referenced by [~FacServiceAbstract\(\)](#).

### 23.15.5 Member Data Documentation

#### 23.15.5.1 ServicePool\_T AIRSCHED::FacServiceAbstract::\_pool [protected]

List of instantiated Business Objects

Definition at line 34 of file [FacServiceAbstract.hpp](#).

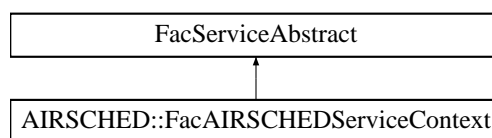
Referenced by [clean\(\)](#).

The documentation for this class was generated from the following files:

- [airsched/factory/FacServiceAbstract.hpp](#)
- [airsched/factory/FacServiceAbstract.cpp](#)

## 23.16 FacServiceAbstract Class Reference

Inheritance diagram for FacServiceAbstract:



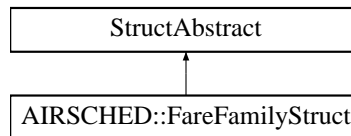
The documentation for this class was generated from the following file:

- [airsched/factory/FacAIRSCHEDServiceContext.hpp](#)

## 23.17 AIRSCHED::FareFamilyStruct Struct Reference

```
#include <airsched/bom/FareFamilyStruct.hpp>
```

Inheritance diagram for AIRSCHED::FareFamilyStruct:



### Public Member Functions

- [FareFamilyStruct](#) (const stdair::FamilyCode\_T &, const stdair::CurveKey\_T &, const stdair::CurveKey\_T &, const stdair::ClassList\_String\_T &)
- const std::string [describe](#) () const

### Public Attributes

- stdair::FamilyCode\_T [\\_familyCode](#)
- stdair::CurveKey\_T [\\_frat5CurveKey](#)
- stdair::CurveKey\_T [\\_ffDisutilityCurveKey](#)
- stdair::ClassList\_String\_T [\\_classes](#)

#### 23.17.1 Detailed Description

Utility Structure for the parsing of fare family details.

Definition at line 17 of file [FareFamilyStruct.hpp](#).

#### 23.17.2 Constructor & Destructor Documentation

**23.17.2.1** AIRSCHED::FareFamilyStruct::FareFamilyStruct ( const stdair::FamilyCode\_T & *iFamilyCode*, const stdair::CurveKey\_T & *iFRAT5Key*, const stdair::CurveKey\_T & *iFFDisutilityKey*, const stdair::ClassList\_String\_T & *iClasses* )

Constructors.

Definition at line 14 of file [FareFamilyStruct.cpp](#).

#### 23.17.3 Member Function Documentation

**23.17.3.1** const std::string AIRSCHED::FareFamilyStruct::describe ( ) const

Give a description of the structure (for display purposes).

Definition at line 23 of file [FareFamilyStruct.cpp](#).

References [\\_classes](#), [\\_familyCode](#), [\\_ffDisutilityCurveKey](#), and [\\_frat5CurveKey](#).

#### 23.17.4 Member Data Documentation

**23.17.4.1** stdair::FamilyCode\_T AIRSCHED::FareFamilyStruct::\_familyCode

Definition at line 19 of file [FareFamilyStruct.hpp](#).

Referenced by [describe\(\)](#).

## 23.17.4.2 stdair::CurveKey\_T AIRSCHED::FareFamilyStruct::\_frat5CurveKey

Definition at line 20 of file [FareFamilyStruct.hpp](#).

Referenced by [describe\(\)](#).

## 23.17.4.3 stdair::CurveKey\_T AIRSCHED::FareFamilyStruct::\_ffDisutilityCurveKey

Definition at line 21 of file [FareFamilyStruct.hpp](#).

Referenced by [describe\(\)](#).

## 23.17.4.4 stdair::ClassList\_String\_T AIRSCHED::FareFamilyStruct::\_classes

Definition at line 22 of file [FareFamilyStruct.hpp](#).

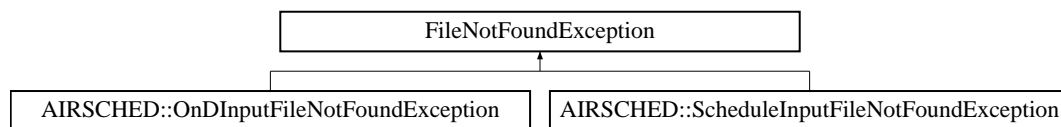
Referenced by [describe\(\)](#).

The documentation for this struct was generated from the following files:

- [airsched/bom/FareFamilyStruct.hpp](#)
- [airsched/bom/FareFamilyStruct.cpp](#)

## 23.18 FileNotFoundException Class Reference

Inheritance diagram for FileNotFoundException:



The documentation for this class was generated from the following file:

- [airsched/AIRSCHED\\_Types.hpp](#)

## 23.19 AIRSCHED::FlagSaver Struct Reference

## Public Member Functions

- [FlagSaver](#) (std::ostream &oStream)
- [~FlagSaver](#) ()

## 23.19.1 Detailed Description

Helper singleton structure to store the current formatting flags of any given output stream. The flags are re-set at the structure destruction.

Definition at line 22 of file [BomDisplay.cpp](#).

## 23.19.2 Constructor &amp; Destructor Documentation

## 23.19.2.1 AIRSCHED::FlagSaver::FlagSaver ( std::ostream &amp; oStream ) [inline]

Constructor.

Definition at line 25 of file [BomDisplay.cpp](#).

## 23.19.2.2 AIRSCHED::FlagSaver::~~FlagSaver ( ) [inline]

Destructor.

Definition at line 30 of file [BomDisplay.cpp](#).

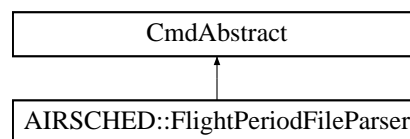
The documentation for this struct was generated from the following file:

- [airsched/bom/BomDisplay.cpp](#)

## 23.20 AIRSCHED::FlightPeriodFileParser Class Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::FlightPeriodFileParser:



## Public Member Functions

- [FlightPeriodFileParser](#) (stdair::BomRoot &ioBomRoot, const stdair::Filename\_T &iFilename)
- bool [generateInventories](#) ()

## 23.20.1 Detailed Description

## Short Description

Detailed Description. Class wrapping the initialisation and entry point of the parser.

The seemingly redundancy is used to force the instantiation of the actual parser, which is a templatised Boost Spirit grammar. Hence, the actual parser is instantiated within that class object code.

Definition at line 323 of file [ScheduleParserHelper.hpp](#).

## 23.20.2 Constructor &amp; Destructor Documentation

## 23.20.2.1 AIRSCHED::FlightPeriodFileParser::FlightPeriodFileParser ( stdair::BomRoot &amp; ioBomRoot, const stdair::Filename\_T &amp; iFilename )

Constructor.

Definition at line 716 of file [ScheduleParserHelper.cpp](#).

## 23.20.3 Member Function Documentation

## 23.20.3.1 bool AIRSCHED::FlightPeriodFileParser::generateInventories ( )

Parse the input file and generate the Inventories.

Definition at line 753 of file [ScheduleParserHelper.cpp](#).

Referenced by [AIRSCHED::ScheduleParser::generateInventories\(\)](#).

The documentation for this class was generated from the following files:

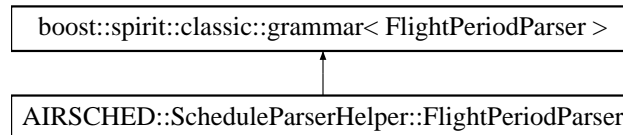


- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.21 AIRSCHED::ScheduleParserHelper::FlightPeriodParser Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::FlightPeriodParser:



### Classes

- struct [definition](#)

### Public Member Functions

- [FlightPeriodParser](#) (stdair::BomRoot &, [FlightPeriodStruct](#) &)

### Public Attributes

- stdair::BomRoot & [\\_bomRoot](#)
- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.21.1 Detailed Description

AirlineCode; FlightNumber; DateRangeStart; DateRangeEnd; DOW; (list) BoardingPoint; OffPoint; BoardingTime; DateOffset; OffTime; ElapsedTime; (list) CabinCode; Capacity; SegmentSpecificity (0 or 1); (list) (optional BoardingPoint; OffPoint); CabinCode; Classes BA; 9; 2007-04-20; 2007-04-30; 0000011; LHR; BKK; 22:00; +1; 15:15; 11:15; C; 12; M; 300; BKK; SYD; 18:10; +1; 06:05; 08:55; C; 20; M; 250; 0; C; CDIU; 1; CD; 2; IU; M; YHBKLMNOPQRSTUVWXYZ; 3; YHBKLMNOPQRSTUVWXYZ BA; 9; 2007-04-20; 2007-04-30; 1111100; LHR; SIN; 22:00; +1; 15:15; 11:15; C; 15; M; 310; SIN; SYD; 18:10; +1; 06:05; 08:55; C; 25; M; 260; 1; LHR; SIN; C; CDIU; 1; CDIU; M; YHBKLMNOPQRSTUVWXYZ; 2; YHBKLMNOPQRSTUVWXYZ SIN; SYD; C; CDIU; 1; CDIU; M; YHBKLMNOPQRSTUVWXYZ; 2; YHBKLMNOPQRSTUVWXYZ LHR; SYD; C; CDIU; 1; CDIU; M; YHBKLMNOPQRSTUVWXYZ; 2; YHBKLMNOPQRSTUVWXYZ

Grammar: DOW ::= int FlightKey ::= AirlineCode ';' FlightNumber ';' DateRangeStart ';' DateRangeEnd ';' DOW  
 LegKey ::= BoardingPoint ';' OffPoint LegDetails ::= BoardingTime ['/ BoardingDateOffset] ';' OffTime ['/ BoardingDateOffset] ';' Elapsed LegCabinDetails ::= CabinCode ';' Capacity Leg ::= LegKey ';' LegDetails (';' CabinDetails)+  
 SegmentKey ::= BoardingPoint ';' OffPoint SegmentCabinDetails ::= CabinCode ';' Classes (';' FamilyCabinDetails)\*  
 FamilyCabinDetails ::= FamilyCode ';' Classes FullSegmentCabinDetails ::= (';' SegmentCabinDetails)+ GenericSegment ::= '0' (';' SegmentCabinDetails)+ SpecificSegments ::= '1' (';' SegmentKey ';' FullSegmentCabinDetails)+  
 SegmentSection ::= GenericSegment | SpecificSegments FlightPeriod ::= FlightKey (';' Leg)+ ';' SegmentSection ';' EndOfFlight EndOfFlight ::= ';' Grammar for the Flight-Period parser.

Definition at line 281 of file [ScheduleParserHelper.hpp](#).

#### 23.21.2 Constructor & Destructor Documentation

### 23.21.2.1 AIRSCHED::ScheduleParserHelper::FlightPeriodParser::FlightPeriodParser ( stdair::BomRoot & ioBomRoot, FlightPeriodStruct & ioFlightPeriod )

Definition at line 533 of file [ScheduleParserHelper.cpp](#).

### 23.21.3 Member Data Documentation

#### 23.21.3.1 stdair::BomRoot& AIRSCHED::ScheduleParserHelper::FlightPeriodParser::\_bomRoot

Definition at line 304 of file [ScheduleParserHelper.hpp](#).

#### 23.21.3.2 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::FlightPeriodParser::\_flightPeriod

Definition at line 305 of file [ScheduleParserHelper.hpp](#).

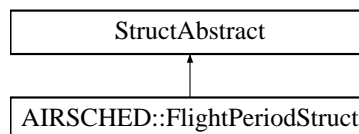
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.22 AIRSCHED::FlightPeriodStruct Struct Reference

```
#include <airsched/bom/FlightPeriodStruct.hpp>
```

Inheritance diagram for AIRSCHED::FlightPeriodStruct:



### Public Member Functions

- stdair::Date\_T [getDate](#) () const
- stdair::Duration\_T [getTime](#) () const
- const std::string [describe](#) () const
- void [addAirport](#) (const stdair::AirportCode\_T &)
- void [buildSegments](#) ()
- void [addSegmentCabin](#) (const [SegmentStruct](#) &, const [SegmentCabinStruct](#) &)
- void [addSegmentCabin](#) (const [SegmentCabinStruct](#) &)
- void [addFareFamily](#) (const [SegmentStruct](#) &, const [SegmentCabinStruct](#) &, const [FareFamilyStruct](#) &)
- void [addFareFamily](#) (const [SegmentCabinStruct](#) &, const [FareFamilyStruct](#) &)
- [FlightPeriodStruct](#) ()

### Public Attributes

- stdair::AirlineCode\_T [\\_airlineCode](#)
- stdair::FlightNumber\_T [\\_flightNumber](#)
- stdair::DatePeriod\_T [\\_dateRange](#)
- stdair::DoWStruct [\\_dow](#)
- [LegStructList\\_T](#) [\\_legList](#)
- [SegmentStructList\\_T](#) [\\_segmentList](#)
- bool [\\_legAlreadyDefined](#)
- [LegStruct](#) [\\_itLeg](#)

- [LegCabinStruct \\_itLegCabin](#)
- [stdair::Date\\_T \\_dateRangeStart](#)
- [stdair::Date\\_T \\_dateRangeEnd](#)
- [unsigned int \\_itYear](#)
- [unsigned int \\_itMonth](#)
- [unsigned int \\_itDay](#)
- [int \\_dateOffset](#)
- [long \\_itHours](#)
- [long \\_itMinutes](#)
- [long \\_itSeconds](#)
- [AirportList\\_T \\_airportList](#)
- [AirportOrderedList\\_T \\_airportOrderedList](#)
- [bool \\_areSegmentDefinitionsSpecific](#)
- [SegmentStruct \\_itSegment](#)
- [SegmentCabinStruct \\_itSegmentCabin](#)

### 23.22.1 Detailed Description

Utility Structure for the parsing of Flight-Period structures.

Definition at line 26 of file [FlightPeriodStruct.hpp](#).

### 23.22.2 Constructor & Destructor Documentation

#### 23.22.2.1 AIRSCHED::FlightPeriodStruct::FlightPeriodStruct ( )

Constructor.

Definition at line 17 of file [FlightPeriodStruct.cpp](#).

### 23.22.3 Member Function Documentation

#### 23.22.3.1 stdair::Date\_T AIRSCHED::FlightPeriodStruct::getDate ( ) const

Set the date from the staging details.

Definition at line 24 of file [FlightPeriodStruct.cpp](#).

References [\\_itDay](#), [\\_itMonth](#), and [\\_itYear](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)\(\)](#).

#### 23.22.3.2 stdair::Duration.T AIRSCHED::FlightPeriodStruct::getTime ( ) const

Set the time from the staging details.

Definition at line 29 of file [FlightPeriodStruct.cpp](#).

References [\\_itHours](#), [\\_itMinutes](#), and [\\_itSeconds](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)\(\)](#).

#### 23.22.3.3 const std::string AIRSCHED::FlightPeriodStruct::describe ( ) const

Give a description of the structure (for display purposes).

Definition at line 36 of file [FlightPeriodStruct.cpp](#).

References [\\_airlineCode](#), [\\_dateRange](#), [\\_dow](#), [\\_flightNumber](#), [\\_legList](#), [\\_segmentList](#), [AIRSCHED::SegmentStruct::describe\(\)](#), and [AIRSCHED::LegStruct::describe\(\)](#).

Referenced by [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

#### 23.22.3.4 void AIRSCHED::FlightPeriodStruct::addAirport ( const stdair::AirportCode.T & *iAirport* )

Add the given airport to the internal lists (if not already existing).

Definition at line 62 of file [FlightPeriodStruct.cpp](#).

References [\\_airportList](#), and [\\_airportOrderedList](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#).

#### 23.22.3.5 void AIRSCHED::FlightPeriodStruct::buildSegments ( )

Build the list of [SegmentStruct](#) objects.

Definition at line 78 of file [FlightPeriodStruct.cpp](#).

References [\\_airportList](#), [\\_airportOrderedList](#), [AIRSCHED::SegmentStruct::\\_boardingPoint](#), [AIRSCHED::SegmentStruct::\\_offPoint](#), and [\\_segmentList](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#).

#### 23.22.3.6 void AIRSCHED::FlightPeriodStruct::addSegmentCabin ( const SegmentStruct & *iSegment*, const SegmentCabinStruct & *iCabin* )

Add, to the Segment structure whose key corresponds to the given (board point, off point) pair, the specific segment cabin details (mainly, the list of the class codes).

Note that the Segment structure is retrieved from the internal list, already filled by a previous step (the [buildSegments\(\)](#) method).

Definition at line 111 of file [FlightPeriodStruct.cpp](#).

References [AIRSCHED::SegmentStruct::\\_boardingPoint](#), [AIRSCHED::SegmentStruct::\\_cabinList](#), [AIRSCHED::SegmentStruct::\\_offPoint](#), and [\\_segmentList](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#).

#### 23.22.3.7 void AIRSCHED::FlightPeriodStruct::addSegmentCabin ( const SegmentCabinStruct & *iCabin* )

Add, to all the Segment structures, the general segment cabin details (mainly, the list of the class codes).

Note that the Segment structures are stored within the internal list, already filled by a previous step (the [buildSegments\(\)](#) method).

Definition at line 149 of file [FlightPeriodStruct.cpp](#).

References [AIRSCHED::SegmentStruct::\\_cabinList](#), and [\\_segmentList](#).

#### 23.22.3.8 void AIRSCHED::FlightPeriodStruct::addFareFamily ( const SegmentStruct & *iSegment*, const SegmentCabinStruct & *iCabin*, const FareFamilyStruct & *iFareFamily* )

Add, to the SegmentCabin structure whose key corresponds to the given cabin code, the specific segment fare family details (mainly, the list of the class codes).

Note that the SegmentCabin structure is retrieved from the internal list, already filled by a previous step (the [buildSegmentCabins\(\)](#) method).

Definition at line 162 of file [FlightPeriodStruct.cpp](#).

References [AIRSCHED::SegmentStruct::\\_boardingPoint](#), [AIRSCHED::SegmentCabinStruct::\\_cabinCode](#), [AIRSCHED::SegmentCabinStruct::\\_cabinList](#), [AIRSCHED::SegmentCabinStruct::\\_fareFamilies](#), [AIRSCHED::SegmentStruct::\\_offPoint](#), and [\\_segmentList](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#).

**23.22.3.9** void AIRSCHED::FlightPeriodStruct::addFareFamily ( const SegmentCabinStruct & iCabin, const FareFamilyStruct & iFareFamily )

Add, to all the Segment structures, the general fare family sets (list of fare families).

Note that the SegmentCabin structures are stored within the internal list, already filled by a previous step (the buildSegmentCabins() method).

Definition at line 229 of file [FlightPeriodStruct.cpp](#).

References [AIRSCHED::SegmentCabinStruct::\\_cabinCode](#), [AIRSCHED::SegmentStruct::\\_cabinList](#), [AIRSCHED::SegmentCabinStruct::\\_fareFamilies](#), and [\\_segmentList](#).

#### 23.22.4 Member Data Documentation

**23.22.4.1** stdair::AirlineCode\_T AIRSCHED::FlightPeriodStruct::\_airlineCode

Definition at line 84 of file [FlightPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#).

**23.22.4.2** stdair::FlightNumber\_T AIRSCHED::FlightPeriodStruct::\_flightNumber

Definition at line 85 of file [FlightPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#).

**23.22.4.3** stdair::DatePeriod\_T AIRSCHED::FlightPeriodStruct::\_dateRange

Definition at line 86 of file [FlightPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#).

**23.22.4.4** stdair::DoWStruct AIRSCHED::FlightPeriodStruct::\_dow

Definition at line 87 of file [FlightPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#).

**23.22.4.5** LegStructList\_T AIRSCHED::FlightPeriodStruct::\_legList

Definition at line 88 of file [FlightPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

**23.22.4.6** SegmentStructList\_T AIRSCHED::FlightPeriodStruct::\_segmentList

Definition at line 89 of file [FlightPeriodStruct.hpp](#).

Referenced by [addFareFamily\(\)](#), [addSegmentCabin\(\)](#), [buildSegments\(\)](#), and [describe\(\)](#).

**23.22.4.7** bool AIRSCHED::FlightPeriodStruct::\_legAlreadyDefined

Staging Leg (resp. Cabin) structure, gathering the result of the iteration on one leg (resp. cabin).

Definition at line 93 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

**23.22.4.8 LegStruct AIRSCHED::FlightPeriodStruct::\_itLeg**

Definition at line 94 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)\(\)](#).

**23.22.4.9 LegCabinStruct AIRSCHED::FlightPeriodStruct::\_itLegCabin**

Definition at line 95 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)\(\)](#).

**23.22.4.10 stdair::Date\_T AIRSCHED::FlightPeriodStruct::\_dateRangeStart**

Staging Date.

Definition at line 98 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)\(\)](#).

**23.22.4.11 stdair::Date\_T AIRSCHED::FlightPeriodStruct::\_dateRangeEnd**

Definition at line 99 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)\(\)](#).

**23.22.4.12 unsigned int AIRSCHED::FlightPeriodStruct::\_itYear**

Definition at line 100 of file [FlightPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

**23.22.4.13 unsigned int AIRSCHED::FlightPeriodStruct::\_itMonth**

Definition at line 101 of file [FlightPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

**23.22.4.14 unsigned int AIRSCHED::FlightPeriodStruct::\_itDay**

Definition at line 102 of file [FlightPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

**23.22.4.15 int AIRSCHED::FlightPeriodStruct::\_dateOffset**

Definition at line 103 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)\(\)](#).

**23.22.4.16 long AIRSCHED::FlightPeriodStruct::\_itHours**

Staging Time.

Definition at line 106 of file [FlightPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#).

**23.22.4.17** long AIRSCHED::FlightPeriodStruct::\_itMinutes

Definition at line 107 of file [FlightPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#).

**23.22.4.18** long AIRSCHED::FlightPeriodStruct::\_itSeconds

Definition at line 108 of file [FlightPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#).

**23.22.4.19** AirportList\_T AIRSCHED::FlightPeriodStruct::\_airportList

Staging Airport List (helper to derive the list of Segment structures).

Definition at line 112 of file [FlightPeriodStruct.hpp](#).

Referenced by [addAirport\(\)](#), [buildSegments\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#).

**23.22.4.20** AirportOrderedList\_T AIRSCHED::FlightPeriodStruct::\_airportOrderedList

Definition at line 113 of file [FlightPeriodStruct.hpp](#).

Referenced by [addAirport\(\)](#), [buildSegments\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#).

**23.22.4.21** bool AIRSCHED::FlightPeriodStruct::\_areSegmentDefinitionsSpecific

Staging Segment-related attributes.

Definition at line 116 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#).

**23.22.4.22** SegmentStruct AIRSCHED::FlightPeriodStruct::\_itSegment

Definition at line 117 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#).

**23.22.4.23** SegmentCabinStruct AIRSCHED::FlightPeriodStruct::\_itSegmentCabin

Definition at line 118 of file [FlightPeriodStruct.hpp](#).

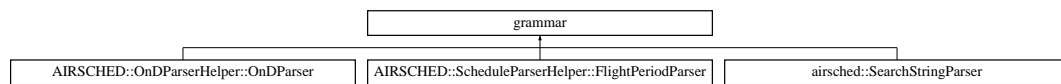
Referenced by [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#).

The documentation for this struct was generated from the following files:

- [airsched/bom/FlightPeriodStruct.hpp](#)
- [airsched/bom/FlightPeriodStruct.cpp](#)

**23.23** grammar Class Reference

Inheritance diagram for grammar:



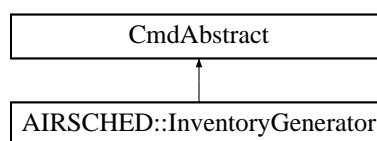
The documentation for this class was generated from the following file:

- [airsched/command/OnDParserHelper.hpp](#)

## 23.24 AIRSCHED::InventoryGenerator Class Reference

```
#include <airsched/command/InventoryGenerator.hpp>
```

Inheritance diagram for AIRSCHED::InventoryGenerator:



### Friends

- class [FlightPeriodFileParser](#)
- class [FFFlightPeriodFileParser](#)
- struct [ScheduleParserHelper::doEndFlight](#)
- class [ScheduleParser](#)

### 23.24.1 Detailed Description

Class handling the generation / instantiation of the Inventory BOM.

Definition at line 31 of file [InventoryGenerator.hpp](#).

### 23.24.2 Friends And Related Function Documentation

23.24.2.1 friend class **FlightPeriodFileParser** [friend]

Definition at line 35 of file [InventoryGenerator.hpp](#).

23.24.2.2 friend class **FFFlightPeriodFileParser** [friend]

Definition at line 36 of file [InventoryGenerator.hpp](#).

23.24.2.3 friend struct **ScheduleParserHelper::doEndFlight** [friend]

Definition at line 37 of file [InventoryGenerator.hpp](#).

23.24.2.4 friend class **ScheduleParser** [friend]

Definition at line 38 of file [InventoryGenerator.hpp](#).

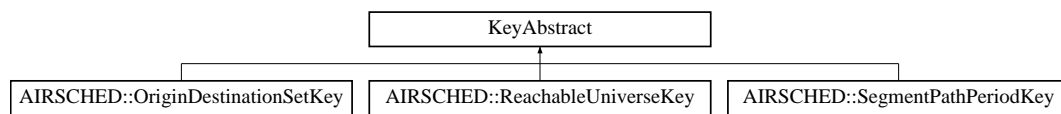
The documentation for this class was generated from the following files:

- [airsched/command/InventoryGenerator.hpp](#)
- [airsched/command/InventoryGenerator.cpp](#)



## 23.25 KeyAbstract Class Reference

Inheritance diagram for KeyAbstract:



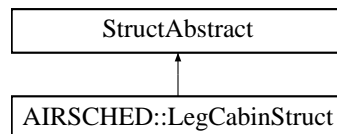
The documentation for this class was generated from the following file:

- [airsched/bom/ReachableUniverseKey.hpp](#)

## 23.26 AIRSCHED::LegCabinStruct Struct Reference

```
#include <airsched/bom/LegCabinStruct.hpp>
```

Inheritance diagram for AIRSCHED::LegCabinStruct:



### Public Member Functions

- void [fill](#) (stdair::LegCabin &) const
- const std::string [describe](#) () const

### Public Attributes

- stdair::CabinCode\_T [\\_cabinCode](#)
- stdair::CabinCapacity\_T [\\_capacity](#)

### 23.26.1 Detailed Description

Utility Structure for the parsing of LegCabin details.

Definition at line 22 of file [LegCabinStruct.hpp](#).

### 23.26.2 Member Function Documentation

#### 23.26.2.1 void AIRSCHED::LegCabinStruct::fill ( stdair::LegCabin & *ioLegCabin* ) const

Fill the LegCabin objects with the attributes of the [LegCabinStruct](#).

Definition at line 22 of file [LegCabinStruct.cpp](#).

References [\\_capacity](#).

23.26.2.2 `const std::string AIRSCHED::LegCabinStruct::describe ( ) const`

Give a description of the structure (for display purposes).

Definition at line 15 of file [LegCabinStruct.cpp](#).

References [\\_cabinCode](#), and [\\_capacity](#).

Referenced by [AIRSCHED::LegStruct::describe\(\)](#).

### 23.26.3 Member Data Documentation

23.26.3.1 `stdair::CabinCode_T AIRSCHED::LegCabinStruct::_cabinCode`

Definition at line 24 of file [LegCabinStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)\(\)](#).

23.26.3.2 `stdair::CabinCapacity_T AIRSCHED::LegCabinStruct::_capacity`

Definition at line 25 of file [LegCabinStruct.hpp](#).

Referenced by [describe\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)\(\)](#).

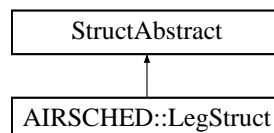
The documentation for this struct was generated from the following files:

- [airsched/bom/LegCabinStruct.hpp](#)
- [airsched/bom/LegCabinStruct.cpp](#)

## 23.27 AIRSCHED::LegStruct Struct Reference

```
#include <airsched/bom/LegStruct.hpp>
```

Inheritance diagram for AIRSCHED::LegStruct:



### Public Member Functions

- void [fill](#) (const stdair::Date\_T &iRefDate, stdair::LegDate &) const
- const std::string [describe](#) ( ) const
- [LegStruct](#) ( )

### Public Attributes

- stdair::AirlineCode\_T [\\_airlineCode](#)
- stdair::FlightNumber\_T [\\_flightNumber](#)
- stdair::AirportCode\_T [\\_boardingPoint](#)
- stdair::DateOffset\_T [\\_boardingDateOffset](#)
- stdair::Duration\_T [\\_boardingTime](#)
- stdair::AirportCode\_T [\\_offPoint](#)
- stdair::DateOffset\_T [\\_offDateOffset](#)
- stdair::Duration\_T [\\_offTime](#)
- stdair::Duration\_T [\\_elapsed](#)
- [LegCabinStructList\\_T](#) [\\_cabinList](#)

### 23.27.1 Detailed Description

Utility Structure for the parsing of Leg structures.

Definition at line 24 of file [LegStruct.hpp](#).

### 23.27.2 Constructor & Destructor Documentation

#### 23.27.2.1 AIRSCHED::LegStruct::LegStruct ( )

Default Constructor.

Definition at line 16 of file [LegStruct.cpp](#).

### 23.27.3 Member Function Documentation

#### 23.27.3.1 void AIRSCHED::LegStruct::fill ( const stdair::Date\_T & iRefDate, stdair::LegDate & ioLegDate ) const

Fill the LegDate objects with the attributes of the [LegStruct](#).

The given reference date corresponds to the date of the FlightDate. Indeed, each Leg gets date off-sets, when compared to that (reference) flight-date, both for the boarding date and for the off date.

Definition at line 48 of file [LegStruct.cpp](#).

References [\\_airlineCode](#), [\\_boardingDateOffset](#), [\\_boardingTime](#), [\\_elapsed](#), [\\_flightNumber](#), [\\_offDateOffset](#), [\\_offPoint](#), and [\\_offTime](#).

#### 23.27.3.2 const std::string AIRSCHED::LegStruct::describe ( ) const

Give a description of the structure (for display purposes).

Definition at line 22 of file [LegStruct.cpp](#).

References [\\_boardingDateOffset](#), [\\_boardingPoint](#), [\\_boardingTime](#), [\\_cabinList](#), [\\_elapsed](#), [\\_offDateOffset](#), [\\_offPoint](#), [\\_offTime](#), and [AIRSCHED::LegCabinStruct::describe\(\)](#).

Referenced by [AIRSCHED::FlightPeriodStruct::describe\(\)](#).

### 23.27.4 Member Data Documentation

#### 23.27.4.1 stdair::AirlineCode\_T AIRSCHED::LegStruct::\_airlineCode

Definition at line 26 of file [LegStruct.hpp](#).

Referenced by [fill\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#).

#### 23.27.4.2 stdair::FlightNumber\_T AIRSCHED::LegStruct::\_flightNumber

Definition at line 27 of file [LegStruct.hpp](#).

Referenced by [fill\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#).

#### 23.27.4.3 stdair::AirportCode\_T AIRSCHED::LegStruct::\_boardingPoint

Definition at line 28 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#).

**23.27.4.4** `stdair::DateOffset_T AIRSCHED::LegStruct::_boardingDateOffset`

Definition at line 29 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#).

**23.27.4.5** `stdair::Duration_T AIRSCHED::LegStruct::_boardingTime`

Definition at line 30 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)\(\)](#).

**23.27.4.6** `stdair::AirportCode_T AIRSCHED::LegStruct::_offPoint`

Definition at line 31 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)\(\)](#).

**23.27.4.7** `stdair::DateOffset_T AIRSCHED::LegStruct::_offDateOffset`

Definition at line 32 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)\(\)](#).

**23.27.4.8** `stdair::Duration_T AIRSCHED::LegStruct::_offTime`

Definition at line 33 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#).

**23.27.4.9** `stdair::Duration_T AIRSCHED::LegStruct::_elapsed`

Definition at line 34 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)\(\)](#).

**23.27.4.10** `LegCabinStructList_T AIRSCHED::LegStruct::_cabinList`

Definition at line 35 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)\(\)](#).

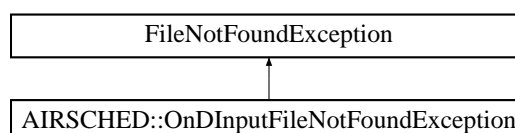
The documentation for this struct was generated from the following files:

- [airsched/bom/LegStruct.hpp](#)
- [airsched/bom/LegStruct.cpp](#)

**23.28** `AIRSCHED::OnDInputFileNotFoundException` Class Reference

```
#include <airsched/AIRSCHED_Types.hpp>
```

Inheritance diagram for `AIRSCHED::OnDInputFileNotFoundException`:



## Public Member Functions

- [OnDInputFileNotFoundException](#) (const std::string &iWhat)

## 23.28.1 Detailed Description

The O&D input file cannot be retrieved.

Definition at line 35 of file [AIRSCHED\\_Types.hpp](#).

## 23.28.2 Constructor &amp; Destructor Documentation

23.28.2.1 `AIRSCHED::OnDInputFileNotFoundException::OnDInputFileNotFoundException ( const std::string & iWhat )`  
`[inline]`

Constructor.

Definition at line 40 of file [AIRSCHED\\_Types.hpp](#).

The documentation for this class was generated from the following file:

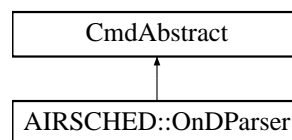
- [airsched/AIRSCHED\\_Types.hpp](#)

## 23.29 AIRSCHED::OnDParser Class Reference

Class wrapping the parser entry point.

```
#include <airsched/command/OnDParser.hpp>
```

Inheritance diagram for AIRSCHED::OnDParser:



## Static Public Member Functions

- static void [generateOnDPeriods](#) (const stdair::ODFilePath &, stdair::BomRoot &)

## 23.29.1 Detailed Description

Class wrapping the parser entry point.

Definition at line 24 of file [OnDParser.hpp](#).

## 23.29.2 Member Function Documentation

23.29.2.1 `void AIRSCHED::OnDParser::generateOnDPeriods ( const stdair::ODFilePath & iODFilename, stdair::BomRoot & ioBomRoot )` `[static]`

Parse the CSV file describing the O&D.

## Parameters

<i>const</i>	stdair::ODFilePath& The file-name of the CSV-formatted fare input file and the container.
--------------	---

Definition at line 17 of file [OnDParser.cpp](#).

References [AIRSCHED::OnDPeriodFileParser::generateOnDPeriods\(\)](#).

Referenced by [AIRSCHED::AIRSCHED\\_Service::parseAndLoad\(\)](#).

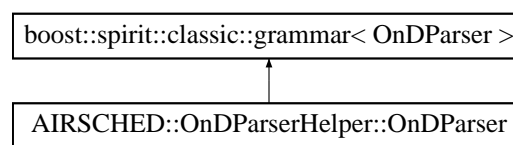
The documentation for this class was generated from the following files:

- [airsched/command/OnDParser.hpp](#)
- [airsched/command/OnDParser.cpp](#)

## 23.30 AIRSCHED::OnDParserHelper::OnDParser Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::OnDParser:



### Classes

- struct [definition](#)

### Public Member Functions

- [OnDParser](#) (stdair::BomRoot &, [OnDPeriodStruct](#) &)

### Public Attributes

- stdair::BomRoot & [\\_bomRoot](#)
- [OnDPeriodStruct](#) & [\\_onDPeriod](#)

#### 23.30.1 Detailed Description

Fares: AirlineCode; OriginCity; DestinationCity; DepartureDate-Range(FirstDate; LastDate); Airline; Class; BA; N-CE; LHR; 2007-01-01; 2007-12-31; BA; Y; BA; Y BA; NCE; LHR; 2007-01-01; 2007-12-31; BA; V; BA; H Grammar for the FareRule parser.

Definition at line 127 of file [OnDParserHelper.hpp](#).

#### 23.30.2 Constructor & Destructor Documentation

##### 23.30.2.1 AIRSCHED::OnDParserHelper::OnDParser::OnDParser ( stdair::BomRoot & *ioBomRoot*, OnDPeriodStruct & *ioOnDPeriod* )

Definition at line 261 of file [OnDParserHelper.cpp](#).

#### 23.30.3 Member Data Documentation

##### 23.30.3.1 stdair::BomRoot& AIRSCHED::OnDParserHelper::OnDParser::\_bomRoot

Definition at line 145 of file [OnDParserHelper.hpp](#).

## 23.30.3.2 OnDPeriodStruct&amp; AIRSCHED::OnDParserHelper::OnDParser::\_onDPeriod

Definition at line 146 of file [OnDParserHelper.hpp](#).

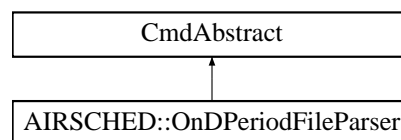
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.31 AIRSCHED::OnDPeriodFileParser Class Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDPeriodFileParser:



## Public Member Functions

- [OnDPeriodFileParser](#) (const stdair::Filename\_T &iFilename, stdair::BomRoot &ioBomRoot)
- bool [generateOnDPeriods](#) ()

## 23.31.1 Detailed Description

Class wrapping the initialisation and entry point of the parser.

The seemingly redundancy is used to force the instantiation of the actual parser, which is a templatised Boost Spirit grammar. Hence, the actual parser is instantiated within that class object code.

Definition at line 161 of file [OnDParserHelper.hpp](#).

## 23.31.2 Constructor &amp; Destructor Documentation

## 23.31.2.1 AIRSCHED::OnDPeriodFileParser::OnDPeriodFileParser ( const stdair::Filename\_T &amp;iFilename, stdair::BomRoot &amp;ioBomRoot )

Constructor.

Definition at line 342 of file [OnDParserHelper.cpp](#).

## 23.31.3 Member Function Documentation

## 23.31.3.1 bool AIRSCHED::OnDPeriodFileParser::generateOnDPeriods ( )

Parse the input file and generate the O&D-Periods.

Definition at line 378 of file [OnDParserHelper.cpp](#).

Referenced by [AIRSCHED::OnDParser::generateOnDPeriods\(\)](#).

The documentation for this class was generated from the following files:

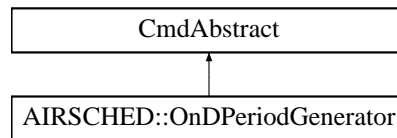
- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.32 AIRSCHED::OnDPeriodGenerator Class Reference

Class handling the generation / instantiation of the O&D-Period BOM.

```
#include <airsched/command/OnDPeriodGenerator.hpp>
```

Inheritance diagram for AIRSCHED::OnDPeriodGenerator:



### Friends

- class [OnDPeriodFileParser](#)
- struct [OnDParserHelper::doEndOnD](#)
- class [OnDParser](#)

### 23.32.1 Detailed Description

Class handling the generation / instantiation of the O&D-Period BOM.

Definition at line 29 of file [OnDPeriodGenerator.hpp](#).

### 23.32.2 Friends And Related Function Documentation

#### 23.32.2.1 friend class OnDPeriodFileParser [friend]

Only the following class may use methods of [OnDPeriodGenerator](#). Indeed, as those methods build the BOM, it is not good to expose them publicly.

Definition at line 35 of file [OnDPeriodGenerator.hpp](#).

#### 23.32.2.2 friend struct OnDParserHelper::doEndOnD [friend]

Definition at line 36 of file [OnDPeriodGenerator.hpp](#).

#### 23.32.2.3 friend class OnDParser [friend]

Definition at line 37 of file [OnDPeriodGenerator.hpp](#).

The documentation for this class was generated from the following files:

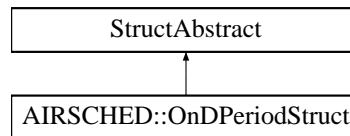
- [airsched/command/OnDPeriodGenerator.hpp](#)
- [airsched/command/OnDPeriodGenerator.cpp](#)

## 23.33 AIRSCHED::OnDPeriodStruct Struct Reference

```
#include <airsched/bom/OnDPeriodStruct.hpp>
```

Inheritance diagram for AIRSCHED::OnDPeriodStruct:





### Public Member Functions

- const stdair::AirlineCode\_T & [getFirstAirlineCode](#) () const
- stdair::Date\_T [getDate](#) () const
- stdair::Duration\_T [getTime](#) () const
- const std::string [describe](#) () const
- const std::string [describeTSKey](#) () const
- [OnDPeriodStruct](#) ()

### Public Attributes

- stdair::AirportCode\_T [\\_origin](#)
- stdair::AirportCode\_T [\\_destination](#)
- stdair::DatePeriod\_T [\\_datePeriod](#)
- stdair::Duration\_T [\\_timeRangeStart](#)
- stdair::Duration\_T [\\_timeRangeEnd](#)
- stdair::NbOfAirlines\_T [\\_nbOfAirlines](#)
- stdair::AirlineCode\_T [\\_airlineCode](#)
- stdair::ClassCode\_T [\\_classCode](#)
- stdair::AirlineCodeList\_T [\\_airlineCodeList](#)
- stdair::ClassCodeList\_T [\\_classCodeList](#)
- stdair::Date\_T [\\_dateRangeStart](#)
- stdair::Date\_T [\\_dateRangeEnd](#)
- unsigned int [\\_itYear](#)
- unsigned int [\\_itMonth](#)
- unsigned int [\\_itDay](#)
- long [\\_itHours](#)
- long [\\_itMinutes](#)
- long [\\_itSeconds](#)

#### 23.33.1 Detailed Description

Utility Structure for the parsing of FareRule structures.

Definition at line 15 of file [OnDPeriodStruct.hpp](#).

#### 23.33.2 Constructor & Destructor Documentation

##### 23.33.2.1 AIRSCHED::OnDPeriodStruct::OnDPeriodStruct ( )

Default constructor.

Definition at line 17 of file [OnDPeriodStruct.cpp](#).

### 23.33.3 Member Function Documentation

#### 23.33.3.1 const stdair::AirlineCode\_T & AIRSCHED::OnDPeriodStruct::getFirstAirlineCode ( ) const

Get the first airline code.

Definition at line 64 of file [OnDPeriodStruct.cpp](#).

References [\\_airlineCodeList](#).

#### 23.33.3.2 stdair::Date\_T AIRSCHED::OnDPeriodStruct::getDate ( ) const

Get the date from the staging details.

Definition at line 28 of file [OnDPeriodStruct.cpp](#).

References [\\_itDay](#), [\\_itMonth](#), and [\\_itYear](#).

Referenced by [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#).

#### 23.33.3.3 stdair::Duration\_T AIRSCHED::OnDPeriodStruct::getTime ( ) const

Get the time from the staging details.

Definition at line 33 of file [OnDPeriodStruct.cpp](#).

References [\\_itHours](#), [\\_itMinutes](#), and [\\_itSeconds](#).

Referenced by [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#).

#### 23.33.3.4 const std::string AIRSCHED::OnDPeriodStruct::describe ( ) const

Give a description of the structure (for display purposes).

Definition at line 40 of file [OnDPeriodStruct.cpp](#).

References [\\_airlineCode](#), [\\_classCode](#), [\\_datePeriod](#), [\\_destination](#), [\\_origin](#), [\\_timeRangeEnd](#), and [\\_timeRangeStart](#).

#### 23.33.3.5 const std::string AIRSCHED::OnDPeriodStruct::describeTSKey ( ) const

Give a short description of the key required in the travel solution object to differentiate fare rule structures.

Definition at line 55 of file [OnDPeriodStruct.cpp](#).

References [\\_airlineCode](#), [\\_classCode](#), [\\_destination](#), and [\\_origin](#).

### 23.33.4 Member Data Documentation

#### 23.33.4.1 stdair::AirportCode\_T AIRSCHED::OnDPeriodStruct::\_origin

Definition at line 41 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [describeTSKey\(\)](#), and [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#).

#### 23.33.4.2 stdair::AirportCode\_T AIRSCHED::OnDPeriodStruct::\_destination

Definition at line 42 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [describeTSKey\(\)](#), and [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#).

#### 23.33.4.3 stdair::DatePeriod\_T AIRSCHED::OnDPeriodStruct::\_datePeriod

Definition at line 43 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#).

#### 23.33.4.4 stdair::Duration\_T AIRSCHED::OnDPeriodStruct::\_timeRangeStart

Definition at line 44 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#).

#### 23.33.4.5 stdair::Duration\_T AIRSCHED::OnDPeriodStruct::\_timeRangeEnd

Definition at line 45 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#).

#### 23.33.4.6 stdair::NbOfAirlines\_T AIRSCHED::OnDPeriodStruct::\_nbOfAirlines

Definition at line 46 of file [OnDPeriodStruct.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), and [AIRSCHED::OnDParserHelper::store-AirlineCode::operator\(\)](#).

#### 23.33.4.7 stdair::AirlineCode\_T AIRSCHED::OnDPeriodStruct::\_airlineCode

Definition at line 47 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [describeTSKey\(\)](#), [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#).

#### 23.33.4.8 stdair::ClassCode\_T AIRSCHED::OnDPeriodStruct::\_classCode

Definition at line 48 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [describeTSKey\(\)](#), [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#).

#### 23.33.4.9 stdair::AirlineCodeList\_T AIRSCHED::OnDPeriodStruct::\_airlineCodeList

Definition at line 49 of file [OnDPeriodStruct.hpp](#).

Referenced by [getFirstAirlineCode\(\)](#), [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#).

#### 23.33.4.10 stdair::ClassCodeList\_T AIRSCHED::OnDPeriodStruct::\_classCodeList

Definition at line 50 of file [OnDPeriodStruct.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), and [AIRSCHED::OnDParserHelper::store-ClassCode::operator\(\)](#).

#### 23.33.4.11 stdair::Date\_T AIRSCHED::OnDPeriodStruct::\_dateRangeStart

Staging Date.

Definition at line 53 of file [OnDPeriodStruct.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#).

#### 23.33.4.12 stdair::Date\_T AIRSCHED::OnDPeriodStruct::\_dateRangeEnd

Definition at line 54 of file [OnDPeriodStruct.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#).

#### 23.33.4.13 unsigned int AIRSCHED::OnDPeriodStruct::\_itYear

Definition at line 55 of file [OnDPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

## 23.33.4.14 unsigned int AIRSCHED::OnDPeriodStruct::\_itMonth

Definition at line 56 of file [OnDPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

## 23.33.4.15 unsigned int AIRSCHED::OnDPeriodStruct::\_itDay

Definition at line 57 of file [OnDPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

## 23.33.4.16 long AIRSCHED::OnDPeriodStruct::\_itHours

Staging Time.

Definition at line 60 of file [OnDPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#).

## 23.33.4.17 long AIRSCHED::OnDPeriodStruct::\_itMinutes

Definition at line 61 of file [OnDPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#).

## 23.33.4.18 long AIRSCHED::OnDPeriodStruct::\_itSeconds

Definition at line 62 of file [OnDPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#).

The documentation for this struct was generated from the following files:

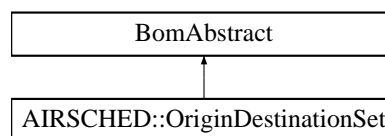
- [airsched/bom/OnDPeriodStruct.hpp](#)
- [airsched/bom/OnDPeriodStruct.cpp](#)

## 23.34 AIRSCHED::OriginDestinationSet Class Reference

Class representing a simple sub-network.

```
#include <airsched/bom/OriginDestinationSet.hpp>
```

Inheritance diagram for AIRSCHED::OriginDestinationSet:



## Public Types

- typedef [OriginDestinationSetKey](#) Key\_T

## Public Member Functions

- const [Key\\_T](#) & [getKey](#) () const
- const stdair::AirportCode\_T & [getDestination](#) () const

- stdair::BomAbstract \*const [getParent](#) () const
- const stdair::HolderMap\_T & [getHolderMap](#) () const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- std::string [toString](#) () const
- const std::string [describeKey](#) () const
- template<class Archive >  
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

#### Protected Member Functions

- [OriginDestinationSet](#) (const [Key\\_T](#) &)
- [~OriginDestinationSet](#) ()

#### Protected Attributes

- [Key\\_T \\_key](#)
- stdair::BomAbstract \* [\\_parent](#)
- stdair::HolderMap\_T [\\_holderMap](#)

#### Friends

- class [stdair::FacBom](#)
- class [stdair::FacBomManager](#)
- class [boost::serialization::access](#)

#### 23.34.1 Detailed Description

Class representing a simple sub-network.

That simple sub-network is made of a set of segments ([SegmentPathPeriod](#) objects), from the origin airport specified within [ReachableUniverse](#) (parent object) to the destination specified in the [OriginDestinationSetKey](#) object.

Each segment (composing that [OriginDestinationSet](#) object) corresponds to an actual travel solution from the origin to the destination, that is, a path that a traveller can take with actual scheduled flights.

Definition at line 44 of file [OriginDestinationSet.hpp](#).

#### 23.34.2 Member Typedef Documentation

##### 23.34.2.1 typedef [OriginDestinationSetKey](#) AIRSCHED::OriginDestinationSet::Key\_T

Definition allowing to retrieve the associated BOM key type.

Definition at line 57 of file [OriginDestinationSet.hpp](#).

#### 23.34.3 Constructor & Destructor Documentation

##### 23.34.3.1 AIRSCHED::OriginDestinationSet::OriginDestinationSet ( const [Key\\_T](#) & *iKey* ) [\[protected\]](#)

Main constructor.

Definition at line 31 of file [OriginDestinationSet.cpp](#).

### 23.34.3.2 AIRSCHED::OriginDestinationSet::~~OriginDestinationSet ( ) [protected]

Destructor.

Definition at line 36 of file [OriginDestinationSet.cpp](#).

## 23.34.4 Member Function Documentation

### 23.34.4.1 const Key\_T& AIRSCHED::OriginDestinationSet::getKey ( ) const [inline]

Get the primary key (destination airport).

Definition at line 65 of file [OriginDestinationSet.hpp](#).

References [\\_key](#).

### 23.34.4.2 const stdair::AirportCode\_T& AIRSCHED::OriginDestinationSet::getDestination ( ) const [inline]

Get the destination airport (i.e., the primary key).

Definition at line 72 of file [OriginDestinationSet.hpp](#).

References [\\_key](#), and [AIRSCHED::OriginDestinationSetKey::getOffPoint\(\)](#).

### 23.34.4.3 stdair::BomAbstract\* const AIRSCHED::OriginDestinationSet::getParent ( ) const [inline]

Get the parent (i.e., [ReachableUniverse](#)) object.

Definition at line 79 of file [OriginDestinationSet.hpp](#).

References [\\_parent](#).

### 23.34.4.4 const stdair::HolderMap\_T& AIRSCHED::OriginDestinationSet::getHolderMap ( ) const [inline]

Get the map of children holders ([SegmentPathPeriod](#) objects).

Definition at line 86 of file [OriginDestinationSet.hpp](#).

References [\\_holderMap](#).

### 23.34.4.5 void AIRSCHED::OriginDestinationSet::toStream ( std::ostream & ioOut ) const [inline]

Dump a Business Object into an output stream.

#### Parameters

<i>ostream&amp;</i>	the output stream.
---------------------	--------------------

Definition at line 98 of file [OriginDestinationSet.hpp](#).

References [toString\(\)](#).

### 23.34.4.6 void AIRSCHED::OriginDestinationSet::fromStream ( std::istream & ioIn ) [inline]

Read a Business Object from an input stream.

#### Parameters

<i>istream&amp;</i>	the input stream.
---------------------	-------------------

Definition at line 107 of file [OriginDestinationSet.hpp](#).

### 23.34.4.7 std::string AIRSCHED::OriginDestinationSet::toString ( ) const

Get the serialised version of the Business Object.

Definition at line 40 of file [OriginDestinationSet.cpp](#).

References [\\_key](#), and [AIRSCHED::OriginDestinationSetKey::toString\(\)](#).

Referenced by [toStream\(\)](#).

23.34.4.8 `const std::string AIRSCHED::OriginDestinationSet::describeKey ( ) const [inline]`

Get a string describing the key.

Definition at line 118 of file [OriginDestinationSet.hpp](#).

References [\\_key](#), and [AIRSCHED::OriginDestinationSetKey::toString\(\)](#).

23.34.4.9 `template<class Archive > void AIRSCHED::OriginDestinationSet::serialize ( Archive & ar, const unsigned int iFileVersion )`

Serialisation.

Definition at line 62 of file [OriginDestinationSet.cpp](#).

References [\\_key](#).

### 23.34.5 Friends And Related Function Documentation

23.34.5.1 `friend class stdair::FacBom [friend]`

Friend classes.

Definition at line 48 of file [OriginDestinationSet.hpp](#).

23.34.5.2 `friend class stdair::FacBomManager [friend]`

Definition at line 49 of file [OriginDestinationSet.hpp](#).

23.34.5.3 `friend class boost::serialization::access [friend]`

Definition at line 50 of file [OriginDestinationSet.hpp](#).

### 23.34.6 Member Data Documentation

23.34.6.1 `Key_T AIRSCHED::OriginDestinationSet::_key [protected]`

Primary key (destination airport code).

Definition at line 168 of file [OriginDestinationSet.hpp](#).

Referenced by [describeKey\(\)](#), [getDestination\(\)](#), [getKey\(\)](#), [serialize\(\)](#), and [toString\(\)](#).

23.34.6.2 `stdair::BomAbstract* AIRSCHED::OriginDestinationSet::_parent [protected]`

Pointer on the parent ([ReachableUniverse](#)) object.

Definition at line 173 of file [OriginDestinationSet.hpp](#).

Referenced by [getParent\(\)](#).

23.34.6.3 `stdair::HolderMap_T AIRSCHED::OriginDestinationSet::_holderMap [protected]`

Map holding the children ([SegmentPathPeriod](#) objects).

Definition at line 178 of file [OriginDestinationSet.hpp](#).

Referenced by [getHolderMap\(\)](#).

The documentation for this class was generated from the following files:

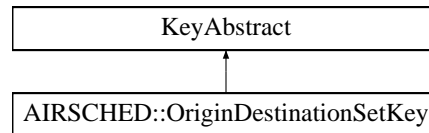
- [airsched/bom/OriginDestinationSet.hpp](#)
- [airsched/bom/OriginDestinationSet.cpp](#)

## 23.35 AIRSCHED::OriginDestinationSetKey Struct Reference

Structure representing the key of a sub-network.

```
#include <airsched/bom/OriginDestinationSetKey.hpp>
```

Inheritance diagram for AIRSCHED::OriginDestinationSetKey:



### Public Member Functions

- [OriginDestinationSetKey](#) (const stdair::AirportCode\_T &iDestination)
- [OriginDestinationSetKey](#) (const [OriginDestinationSetKey](#) &)
- [~OriginDestinationSetKey](#) ()
- const stdair::AirportCode\_T & [getOffPoint](#) () const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- const std::string [toString](#) () const
- template<class Archive >  
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

### Friends

- class [boost::serialization::access](#)

#### 23.35.1 Detailed Description

Structure representing the key of a sub-network.

As the origin airport code is already part of the [ReachableUniverse](#) (parent) class, that key is only made of the destination airport code.

Definition at line 30 of file [OriginDestinationSetKey.hpp](#).

#### 23.35.2 Constructor & Destructor Documentation

##### 23.35.2.1 AIRSCHED::OriginDestinationSetKey::OriginDestinationSetKey ( const stdair::AirportCode\_T &iDestination )

Constructor.

Definition at line 26 of file [OriginDestinationSetKey.cpp](#).

##### 23.35.2.2 AIRSCHED::OriginDestinationSetKey::OriginDestinationSetKey ( const OriginDestinationSetKey &iKey )

Copy constructor.

Definition at line 32 of file [OriginDestinationSetKey.cpp](#).



## 23.35.2.3 AIRSCHED::OriginDestinationSetKey::~~OriginDestinationSetKey ( )

Destructor.

Definition at line 37 of file [OriginDestinationSetKey.cpp](#).

## 23.35.3 Member Function Documentation

## 23.35.3.1 const std::air::AirportCode\_T&amp; AIRSCHED::OriginDestinationSetKey::getOffPoint ( ) const [inline]

Get the destination airport.

Definition at line 62 of file [OriginDestinationSetKey.hpp](#).

Referenced by [AIRSCHED::OriginDestinationSet::getDestination\(\)](#).

## 23.35.3.2 void AIRSCHED::OriginDestinationSetKey::toStream ( std::ostream &amp; ioOut ) const

Dump a Business Object Key into an output stream.

## Parameters

<i>ostream&amp;</i>	the output stream.
---------------------	--------------------

Definition at line 41 of file [OriginDestinationSetKey.cpp](#).

References [toString\(\)](#).

## 23.35.3.3 void AIRSCHED::OriginDestinationSetKey::fromStream ( std::istream &amp; ioIn )

Read a Business Object Key from an input stream.

## Parameters

<i>istream&amp;</i>	the input stream.
---------------------	-------------------

Definition at line 46 of file [OriginDestinationSetKey.cpp](#).

## 23.35.3.4 const std::string AIRSCHED::OriginDestinationSetKey::toString ( ) const

Get the serialised version of the Business Object Key.

That string is unique, at the level of a given Business Object, when among children of a given parent Business Object.

For instance, "H" and "K" allow to differentiate among two marketing classes for the same segment-date.

Definition at line 50 of file [OriginDestinationSetKey.cpp](#).

Referenced by [AIRSCHED::OriginDestinationSet::describeKey\(\)](#), [toStream\(\)](#), and [AIRSCHED::OriginDestinationSet::toString\(\)](#).

## 23.35.3.5 template&lt;class Archive &gt; void AIRSCHED::OriginDestinationSetKey::serialize ( Archive &amp; ar, const unsigned int iFileVersion )

Serialisation.

Definition at line 72 of file [OriginDestinationSetKey.cpp](#).

## 23.35.4 Friends And Related Function Documentation

## 23.35.4.1 friend class boost::serialization::access [friend]

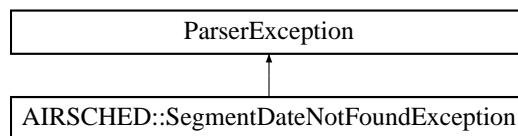
Definition at line 31 of file [OriginDestinationSetKey.hpp](#).

The documentation for this struct was generated from the following files:

- [airsched/bom/OriginDestinationSetKey.hpp](#)
- [airsched/bom/OriginDestinationSetKey.cpp](#)

## 23.36 ParserException Class Reference

Inheritance diagram for ParserException:



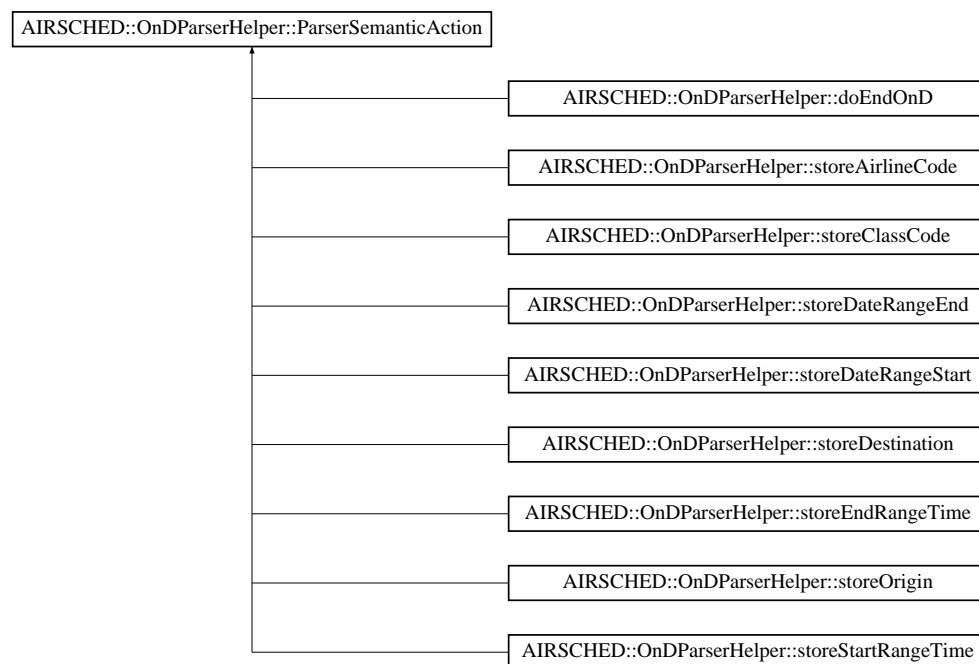
The documentation for this class was generated from the following file:

- [airsched/AIRSCHEd\\_Types.hpp](#)

## 23.37 AIRSCHEd::OnDParserHelper::ParserSemanticAction Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHEd::OnDParserHelper::ParserSemanticAction:



### Public Member Functions

- [ParserSemanticAction](#) ([OnDPeriodStruct](#) &)

### Public Attributes

- [OnDPeriodStruct](#) & `_onDPeriod`

### 23.37.1 Detailed Description

Generic Semantic Action (Actor / Functor) for the Schedule Parser.

Definition at line 34 of file [OnDParserHelper.hpp](#).

### 23.37.2 Constructor & Destructor Documentation

#### 23.37.2.1 AIRSCHED::OnDParserHelper::ParserSemanticAction::ParserSemanticAction ( OnDPeriodStruct & ioOnDPeriod )

Actor Constructor.

Definition at line 25 of file [OnDParserHelper.cpp](#).

### 23.37.3 Member Data Documentation

#### 23.37.3.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemanticAction::\_onDPeriod

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#)(), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#)(), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#)(), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#)(), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#)(), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#)(), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#)(), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#)(), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#)().

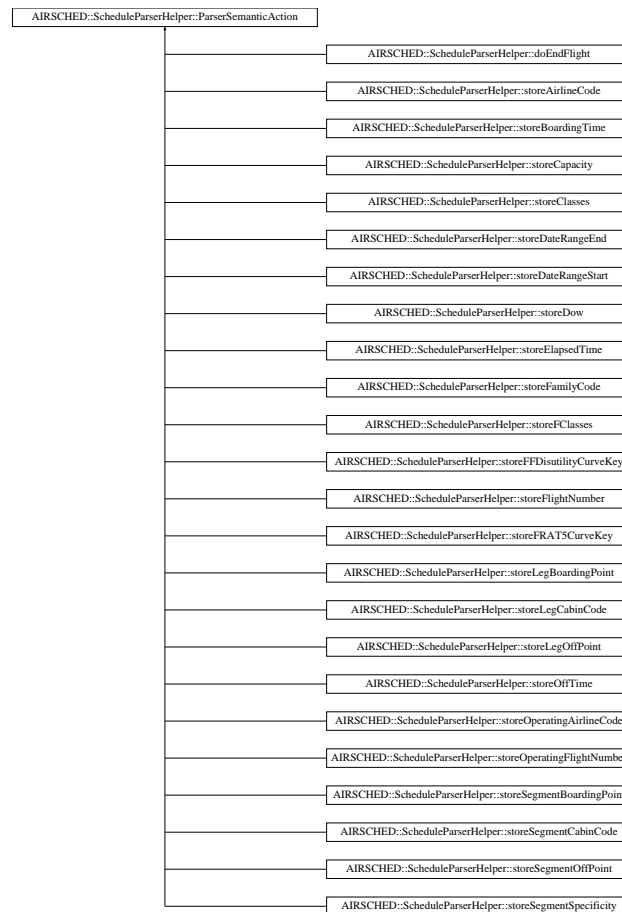
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.38 AIRSCHED::ScheduleParserHelper::ParserSemanticAction Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::ParserSemanticAction:



## Public Member Functions

- [ParserSemanticAction](#) ([FlightPeriodStruct](#) &)

## Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

### 23.38.1 Detailed Description

Generic Semantic Action (Actor / Functor) for the Schedule Parser.

Definition at line 29 of file [ScheduleParserHelper.hpp](#).

### 23.38.2 Constructor & Destructor Documentation

#### 23.38.2.1 AIRSCHED::ScheduleParserHelper::ParserSemanticAction::ParserSemanticAction ( [FlightPeriodStruct](#) & [ioFlightPeriod](#) )

Actor Constructor.

Definition at line 26 of file [ScheduleParserHelper.cpp](#).

### 23.38.3 Member Data Documentation

## 23.38.3.1 FlightPeriodStruct&amp; AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.39 airsched::Passenger\_T Struct Reference

```
#include <airsched/batches/BookingRequestParser.hpp>
```

## Public Types

- enum [PassengerType\\_T](#) { [ADULT](#) = 0, [CHILD](#), [PET](#), [LAST\\_VALUE](#) }

## Public Member Functions

- [Passenger\\_T](#) ()
- void [display](#) () const

## Public Attributes

- [PassengerType\\_T\\_type](#)
- unsigned short [\\_number](#)

## Static Public Attributes

- static const std::string [\\_labels](#) [[LAST\\_VALUE](#)]

## 23.39.1 Detailed Description

Passenger.

Definition at line 71 of file [BookingRequestParser.hpp](#).

### 23.39.2 Member Enumeration Documentation

#### 23.39.2.1 enum airsched::Passenger\_T::PassengerType\_T

Enumerator:

***ADULT***  
***CHILD***  
***PET***  
***LAST\_VALUE***

Definition at line 73 of file [BookingRequestParser.hpp](#).

### 23.39.3 Constructor & Destructor Documentation

#### 23.39.3.1 airsched::Passenger\_T::Passenger\_T( ) [inline]

Constructor.

Definition at line 78 of file [BookingRequestParser.hpp](#).

### 23.39.4 Member Function Documentation

#### 23.39.4.1 void airsched::Passenger\_T::display( ) const [inline]

Definition at line 80 of file [BookingRequestParser.hpp](#).

References [\\_labels](#), [\\_number](#), and [\\_type](#).

Referenced by [airsched::SearchString\\_T::display\(\)](#).

### 23.39.5 Member Data Documentation

#### 23.39.5.1 const std::string airsched::Passenger\_T::\_labels [static]

**Initial value:**

```
{ "Adult", "Child", "Pet" }
```

Passenger type labels.

Definition at line 74 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#).

#### 23.39.5.2 PassengerType\_T airsched::Passenger\_T::\_type

Definition at line 75 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), [airsched::store\\_adult\\_passenger\\_type::operator\(\)\(\)](#), [airsched::store\\_child\\_passenger\\_type::operator\(\)\(\)](#), and [airsched::store\\_pet\\_passenger\\_type::operator\(\)\(\)](#).

#### 23.39.5.3 unsigned short airsched::Passenger\_T::\_number

Definition at line 76 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store\\_passenger\\_number::operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.hpp](#)

## 23.40 `airsched::Place_T` Struct Reference

```
#include <airsched/batches/BookingRequestParser.hpp>
```

### Public Member Functions

- [Place\\_T](#) ()
- void [display](#) () const

### Public Attributes

- std::string [\\_name](#)
- std::string [\\_code](#)

#### 23.40.1 Detailed Description

Place.

Definition at line 11 of file [BookingRequestParser.hpp](#).

#### 23.40.2 Constructor & Destructor Documentation

##### 23.40.2.1 `airsched::Place_T::Place_T ( )` `[inline]`

Constructor.

Definition at line 16 of file [BookingRequestParser.hpp](#).

#### 23.40.3 Member Function Documentation

##### 23.40.3.1 `void airschd::Place_T::display ( ) const` `[inline]`

Definition at line 18 of file [BookingRequestParser.hpp](#).

References [\\_code](#), and [\\_name](#).

Referenced by [airsched::SearchString\\_T::display\(\)](#).

#### 23.40.4 Member Data Documentation

##### 23.40.4.1 `std::string airschd::Place_T::_name`

Definition at line 13 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store\\_place\\_element::operator\(\)\(\)](#).

##### 23.40.4.2 `std::string airschd::Place_T::_code`

Definition at line 14 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#).

The documentation for this struct was generated from the following file:

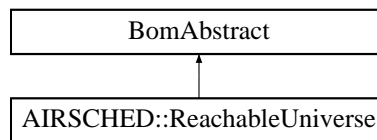
- [airsched/batches/BookingRequestParser.hpp](#)

## 23.41 AIRSCHED::ReachableUniverse Class Reference

Class representing the root of the schedule-related BOM tree.

```
#include <airsched/bom/ReachableUniverse.hpp>
```

Inheritance diagram for AIRSCHED::ReachableUniverse:



### Public Types

- typedef [ReachableUniverseKey](#) [Key\\_T](#)

### Public Member Functions

- const [Key\\_T](#) & [getKey](#) () const
- const stdair::AirportCode\_T & [getOrigin](#) () const
- stdair::BomAbstract \*const [getParent](#) () const
- const stdair::HolderMap\_T & [getHolderMap](#) () const
- const [SegmentPathPeriodListList\\_T](#) & [getSegmentPathPeriodListList](#) () const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- std::string [toString](#) () const
- const std::string [describeKey](#) () const
- template<class Archive >  
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

### Protected Member Functions

- [ReachableUniverse](#) (const [Key\\_T](#) &)
- [~ReachableUniverse](#) ()

### Protected Attributes

- [Key\\_T \\_key](#)
- stdair::BomAbstract \* [\\_parent](#)
- stdair::HolderMap\_T [\\_holderMap](#)
- [SegmentPathPeriodListList\\_T \\_segmentPathPeriodListList](#)

### Friends

- class stdair::FacBom
- class stdair::FacBomManager
- class [SegmentPathGenerator](#)
- class boost::serialization::access



### 23.41.1 Detailed Description

Class representing the root of the schedule-related BOM tree.

It is the pending, in the schedule universe, of the `stdair::Inventory` class. It corresponds to all the destinations, which can be reached from a given geographical point. That latter is an airport for now, and its key (airport code) is specified by the [ReachableUniverseKey](#) object.

Definition at line 41 of file [ReachableUniverse.hpp](#).

### 23.41.2 Member Typedef Documentation

#### 23.41.2.1 typedef ReachableUniverseKey AIRSCHED::ReachableUniverse::Key\_T

Definition allowing to retrieve the associated BOM key type.

Definition at line 55 of file [ReachableUniverse.hpp](#).

### 23.41.3 Constructor & Destructor Documentation

#### 23.41.3.1 AIRSCHED::ReachableUniverse::ReachableUniverse ( const Key\_T & iKey ) [protected]

Main constructor.

Definition at line 32 of file [ReachableUniverse.cpp](#).

#### 23.41.3.2 AIRSCHED::ReachableUniverse::~~ReachableUniverse ( ) [protected]

Destructor.

Definition at line 37 of file [ReachableUniverse.cpp](#).

### 23.41.4 Member Function Documentation

#### 23.41.4.1 const Key\_T& AIRSCHED::ReachableUniverse::getKey ( ) const [inline]

Get the universe key (airport code representing the departure point of the "reachable universe").

Definition at line 63 of file [ReachableUniverse.hpp](#).

References [\\_key](#).

#### 23.41.4.2 const stdair::AirportCode\_T& AIRSCHED::ReachableUniverse::getOrigin ( ) const [inline]

Get the (origin) airport (i.e., the primary key).

Definition at line 70 of file [ReachableUniverse.hpp](#).

References [\\_key](#), and [AIRSCHED::ReachableUniverseKey::getBoardingPoint\(\)](#).

#### 23.41.4.3 stdair::BomAbstract\* const AIRSCHED::ReachableUniverse::getParent ( ) const [inline]

Get the parent (i.e., the BomRoot) object.

Definition at line 77 of file [ReachableUniverse.hpp](#).

References [\\_parent](#).

#### 23.41.4.4 const stdair::HolderMap\_T& AIRSCHED::ReachableUniverse::getHolderMap ( ) const [inline]

Get the map of children holders ([OriginDestinationSet](#) objects).

Definition at line 84 of file [ReachableUniverse.hpp](#).

References [\\_holderMap](#).

**23.41.4.5** `const SegmentPathPeriodListList_T& AIRSCHED::ReachableUniverse::getSegmentPathPeriodListList ( )`  
`const [inline]`

Get the vector of SegmentPathPeriodLightList objects.

Definition at line 91 of file [ReachableUniverse.hpp](#).

References [\\_segmentPathPeriodListList](#).

**23.41.4.6** `void AIRSCHED::ReachableUniverse::toStream ( std::ostream & ioOut ) const [inline]`

Dump a Business Object into an output stream.

Parameters

<i>ostream&amp;</i>	the output stream.
---------------------	--------------------

Definition at line 103 of file [ReachableUniverse.hpp](#).

References [toString\(\)](#).

**23.41.4.7** `void AIRSCHED::ReachableUniverse::fromStream ( std::istream & ioIn ) [inline]`

Read a Business Object from an input stream.

Parameters

<i>istream&amp;</i>	the input stream.
---------------------	-------------------

Definition at line 112 of file [ReachableUniverse.hpp](#).

**23.41.4.8** `std::string AIRSCHED::ReachableUniverse::toString ( ) const`

Get the serialised version of the Business Object.

Definition at line 41 of file [ReachableUniverse.cpp](#).

References [\\_key](#), and [AIRSCHED::ReachableUniverseKey::toString\(\)](#).

Referenced by [AIRSCHED::BomDisplay::csvDisplay\(\)](#), and [toStream\(\)](#).

**23.41.4.9** `const std::string AIRSCHED::ReachableUniverse::describeKey ( ) const [inline]`

Get a string describing the key.

Definition at line 123 of file [ReachableUniverse.hpp](#).

References [\\_key](#), and [AIRSCHED::ReachableUniverseKey::toString\(\)](#).

**23.41.4.10** `template<class Archive > void AIRSCHED::ReachableUniverse::serialize ( Archive & ar, const unsigned int iFileVersion )`

Serialisation.

Definition at line 63 of file [ReachableUniverse.cpp](#).

References [\\_key](#).

## 23.41.5 Friends And Related Function Documentation

**23.41.5.1** `friend class stdair::FacBom [friend]`

Friend classes.

Definition at line 45 of file [ReachableUniverse.hpp](#).

23.41.5.2 friend class `stdair::FacBomManager` [`friend`]

Definition at line 46 of file [ReachableUniverse.hpp](#).

23.41.5.3 friend class `SegmentPathGenerator` [`friend`]

Definition at line 47 of file [ReachableUniverse.hpp](#).

23.41.5.4 friend class `boost::serialization::access` [`friend`]

Definition at line 48 of file [ReachableUniverse.hpp](#).

## 23.41.6 Member Data Documentation

23.41.6.1 `Key_T AIRSCHED::ReachableUniverse::_key` [`protected`]

Primary key (origin airport code).

Definition at line 174 of file [ReachableUniverse.hpp](#).

Referenced by [describeKey\(\)](#), [getKey\(\)](#), [getOrigin\(\)](#), [serialize\(\)](#), and [toString\(\)](#).

23.41.6.2 `stdair::BomAbstract* AIRSCHED::ReachableUniverse::_parent` [`protected`]

Pointer on the parent (BomRoot) object.

Definition at line 179 of file [ReachableUniverse.hpp](#).

Referenced by [getParent\(\)](#).

23.41.6.3 `stdair::HolderMap_T AIRSCHED::ReachableUniverse::_holderMap` [`protected`]

Map holding the children ([OriginDestinationSet](#) objects).

Definition at line 184 of file [ReachableUniverse.hpp](#).

Referenced by [getHolderMap\(\)](#).

23.41.6.4 `SegmentPathPeriodListList_T AIRSCHED::ReachableUniverse::_segmentPathPeriodListList` [`protected`]

The list (actually, a vector) of lists of [SegmentPathPeriods](#), used solely for the construction of the main list of [SegmentPathPeriods](#) within the [ReachableUniverseStructure](#).

Definition at line 191 of file [ReachableUniverse.hpp](#).

Referenced by [getSegmentPathPeriodListList\(\)](#).

The documentation for this class was generated from the following files:

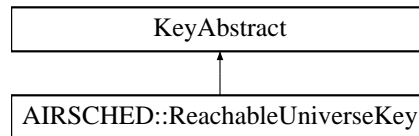
- [airsched/bom/ReachableUniverse.hpp](#)
- [airsched/bom/ReachableUniverse.cpp](#)

## 23.42 AIRSCHED::ReachableUniverseKey Struct Reference

Structure representing the key of the schedule-related BOM tree root.

```
#include <airsched/bom/ReachableUniverseKey.hpp>
```

Inheritance diagram for `AIRSCHED::ReachableUniverseKey`:



### Public Member Functions

- [ReachableUniverseKey](#) (const stdair::AirportCode\_T &iOrigin)
- [ReachableUniverseKey](#) (const [ReachableUniverseKey](#) &)
- [~ReachableUniverseKey](#) ()
- const stdair::AirportCode\_T &[getBoardingPoint](#) () const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- const std::string [toString](#) () const
- template<class Archive >  
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

### Friends

- class [boost::serialization::access](#)

#### 23.42.1 Detailed Description

Structure representing the key of the schedule-related BOM tree root.

The [ReachableUniverse](#) is the pending, in the schedule universe, of the stdair::Inventory class. It corresponds to all the destinations which can be reached from a given geographical point. That latter is an airport for now, and the present structure specifies its key (i.e., airport code).

Definition at line 33 of file [ReachableUniverseKey.hpp](#).

#### 23.42.2 Constructor & Destructor Documentation

##### 23.42.2.1 AIRSCHED::ReachableUniverseKey::ReachableUniverseKey ( const stdair::AirportCode\_T &iOrigin )

Constructor.

Definition at line 32 of file [ReachableUniverseKey.cpp](#).

##### 23.42.2.2 AIRSCHED::ReachableUniverseKey::ReachableUniverseKey ( const ReachableUniverseKey &iKey )

Copy constructor.

Definition at line 26 of file [ReachableUniverseKey.cpp](#).

##### 23.42.2.3 AIRSCHED::ReachableUniverseKey::~~ReachableUniverseKey ( )

Destructor.

Definition at line 37 of file [ReachableUniverseKey.cpp](#).

#### 23.42.3 Member Function Documentation

##### 23.42.3.1 const stdair::AirportCode\_T& AIRSCHED::ReachableUniverseKey::getBoardingPoint ( ) const [inline]

Get the origin airport (from which the remaining universe may be reached).

Definition at line 66 of file [ReachableUniverseKey.hpp](#).

Referenced by [AIRSCHED::ReachableUniverse::getOrigin\(\)](#).

23.42.3.2 void AIRSCHED::ReachableUniverseKey::toStream ( std::ostream & *ioOut* ) const

Dump a Business Object Key into an output stream.

#### Parameters

<i>ostream&amp;</i>	the output stream.
---------------------	--------------------

Definition at line 41 of file [ReachableUniverseKey.cpp](#).

References [toString\(\)](#).

23.42.3.3 void AIRSCHED::ReachableUniverseKey::fromStream ( std::istream & *ioIn* )

Read a Business Object Key from an input stream.

#### Parameters

<i>istream&amp;</i>	the input stream.
---------------------	-------------------

Definition at line 46 of file [ReachableUniverseKey.cpp](#).

23.42.3.4 const std::string AIRSCHED::ReachableUniverseKey::toString ( ) const

Get the serialised version of the Business Object Key.

That string is unique, at the level of a given Business Object, when among children of a given parent Business Object.

For instance, "H" and "K" allow to differentiate among two marketing classes for the same segment-date.

Definition at line 50 of file [ReachableUniverseKey.cpp](#).

Referenced by [AIRSCHED::ReachableUniverse::describeKey\(\)](#), [toStream\(\)](#), and [AIRSCHED::ReachableUniverse::toString\(\)](#).

23.42.3.5 template<class Archive > void AIRSCHED::ReachableUniverseKey::serialize ( Archive & *ar*, const unsigned int *iFileVersion* )

Serialisation.

Definition at line 72 of file [ReachableUniverseKey.cpp](#).

## 23.42.4 Friends And Related Function Documentation

23.42.4.1 friend class boost::serialization::access [friend]

Definition at line 34 of file [ReachableUniverseKey.hpp](#).

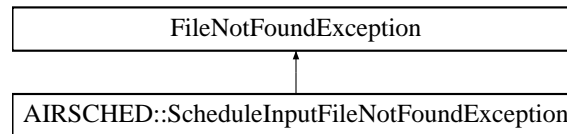
The documentation for this struct was generated from the following files:

- [airsched/bom/ReachableUniverseKey.hpp](#)
- [airsched/bom/ReachableUniverseKey.cpp](#)

## 23.43 AIRSCHED::ScheduleInputFileNotFoundException Class Reference

```
#include <airsched/AIRSCHED_Types.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleInputFileNotFoundException:



#### Public Member Functions

- [ScheduleInputFileNotFoundException](#) (const std::string &iWhat)

##### 23.43.1 Detailed Description

The schedule input file cannot be retrieved.

Definition at line 47 of file [AIRSCHED\\_Types.hpp](#).

##### 23.43.2 Constructor & Destructor Documentation

**23.43.2.1** `AIRSCHED::ScheduleInputFileNotFoundException::ScheduleInputFileNotFoundException ( const std::string & iWhat ) [inline]`

Constructor.

Definition at line 53 of file [AIRSCHED\\_Types.hpp](#).

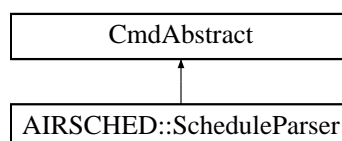
The documentation for this class was generated from the following file:

- [airsched/AIRSCHED\\_Types.hpp](#)

## 23.44 AIRSCHED::ScheduleParser Class Reference

```
#include <airsched/command/ScheduleParser.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParser:



#### Static Public Member Functions

- static void [generateInventories](#) (const stdair::ScheduleFilePath &, stdair::BomRoot &)

##### 23.44.1 Detailed Description

Class wrapping the parser entry point.

Definition at line 22 of file [ScheduleParser.hpp](#).

## 23.44.2 Member Function Documentation

23.44.2.1 void AIRSCHED::ScheduleParser::generateInventories ( const stdair::ScheduleFilePath & iScheduleFilename, stdair::BomRoot & ioBomRoot ) [static]

Parse the CSV file describing the airline schedules for the simulator, and generates the inventories accordingly.

## Parameters

<i>const</i>	stdair::ScheduleFilePath& The file-name of the CSV-formatted schedule input file.
<i>stdair::Bom-Root&amp;</i>	Root of the BOM tree.

Definition at line 20 of file [ScheduleParser.cpp](#).

References [AIRSCHED::FlightPeriodFileParser::generateInventories\(\)](#).

Referenced by [AIRSCHED::AIRSCHED\\_Service::parseAndLoad\(\)](#).

The documentation for this class was generated from the following files:

- [airsched/command/ScheduleParser.hpp](#)
- [airsched/command/ScheduleParser.cpp](#)

## 23.45 airsched::SearchString\_T Struct Reference

```
#include <airsched/batches/BookingRequestParser.hpp>
```

## Public Member Functions

- [SearchString\\_T \(\)](#)
- void [display \(\)](#) const

## Public Attributes

- [PlaceList\\_T \\_placeList](#)
- [DateList\\_T \\_dateList](#)
- [AirlineList\\_T \\_airlineList](#)
- [PassengerList\\_T \\_passengerList](#)
- [Place\\_T \\_tmpPlace](#)
- [Date\\_T \\_tmpDate](#)
- [Airline\\_T \\_tmpAirline](#)
- [Passenger\\_T \\_tmpPassenger](#)

## 23.45.1 Detailed Description

Search string.

Definition at line 94 of file [BookingRequestParser.hpp](#).

## 23.45.2 Constructor &amp; Destructor Documentation

23.45.2.1 airsched::SearchString\_T::SearchString\_T ( ) [inline]

Constructor.

Definition at line 102 of file [BookingRequestParser.hpp](#).

### 23.45.3 Member Function Documentation

#### 23.45.3.1 void airsched::SearchString\_T::display ( ) const [inline]

Definition at line 105 of file [BookingRequestParser.hpp](#).

References [\\_airlineList](#), [\\_dateList](#), [\\_passengerList](#), [\\_placeList](#), [\\_tmpPlace](#), [airsched::Place\\_T::display\(\)](#), [airsched::Date\\_T::display\(\)](#), [airsched::Airline\\_T::display\(\)](#), and [airsched::Passenger\\_T::display\(\)](#).

### 23.45.4 Member Data Documentation

#### 23.45.4.1 PlaceList\_T airsched::SearchString\_T::\_placeList

Definition at line 96 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#).

#### 23.45.4.2 DateList\_T airsched::SearchString\_T::\_dateList

Definition at line 97 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store\\_date::operator\(\)\(\)](#).

#### 23.45.4.3 AirlineList\_T airsched::SearchString\_T::\_airlineList

Definition at line 98 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), [airsched::store\\_airline\\_code::operator\(\)\(\)](#), and [airsched::store\\_airline\\_name::operator\(\)\(\)](#).

#### 23.45.4.4 PassengerList\_T airsched::SearchString\_T::\_passengerList

Definition at line 99 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), [airsched::store\\_adult\\_passenger\\_type::operator\(\)\(\)](#), [airsched::store\\_child\\_passenger\\_type::operator\(\)\(\)](#), and [airsched::store\\_pet\\_passenger\\_type::operator\(\)\(\)](#).

#### 23.45.4.5 Place\_T airsched::SearchString\_T::\_tmpPlace

Definition at line 137 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store\\_place\\_element::operator\(\)\(\)](#).

#### 23.45.4.6 Date\_T airsched::SearchString\_T::\_tmpDate

Definition at line 138 of file [BookingRequestParser.hpp](#).

Referenced by [airsched::store\\_date::operator\(\)\(\)](#).

#### 23.45.4.7 Airline\_T airsched::SearchString\_T::\_tmpAirline

Definition at line 139 of file [BookingRequestParser.hpp](#).

Referenced by [airsched::store\\_airline\\_sign::operator\(\)\(\)](#), [airsched::store\\_airline\\_code::operator\(\)\(\)](#), and [airsched::store\\_airline\\_name::operator\(\)\(\)](#).

#### 23.45.4.8 Passenger\_T airsched::SearchString\_T::\_tmpPassenger

Definition at line 140 of file [BookingRequestParser.hpp](#).

Referenced by [airsched::store\\_passenger\\_number::operator\(\)\(\)](#), [airsched::store\\_adult\\_passenger\\_type::operator\(\)\(\)](#), [airsched::store\\_child\\_passenger\\_type::operator\(\)\(\)](#), and [airsched::store\\_pet\\_passenger\\_type::operator\(\)\(\)](#).

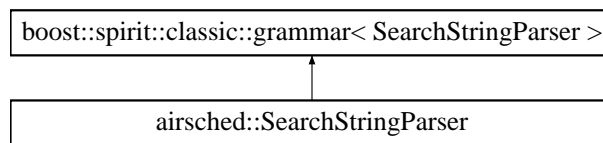
The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.hpp](#)



## 23.46 airsched::SearchStringParser Struct Reference

Inheritance diagram for airsched::SearchStringParser:



### Classes

- struct [definition](#)

### Public Member Functions

- [SearchStringParser](#) ([SearchString\\_T](#) &ioSearchString)

### Public Attributes

- [SearchString\\_T](#) & [\\_searchString](#)

#### 23.46.1 Detailed Description

Grammar for the search string parser.

Definition at line 251 of file [BookingRequestParser.cpp](#).

#### 23.46.2 Constructor & Destructor Documentation

23.46.2.1 `airsched::SearchStringParser::SearchStringParser ( SearchString\_T & ioSearchString )` `[inline]`

Definition at line 254 of file [BookingRequestParser.cpp](#).

#### 23.46.3 Member Data Documentation

23.46.3.1 `SearchString\_T& airsched::SearchStringParser::_searchString`

Definition at line 369 of file [BookingRequestParser.cpp](#).

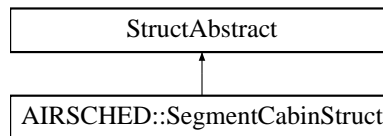
The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.47 AIRSCHED::SegmentCabinStruct Struct Reference

```
#include <airsched/bom/SegmentCabinStruct.hpp>
```

Inheritance diagram for AIRSCHED::SegmentCabinStruct:



### Public Member Functions

- void [fill](#) (stdair::SegmentCabin &) const
- const std::string [describe](#) () const

### Public Attributes

- stdair::CabinCode\_T [\\_cabinCode](#)
- stdair::ClassList\_String\_T [\\_classes](#)
- stdair::FamilyCode\_T [\\_itFamilyCode](#)
- stdair::CurveKey\_T [\\_itFRAT5CurveKey](#)
- stdair::CurveKey\_T [\\_itFFDisutilityCurveKey](#)
- [FareFamilyStructList\\_T](#) [\\_fareFamilies](#)

#### 23.47.1 Detailed Description

Utility Structure for the parsing of SegmentCabin details.

Definition at line 24 of file [SegmentCabinStruct.hpp](#).

#### 23.47.2 Member Function Documentation

**23.47.2.1** void AIRSCHED::SegmentCabinStruct::fill ( stdair::SegmentCabin & *ioSegmentCabin* ) const

Fill the SegmentCabin objects with the attributes of the [SegmentCabinStruct](#).

Definition at line 22 of file [SegmentCabinStruct.cpp](#).

**23.47.2.2** const std::string AIRSCHED::SegmentCabinStruct::describe ( ) const

Give a description of the structure (for display purposes).

Definition at line 15 of file [SegmentCabinStruct.cpp](#).

References [\\_cabinCode](#), and [\\_classes](#).

Referenced by [AIRSCHED::SegmentStruct::describe\(\)](#).

#### 23.47.3 Member Data Documentation

**23.47.3.1** stdair::CabinCode\_T AIRSCHED::SegmentCabinStruct::\_cabinCode

Definition at line 26 of file [SegmentCabinStruct.hpp](#).

Referenced by [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#), [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)\(\)](#).

**23.47.3.2** stdair::ClassList\_String\_T AIRSCHED::SegmentCabinStruct::\_classes

Definition at line 27 of file [SegmentCabinStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)\(\)](#).

## 23.47.3.3 stdair::FamilyCode\_T AIRSCHED::SegmentCabinStruct::\_itFamilyCode

Definition at line 28 of file [SegmentCabinStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#).

## 23.47.3.4 stdair::CurveKey\_T AIRSCHED::SegmentCabinStruct::\_itFRAT5CurveKey

Definition at line 29 of file [SegmentCabinStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#).

## 23.47.3.5 stdair::CurveKey\_T AIRSCHED::SegmentCabinStruct::\_itFFDisutilityCurveKey

Definition at line 30 of file [SegmentCabinStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#).

## 23.47.3.6 FareFamilyStructList\_T AIRSCHED::SegmentCabinStruct::\_fareFamilies

Definition at line 31 of file [SegmentCabinStruct.hpp](#).

Referenced by [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#).

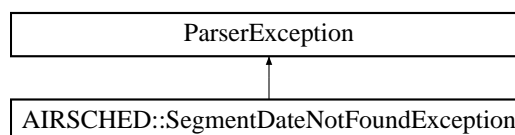
The documentation for this struct was generated from the following files:

- [airsched/bom/SegmentCabinStruct.hpp](#)
- [airsched/bom/SegmentCabinStruct.cpp](#)

## 23.48 AIRSCHED::SegmentDateNotFoundException Class Reference

```
#include <airsched/AIRSCHED_Types.hpp>
```

Inheritance diagram for AIRSCHED::SegmentDateNotFoundException:



## Public Member Functions

- [SegmentDateNotFoundException](#) (const std::string &iWhat)

## 23.48.1 Detailed Description

Specific exception when some BOM objects can not be found within the schedule.

Definition at line 23 of file [AIRSCHED\\_Types.hpp](#).

## 23.48.2 Constructor &amp; Destructor Documentation

23.48.2.1 AIRSCHED::SegmentDateNotFoundException::SegmentDateNotFoundException ( const std::string &iWhat )  
[inline]

Constructor.

Definition at line 28 of file [AIRSCHED\\_Types.hpp](#).

The documentation for this class was generated from the following file:

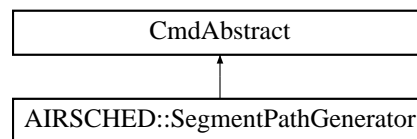
- [airsched/AIRSCHED\\_Types.hpp](#)

## 23.49 AIRSCHED::SegmentPathGenerator Class Reference

Class handling the generation / instantiation of the network BOM.

```
#include <airsched/command/SegmentPathGenerator.hpp>
```

Inheritance diagram for AIRSCHED::SegmentPathGenerator:



### Static Public Member Functions

- static void [createSegmentPathNetwork](#) (const stdair::BomRoot &)

#### 23.49.1 Detailed Description

Class handling the generation / instantiation of the network BOM.

Definition at line 34 of file [SegmentPathGenerator.hpp](#).

#### 23.49.2 Member Function Documentation

**23.49.2.1** void AIRSCHED::SegmentPathGenerator::createSegmentPathNetwork ( const stdair::BomRoot & *iBomRoot* )  
[static]

Generate the segment path network.

Definition at line 26 of file [SegmentPathGenerator.cpp](#).

Referenced by [AIRSCHED::AIRSCHED\\_Service::buildComplementaryLinks\(\)](#).

The documentation for this class was generated from the following files:

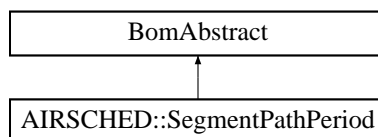
- [airsched/command/SegmentPathGenerator.hpp](#)
- [airsched/command/SegmentPathGenerator.cpp](#)

## 23.50 AIRSCHED::SegmentPathPeriod Class Reference

Class representing a segment/path.

```
#include <airsched/bom/SegmentPathPeriod.hpp>
```

Inheritance diagram for AIRSCHED::SegmentPathPeriod:



### Public Types

- typedef [SegmentPathPeriodKey](#) [Key\\_T](#)

### Public Member Functions

- const [Key\\_T](#) & [getKey](#) () const
- stdair::BomAbstract \*const [getParent](#) () const
- const stdair::PeriodStruct & [getDeparturePeriod](#) () const
- const [DateOffsetList\\_T](#) & [getBoardingDateOffsetList](#) () const
- const stdair::NbOfSegments\_T [getNbOfSegments](#) () const
- const stdair::NbOfAirlines\_T & [getNbOfAirlines](#) () const
- const stdair::Duration\_T & [getElapsedTime](#) () const
- const stdair::Duration\_T & [getBoardingTime](#) () const
- const stdair::HolderMap\_T & [getHolderMap](#) () const
- stdair::SegmentPeriod \* [getLastSegmentPeriod](#) () const
- stdair::SegmentPeriod \* [getFirstSegmentPeriod](#) () const
- const stdair::AirportCode\_T & [getDestination](#) () const
- [Key\\_T](#) [connectWithAnotherSegment](#) (const [SegmentPathPeriod](#) &) const
- bool [checkCircle](#) (const stdair::AirportCode\_T &) const
- bool [isAirlineFlown](#) (const stdair::AirlineCode\_T &) const
- bool [isDepartureDateValid](#) (const stdair::Date\_T &) const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- std::string [toString](#) () const
- const std::string [describeKey](#) () const
- template<class Archive >  
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

### Protected Member Functions

- [SegmentPathPeriod](#) (const [Key\\_T](#) &)
- [~SegmentPathPeriod](#) ()

### Protected Attributes

- [Key\\_T \\_key](#)
- stdair::BomAbstract \* [\\_parent](#)
- stdair::HolderMap\_T [\\_holderMap](#)

### Friends

- class [stdair::FacBom](#)
- class [stdair::FacBomManager](#)
- class [boost::serialization::access](#)

## 23.50.1 Detailed Description

Class representing a segment/path.

It corresponds to an actual travel solution from the origin to the destination, that is, a path that a traveller can take with actual scheduled flights.

Definition at line 39 of file [SegmentPathPeriod.hpp](#).

## 23.50.2 Member Typedef Documentation

## 23.50.2.1 typedef SegmentPathPeriodKey AIRSCHED::SegmentPathPeriod::Key\_T

Definition allowing to retrieve the associated BOM key type.

Definition at line 52 of file [SegmentPathPeriod.hpp](#).

## 23.50.3 Constructor &amp; Destructor Documentation

## 23.50.3.1 AIRSCHED::SegmentPathPeriod::SegmentPathPeriod ( const Key\_T &amp; iKey ) [protected]

Main constructor.

Definition at line 43 of file [SegmentPathPeriod.cpp](#).

## 23.50.3.2 AIRSCHED::SegmentPathPeriod::~~SegmentPathPeriod ( ) [protected]

Destructor.

Definition at line 48 of file [SegmentPathPeriod.cpp](#).

## 23.50.4 Member Function Documentation

## 23.50.4.1 const Key\_T&amp; AIRSCHED::SegmentPathPeriod::getKey ( ) const [inline]

Get the primary key (destination airport).

Definition at line 60 of file [SegmentPathPeriod.hpp](#).

References [\\_key](#).

## 23.50.4.2 stdair::BomAbstract\* const AIRSCHED::SegmentPathPeriod::getParent ( ) const [inline]

Get the parent (i.e., [OriginDestinationSet](#)) object.

Definition at line 67 of file [SegmentPathPeriod.hpp](#).

References [\\_parent](#).

## 23.50.4.3 const stdair::PeriodStruct&amp; AIRSCHED::SegmentPathPeriod::getDeparturePeriod ( ) const [inline]

Get the departure period (part of the primary key).

Definition at line 72 of file [SegmentPathPeriod.hpp](#).

References [\\_key](#), and [AIRSCHED::SegmentPathPeriodKey::getPeriod\(\)](#).

Referenced by [connectWithAnotherSegment\(\)](#), and [isDepartureDateValid\(\)](#).

## 23.50.4.4 const DateOffsetList\_T&amp; AIRSCHED::SegmentPathPeriod::getBoardingDateOffsetList ( ) const [inline]

Get the boarding date offset list (part of the primary key).

Definition at line 77 of file [SegmentPathPeriod.hpp](#).

References [\\_key](#), and [AIRSCHED::SegmentPathPeriodKey::getBoardingDateOffsetList\(\)](#).

Referenced by [connectWithAnotherSegment\(\)](#).

**23.50.4.5** `const stdair::NbOfSegments_T AIRSCHED::SegmentPathPeriod::getNbOfSegments ( ) const [inline]`

Get the number of segments (part of the primary key).

Definition at line 82 of file [SegmentPathPeriod.hpp](#).

References [\\_key](#), and [AIRSCHED::SegmentPathPeriodKey::getNbOfSegments\(\)](#).

Referenced by [connectWithAnotherSegment\(\)](#).

**23.50.4.6** `const stdair::NbOfAirlines_T& AIRSCHED::SegmentPathPeriod::getNbOfAirlines ( ) const [inline]`

Get the number of airlines (part of the primary key).

Definition at line 87 of file [SegmentPathPeriod.hpp](#).

References [\\_key](#), and [AIRSCHED::SegmentPathPeriodKey::getNbOfAirlines\(\)](#).

**23.50.4.7** `const stdair::Duration_T& AIRSCHED::SegmentPathPeriod::getElapsedTime ( ) const [inline]`

Get the elapsed time (part of the primary key).

Definition at line 92 of file [SegmentPathPeriod.hpp](#).

References [\\_key](#), and [AIRSCHED::SegmentPathPeriodKey::getElapsedTime\(\)](#).

Referenced by [connectWithAnotherSegment\(\)](#).

**23.50.4.8** `const stdair::Duration_T& AIRSCHED::SegmentPathPeriod::getBoardingTime ( ) const [inline]`

Get the boarding time (part of the primary key).

Definition at line 97 of file [SegmentPathPeriod.hpp](#).

References [\\_key](#), and [AIRSCHED::SegmentPathPeriodKey::getBoardingTime\(\)](#).

Referenced by [connectWithAnotherSegment\(\)](#).

**23.50.4.9** `const stdair::HolderMap_T& AIRSCHED::SegmentPathPeriod::getHolderMap ( ) const [inline]`

Get the map of children holders (SegmentPeriod objects).

Definition at line 104 of file [SegmentPathPeriod.hpp](#).

References [\\_holderMap](#).

**23.50.4.10** `stdair::SegmentPeriod * AIRSCHED::SegmentPathPeriod::getLastSegmentPeriod ( ) const`

Get the last SegmentPeriod object of the list.

Return a NULL pointer if the list is empty.

Definition at line 91 of file [SegmentPathPeriod.cpp](#).

Referenced by [connectWithAnotherSegment\(\)](#), and [getDestination\(\)](#).

**23.50.4.11** `stdair::SegmentPeriod * AIRSCHED::SegmentPathPeriod::getFirstSegmentPeriod ( ) const`

Get the first SegmentPeriod object of the list.

Return a NULL pointer if the list is empty.

Definition at line 109 of file [SegmentPathPeriod.cpp](#).

Referenced by [connectWithAnotherSegment\(\)](#).

23.50.4.12 `const stdair::AirportCode_T & AIRSCHED::SegmentPathPeriod::getDestination ( ) const`

Get the destination of the segment path (i.e., the destination of the last segment).

Definition at line 127 of file [SegmentPathPeriod.cpp](#).

References [getLastSegmentPeriod\(\)](#).

23.50.4.13 `SegmentPathPeriodKey AIRSCHED::SegmentPathPeriod::connectWithAnotherSegment ( const SegmentPathPeriod & iSingleSegmentPath ) const`

Check whether the (i-1)-length segment path period can be merged with the single segment path period in order to create an i-length segment path period. The function will return a valid or non-valid segment path period key.

The two segment path period above can be fused (and will produce a valid new segment path period key) if:

1. A passenger can connect from the last segment of the first segment path and the first segment of the next segment path. These two segments should not create another segment.
2. There is no circle within the new segment path.
3. The intersection of the two periods is non-empty.

Definition at line 163 of file [SegmentPathPeriod.cpp](#).

References [checkCircle\(\)](#), [getBoardingDateOffsetList\(\)](#), [getBoardingTime\(\)](#), [getDeparturePeriod\(\)](#), [getElapsedTime\(\)](#), [getFirstSegmentPeriod\(\)](#), [getLastSegmentPeriod\(\)](#), [getNbOfSegments\(\)](#), [AIRSCHED::SegmentPathPeriodKey::setBoardingDateOffsetList\(\)](#), [AIRSCHED::SegmentPathPeriodKey::setBoardingTime\(\)](#), [AIRSCHED::SegmentPathPeriodKey::setElapsedTime\(\)](#), and [AIRSCHED::SegmentPathPeriodKey::setPeriod\(\)](#).

23.50.4.14 `bool AIRSCHED::SegmentPathPeriod::checkCircle ( const stdair::AirportCode_T & ) const`

Check whether the given destination airport is also the departure point of one of the other segment members. If yes, a circle exists.

Definition at line 289 of file [SegmentPathPeriod.cpp](#).

Referenced by [connectWithAnotherSegment\(\)](#).

23.50.4.15 `bool AIRSCHED::SegmentPathPeriod::isAirlineFlown ( const stdair::AirlineCode_T & iAirlineCode ) const`

State whether or not the given airline is flown by (at least) one of the segments of the internal list.

Definition at line 135 of file [SegmentPathPeriod.cpp](#).

23.50.4.16 `bool AIRSCHED::SegmentPathPeriod::isDepartureDateValid ( const stdair::Date_T & iDepartureDate ) const`

Check whether the given departure date is included in the departure period of the segment path.

Definition at line 308 of file [SegmentPathPeriod.cpp](#).

References [getDeparturePeriod\(\)](#).

23.50.4.17 `void AIRSCHED::SegmentPathPeriod::toStream ( std::ostream & ioOut ) const [inline]`

Dump a Business Object into an output stream.

#### Parameters

<i>ostream&amp;</i>	the output stream.
---------------------	--------------------

Definition at line 176 of file [SegmentPathPeriod.hpp](#).

References [toString\(\)](#).



23.50.4.18 `void AIRSCHED::SegmentPathPeriod::fromStream ( std::istream & ioIn ) [inline]`

Read a Business Object from an input stream.

#### Parameters

<i>istream</i> &	the input stream.
------------------	-------------------

Definition at line 185 of file [SegmentPathPeriod.hpp](#).

23.50.4.19 `std::string AIRSCHED::SegmentPathPeriod::toString ( ) const`

Get the serialised version of the Business Object.

Definition at line 52 of file [SegmentPathPeriod.cpp](#).

References [\\_key](#), and [AIRSCHED::SegmentPathPeriodKey::toString\(\)](#).

Referenced by [toStream\(\)](#).

23.50.4.20 `const std::string AIRSCHED::SegmentPathPeriod::describeKey ( ) const [inline]`

Get a string describing the key.

Definition at line 196 of file [SegmentPathPeriod.hpp](#).

References [\\_key](#), and [AIRSCHED::SegmentPathPeriodKey::toString\(\)](#).

23.50.4.21 `template<class Archive > void AIRSCHED::SegmentPathPeriod::serialize ( Archive & ar, const unsigned int iFileVersion )`

Serialisation.

Definition at line 74 of file [SegmentPathPeriod.cpp](#).

References [\\_key](#).

## 23.50.5 Friends And Related Function Documentation

23.50.5.1 `friend class stdair::FacBom [friend]`

Friend classes.

Definition at line 43 of file [SegmentPathPeriod.hpp](#).

23.50.5.2 `friend class stdair::FacBomManager [friend]`

Definition at line 44 of file [SegmentPathPeriod.hpp](#).

23.50.5.3 `friend class boost::serialization::access [friend]`

Definition at line 45 of file [SegmentPathPeriod.hpp](#).

## 23.50.6 Member Data Documentation

23.50.6.1 `Key_T AIRSCHED::SegmentPathPeriod::_key [protected]`

Primary key (segment/path characteristics: scheduled period, number of segments, number of airlines, elapsed time, boarding time).

Definition at line 249 of file [SegmentPathPeriod.hpp](#).

Referenced by [describeKey\(\)](#), [getBoardingDateOffsetList\(\)](#), [getBoardingTime\(\)](#), [getDeparturePeriod\(\)](#), [getElapsedTime\(\)](#), [getKey\(\)](#), [getNbOfAirlines\(\)](#), [getNbOfSegments\(\)](#), [serialize\(\)](#), and [toString\(\)](#).

23.50.6.2 `stdair::BomAbstract*` AIRSCHED::SegmentPathPeriod::\_parent [protected]

Pointer on the parent ([OriginDestinationSet](#)) object.

Definition at line 254 of file [SegmentPathPeriod.hpp](#).

Referenced by [getParent\(\)](#).

23.50.6.3 `stdair::HolderMap_T` AIRSCHED::SegmentPathPeriod::\_holderMap [protected]

Map holding the children (SegmentPeriod objects).

#### Note

The SegmentPeriod objects themselves have for parent the FlightPeriod class (not the [SegmentPathPeriod](#) class).

Definition at line 262 of file [SegmentPathPeriod.hpp](#).

Referenced by [getHolderMap\(\)](#).

The documentation for this class was generated from the following files:

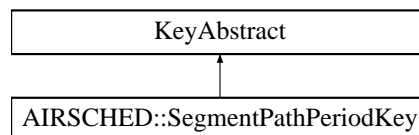
- [airsched/bom/SegmentPathPeriod.hpp](#)
- [airsched/bom/SegmentPathPeriod.cpp](#)

## 23.51 AIRSCHED::SegmentPathPeriodKey Struct Reference

Structure representing the key of a segment/path.

```
#include <airsched/bom/SegmentPathPeriodKey.hpp>
```

Inheritance diagram for AIRSCHED::SegmentPathPeriodKey:



#### Public Member Functions

- [SegmentPathPeriodKey](#) (const `stdair::PeriodStruct` &, const `stdair::Duration_T` & `iBoardingTime`, const `stdair::Duration_T` & `iElapsed`, const [DateOffsetList\\_T](#) &, const `stdair::NbOfAirlines_T` &)
- [SegmentPathPeriodKey](#) ()
- [SegmentPathPeriodKey](#) (const [SegmentPathPeriodKey](#) &)
- [~SegmentPathPeriodKey](#) ()
- const `stdair::PeriodStruct` & [getPeriod](#) () const
- const [DateOffsetList\\_T](#) & [getBoardingDateOffsetList](#) () const
- const `stdair::NbOfSegments_T` & [getNbOfSegments](#) () const
- const `stdair::NbOfAirlines_T` & [getNbOfAirlines](#) () const
- const `stdair::Duration_T` & [getElapsedTime](#) () const
- const `stdair::Duration_T` & [getBoardingTime](#) () const
- void [setPeriod](#) (const `stdair::PeriodStruct` & `iPeriod`)
- void [setBoardingDateOffsetList](#) (const [DateOffsetList\\_T](#) & `iList`)
- void [setNbOfAirlines](#) (const `stdair::NbOfAirlines_T` & `iNbOfAirlines`)
- void [setElapsedTime](#) (const `stdair::Duration_T` & `iElapsed`)
- void [setBoardingTime](#) (const `stdair::Duration_T` & `iBoardingTime`)

- const bool [isValid](#) () const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- const std::string [toString](#) () const
- template<class Archive >  
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

#### Friends

- class [boost::serialization::access](#)

#### 23.51.1 Detailed Description

Structure representing the key of a segment/path.

That key specifies a travel solution from a geographical point (origin airport) to another (destination airport).

Definition at line 33 of file [SegmentPathPeriodKey.hpp](#).

#### 23.51.2 Constructor & Destructor Documentation

**23.51.2.1** AIRSCHED::SegmentPathPeriodKey::SegmentPathPeriodKey ( const stdair::PeriodStruct & *iPeriod*, const stdair::Duration\_T & *iBoardingTime*, const stdair::Duration\_T & *iElapsed*, const DateOffsetList\_T & *iBoardingDateOffsetList*, const stdair::NbOfAirlines\_T & *iNbOfAirlines* )

Constructor.

Definition at line 40 of file [SegmentPathPeriodKey.cpp](#).

**23.51.2.2** AIRSCHED::SegmentPathPeriodKey::SegmentPathPeriodKey ( )

Default constructor.

Definition at line 22 of file [SegmentPathPeriodKey.cpp](#).

**23.51.2.3** AIRSCHED::SegmentPathPeriodKey::SegmentPathPeriodKey ( const SegmentPathPeriodKey & *iSPPK* )

Copy constructor.

Definition at line 30 of file [SegmentPathPeriodKey.cpp](#).

**23.51.2.4** AIRSCHED::SegmentPathPeriodKey::~SegmentPathPeriodKey ( )

Destructor.

Definition at line 53 of file [SegmentPathPeriodKey.cpp](#).

#### 23.51.3 Member Function Documentation

**23.51.3.1** const stdair::PeriodStruct& AIRSCHED::SegmentPathPeriodKey::getPeriod ( ) const [inline]

Get the active days-of-week.

Definition at line 68 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getDeparturePeriod\(\)](#).

**23.51.3.2** const DateOffsetList\_T& AIRSCHED::SegmentPathPeriodKey::getBoardingDateOffsetList ( ) const [inline]

Get the list of boarding date off-sets.

Definition at line 75 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getBoardingDateOffsetList\(\)](#).

23.51.3.3 `const stdair::NbOfSegments_T AIRSCHED::SegmentPathPeriodKey::getNbOfSegments ( ) const [inline]`

Get the number of segments.

Definition at line 82 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getNbOfSegments\(\)](#).

23.51.3.4 `const stdair::NbOfAirlines_T& AIRSCHED::SegmentPathPeriodKey::getNbOfAirlines ( ) const [inline]`

Get the number of airlines.

Definition at line 89 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getNbOfAirlines\(\)](#).

23.51.3.5 `const stdair::Duration_T& AIRSCHED::SegmentPathPeriodKey::getElapsedTime ( ) const [inline]`

Get the elapsed time.

Definition at line 96 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getElapsedTime\(\)](#).

23.51.3.6 `const stdair::Duration_T& AIRSCHED::SegmentPathPeriodKey::getBoardingTime ( ) const [inline]`

Get the boarding time.

Definition at line 103 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getBoardingTime\(\)](#).

23.51.3.7 `void AIRSCHED::SegmentPathPeriodKey::setPeriod ( const stdair::PeriodStruct & iPeriod ) [inline]`

Set the active days-of-week.

Definition at line 111 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::connectWithAnotherSegment\(\)](#).

23.51.3.8 `void AIRSCHED::SegmentPathPeriodKey::setBoardingDateOffsetList ( const DateOffsetList_T & iList ) [inline]`

Definition at line 115 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::connectWithAnotherSegment\(\)](#).

23.51.3.9 `void AIRSCHED::SegmentPathPeriodKey::setNbOfAirlines ( const stdair::NbOfAirlines_T & iNbOfAirlines ) [inline]`

Set the number of airlines.

Definition at line 120 of file [SegmentPathPeriodKey.hpp](#).

23.51.3.10 `void AIRSCHED::SegmentPathPeriodKey::setElapsedTime ( const stdair::Duration_T & iElapsed ) [inline]`

Set the elapsed time.

Definition at line 125 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::connectWithAnotherSegment\(\)](#).

23.51.3.11 void AIRSCHED::SegmentPathPeriodKey::setBoardingTime ( const stdair::Duration.T & iBoardingTime )  
[inline]

Set the boarding time.

Definition at line 130 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::connectWithAnotherSegment\(\)](#).

23.51.3.12 const bool AIRSCHED::SegmentPathPeriodKey::isValid ( ) const [inline]

Check if the key is valid (i.e. the departure period is valid).

Definition at line 138 of file [SegmentPathPeriodKey.hpp](#).

23.51.3.13 void AIRSCHED::SegmentPathPeriodKey::toStream ( std::ostream & ioOut ) const

Dump a Business Object Key into an output stream.

#### Parameters

<i>ostream&amp;</i>	the output stream.
---------------------	--------------------

Definition at line 57 of file [SegmentPathPeriodKey.cpp](#).

References [toString\(\)](#).

23.51.3.14 void AIRSCHED::SegmentPathPeriodKey::fromStream ( std::istream & ioIn )

Read a Business Object Key from an input stream.

#### Parameters

<i>istream&amp;</i>	the input stream.
---------------------	-------------------

Definition at line 62 of file [SegmentPathPeriodKey.cpp](#).

23.51.3.15 const std::string AIRSCHED::SegmentPathPeriodKey::toString ( ) const

Get the serialised version of the Business Object Key.

That string is unique, at the level of a given Business Object, when among children of a given parent Business Object.

For instance, "H" and "K" allow to differentiate among two marketing classes for the same segment-date.

Definition at line 66 of file [SegmentPathPeriodKey.cpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::describeKey\(\)](#), [toStream\(\)](#), and [AIRSCHED::SegmentPathPeriod::toString\(\)](#).

23.51.3.16 template<class Archive > void AIRSCHED::SegmentPathPeriodKey::serialize ( Archive & ar, const unsigned int iFileVersion )

Serialisation.

Definition at line 98 of file [SegmentPathPeriodKey.cpp](#).

## 23.51.4 Friends And Related Function Documentation

23.51.4.1 friend class boost::serialization::access [friend]

Definition at line 34 of file [SegmentPathPeriodKey.hpp](#).

The documentation for this struct was generated from the following files:

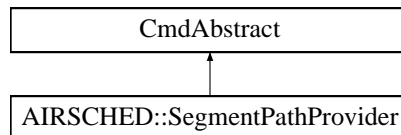
- [airsched/bom/SegmentPathPeriodKey.hpp](#)
- [airsched/bom/SegmentPathPeriodKey.cpp](#)

## 23.52 AIRSCHED::SegmentPathProvider Class Reference

Class building the travel solutions from airline schedules.

```
#include <airsched/command/SegmentPathProvider.hpp>
```

Inheritance diagram for AIRSCHED::SegmentPathProvider:



### Friends

- class [AIRSCHED\\_Service](#)

#### 23.52.1 Detailed Description

Class building the travel solutions from airline schedules.

Definition at line 27 of file [SegmentPathProvider.hpp](#).

#### 23.52.2 Friends And Related Function Documentation

##### 23.52.2.1 friend class AIRSCHED\_Service [friend]

Definition at line 28 of file [SegmentPathProvider.hpp](#).

The documentation for this class was generated from the following files:

- [airsched/command/SegmentPathProvider.hpp](#)
- [airsched/command/SegmentPathProvider.cpp](#)

## 23.53 AIRSCHED::SegmentPeriodHelper Class Reference

```
#include <airsched/bom/SegmentPeriodHelper.hpp>
```

### Static Public Member Functions

- static void [fill](#) (stdair::SegmentPeriod &, const [SegmentStruct](#) &)
- static void [fill](#) (stdair::SegmentPeriod &, const [LegStructList\\_T](#) &)

#### 23.53.1 Detailed Description

Class representing the actual business functions for an airline segment-period.

Definition at line 19 of file [SegmentPeriodHelper.hpp](#).

## 23.53.2 Member Function Documentation

23.53.2.1 `void AIRSCHED::SegmentPeriodHelper::fill ( stdair::SegmentPeriod & ioSegmentPeriod, const SegmentStruct & iSegmentStruct ) [static]`

Fill the attributes of the given segment-period with the cabins and classes.

Definition at line 14 of file [SegmentPeriodHelper.cpp](#).

References [AIRSCHED::SegmentCabinStruct::\\_cabinCode](#), [AIRSCHED::SegmentStruct::\\_cabinList](#), and [AIRSCHED::SegmentCabinStruct::\\_classes](#).

23.53.2.2 `void AIRSCHED::SegmentPeriodHelper::fill ( stdair::SegmentPeriod & ioSegmentPeriod, const LegStructList_T & iLegList ) [static]`

Fill the attributes of the given segment-period with the list of used legs.

Definition at line 29 of file [SegmentPeriodHelper.cpp](#).

References [AIRSCHED::LegStruct::\\_boardingPoint](#), [AIRSCHED::LegStruct::\\_offDateOffset](#), [AIRSCHED::LegStruct::\\_offPoint](#), and [AIRSCHED::LegStruct::\\_offTime](#).

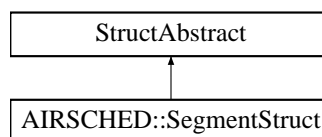
The documentation for this class was generated from the following files:

- [airsched/bom/SegmentPeriodHelper.hpp](#)
- [airsched/bom/SegmentPeriodHelper.cpp](#)

## 23.54 AIRSCHED::SegmentStruct Struct Reference

```
#include <airsched/bom/SegmentStruct.hpp>
```

Inheritance diagram for AIRSCHED::SegmentStruct:



## Public Member Functions

- `void fill (stdair::SegmentDate &) const`
- `const std::string describe () const`

## Public Attributes

- `stdair::AirportCode_T _boardingPoint`
- `stdair::Date_T _boardingDate`
- `stdair::Duration_T _boardingTime`
- `stdair::AirportCode_T _offPoint`
- `stdair::Date_T _offDate`
- `stdair::Duration_T _offTime`
- `stdair::Duration_T _elapsed`
- `SegmentCabinStructList_T _cabinList`

### 23.54.1 Detailed Description

Utility Structure for the parsing of Segment structures.

Definition at line 24 of file [SegmentStruct.hpp](#).

### 23.54.2 Member Function Documentation

#### 23.54.2.1 void AIRSCHED::SegmentStruct::fill ( stdair::SegmentDate & ioSegmentDate ) const

Fill the SegmentDate objects with the attributes of the [SegmentStruct](#).

Definition at line 35 of file [SegmentStruct.cpp](#).

#### 23.54.2.2 const std::string AIRSCHED::SegmentStruct::describe ( ) const

Give a description of the structure (for display purposes).

Definition at line 15 of file [SegmentStruct.cpp](#).

References [\\_boardingPoint](#), [\\_boardingTime](#), [\\_cabinList](#), [\\_elapsed](#), [\\_offPoint](#), [\\_offTime](#), and [AIRSCHED::SegmentCabinStruct::describe\(\)](#).

Referenced by [AIRSCHED::FlightPeriodStruct::describe\(\)](#).

### 23.54.3 Member Data Documentation

#### 23.54.3.1 stdair::AirportCode\_T AIRSCHED::SegmentStruct::\_boardingPoint

Definition at line 26 of file [SegmentStruct.hpp](#).

Referenced by [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#), [AIRSCHED::FlightPeriodStruct::addSegmentCabin\(\)](#), [AIRSCHED::FlightPeriodStruct::buildSegments\(\)](#), [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)\(\)](#).

#### 23.54.3.2 stdair::Date\_T AIRSCHED::SegmentStruct::\_boardingDate

Definition at line 27 of file [SegmentStruct.hpp](#).

#### 23.54.3.3 stdair::Duration\_T AIRSCHED::SegmentStruct::\_boardingTime

Definition at line 28 of file [SegmentStruct.hpp](#).

Referenced by [describe\(\)](#).

#### 23.54.3.4 stdair::AirportCode\_T AIRSCHED::SegmentStruct::\_offPoint

Definition at line 29 of file [SegmentStruct.hpp](#).

Referenced by [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#), [AIRSCHED::FlightPeriodStruct::addSegmentCabin\(\)](#), [AIRSCHED::FlightPeriodStruct::buildSegments\(\)](#), [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)\(\)](#).

#### 23.54.3.5 stdair::Date\_T AIRSCHED::SegmentStruct::\_offDate

Definition at line 30 of file [SegmentStruct.hpp](#).

#### 23.54.3.6 stdair::Duration\_T AIRSCHED::SegmentStruct::\_offTime

Definition at line 31 of file [SegmentStruct.hpp](#).

Referenced by [describe\(\)](#).



## 23.54.3.7 stdair::Duration\_T AIRSCHED::SegmentStruct::\_elapsed

Definition at line 32 of file [SegmentStruct.hpp](#).

Referenced by [describe\(\)](#).

## 23.54.3.8 SegmentCabinStructList\_T AIRSCHED::SegmentStruct::\_cabinList

Definition at line 33 of file [SegmentStruct.hpp](#).

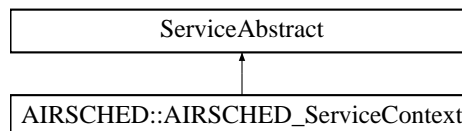
Referenced by [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#), [AIRSCHED::FlightPeriodStruct::addSegmentCabin\(\)](#), [describe\(\)](#), and [AIRSCHED::SegmentPeriodHelper::fill\(\)](#).

The documentation for this struct was generated from the following files:

- [airsched/bom/SegmentStruct.hpp](#)
- [airsched/bom/SegmentStruct.cpp](#)

## 23.55 ServiceAbstract Class Reference

Inheritance diagram for ServiceAbstract:



The documentation for this class was generated from the following file:

- [airsched/service/AIRSCHED\\_ServiceContext.hpp](#)

## 23.56 AIRSCHED::ServiceAbstract Class Reference

```
#include <airsched/service/ServiceAbstract.hpp>
```

## Public Member Functions

- virtual [~ServiceAbstract\(\)](#)
- virtual void [toStream](#) (std::ostream &ioOut) const
- virtual void [fromStream](#) (std::istream &ioIn)

## Protected Member Functions

- [ServiceAbstract\(\)](#)

## 23.56.1 Detailed Description

Base class for the Service layer.

Definition at line 14 of file [ServiceAbstract.hpp](#).

## 23.56.2 Constructor &amp; Destructor Documentation

23.56.2.1 `virtual AIRSCHED::ServiceAbstract::~ServiceAbstract ( ) [inline],[virtual]`

Destructor.

Definition at line 18 of file [ServiceAbstract.hpp](#).

23.56.2.2 `AIRSCHED::ServiceAbstract::ServiceAbstract ( ) [inline],[protected]`

Protected Default Constructor to ensure this class is abstract.

Definition at line 30 of file [ServiceAbstract.hpp](#).

## 23.56.3 Member Function Documentation

23.56.3.1 `virtual void AIRSCHED::ServiceAbstract::toStream ( std::ostream & ioOut ) const [inline],[virtual]`

Dump a Business Object into an output stream.

## Parameters

<code>ostream&amp;</code>	the output stream.
---------------------------	--------------------

Definition at line 22 of file [ServiceAbstract.hpp](#).

23.56.3.2 `virtual void AIRSCHED::ServiceAbstract::fromStream ( std::istream & ioIn ) [inline],[virtual]`

Read a Business Object from an input stream.

## Parameters

<code>istream&amp;</code>	the input stream.
---------------------------	-------------------

Definition at line 26 of file [ServiceAbstract.hpp](#).

Referenced by [operator>>\(\)](#).

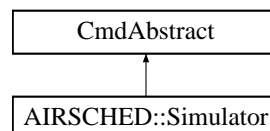
The documentation for this class was generated from the following file:

- [airsched/service/ServiceAbstract.hpp](#)

## 23.57 AIRSCHED::Simulator Class Reference

```
#include <airsched/command/Simulator.hpp>
```

Inheritance diagram for AIRSCHED::Simulator:



## Static Public Member Functions

- static void [simulate](#) (stdair::BomRoot &)

## 23.57.1 Detailed Description

Class implementing a small simulation, which uses the Airline Schedule.

Definition at line 18 of file [Simulator.hpp](#).

## 23.57.2 Member Function Documentation

## 23.57.2.1 void AIRSCHED::Simulator::simulate ( stdair::BomRoot &amp; ioBomRoot ) [static]

Perform a small simulation, which uses the Airline Schedule.

## Parameters

<i>stdair::Bom-Root&amp;</i>	Root of the BOM tree.
------------------------------	-----------------------

Definition at line 19 of file [Simulator.cpp](#).

The documentation for this class was generated from the following files:

- [airsched/command/Simulator.hpp](#)
- [airsched/command/Simulator.cpp](#)

## 23.58 airsched::store\_adult\_passenger\_type Struct Reference

## Public Member Functions

- [store\\_adult\\_passenger\\_type](#) ([SearchString\\_T](#) &ioSearchString)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

## Public Attributes

- [SearchString\\_T](#) & [\\_searchString](#)

## 23.58.1 Detailed Description

Store the parsed passenger type.

Definition at line 145 of file [BookingRequestParser.cpp](#).

## 23.58.2 Constructor &amp; Destructor Documentation

23.58.2.1 airsched::store\_adult\_passenger\_type::store\_adult\_passenger\_type ( [SearchString\\_T](#) & ioSearchString ) [inline]

Constructor.

Definition at line 147 of file [BookingRequestParser.cpp](#).

## 23.58.3 Member Function Documentation

23.58.3.1 void airsched::store\_adult\_passenger\_type::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const [inline]

Parse adult passenger type.

Definition at line 151 of file [BookingRequestParser.cpp](#).

References [airsched::SearchString\\_T::\\_passengerList](#), [\\_searchString](#), [airsched::SearchString\\_T::\\_tmpPassenger](#), [airsched::Passenger\\_T::\\_type](#), and [airsched::Passenger\\_T::ADULT](#).

#### 23.58.4 Member Data Documentation

##### 23.58.4.1 SearchString\_T& airsched::store\_adult\_passenger\_type::\_searchString

Definition at line 160 of file [BookingRequestParser.cpp](#).

Referenced by [operator>\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.59 airsched::store\_airline\_code Struct Reference

#### Public Member Functions

- [store\\_airline\\_code](#) ([SearchString\\_T](#) &ioSearchString)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

#### Public Attributes

- [SearchString\\_T](#) & [\\_searchString](#)

#### 23.59.1 Detailed Description

Store the parsed airline code.

Definition at line 92 of file [BookingRequestParser.cpp](#).

#### 23.59.2 Constructor & Destructor Documentation

##### 23.59.2.1 airsched::store\_airline\_code::store\_airline\_code ( [SearchString\\_T](#) & *ioSearchString* ) [inline]

Constructor.

Definition at line 94 of file [BookingRequestParser.cpp](#).

#### 23.59.3 Member Function Documentation

##### 23.59.3.1 void airsched::store\_airline\_code::operator() ( [iterator\\_t](#) *iStr*, [iterator\\_t](#) *iStrEnd* ) const [inline]

Parse the airline code.

Definition at line 98 of file [BookingRequestParser.cpp](#).

References [airsched::SearchString\\_T::\\_airlineList](#), [airsched::Airline\\_T::\\_code](#), [\\_searchString](#), and [airsched::SearchString\\_T::\\_tmpAirline](#).

#### 23.59.4 Member Data Documentation

##### 23.59.4.1 SearchString\_T& airsched::store\_airline\_code::\_searchString

Definition at line 107 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.60 airsched::store\_airline\_name Struct Reference

### Public Member Functions

- [store\\_airline\\_name](#) ([SearchString\\_T](#) &ioSearchString)
- [void operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [SearchString\\_T](#) &\_searchString

#### 23.60.1 Detailed Description

Store the parsed airline name.

Definition at line 111 of file [BookingRequestParser.cpp](#).

#### 23.60.2 Constructor & Destructor Documentation

23.60.2.1 `airsched::store_airline_name::store_airline_name ( SearchString\_T &ioSearchString )` `[inline]`

Constructor.

Definition at line 113 of file [BookingRequestParser.cpp](#).

#### 23.60.3 Member Function Documentation

23.60.3.1 `void airsched::store_airline_name::operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const` `[inline]`

Parse the airline name.

Definition at line 117 of file [BookingRequestParser.cpp](#).

References [airsched::SearchString\\_T::\\_airlineList](#), [airsched::Airline\\_T::\\_name](#), [\\_searchString](#), and [airsched::SearchString\\_T::\\_tmpAirline](#).

#### 23.60.4 Member Data Documentation

23.60.4.1 `SearchString\_T&airsched::store_airline_name::_searchString`

Definition at line 126 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.61 airsched::store\_airline\_sign Struct Reference

### Public Member Functions

- [store\\_airline\\_sign](#) ([SearchString\\_T](#) &ioSearchString)
- void [operator\(\)](#) (bool iAirlineSign) const

### Public Attributes

- [SearchString\\_T](#) & [\\_searchString](#)

#### 23.61.1 Detailed Description

Store the airline sign (+/-).

Definition at line 77 of file [BookingRequestParser.cpp](#).

#### 23.61.2 Constructor & Destructor Documentation

23.61.2.1 `airsched::store_airline_sign::store_airline_sign ( SearchString\_T & ioSearchString )` `[inline]`

Constructor.

Definition at line 79 of file [BookingRequestParser.cpp](#).

#### 23.61.3 Member Function Documentation

23.61.3.1 `void airsched::store_airline_sign::operator() ( bool iAirlineSign ) const` `[inline]`

Parse the airline sign.

Definition at line 83 of file [BookingRequestParser.cpp](#).

References [airsched::Airline\\_T::\\_isPreferred](#), [\\_searchString](#), and [airsched::SearchString\\_T::\\_tmpAirline](#).

#### 23.61.4 Member Data Documentation

23.61.4.1 `SearchString\_T& airsched::store_airline_sign::_searchString`

Definition at line 88 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.62 airsched::store\_child\_passenger\_type Struct Reference

### Public Member Functions

- [store\\_child\\_passenger\\_type](#) ([SearchString\\_T](#) &ioSearchString)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [SearchString\\_T](#) & [\\_searchString](#)

### 23.62.1 Detailed Description

Store the parsed passenger type.

Definition at line 164 of file [BookingRequestParser.cpp](#).

### 23.62.2 Constructor & Destructor Documentation

23.62.2.1 `airsched::store_child_passenger_type::store_child_passenger_type ( SearchString\_T & ioSearchString )`  
[[inline](#)]

Constructor.

Definition at line 166 of file [BookingRequestParser.cpp](#).

### 23.62.3 Member Function Documentation

23.62.3.1 `void airsched::store_child_passenger_type::operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const` [[inline](#)]

Parse child passenger type.

Definition at line 170 of file [BookingRequestParser.cpp](#).

References [airsched::SearchString\\_T::\\_passengerList](#), [\\_searchString](#), [airsched::SearchString\\_T::\\_tmpPassenger](#), [airsched::Passenger\\_T::\\_type](#), and [airsched::Passenger\\_T::CHILD](#).

### 23.62.4 Member Data Documentation

23.62.4.1 `SearchString\_T & airsched::store_child_passenger_type::_searchString`

Definition at line 179 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.63 airsched::store\_date Struct Reference

### Public Member Functions

- `store_date ( SearchString\_T & ioSearchString )`
- `void operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const`

### Public Attributes

- `SearchString\_T & _searchString`

### 23.63.1 Detailed Description

Store a parsed date.

Definition at line 58 of file [BookingRequestParser.cpp](#).

### 23.63.2 Constructor & Destructor Documentation

23.63.2.1 airsched::store\_date::store\_date ( [SearchString\\_T](#) & *ioSearchString* ) `[inline]`

Constructor.

Definition at line 60 of file [BookingRequestParser.cpp](#).

### 23.63.3 Member Function Documentation

23.63.3.1 void airsched::store\_date::operator() ( *iterator\_t iStr*, *iterator\_t iStrEnd* ) const `[inline]`

Parse the date.

Definition at line 64 of file [BookingRequestParser.cpp](#).

References [airsched::Date\\_T::\\_date](#), [airsched::SearchString\\_T::\\_dateList](#), [\\_searchString](#), [airsched::SearchString\\_T::\\_tmpDate](#), and [airsched::Date\\_T::getDate\(\)](#).

### 23.63.4 Member Data Documentation

23.63.4.1 [SearchString\\_T](#)& airsched::store\_date::\_searchString

Definition at line 73 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.64 airsched::store\_passenger\_number Struct Reference

### Public Member Functions

- [store\\_passenger\\_number](#) ([SearchString\\_T](#) &*ioSearchString*)
- void [operator\(\)](#) (unsigned int *iNumber*) const

### Public Attributes

- [SearchString\\_T](#) & [\\_searchString](#)

### 23.64.1 Detailed Description

Store the parsed number of passengers.

Definition at line 130 of file [BookingRequestParser.cpp](#).

### 23.64.2 Constructor & Destructor Documentation

23.64.2.1 airsched::store\_passenger\_number::store\_passenger\_number ( [SearchString\\_T](#) & *ioSearchString* ) `[inline]`

Constructor.

Definition at line 132 of file [BookingRequestParser.cpp](#).



### 23.64.3 Member Function Documentation

23.64.3.1 void airsched::store\_passenger\_number::operator() ( unsigned int *iNumber* ) const [inline]

Parse number of passengers.

Definition at line 136 of file [BookingRequestParser.cpp](#).

References [airsched::Passenger\\_T::\\_number](#), [\\_searchString](#), and [airsched::SearchString\\_T::\\_tmpPassenger](#).

### 23.64.4 Member Data Documentation

23.64.4.1 SearchString\_T& airsched::store\_passenger\_number::\_searchString

Definition at line 141 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.65 airsched::store\_pet\_passenger\_type Struct Reference

### Public Member Functions

- [store\\_pet\\_passenger\\_type](#) (SearchString\_T &ioSearchString)
- void [operator\(\)](#) (iterator\_t iStr, iterator\_t iStrEnd) const

### Public Attributes

- [SearchString\\_T](#) & [\\_searchString](#)

### 23.65.1 Detailed Description

Store the parsed passenger type.

Definition at line 183 of file [BookingRequestParser.cpp](#).

### 23.65.2 Constructor & Destructor Documentation

23.65.2.1 airsched::store\_pet\_passenger\_type::store\_pet\_passenger\_type ( SearchString\_T &ioSearchString )  
[inline]

Constructor.

Definition at line 185 of file [BookingRequestParser.cpp](#).

### 23.65.3 Member Function Documentation

23.65.3.1 void airsched::store\_pet\_passenger\_type::operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const [inline]

Parse pet passenger type.

Definition at line 189 of file [BookingRequestParser.cpp](#).

References [airsched::SearchString\\_T::\\_passengerList](#), [\\_searchString](#), [airsched::SearchString\\_T::\\_tmpPassenger](#), [airsched::Passenger\\_T::\\_type](#), and [airsched::Passenger\\_T::PET](#).

#### 23.65.4 Member Data Documentation

##### 23.65.4.1 SearchString\_T& airsched::store\_pet\_passenger\_type::\_searchString

Definition at line 198 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.66 airsched::store\_place\_element Struct Reference

### Public Member Functions

- [store\\_place\\_element](#) ([SearchString\\_T](#) &ioSearchString)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [SearchString\\_T](#) & [\\_searchString](#)

#### 23.66.1 Detailed Description

Store the parsed place element.

Definition at line 37 of file [BookingRequestParser.cpp](#).

#### 23.66.2 Constructor & Destructor Documentation

##### 23.66.2.1 airsched::store\_place\_element::store\_place\_element ( [SearchString\\_T](#) & *ioSearchString* ) [\[inline\]](#)

Constructor.

Definition at line 39 of file [BookingRequestParser.cpp](#).

#### 23.66.3 Member Function Documentation

##### 23.66.3.1 void airsched::store\_place\_element::operator() ( [iterator\\_t](#) *iStr*, [iterator\\_t](#) *iStrEnd* ) const [\[inline\]](#)

Parse the place.

Definition at line 43 of file [BookingRequestParser.cpp](#).

References [airsched::Place\\_T::\\_name](#), [\\_searchString](#), and [airsched::SearchString\\_T::\\_tmpPlace](#).

#### 23.66.4 Member Data Documentation

##### 23.66.4.1 SearchString\_T& airsched::store\_place\_element::\_searchString

Definition at line 54 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

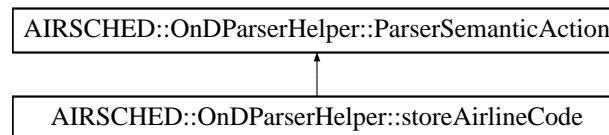
The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

## 23.67 AIRSCHED::OnDParserHelper::storeAirlineCode Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeAirlineCode:



### Public Member Functions

- [storeAirlineCode](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [OnDPeriodStruct](#) & [\\_onDPeriod](#)

#### 23.67.1 Detailed Description

Store the parsed airline code.

Definition at line 90 of file [OnDParserHelper.hpp](#).

#### 23.67.2 Constructor & Destructor Documentation

23.67.2.1 AIRSCHED::OnDParserHelper::storeAirlineCode::storeAirlineCode ( [OnDPeriodStruct](#) & *ioOnDPeriod* )

Actor Constructor.

Definition at line 139 of file [OnDParserHelper.cpp](#).

#### 23.67.3 Member Function Documentation

23.67.3.1 void AIRSCHED::OnDParserHelper::storeAirlineCode::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const

Actor Function (functor).

Definition at line 144 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::\\_airlineCode](#), [AIRSCHED::OnDPeriodStruct::\\_airlineCodeList](#), [AIRSCHED::OnDPeriodStruct::\\_nbOfAirlines](#), and [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#).

#### 23.67.4 Member Data Documentation

23.67.4.1 [OnDPeriodStruct](#)& AIRSCHED::OnDParserHelper::ParserSemanticAction::\_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeStartRangeTime-](#)

[::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

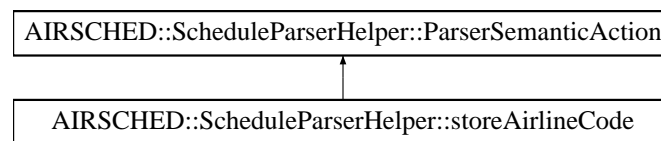
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.68 AIRSCHED::ScheduleParserHelper::storeAirlineCode Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeAirlineCode:



### Public Member Functions

- [storeAirlineCode](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.68.1 Detailed Description

Store the parsed airline code.

Definition at line 37 of file [ScheduleParserHelper.hpp](#).

#### 23.68.2 Constructor & Destructor Documentation

##### 23.68.2.1 AIRSCHED::ScheduleParserHelper::storeAirlineCode::storeAirlineCode ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 32 of file [ScheduleParserHelper.cpp](#).

#### 23.68.3 Member Function Documentation

##### 23.68.3.1 void AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const

Actor Function (functor).

Definition at line 37 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::\\_airlineCode](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::\\_legList](#).

## 23.68.4 Member Data Documentation

## 23.68.4.1 FlightPeriodStruct&amp; AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

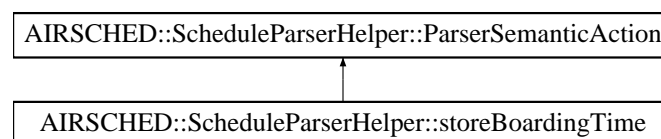
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.69 AIRSCHED::ScheduleParserHelper::storeBoardingTime Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeBoardingTime:



## Public Member Functions

- [storeBoardingTime](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

## Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

## 23.69.1 Detailed Description

Store the boarding time.

Definition at line 109 of file [ScheduleParserHelper.hpp](#).

## 23.69.2 Constructor &amp; Destructor Documentation

23.69.2.1 AIRSCHED::ScheduleParserHelper::storeBoardingTime::storeBoardingTime ( *FlightPeriodStruct* & *ioFlightPeriod* )

Actor Constructor.

Definition at line 191 of file [ScheduleParserHelper.cpp](#).

## 23.69.3 Member Function Documentation

23.69.3.1 void AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator() ( *iterator\_t* *iStr*, *iterator\_t* *iStrEnd* ) const

Actor Function (functor).

Definition at line 196 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::\\_boardingTime](#), [AIRSCHED::FlightPeriodStruct::\\_dateOffset](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itLeg](#), [AIRSCHED::FlightPeriodStruct::\\_itSeconds](#), and [AIRSCHED::FlightPeriodStruct::getTime\(\)](#).

## 23.69.4 Member Data Documentation

23.69.4.1 *FlightPeriodStruct*& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFCClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

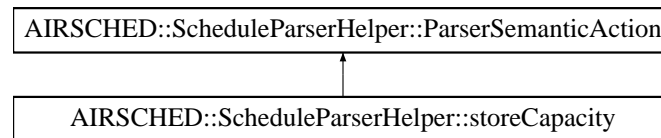
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.70 AIRSCHED::ScheduleParserHelper::storeCapacity Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeCapacity:



### Public Member Functions

- [storeCapacity](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) (double *iReal*) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.70.1 Detailed Description

Store the parsed capacity.

Definition at line 141 of file [ScheduleParserHelper.hpp](#).

#### 23.70.2 Constructor & Destructor Documentation

##### 23.70.2.1 AIRSCHED::ScheduleParserHelper::storeCapacity::storeCapacity ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 263 of file [ScheduleParserHelper.cpp](#).

#### 23.70.3 Member Function Documentation

##### 23.70.3.1 void AIRSCHED::ScheduleParserHelper::storeCapacity::operator() ( double *iReal* ) const

Actor Function (functor).

Definition at line 268 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::\\_cabinList](#), [AIRSCHED::LegCabinStruct::\\_capacity](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itLeg](#), and [AIRSCHED::FlightPeriodStruct::\\_itLegCabin](#).

#### 23.70.4 Member Data Documentation

##### 23.70.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::Schedule](#)

ParserHelper::storeLegCabinCode::operator(), operator(), AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator(), AIRSCHED::ScheduleParserHelper::storeClasses::operator(), AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator(), AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator(), AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator(), AIRSCHED::ScheduleParserHelper::storeFCClasses::operator(), and AIRSCHED::ScheduleParserHelper::doEndFlight::operator().

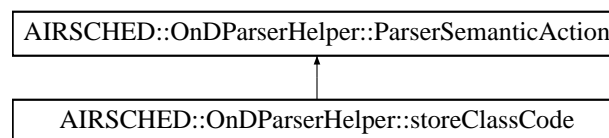
The documentation for this struct was generated from the following files:

- airschched/command/ScheduleParserHelper.hpp
- airschched/command/ScheduleParserHelper.cpp

## 23.71 AIRSCHED::OnDParserHelper::storeClassCode Struct Reference

```
#include <airshed/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeClassCode:



### Public Member Functions

- [storeClassCode](#) (OnDPeriodStruct &)
- void [operator](#)() (char iChar) const

### Public Attributes

- [OnDPeriodStruct](#) & [\\_onDPeriod](#)

#### 23.71.1 Detailed Description

Store the parsed class code.

Definition at line 98 of file [OnDParserHelper.hpp](#).

#### 23.71.2 Constructor & Destructor Documentation

##### 23.71.2.1 AIRSCHED::OnDParserHelper::storeClassCode::storeClassCode ( OnDPeriodStruct & ioOnDPeriod )

Actor Constructor.

Definition at line 172 of file [OnDParserHelper.cpp](#).

#### 23.71.3 Member Function Documentation

##### 23.71.3.1 void AIRSCHED::OnDParserHelper::storeClassCode::operator() ( char iChar ) const

Actor Function (functor).

Definition at line 177 of file [OnDParserHelper.cpp](#).



References [AIRSCHED::OnDPeriodStruct::\\_classCode](#), [AIRSCHED::OnDPeriodStruct::\\_classCodeList](#), and [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#).

### 23.71.4 Member Data Documentation

#### 23.71.4.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemanticAction::\_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

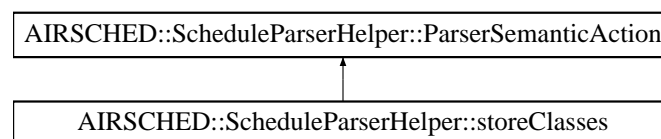
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.72 AIRSCHED::ScheduleParserHelper::storeClasses Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeClasses:



### Public Member Functions

- [storeClasses](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

### 23.72.1 Detailed Description

Store the parsed list of class codes.

Definition at line 184 of file [ScheduleParserHelper.hpp](#).

### 23.72.2 Constructor & Destructor Documentation

#### 23.72.2.1 AIRSCHED::ScheduleParserHelper::storeClasses::storeClasses ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 345 of file [ScheduleParserHelper.cpp](#).

## 23.72.3 Member Function Documentation

23.72.3.1 void AIRSCHED::ScheduleParserHelper::storeClasses::operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const

Actor Function (functor).

Definition at line 350 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::\\_areSegmentDefinitionsSpecific](#), [AIRSCHED::SegmentCabinStruct::\\_classes](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itSegment](#), [AIRSCHED::FlightPeriodStruct::\\_itSegmentCabin](#), and [AIRSCHED::FlightPeriodStruct::addSegmentCabin\(\)](#).

## 23.72.4 Member Data Documentation

23.72.4.1 **FlightPeriodStruct&** AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDown::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

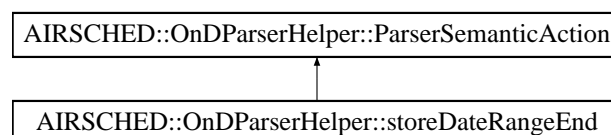
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.73 AIRSCHED::OnDParserHelper::storeDateRangeEnd Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeDateRangeEnd:



## Public Member Functions

- [storeDateRangeEnd](#) (OnDPeriodStruct &)
- void [operator\(\)](#) (iterator\_t iStr, iterator\_t iStrEnd) const

## Public Attributes

- [OnDPeriodStruct](#) & [\\_onDPeriod](#)

## 23.73.1 Detailed Description

Store the end of the date range.

Definition at line 66 of file [OnDParserHelper.hpp](#).

## 23.73.2 Constructor &amp; Destructor Documentation

23.73.2.1 AIRSCHED::OnDParserHelper::storeDateRangeEnd::storeDateRangeEnd ( [OnDPeriodStruct](#) & *ioOnDPeriod* )

Actor Constructor.

Definition at line 83 of file [OnDParserHelper.cpp](#).

## 23.73.3 Member Function Documentation

23.73.3.1 void AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator() ( *iterator\_t iStr*, *iterator\_t iStrEnd* ) const

Actor Function (functor).

Definition at line 88 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::\\_datePeriod](#), [AIRSCHED::OnDPeriodStruct::\\_dateRangeEnd](#), [AIRSCHED::OnDPeriodStruct::\\_dateRangeStart](#), [AIRSCHED::OnDPeriodStruct::\\_itSeconds](#), [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#), and [AIRSCHED::OnDPeriodStruct::getDate\(\)](#).

## 23.73.4 Member Data Documentation

23.73.4.1 [OnDPeriodStruct&](#) [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#) [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

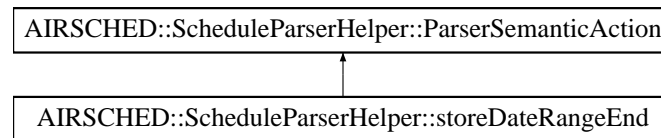
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.74 AIRSCHED::ScheduleParserHelper::storeDateRangeEnd Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeDateRangeEnd:



### Public Member Functions

- [storeDateRangeEnd](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.74.1 Detailed Description

Store the end of the date range.

Definition at line 61 of file [ScheduleParserHelper.hpp](#).

#### 23.74.2 Constructor & Destructor Documentation

##### 23.74.2.1 AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::storeDateRangeEnd ( [FlightPeriodStruct](#) & [ioFlightPeriod](#) )

Actor Constructor.

Definition at line 77 of file [ScheduleParserHelper.cpp](#).

#### 23.74.3 Member Function Documentation

##### 23.74.3.1 void AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const

Actor Function (functor).

Definition at line 82 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::\\_airlineCode](#), [AIRSCHED::FlightPeriodStruct::\\_airlineCode](#), [AIRSCHED::FlightPeriodStruct::\\_dateRange](#), [AIRSCHED::FlightPeriodStruct::\\_dateRangeEnd](#), [AIRSCHED::FlightPeriodStruct::\\_dateRangeStart](#), [AIRSCHED::LegStruct::\\_flightNumber](#), [AIRSCHED::FlightPeriodStruct::\\_flightNumber](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itLeg](#), [AIRSCHED::FlightPeriodStruct::\\_itSeconds](#), and [AIRSCHED::FlightPeriodStruct::getDate\(\)](#).

#### 23.74.4 Member Data Documentation

##### 23.74.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#).

[operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

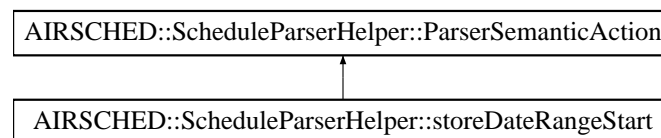
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.75 AIRSCHED::ScheduleParserHelper::storeDateRangeStart Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeDateRangeStart:



### Public Member Functions

- [storeDateRangeStart](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.75.1 Detailed Description

Store the start of the date range.

Definition at line 53 of file [ScheduleParserHelper.hpp](#).

#### 23.75.2 Constructor & Destructor Documentation

##### 23.75.2.1 AIRSCHED::ScheduleParserHelper::storeDateRangeStart::storeDateRangeStart ( [FlightPeriodStruct](#) & [ioFlightPeriod](#) )

Actor Constructor.

Definition at line 62 of file [ScheduleParserHelper.cpp](#).

## 23.75.3 Member Function Documentation

23.75.3.1 void AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const

Actor Function (functor).

Definition at line 67 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::\\_dateRangeStart](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itSeconds](#), and [AIRSCHED::FlightPeriodStruct::getDate\(\)](#).

## 23.75.4 Member Data Documentation

23.75.4.1 **FlightPeriodStruct&** AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

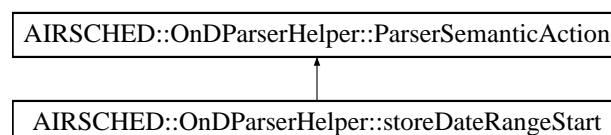
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.76 AIRSCHED::OnDParserHelper::storeDateRangeStart Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeDateRangeStart:



## Public Member Functions

- [storeDateRangeStart](#) (OnDPeriodStruct &)
- void [operator\(\)](#) (iterator\_t iStr, iterator\_t iStrEnd) const

## Public Attributes

- [OnDPeriodStruct](#) & [\\_onDPeriod](#)

## 23.76.1 Detailed Description

Store the start of the date range.

Definition at line 58 of file [OnDParserHelper.hpp](#).

## 23.76.2 Constructor &amp; Destructor Documentation

23.76.2.1 AIRSCHED::OnDParserHelper::storeDateRangeStart::storeDateRangeStart ( [OnDPeriodStruct](#) & *ioOnDPeriod* )

Actor Constructor.

Definition at line 66 of file [OnDParserHelper.cpp](#).

## 23.76.3 Member Function Documentation

23.76.3.1 void AIRSCHED::OnDParserHelper::storeDateRangeStart::operator() ( *iterator\_t iStr*, *iterator\_t iStrEnd* ) const

Actor Function (functor).

Definition at line 71 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::\\_dateRangeStart](#), [AIRSCHED::OnDPeriodStruct::\\_itSeconds](#), [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#), and [AIRSCHED::OnDPeriodStruct::getDate\(\)](#).

## 23.76.4 Member Data Documentation

23.76.4.1 [OnDPeriodStruct&](#) [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#) [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

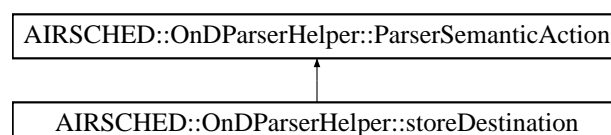
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.77 AIRSCHED::OnDParserHelper::storeDestination Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeDestination:



## Public Member Functions

- [storeDestination](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

## Public Attributes

- [OnDPeriodStruct](#) & [\\_onDPeriod](#)

## 23.77.1 Detailed Description

Store the parsed destination.

Definition at line 50 of file [OnDParserHelper.hpp](#).

## 23.77.2 Constructor &amp; Destructor Documentation

23.77.2.1 AIRSCHED::OnDParserHelper::storeDestination::storeDestination ( [OnDPeriodStruct](#) & *ioOnDPeriod* )

Actor Constructor.

Definition at line 50 of file [OnDParserHelper.cpp](#).

## 23.77.3 Member Function Documentation

23.77.3.1 void AIRSCHED::OnDParserHelper::storeDestination::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const

Actor Function (functor).

Definition at line 55 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::\\_destination](#), and [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#).

## 23.77.4 Member Data Documentation

23.77.4.1 [OnDPeriodStruct&](#) AIRSCHED::OnDParserHelper::ParserSemanticAction::\_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

The documentation for this struct was generated from the following files:

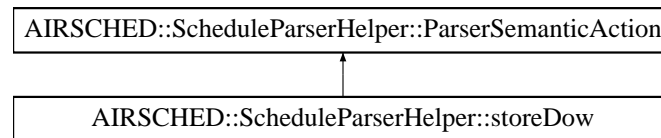
- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.78 AIRSCHED::ScheduleParserHelper::storeDow Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeDow:





### Public Member Functions

- [storeDow](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.78.1 Detailed Description

Store the DOW (day of the Week).

Definition at line 69 of file [ScheduleParserHelper.hpp](#).

#### 23.78.2 Constructor & Destructor Documentation

##### 23.78.2.1 AIRSCHED::ScheduleParserHelper::storeDow::storeDow ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 104 of file [ScheduleParserHelper.cpp](#).

#### 23.78.3 Member Function Documentation

##### 23.78.3.1 void AIRSCHED::ScheduleParserHelper::storeDow::operator() ( [iterator\\_t](#) *iStr*, [iterator\\_t](#) *iStrEnd* ) const

Actor Function (functor).

Definition at line 109 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::\\_dow](#), and [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#).

#### 23.78.4 Member Data Documentation

##### 23.78.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegment](#)

Specificity::operator>(), AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator(), AIRSCHED::ScheduleParserHelper::storeClasses::operator(), AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator(), AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator(), AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator(), AIRSCHED::ScheduleParserHelper::storeFCClasses::operator(), and AIRSCHED::ScheduleParserHelper::doEndFlight::operator().

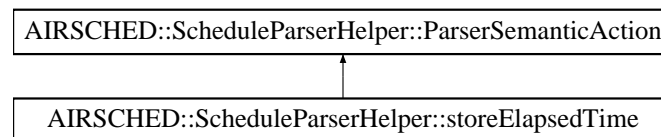
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.79 AIRSCHED::ScheduleParserHelper::storeElapsedTime Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeElapsedTime:



### Public Member Functions

- [storeElapsedTime](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

### 23.79.1 Detailed Description

Store the elapsed time.

Definition at line 125 of file [ScheduleParserHelper.hpp](#).

### 23.79.2 Constructor & Destructor Documentation

#### 23.79.2.1 AIRSCHED::ScheduleParserHelper::storeElapsedTime::storeElapsedTime ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 230 of file [ScheduleParserHelper.cpp](#).

### 23.79.3 Member Function Documentation

#### 23.79.3.1 void AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const

Actor Function (functor).

Definition at line 235 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::\\_dateOffset](#), [AIRSCHED::LegStruct::\\_elapsed](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itLeg](#), [AIRSCHED::FlightPeriodStruct::\\_itSeconds](#), [AIRSCHED::LegStruct::\\_offDateOffset](#), and [AIRSCHED::FlightPeriodStruct::getTime\(\)](#).

### 23.79.4 Member Data Documentation

#### 23.79.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

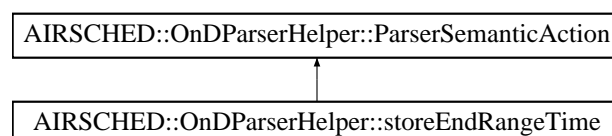
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.80 AIRSCHED::OnDParserHelper::storeEndRangeTime Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeEndRangeTime:



### Public Member Functions

- [storeEndRangeTime](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [OnDPeriodStruct](#) & [\\_onDPeriod](#)

## 23.80.1 Detailed Description

Store the end range time.

Definition at line 82 of file [OnDParserHelper.hpp](#).

## 23.80.2 Constructor &amp; Destructor Documentation

## 23.80.2.1 AIRSCHED::OnDParserHelper::storeEndRangeTime::storeEndRangeTime ( OnDPeriodStruct &amp; ioOnDPeriod )

Actor Constructor.

Definition at line 124 of file [OnDParserHelper.cpp](#).

## 23.80.3 Member Function Documentation

## 23.80.3.1 void AIRSCHED::OnDParserHelper::storeEndRangeTime::operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const

Actor Function (functor).

Definition at line 129 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::\\_itSeconds](#), [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#), [AIRSCHED::OnDPeriodStruct::\\_timeRangeEnd](#), and [AIRSCHED::OnDPeriodStruct::getTime\(\)](#).

## 23.80.4 Member Data Documentation

## 23.80.4.1 OnDPeriodStruct&amp; AIRSCHED::OnDParserHelper::ParserSemanticAction::\_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

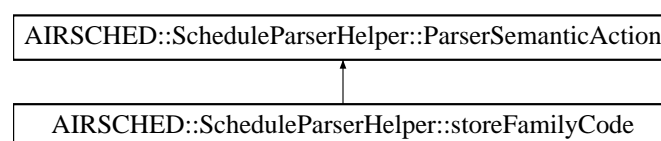
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.81 AIRSCHED::ScheduleParserHelper::storeFamilyCode Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeFamilyCode:



## Public Member Functions

- [storeFamilyCode](#) (FlightPeriodStruct &)

- void [operator\(\)](#) (int iCode) const

#### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.81.1 Detailed Description

Store the parsed family code.

Definition at line 192 of file [ScheduleParserHelper.hpp](#).

#### 23.81.2 Constructor & Destructor Documentation

##### 23.81.2.1 AIRSCHED::ScheduleParserHelper::storeFamilyCode::storeFamilyCode ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 370 of file [ScheduleParserHelper.cpp](#).

#### 23.81.3 Member Function Documentation

##### 23.81.3.1 void AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator() ( int *iCode* ) const

Actor Function (functor).

Definition at line 375 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::SegmentCabinStruct::\\_itFamilyCode](#), and [AIRSCHED::FlightPeriodStruct::\\_itSegmentCabin](#).

#### 23.81.4 Member Data Documentation

##### 23.81.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

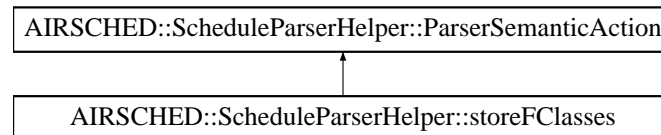
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.82 AIRSCHED::ScheduleParserHelper::storeFClasses Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeFClasses:



### Public Member Functions

- [storeFClasses](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.82.1 Detailed Description

Store the parsed list of class codes (for families).

Definition at line 216 of file [ScheduleParserHelper.hpp](#).

#### 23.82.2 Constructor & Destructor Documentation

##### 23.82.2.1 AIRSCHED::ScheduleParserHelper::storeFClasses::storeFClasses ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 410 of file [ScheduleParserHelper.cpp](#).

#### 23.82.3 Member Function Documentation

##### 23.82.3.1 void AIRSCHED::ScheduleParserHelper::storeFClasses::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const

Actor Function (functor).

Definition at line 415 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::\\_areSegmentDefinitionsSpecific](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::SegmentCabinStruct::\\_itFamilyCode](#), [AIRSCHED::SegmentCabinStruct::\\_itFFDisutilityCurveKey](#), [AIRSCHED::SegmentCabinStruct::\\_itFRAT5CurveKey](#), [AIRSCHED::FlightPeriodStruct::\\_itSegment](#), [AIRSCHED::FlightPeriodStruct::\\_itSegmentCabin](#), and [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#).

#### 23.82.4 Member Data Documentation

##### 23.82.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

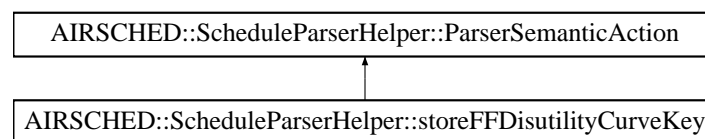
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.83 AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey:



### Public Member Functions

- [storeFFDisutilityCurveKey](#) ([FlightPeriodStruct](#) &)
- [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.83.1 Detailed Description

Store the FFDisutility curve key.

Definition at line 208 of file [ScheduleParserHelper.hpp](#).

#### 23.83.2 Constructor & Destructor Documentation

##### 23.83.2.1 AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::storeFFDisutilityCurveKey ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 397 of file [ScheduleParserHelper.cpp](#).

## 23.83.3 Member Function Documentation

23.83.3.1 void AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const

Actor Function (functor).

Definition at line 402 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::SegmentCabinStruct::\\_itFFDisutilityCurveKey](#), and [AIRSCHED::FlightPeriodStruct::\\_itSegmentCabin](#).

## 23.83.4 Member Data Documentation

23.83.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

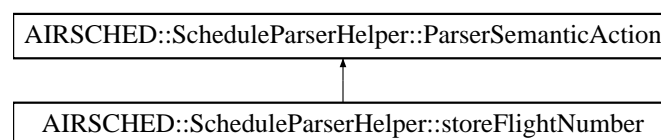
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.84 AIRSCHED::ScheduleParserHelper::storeFlightNumber Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeFlightNumber:



## Public Member Functions

- [storeFlightNumber](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) (unsigned int iNumber) const



## Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

## 23.84.1 Detailed Description

Store the parsed flight number.

Definition at line 45 of file [ScheduleParserHelper.hpp](#).

## 23.84.2 Constructor &amp; Destructor Documentation

23.84.2.1 AIRSCHED::ScheduleParserHelper::storeFlightNumber::storeFlightNumber ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 50 of file [ScheduleParserHelper.cpp](#).

## 23.84.3 Member Function Documentation

23.84.3.1 void AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator() ( unsigned int *iNumber* ) const

Actor Function (functor).

Definition at line 55 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::\\_flightNumber](#), and [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#).

## 23.84.4 Member Data Documentation

23.84.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)\(\)](#), [operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)\(\)](#).

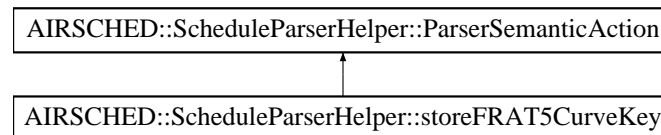
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.85 AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey:



### Public Member Functions

- [storeFRAT5CurveKey](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.85.1 Detailed Description

Store the FRAT5 curve key.

Definition at line 200 of file [ScheduleParserHelper.hpp](#).

#### 23.85.2 Constructor & Destructor Documentation

##### 23.85.2.1 AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::storeFRAT5CurveKey ( [FlightPeriodStruct](#) & [ioFlightPeriod](#) )

Actor Constructor.

Definition at line 383 of file [ScheduleParserHelper.cpp](#).

#### 23.85.3 Member Function Documentation

##### 23.85.3.1 void AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const

Actor Function (functor).

Definition at line 388 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::SegmentCabinStruct::\\_itFRAT5CurveKey](#), and [AIRSCHED::FlightPeriodStruct::\\_itSegmentCabin](#).

#### 23.85.4 Member Data Documentation

##### 23.85.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

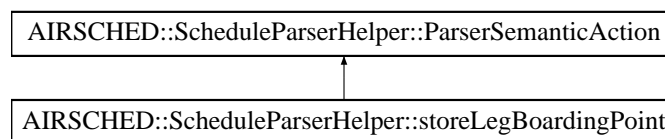
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.86 AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint:



### Public Member Functions

- [storeLegBoardingPoint](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.86.1 Detailed Description

Store the parsed leg boarding point.

Definition at line 77 of file [ScheduleParserHelper.hpp](#).

#### 23.86.2 Constructor & Destructor Documentation

##### 23.86.2.1 AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::storeLegBoardingPoint ( [FlightPeriodStruct](#) & [ioFlightPeriod](#) )

Actor Constructor.

Definition at line 117 of file [ScheduleParserHelper.cpp](#).

## 23.86.3 Member Function Documentation

23.86.3.1 void AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const

Actor Function (functor).

Definition at line 122 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::\\_boardingPoint](#), [AIRSCHED::LegStruct::\\_cabinList](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itLeg](#), [AIRSCHED::FlightPeriodStruct::\\_legAlreadyDefined](#), [AIRSCHED::FlightPeriodStruct::\\_legList](#), and [AIRSCHED::FlightPeriodStruct::addAirport\(\)](#).

## 23.86.4 Member Data Documentation

23.86.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

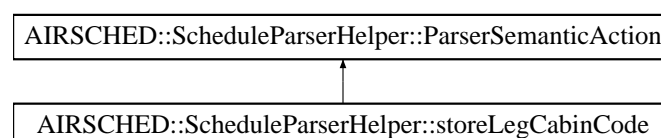
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.87 AIRSCHED::ScheduleParserHelper::storeLegCabinCode Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeLegCabinCode:



## Public Member Functions

- [storeLegCabinCode](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) (char iChar) const

## Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

## 23.87.1 Detailed Description

Store the parsed leg cabin code.

Definition at line 133 of file [ScheduleParserHelper.hpp](#).

## 23.87.2 Constructor &amp; Destructor Documentation

23.87.2.1 AIRSCHED::ScheduleParserHelper::storeLegCabinCode::storeLegCabinCode ( [FlightPeriodStruct](#) & [ioFlightPeriod](#) )

Actor Constructor.

Definition at line 251 of file [ScheduleParserHelper.cpp](#).

## 23.87.3 Member Function Documentation

23.87.3.1 void AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator() ( [char iChar](#) ) const

Actor Function (functor).

Definition at line 256 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegCabinStruct::\\_cabinCode](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::\\_itLegCabin](#).

## 23.87.4 Member Data Documentation

23.87.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFCClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

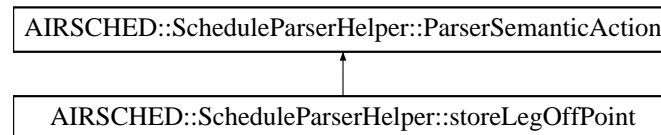
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.88 AIRSCHED::ScheduleParserHelper::storeLegOffPoint Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeLegOffPoint:



### Public Member Functions

- [storeLegOffPoint](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.88.1 Detailed Description

Store the parsed leg off point.

Definition at line 85 of file [ScheduleParserHelper.hpp](#).

#### 23.88.2 Constructor & Destructor Documentation

23.88.2.1 AIRSCHED::ScheduleParserHelper::storeLegOffPoint::storeLegOffPoint ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 146 of file [ScheduleParserHelper.cpp](#).

#### 23.88.3 Member Function Documentation

23.88.3.1 void AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const

Actor Function (functor).

Definition at line 151 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itLeg](#), [AIRSCHED::LegStruct::\\_offPoint](#), and [AIRSCHED::FlightPeriodStruct::addAirport\(\)](#).

#### 23.88.4 Member Data Documentation

23.88.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#),

AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator(), AIRSCHED::ScheduleParserHelper::storeDow::operator(), AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator(), operator(), AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator(), AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator(), AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator(), AIRSCHED::ScheduleParserHelper::storeOffTime::operator(), AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator(), AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator(), AIRSCHED::ScheduleParserHelper::storeCapacity::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator(), AIRSCHED::ScheduleParserHelper::storeClasses::operator(), AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator(), AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator(), AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator(), AIRSCHED::ScheduleParserHelper::storeFClasses::operator(), and AIRSCHED::ScheduleParserHelper::doEndFlight::operator().

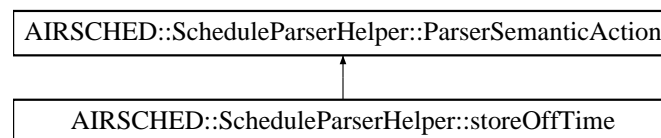
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.89 AIRSCHED::ScheduleParserHelper::storeOffTime Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeOffTime:



### Public Member Functions

- [storeOffTime](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.89.1 Detailed Description

Store the off time.

Definition at line 117 of file [ScheduleParserHelper.hpp](#).

#### 23.89.2 Constructor & Destructor Documentation

##### 23.89.2.1 AIRSCHED::ScheduleParserHelper::storeOffTime::storeOffTime ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 209 of file [ScheduleParserHelper.cpp](#).

## 23.89.3 Member Function Documentation

23.89.3.1 void AIRSCHED::ScheduleParserHelper::storeOffTime::operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const

Actor Function (functor).

Definition at line 214 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::\\_boardingDateOffset](#), [AIRSCHED::FlightPeriodStruct::\\_dateOffset](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itLeg](#), [AIRSCHED::FlightPeriodStruct::\\_itSeconds](#), [AIRSCHED::LegStruct::\\_offTime](#), and [AIRSCHED::FlightPeriodStruct::getTime\(\)](#).

## 23.89.4 Member Data Documentation

23.89.4.1 **FlightPeriodStruct&** AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFCClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

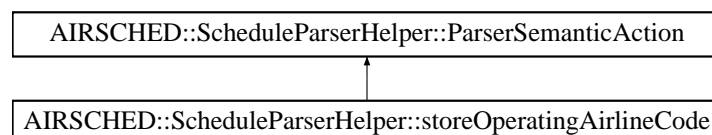
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.90 AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode:



## Public Member Functions

- [storeOperatingAirlineCode](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const



## Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

## 23.90.1 Detailed Description

Store the parsed operating airline code.

Definition at line 93 of file [ScheduleParserHelper.hpp](#).

## 23.90.2 Constructor &amp; Destructor Documentation

23.90.2.1 AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::storeOperatingAirlineCode ( [FlightPeriodStruct](#) & [ioFlightPeriod](#) )

Actor Constructor.

Definition at line 162 of file [ScheduleParserHelper.cpp](#).

## 23.90.3 Member Function Documentation

23.90.3.1 void AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator() ( [iterator\\_t iStr](#), [iterator\\_t iStrEnd](#) ) const

Actor Function (functor).

Definition at line 167 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::\\_airlineCode](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::\\_itLeg](#).

## 23.90.4 Member Data Documentation

23.90.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

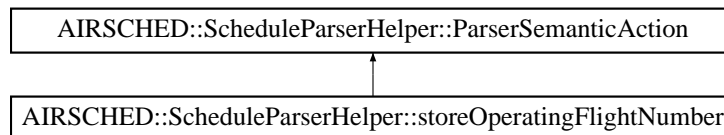
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.91 AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber:



## Public Member Functions

- [storeOperatingFlightNumber](#) ([FlightPeriodStruct](#) &)
- void [operator](#)() (unsigned int *iNumber*) const

## Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

## 23.91.1 Detailed Description

Store the parsed operating flight number.

Definition at line 101 of file [ScheduleParserHelper.hpp](#).

## 23.91.2 Constructor &amp; Destructor Documentation

23.91.2.1 AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::storeOperatingFlightNumber ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 179 of file [ScheduleParserHelper.cpp](#).

## 23.91.3 Member Function Documentation

23.91.3.1 void AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator() ( unsigned int *iNumber* ) const

Actor Function (functor).

Definition at line 184 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::\\_flightNumber](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::\\_itLeg](#).

## 23.91.4 Member Data Documentation

23.91.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#)(), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#)(), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#)(),

AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator(), AIRSCHED::ScheduleParserHelper::storeDow::operator(), AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator(), AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator(), AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator(), operator(), AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator(), AIRSCHED::ScheduleParserHelper::storeOffTime::operator(), AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator(), AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator(), AIRSCHED::ScheduleParserHelper::storeCapacity::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator(), AIRSCHED::ScheduleParserHelper::storeClasses::operator(), AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator(), AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator(), AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator(), AIRSCHED::ScheduleParserHelper::storeFClasses::operator(), and AIRSCHED::ScheduleParserHelper::doEndFlight::operator().

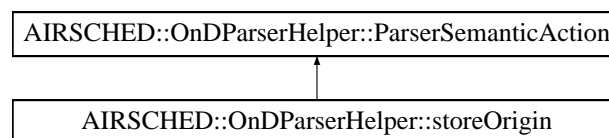
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.92 AIRSCHED::OnDParserHelper::storeOrigin Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeOrigin:



### Public Member Functions

- [storeOrigin](#) (OnDPeriodStruct &)
- [void operator\(\)](#) (iterator\_t iStr, iterator\_t iStrEnd) const

### Public Attributes

- [OnDPeriodStruct](#) & [\\_onDPeriod](#)

#### 23.92.1 Detailed Description

Store the parsed origin.

Definition at line 42 of file [OnDParserHelper.hpp](#).

#### 23.92.2 Constructor & Destructor Documentation

##### 23.92.2.1 AIRSCHED::OnDParserHelper::storeOrigin::storeOrigin ( OnDPeriodStruct & ioOnDPeriod )

Actor Constructor.

Definition at line 30 of file [OnDParserHelper.cpp](#).

## 23.92.3 Member Function Documentation

23.92.3.1 void AIRSCHED::OnDParserHelper::storeOrigin::operator() ( iterator\_t iStr, iterator\_t iStrEnd ) const

Actor Function (functor).

Definition at line 35 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::\\_airlineCode](#), [AIRSCHED::OnDPeriodStruct::\\_airlineCodeList](#), [AIRSCHED::OnDPeriodStruct::\\_classCode](#), [AIRSCHED::OnDPeriodStruct::\\_classCodeList](#), [AIRSCHED::OnDPeriodStruct::\\_nbOfAirlines](#), [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#), and [AIRSCHED::OnDPeriodStruct::\\_origin](#).

## 23.92.4 Member Data Documentation

23.92.4.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemanticAction::\_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

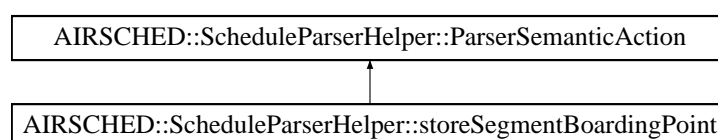
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.93 AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint:



## Public Member Functions

- [storeSegmentBoardingPoint](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

## Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

## 23.93.1 Detailed Description

Store the parsed segment boarding point.

Definition at line 160 of file [ScheduleParserHelper.hpp](#).

## 23.93.2 Constructor &amp; Destructor Documentation

23.93.2.1 AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::storeSegmentBoardingPoint (   
 FlightPeriodStruct & ioFlightPeriod )

Actor Constructor.

Definition at line 308 of file [ScheduleParserHelper.cpp](#).

## 23.93.3 Member Function Documentation

23.93.3.1 void AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator() ( iterator\_t iStr, iterator\_t   
 iStrEnd ) const

Actor Function (functor).

Definition at line 313 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::SegmentStruct::\\_boardingPoint](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::\\_itSegment](#).

## 23.93.4 Member Data Documentation

## 23.93.4.1 FlightPeriodStruct&amp; AIRSCHED::ScheduleParserHelper::ParserSemanticAction::flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)\(\)](#), [operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)\(\)](#).

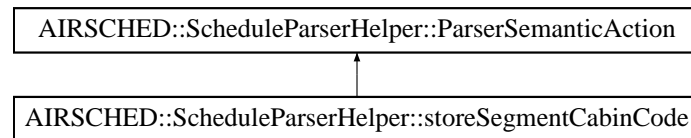
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.94 AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode:



### Public Member Functions

- [storeSegmentCabinCode](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) (char iChar) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.94.1 Detailed Description

Store the parsed segment cabin code.

Definition at line 176 of file [ScheduleParserHelper.hpp](#).

#### 23.94.2 Constructor & Destructor Documentation

##### 23.94.2.1 AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::storeSegmentCabinCode ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 334 of file [ScheduleParserHelper.cpp](#).

#### 23.94.3 Member Function Documentation

##### 23.94.3.1 void AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator() ( char *iChar* ) const

Actor Function (functor).

Definition at line 339 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::SegmentCabinStruct::\\_cabinCode](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::\\_itSegmentCabin](#).

#### 23.94.4 Member Data Documentation

##### 23.94.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParser-](#)

Helper::storeLegCabinCode::operator>(), AIRSCHED::ScheduleParserHelper::storeCapacity::operator>(), AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator>(), AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator>(), AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator>(), operator(), AIRSCHED::ScheduleParserHelper::storeClasses::operator>(), AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator>(), AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator>(), AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator>(), AIRSCHED::ScheduleParserHelper::storeFClasses::operator>(), and AIRSCHED::ScheduleParserHelper::doEndFlight::operator()).

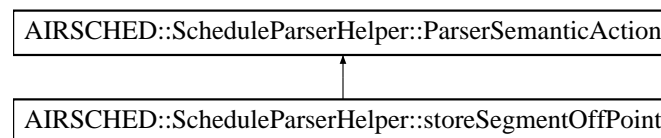
The documentation for this struct was generated from the following files:

- airschcd/command/ScheduleParserHelper.hpp
- airschcd/command/ScheduleParserHelper.cpp

## 23.95 AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint:



### Public Member Functions

- [storeSegmentOffPoint](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)

#### 23.95.1 Detailed Description

Store the parsed segment off point.

Definition at line 168 of file [ScheduleParserHelper.hpp](#).

#### 23.95.2 Constructor & Destructor Documentation

##### 23.95.2.1 AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::storeSegmentOffPoint ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 321 of file [ScheduleParserHelper.cpp](#).

#### 23.95.3 Member Function Documentation

##### 23.95.3.1 void AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const

Actor Function (functor).

Definition at line 326 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::\\_itSegment](#), and [AIRSCHED::SegmentStruct::\\_offPoint](#).

#### 23.95.4 Member Data Documentation

##### 23.95.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDown::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

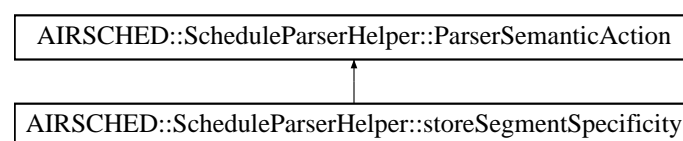
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.96 AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity:



#### Public Member Functions

- [storeSegmentSpecificity](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) (char iChar) const

#### Public Attributes

- [FlightPeriodStruct](#) & [\\_flightPeriod](#)



### 23.96.1 Detailed Description

Store whether or not the segment definitions are specific. Specific means that there is a definition for each segment. General (not specific) means that a single definition defines all the segments.

Definition at line 152 of file [ScheduleParserHelper.hpp](#).

### 23.96.2 Constructor & Destructor Documentation

#### 23.96.2.1 AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::storeSegmentSpecificity ( [FlightPeriodStruct](#) & *ioFlightPeriod* )

Actor Constructor.

Definition at line 282 of file [ScheduleParserHelper.cpp](#).

### 23.96.3 Member Function Documentation

#### 23.96.3.1 void AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator() ( [char](#) *iChar* ) const

Actor Function (functor).

Definition at line 287 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::\\_airportList](#), [AIRSCHED::FlightPeriodStruct::\\_airportOrderedList](#), [AIRSCHED::FlightPeriodStruct::\\_areSegmentDefinitionsSpecific](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\\_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::buildSegments\(\)](#).

### 23.96.4 Member Data Documentation

#### 23.96.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::\_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOperatingFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFRAT5CurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFFDisutilityCurveKey::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

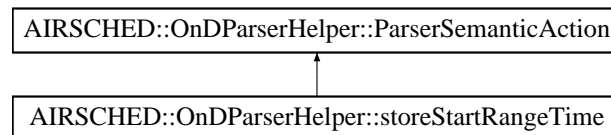
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

## 23.97 AIRSCHED::OnDParserHelper::storeStartRangeTime Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeStartRangeTime:



### Public Member Functions

- [storeStartRangeTime](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd) const

### Public Attributes

- [OnDPeriodStruct](#) & [\\_onDPeriod](#)

#### 23.97.1 Detailed Description

Store the start range time.

Definition at line 74 of file [OnDParserHelper.hpp](#).

#### 23.97.2 Constructor & Destructor Documentation

23.97.2.1 AIRSCHED::OnDParserHelper::storeStartRangeTime::storeStartRangeTime ( [OnDPeriodStruct](#) & *ioOnDPeriod* )

Actor Constructor.

Definition at line 109 of file [OnDParserHelper.cpp](#).

#### 23.97.3 Member Function Documentation

23.97.3.1 void AIRSCHED::OnDParserHelper::storeStartRangeTime::operator() ( [iterator\\_t](#) iStr, [iterator\\_t](#) iStrEnd ) const

Actor Function (functor).

Definition at line 114 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::\\_itSeconds](#), [AIRSCHED::OnDParserHelper::ParserSemanticAction::\\_onDPeriod](#), [AIRSCHED::OnDPeriodStruct::\\_timeRangeStart](#), and [AIRSCHED::OnDPeriodStruct::getTime\(\)](#).

#### 23.97.4 Member Data Documentation

23.97.4.1 [OnDPeriodStruct&](#) AIRSCHED::OnDParserHelper::ParserSemanticAction::\_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRange-](#)

[Time::operator\(\)](#), [AIRSCHEd::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHEd::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHEd::OnDParserHelper::doEndOnD::operator\(\)](#).

The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

## 23.98 StructAbstract Class Reference

Inheritance diagram for StructAbstract:

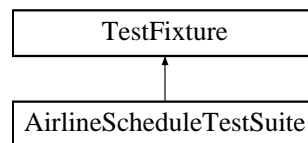


The documentation for this class was generated from the following file:

- [airsched/bom/SegmentStruct.hpp](#)

## 23.99 TestFixture Class Reference

Inheritance diagram for TestFixture:



The documentation for this class was generated from the following file:

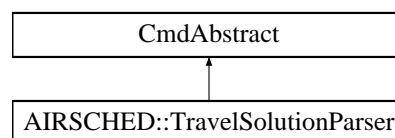
- [test/airsched/AirlineScheduleTestSuite.hpp](#)

## 23.100 AIRSCHEd::TravelSolutionParser Class Reference

Class filling the TravelSolutionHolder structure (representing a list of classes/travelSolutions) from a given input file.

```
#include <airsched/command/TravelSolutionParser.hpp>
```

Inheritance diagram for AIRSCHEd::TravelSolutionParser:



### Static Public Member Functions

- static bool [parseInputFileAndBuildBom](#) (const stdair::Filename\_T &)

### 23.100.1 Detailed Description

Class filling the TravelSolutionHolder structure (representing a list of classes/travelSolutions) from a given input file.

Definition at line 19 of file [TravelSolutionParser.hpp](#).

### 23.100.2 Member Function Documentation

#### 23.100.2.1 bool AIRSCHED::TravelSolutionParser::parseInputFileAndBuildBom ( const stdair::Filename.T & ) [static]

Parse the input values from a CSV-formatted travel solution file.

#### Parameters

<i>const</i>	std::string& inputFileNames Travel solution file to be parsed.
--------------	--

#### Returns

bool Whether or not the parsing was successful.

Definition at line 21 of file [TravelSolutionParser.cpp](#).

The documentation for this class was generated from the following files:

- [airsched/command/TravelSolutionParser.hpp](#)
- [airsched/command/TravelSolutionParser.cpp](#)

## 24 File Documentation

### 24.1 airsched/AIRSCHED\_Service.hpp File Reference

```
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_service_types.hpp>
#include <stdair/stdair_file.hpp>
#include <stdair/bom/TravelSolutionTypes.hpp>
```

#### Classes

- class [AIRSCHED::AIRSCHED\\_Service](#)  
*Interface for the AirSched Services.*

#### Namespaces

- namespace [stdair](#)  
*Forward declarations.*
- namespace [AIRSCHED](#)

### 24.2 AIRSCHED\_Service.hpp

```
00001 #ifndef __AIRSCHED_SVC_AIRSCHED_SERVICE_HPP
00002 #define __AIRSCHED_SVC_AIRSCHED_SERVICE_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
```

```

00007 // StdAir
00008 #include <stdair/stdair_basic_types.hpp>
00009 #include <stdair/stdair_service_types.hpp>
00010 #include <stdair/stdair_file.hpp>
00011 #include <stdair/bom/TravelSolutionTypes.hpp>
00012
00014 namespace stdair {
00015     class STDAIR_Service;
00016     class BomRoot;
00017     struct BasLogParams;
00018     struct BasDBParams;
00019     struct BookingRequestStruct;
00020     struct TravelSolutionStruct;
00021 }
00022
00023 namespace AIRSCHED {
00024
00026     class AIRSCHED_ServiceContext;
00027
00028
00032     class AIRSCHED_Service {
00033     public:
00034         // ////////////////////////////////// Constructors and Destructors //////////////////////////////////
00050         AIRSCHED_Service (const stdair::BasLogParams&, const
stdair::BasDBParams&);
00051
00063         AIRSCHED_Service (const stdair::BasLogParams&);
00064
00080         AIRSCHED_Service (stdair::STDAIR_ServicePtr_T
ioSTDAIR_ServicePtr);
00081
00090         void parseAndLoad (const stdair::ScheduleFilePath&);
00091
00101         void parseAndLoad (const stdair::ScheduleFilePath&,
00102                             const stdair::ODFilePath&);
00103
00107         ~AIRSCHED_Service();
00108
00109
00110     public:
00111         // ////////////////////////////////// Business Methods //////////////////////////////////
00119         void buildSampleBom();
00120
00124         void clonePersistentBom ();
00125
00129         void buildComplementaryLinks (stdair::BomRoot&);
00130
00135         void buildSegmentPathList (stdair::TravelSolutionList_T
&,
00136                                     const stdair::BookingRequestStruct&);
00137
00143         void simulate();
00144
00145
00146     public:
00147         // ////////////////////////////////// Export support methods //////////////////////////////////
00159         std::string jsonExportFlightDateObjects (const
stdair::AirlineCode_T&,
00160                                                     const stdair::FlightNumber_T&,
00161                                                     const stdair::Date_T&
iDepartureDate) const;
00162
00163
00164     public:
00165         // ////////////////////////////////// Display support methods //////////////////////////////////
00173         std::string csvDisplay() const;
00174
00188         std::string csvDisplay (const stdair::AirlineCode_T&,
00189                                 const stdair::FlightNumber_T&,
00190                                 const stdair::Date_T& iDepartureDate) const;
00191
00192
00193     private:
00194         // ////////////////////////////////// Construction and Destruction helper methods //////////////////////////////////
00198         AIRSCHED_Service();
00199
00203         AIRSCHED_Service (const AIRSCHED_Service&);
00204
00214         stdair::STDAIR_ServicePtr_T initStdAirService (const stdair::BasLogParams&,
00215                                                         const stdair::BasDBParams&);
00216
00225         stdair::STDAIR_ServicePtr_T initStdAirService (const stdair::BasLogParams&);
00226
00235         void addStdAirService (stdair::STDAIR_ServicePtr_T,
00236                                 const bool iOwnStdairService);
00237

```

```

00242     void initServiceContext();
00243
00250     void initAirschedService();
00251
00255     void finalise();
00256
00257
00258 private:
00259     // ////////// Service Context //////////
00263     AIRSCHEDED_ServiceContext* _airschedServiceContext;
00264 };
00265 }
00266 #endif // __AIRSCHEDED_SVC_AIRSCHEDED_SERVICE_HPP

```

## 24.3 airsched/AIRSCHEDED.Types.hpp File Reference

```

#include <boost/shared_ptr.hpp>
#include <stdair/stdair_exceptions.hpp>

```

### Classes

- class [AIRSCHEDED::SegmentDateNotFoundExpection](#)
- class [AIRSCHEDED::OnDInputFileNotFoundExpection](#)
- class [AIRSCHEDED::ScheduleInputFileNotFoundExpection](#)

### Namespaces

- namespace [AIRSCHEDED](#)

### Typedefs

- typedef boost::shared\_ptr  
< AIRSCHEDED\_Service > [AIRSCHEDED::AIRSCHEDED\\_ServicePtr\\_T](#)

## 24.4 AIRSCHEDED.Types.hpp

```

00001 #ifndef __AIRSCHEDED_AIRSCHEDED_TYPES_HPP
00002 #define __AIRSCHEDED_AIRSCHEDED_TYPES_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // Boost
00008 #include <boost/shared_ptr.hpp>
00009 // StdAir
00010 #include <stdair/stdair_exceptions.hpp>
00011
00012 namespace AIRSCHEDED {
00013
00014     // Forward declarations
00015     class AIRSCHEDED_Service;
00016
00017
00018     // ////////// Exceptions //////////
00023     class SegmentDateNotFoundExpection : public
stdair::ParserException {
00024     public:
00028         SegmentDateNotFoundExpection (const std::string
& iWhat)
00029         : stdair::ParserException (iWhat) {}
00030     };
00031
00035     class OnDInputFileNotFoundExpection : public
stdair::FileNotFoundExpection {
00036     public:
00040         OnDInputFileNotFoundExpection (const
std::string& iWhat)
00041         : stdair::FileNotFoundExpection (iWhat) {}

```

```

00042     };
00043
00047     class ScheduleInputFileNotFoundException
00048     : public stdair::FileNotFoundException {
00049     public:
00053         ScheduleInputFileNotFoundException (const
std::string& iWhat)
00054         : stdair::FileNotFoundException (iWhat) {}
00055     };
00056
00057
00058     // ////////// Type definitions specific to AirSched //////////
00062     typedef boost::shared_ptr<AIRSCHED_Service> AIRSCHED_ServicePtr_T
;
00063
00064 }
00065 #endif // __AIRSCHED_AIRSCHED_TYPES_HPP

```

## 24.5 airsched/basic/BasConst.cpp File Reference

```

#include <airsched/basic/BasConst_General.hpp>
#include <airsched/basic/BasConst_AIRSCHED_Service.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

### Functions

- const stdair::Duration\_T [AIRSCHED::MINIMUM\\_TIME\\_BETWEEN\\_REQUEST\\_AND\\_DEPARTURE](#) (4, 0, 0)

### Variables

- const int [AIRSCHED::DEFAULT\\_NUMBER\\_OF\\_DRAWS\\_FOR\\_MC\\_SIMULATION](#) = 100000

## 24.6 BasConst.cpp

```

00001 #include <airsched/basic/BasConst_General.hpp>
>
00002 #include <airsched/basic/BasConst_AIRSCHED_Service.hpp>
>
00003
00004 namespace AIRSCHED {
00005
00008     const int DEFAULT_NUMBER_OF_DRAWS_FOR_MC_SIMULATION
= 100000;
00009
00012     const stdair::Duration_T MINIMUM_TIME_BETWEEN_REQUEST_AND_DEPARTURE
(4, 0, 0);
00013
00014 }

```

## 24.7 airsched/basic/BasConst\_AIRSCHED\_Service.hpp File Reference

### Namespaces

- namespace [AIRSCHED](#)

## 24.8 BasConst\_AIRSCHED\_Service.hpp

```

00001 #ifndef __AIRSCHED_BAS_BASCONST_AIRSCHED_SERVICE_HPP
00002 #define __AIRSCHED_BAS_BASCONST_AIRSCHED_SERVICE_HPP
00003

```

```

00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007
00008 namespace AIRSCHED {
00009
00010 }
00011 #endif // __AIRSCHED_BAS_BASCONST_AIRSCHED_SERVICE_HPP

```

## 24.9 airsched/basic/BasConst\_General.hpp File Reference

```
#include <stdair/stdair_date_time_types.hpp>
```

### Namespaces

- namespace [AIRSCHED](#)

### Variables

- const stdair::Duration\_T [AIRSCHED::MINIMUM\\_TIME\\_BETWEEN\\_REQUEST\\_AND\\_DEPARTURE](#)

## 24.10 BasConst\_General.hpp

```

00001 #ifndef __AIRSCHED_BAS_BASCONST_GENERAL_HPP
00002 #define __AIRSCHED_BAS_BASCONST_GENERAL_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir
00008 #include <stdair/stdair_date_time_types.hpp>
00009
00010 namespace AIRSCHED {
00011
00014     extern const int DEFAULT\_NUMBER\_OF\_DRAWS\_FOR\_MC\_SIMULATION
00015     ;
00018     extern const stdair::Duration_T MINIMUM\_TIME\_BETWEEN\_REQUEST\_AND\_DEPARTURE
00019     ;
00020 }
00021 #endif // __AIRSCHED_BAS_BASCONST_GENERAL_HPP

```

## 24.11 airsched/basic/BasParserTypes.hpp File Reference

```

#include <string>
#include <boost/spirit/home/classic/core.hpp>
#include <boost/spirit/home/classic/attribute.hpp>
#include <boost/spirit/home/classic/utility/functor_parser.hpp>
#include <boost/spirit/home/classic/utility/loops.hpp>
#include <boost/spirit/home/classic/utility/chset.hpp>
#include <boost/spirit/home/classic/utility/confix.hpp>
#include <boost/spirit/home/classic/iterator/file_iterator.hpp>
#include <boost/spirit/home/classic/actor/push_back_actor.hpp>
#include <boost/spirit/home/classic/actor/assign_actor.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)



## Typedefs

- typedef char AIRSCHED::char\_t
- typedef  
boost::spirit::classic::file\_iterator  
< char\_t > AIRSCHED::iterator\_t
- typedef  
boost::spirit::classic::scanner  
< iterator\_t > AIRSCHED::scanner\_t
- typedef  
boost::spirit::classic::rule  
< scanner\_t > AIRSCHED::rule\_t
- typedef  
boost::spirit::classic::int\_parser  
< unsigned int, 10, 1, 1 > AIRSCHED::int1\_p\_t
- typedef  
boost::spirit::classic::uint\_parser  
< unsigned int, 10, 2, 2 > AIRSCHED::uint2\_p\_t
- typedef  
boost::spirit::classic::uint\_parser  
< unsigned int, 10, 4, 4 > AIRSCHED::uint4\_p\_t
- typedef  
boost::spirit::classic::uint\_parser  
< unsigned int, 10, 1, 4 > AIRSCHED::uint1\_4\_p\_t
- typedef  
boost::spirit::classic::chset  
< char\_t > AIRSCHED::chset\_t
- typedef  
boost::spirit::classic::impl::loop\_traits  
< chset\_t, unsigned int,  
unsigned int >::type AIRSCHED::repeat\_p\_t
- typedef  
boost::spirit::classic::bounded  
< uint2\_p\_t, unsigned int > AIRSCHED::bounded2\_p\_t
- typedef  
boost::spirit::classic::bounded  
< uint4\_p\_t, unsigned int > AIRSCHED::bounded4\_p\_t
- typedef  
boost::spirit::classic::bounded  
< uint1\_4\_p\_t, unsigned int > AIRSCHED::bounded1\_4\_p\_t

## 24.12 BasParserTypes.hpp

```

00001 #ifndef __AIRSCHED_BAS_BASCOMPARSERTYPES_HPP
00002 #define __AIRSCHED_BAS_BASCOMPARSERTYPES_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // Boost
00010 // #define BOOST_SPIRIT_DEBUG
00011 #include <boost/spirit/home/classic/core.hpp>
00012 #include <boost/spirit/home/classic/attribute.hpp>
00013 #include <boost/spirit/home/classic/utility/functor_parser.hpp>
00014 #include <boost/spirit/home/classic/utility/loops.hpp>
00015 #include <boost/spirit/home/classic/utility/chset.hpp>
00016 #include <boost/spirit/home/classic/utility/confix.hpp>
00017 #include <boost/spirit/home/classic/iterator/file_iterator.hpp>
00018 #include <boost/spirit/home/classic/actor/push_back_actor.hpp>
00019 #include <boost/spirit/home/classic/actor/assign_actor.hpp>
00020
00021 namespace AIRSCHED {

```

```

00022
00023 // //////////////////////////////////////
00024 //
00025 // Definition of Basic Types
00026 //
00027 // //////////////////////////////////////
00028 // For a file, the parsing unit is the character (char). For a string,
00029 // it is a "char const *".
00030 // typedef char const* iterator_t;
00031 typedef char char_t;
00032
00033 // The types of iterator, scanner and rule are then derived from
00034 // the parsing unit.
00035 typedef boost::spirit::classic::file_iterator<char_t> iterator_t;
00036 typedef boost::spirit::classic::scanner<iterator_t> scanner_t;
00037 typedef boost::spirit::classic::rule<scanner_t> rule_t;
00038
00039 // //////////////////////////////////////
00040 //
00041 // Parser related types
00042 //
00043 // //////////////////////////////////////
00044 typedef boost::spirit::classic::int_parser<unsigned int, 10, 1, 1> int1_p_t
;
00045
00046 typedef boost::spirit::classic::uint_parser<unsigned int, 10, 2, 2> uint2_p_t
;
00047
00048 typedef boost::spirit::classic::uint_parser<unsigned int, 10, 4, 4> uint4_p_t
;
00049
00050 typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 4>
uint1_4_p_t;
00051
00052 typedef boost::spirit::classic::chset<char_t> chset_t;
00053
00054 typedef boost::spirit::classic::impl::loop_traits<chset_t,
unsigned int,
unsigned int>::type repeat_p_t
;
00055
00056 typedef boost::spirit::classic::bounded<uint2_p_t, unsigned int> bounded2_p_t
;
00057
00058 typedef boost::spirit::classic::bounded<uint4_p_t, unsigned int> bounded4_p_t
;
00059
00060 typedef boost::spirit::classic::bounded<uint1_4_p_t, unsigned int>
bounded1_4_p_t;
00061
00062 }
00063 #endif // __AIRSCHED_BAS_BASCOMPARSERTYPES_HPP

```

## 24.13 airsched/batches/airsched.cpp File Reference

```

#include <cassert>
#include <sstream>
#include <fstream>
#include <string>
#include <boost/date_time/posix_time/posix_time.hpp>
#include <boost/date_time/gregorian/gregorian.hpp>
#include <boost/program_options.hpp>
#include <boost/tokenizer.hpp>
#include <boost/lexical_cast.hpp>
#include <stdair/STDAIR_Service.hpp>
#include <stdair/bom/BomDisplay.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/bom/TravelSolutionStruct.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/AIRSCHED_Service.hpp>
#include <airsched/batches/BookingRequestParser.hpp>
#include <airsched/config/airsched-paths.hpp>

```

## Typedefs

- typedef std::vector< std::string > [WordList\\_T](#)

## Functions

- const std::string [K\\_AIRSCHED\\_DEFAULT\\_LOG\\_FILENAME](#) ("airsched.log")
- const std::string [K\\_AIRSCHED\\_DEFAULT\\_INPUT\\_FILENAME](#) (STDAIR\_SAMPLE\_DIR"/schedule03.csv")
- const std::string [K\\_AIRSCHED\\_DEFAULT\\_BOOKING\\_REQUEST](#) ("NCE BKK NCE 2007-04-21 2007-03-21 08:32:00 C 1 DF RO 5 NONE 10:00:00 2000.0 20.0")
- std::string [createStringFromWordList](#) (const [WordList\\_T](#) &iWordList)
- template<class T >  
std::ostream & [operator<<](#) (std::ostream &os, const std::vector< T > &v)
- int [readConfiguration](#) (int argc, char \*argv[], bool &iolsBuiltin, bool &ioReadBookingRequestFromCmdLine, stdair::Filename\_T &ioInputFilename, std::string &ioLogFilename, std::string &ioBookingRequestString)
- stdair::BookingRequestStruct [parseBookingRequest](#) (const std::string &iRequestOption)
- int [main](#) (int argc, char \*argv[])

## Variables

- const bool [K\\_AIRSCHED\\_DEFAULT\\_BUILT\\_IN\\_INPUT](#) = false
- const bool [K\\_AIRSCHED\\_DEFAULT\\_BOOKING\\_REQUEST\\_MODE](#) = false
- const int [K\\_AIRSCHED\\_EARLY\\_RETURN\\_STATUS](#) = 99

### 24.13.1 Typedef Documentation

#### 24.13.1.1 typedef std::vector<std::string> [WordList\\_T](#)

Definition at line 24 of file [airsched.cpp](#).

### 24.13.2 Function Documentation

#### 24.13.2.1 const std::string [K\\_AIRSCHED\\_DEFAULT\\_LOG\\_FILENAME](#) ( "airsched.log" )

Default name and location for the log file.

Referenced by [readConfiguration\(\)](#).

#### 24.13.2.2 const std::string [K\\_AIRSCHED\\_DEFAULT\\_INPUT\\_FILENAME](#) ( STDAIR\_SAMPLE\_DIR"/schedule03.csv" )

Default name and location for the (CSV) input file.

Referenced by [readConfiguration\(\)](#).

#### 24.13.2.3 const std::string [K\\_AIRSCHED\\_DEFAULT\\_BOOKING\\_REQUEST](#) ( "NCE BKK NCE 2007-04-21 2007-03-21 08:32:00 C 1 DF RO 5 NONE 10:00:00 2000.0 20.0" )

Default booking request string, to be seached against the AirSched network.

Referenced by [main\(\)](#).

#### 24.13.2.4 std::string [createStringFromWordList](#) ( const [WordList\\_T](#) & *iWordList* )

Definition at line 59 of file [airsched.cpp](#).

Referenced by [readConfiguration\(\)](#).

24.13.2.5 `template<class T> std::ostream& operator<< ( std::ostream & os, const std::vector< T> & v )`

Definition at line 77 of file [airsched.cpp](#).

24.13.2.6 `int readConfiguration ( int argc, char * argv[], bool & iolsBuiltin, bool & ioReadBookingRequestFromCmdLine, stdair::Filename_T & ioInputFilename, std::string & ioLogFilename, std::string & ioBookingRequestString )`

Read and parse the command line options.

Definition at line 87 of file [airsched.cpp](#).

References [createStringFromWordList\(\)](#), [K\\_AIRSCHED\\_DEFAULT\\_BOOKING\\_REQUEST\\_MODE](#), [K\\_AIRSCHED\\_DEFAULT\\_BUILT\\_IN\\_INPUT](#), [K\\_AIRSCHED\\_DEFAULT\\_INPUT\\_FILENAME\(\)](#), [K\\_AIRSCHED\\_DEFAULT\\_LOG\\_FILENAME\(\)](#), and [K\\_AIRSCHED\\_EARLY\\_RETURN\\_STATUS](#).

Referenced by [main\(\)](#).

24.13.2.7 `stdair::BookingRequestStruct parseBookingRequest ( const std::string & iRequestOption )`

Definition at line 230 of file [airsched.cpp](#).

Referenced by [main\(\)](#).

24.13.2.8 `int main ( int argc, char * argv[] )`

Definition at line 347 of file [airsched.cpp](#).

References [AIRSCHED::AIRSCHED\\_Service::buildSampleBom\(\)](#), [AIRSCHED::AIRSCHED\\_Service::buildSegmentPathList\(\)](#), [K\\_AIRSCHED\\_DEFAULT\\_BOOKING\\_REQUEST\(\)](#), [K\\_AIRSCHED\\_EARLY\\_RETURN\\_STATUS](#), [AIRSCHED::AIRSCHED\\_Service::parseAndLoad\(\)](#), [parseBookingRequest\(\)](#), and [readConfiguration\(\)](#).

### 24.13.3 Variable Documentation

24.13.3.1 `const bool K_AIRSCHED_DEFAULT_BUILT_IN_INPUT = false`

Default for the BOM tree building. The BOM tree can either be built-in or provided by an input file. That latter must then be given with the -s option.

Definition at line 44 of file [airsched.cpp](#).

Referenced by [readConfiguration\(\)](#).

24.13.3.2 `const bool K_AIRSCHED_DEFAULT_BOOKING_REQUEST_MODE = false`

Default for the input type. It can be either built-in or provided by an input file. That latter must then be given with the -i option.

Definition at line 50 of file [airsched.cpp](#).

Referenced by [readConfiguration\(\)](#).

24.13.3.3 `const int K_AIRSCHED_EARLY_RETURN_STATUS = 99`

Early return status (so that it can be differentiated from an error).

Definition at line 84 of file [airsched.cpp](#).

Referenced by [main\(\)](#), and [readConfiguration\(\)](#).

## 24.14 airsched.cpp

```
00001 // STL
00002 #include <cassert>
00003 #include <sstream>
00004 #include <fstream>
00005 #include <string>
```

```

00006 // Boost (Extended STL)
00007 #include <boost/date_time/posix_time/posix_time.hpp>
00008 #include <boost/date_time/gregorian/gregorian.hpp>
00009 #include <boost/program_options.hpp>
00010 #include <boost/tokenizer.hpp>
00011 #include <boost/lexical_cast.hpp>
00012 // StdAir
00013 #include <stdair/STDAIR_Service.hpp>
00014 #include <stdair/bom/BomDisplay.hpp>
00015 #include <stdair/bom/BookingRequestStruct.hpp>
00016 #include <stdair/bom/TravelSolutionStruct.hpp>
00017 #include <stdair/service/Logger.hpp>
00018 // AirSched
00019 #include <airsched/AIRSCHEDED_Service.hpp>
00020 #include <airsched/batches/BookingRequestParser.hpp>
00021 >
00022 #include <airsched/config/airsched-paths.hpp>
00023 // Type definitions
00024 typedef std::vector<std::string> WordList_T;
00025
00026 // Constants
00027 const std::string K_AIRSCHEDED_DEFAULT_LOG_FILENAME
00028 ("airsched.log");
00029
00030 const std::string K_AIRSCHEDED_DEFAULT_INPUT_FILENAME
00031 (STDAIR_SAMPLE_DIR
00032                                     "/schedule03.csv");
00033
00034 const bool K_AIRSCHEDED_DEFAULT_BUILT_IN_INPUT =
00035     false;
00036
00037 const bool K_AIRSCHEDED_DEFAULT_BOOKING_REQUEST_MODE
00038     = false;
00039
00040 const std::string K_AIRSCHEDED_DEFAULT_BOOKING_REQUEST
00041 ("NCE BKK NCE 2007-04-21 2007-03-21 08:32:00 C 1 DF RO 5 NONE 10:00:00 2000.0
00042 20.0");
00043
00044 // createStringFromWordList (const WordList_T
00045 & iWordList) {
00046     std::ostringstream oStr;
00047
00048     unsigned short idx = iWordList.size();
00049     for (WordList_T::const_iterator itWord = iWordList.begin();
00050          itWord != iWordList.end(); ++itWord, --idx) {
00051         const std::string& lWord = *itWord;
00052         oStr << lWord;
00053         if (idx > 1) {
00054             oStr << " ";
00055         }
00056     }
00057     return oStr.str();
00058 }
00059
00060 // Parsing of Options & Configuration
00061 // A helper function to simplify the main part.
00062 template<class T> std::ostream& operator<< (std::ostream& os,
00063 const std::vector<T>& v) {
00064     std::copy (v.begin(), v.end(), std::ostream_iterator<T> (std::cout, " "));
00065     return os;
00066 }
00067
00068 const int K_AIRSCHEDED_EARLY_RETURN_STATUS = 99;
00069
00070 int readConfiguration (int argc, char* argv[],
00071 bool& ioIsBuiltin, bool& ioReadBookingRequestFromCmdLine
00072 ,
00073 stdair::Filename_T& ioInputFilename,
00074 std::string& ioLogFilename,
00075 std::string& ioBookingRequestString) {
00076     // Default for the built-in input
00077     ioIsBuiltin = K_AIRSCHEDED_DEFAULT_BUILT_IN_INPUT;
00078
00079     // Default for the booking request mode (whether it is read from
00080     command-line)
00081     ioReadBookingRequestFromCmdLine = K_AIRSCHEDED_DEFAULT_BOOKING_REQUEST_MODE;
00082
00083     //
00084     WordList_T lWordList;
00085
00086

```

```

00102 // Declare a group of options that will be allowed only on command line
00103 boost::program_options::options_description generic ("Generic options");
00104 generic.add_options()
00105     ("prefix", "print installation prefix")
00106     ("version,v", "print version string")
00107     ("help,h", "produce help message");
00108
00109 // Declare a group of options that will be allowed both on command
00110 // line and in config file
00111 boost::program_options::options_description config ("Configuration");
00112 config.add_options()
00113     ("builtin,b",
00114      "The sample BOM tree can be either built-in or parsed from input files. In
00115      that latter case, the -i/--input option must be specified as well")
00116     ("input,i",
00117      boost::program_options::value< std::string >(&ioInputFilename)->
00118      default_value(K_AIRSCHEDED_DEFAULT_INPUT_FILENAME),
00119      "(CSV) input file specifying the schedule (flight-period) entries")
00120     ("log,l",
00121      boost::program_options::value< std::string >(&ioLogFilename)->
00122      default_value(K_AIRSCHEDED_DEFAULT_LOG_FILENAME),
00123      "Filename for the logs")
00124     ("read_booking_request,r",
00125      "Indicates that a booking request is given as a command-line option. That
00126      latter must then be given with the -b/--bkg_req option")
00127     ("bkg_req,q",
00128      boost::program_options::value< WordList_T >(&lWordList)->multitoken(),
00129      "Booking request word list (e.g. 'NCE BKK NCE 2007-04-21 2007-04-21
00130      10:00:00 C 1 DF RO 5 NONE 10:0:0 2000.0 20.0'), which should be located at the end of
00131      the command line (otherwise, the other options would be interpreted as part of
00132      that booking request word list)")
00133     ;
00134
00135 // Hidden options, will be allowed both on command line and
00136 // in config file, but will not be shown to the user.
00137 boost::program_options::options_description hidden ("Hidden options");
00138 hidden.add_options()
00139     ("copyright",
00140      boost::program_options::value< std::vector<std::string> >(),
00141      "Show the copyright (license)");
00142
00143 boost::program_options::options_description cmdline_options;
00144 cmdline_options.add(generic).add(config).add(hidden);
00145
00146 boost::program_options::options_description config_file_options;
00147 config_file_options.add(config).add(hidden);
00148
00149 boost::program_options::options_description visible ("Allowed options");
00150 visible.add(generic).add(config);
00151
00152 boost::program_options::positional_options_description p;
00153 p.add("copyright", -1);
00154
00155 boost::program_options::variables_map vm;
00156 boost::program_options::
00157     store (boost::program_options::command_line_parser (argc, argv).
00158           options (cmdline_options).positional(p).run(), vm);
00159
00160 std::ifstream ifs ("airsched.cfg");
00161 boost::program_options::store (parse_config_file (ifs, config_file_options),
00162                               vm);
00163 boost::program_options::notify (vm);
00164
00165 if (vm.count ("help")) {
00166     std::cout << visible << std::endl;
00167     return K_AIRSCHEDED_EARLY_RETURN_STATUS;
00168 }
00169
00170 if (vm.count ("version")) {
00171     std::cout << PACKAGE_NAME << ", version " << PACKAGE_VERSION << std::endl;
00172     return K_AIRSCHEDED_EARLY_RETURN_STATUS;
00173 }
00174
00175 if (vm.count ("prefix")) {
00176     std::cout << "Installation prefix: " << PREFIXDIR << std::endl;
00177     return K_AIRSCHEDED_EARLY_RETURN_STATUS;
00178 }
00179
00180 if (vm.count ("builtin")) {
00181     ioIsBuiltin = true;
00182 }
00183
00184 const std::string isBuiltinStr = (ioIsBuiltin == true)?"yes":"no";
00185 std::cout << "The BOM should be built-in? " << isBuiltinStr << std::endl;
00186
00187 //
00188 std::ostringstream oErrorMessageStr;
00189 oErrorMessageStr << "Either the -b/--builtin option, or the -i/--input option

```

```

"
00182         << " must be specified";
00183
00184     if (ioIsBuiltin == false) {
00185         if (vm.count ("input")) {
00186             ioInputFilename = vm["input"].as< std::string >();
00187             std::cout << "Input filename is: " << ioInputFilename << std::endl;
00188         } else {
00189             // The built-in option is not selected. However, no schedule input file
00190             // is specified
00191             std::cerr << oErrorMessageStr.str() << std::endl;
00192         }
00193     }
00194 }
00195
00196 //
00197 if (vm.count ("read_booking_request")) {
00198     ioReadBookingRequestFromCmdLine = true;
00199 }
00200 const std::string readBookingRequestFromCmdLineStr =
00201     (ioReadBookingRequestFromCmdLine == true)? "yes": "no";
00202 std::cout << "A booking request is to be given as command-line option? "
00203     << readBookingRequestFromCmdLineStr << std::endl;
00204
00205 if (ioReadBookingRequestFromCmdLine == true) {
00206     if (lWordList.empty() == true) {
00207         std::cerr << "When the --read_booking_request/-r option is given, "
00208             << "a query must also be provided (with the --bkg_req/-b "
00209             << "option at the end of the command-line)" << std::endl;
00210         return K_AIRSCHED_EARLY_RETURN_STATUS;
00211     }
00212 }
00213
00214 // Rebuild the booking request query string
00215 ioBookingRequestString = createStringFromWordList (
00216     lWordList);
00217 std::cout << "The booking request string is: " << ioBookingRequestString
00218     << std::endl;
00219 }
00220 if (vm.count ("log")) {
00221     ioLogFilename = vm["log"].as< std::string >();
00222     std::cout << "Log filename is: " << ioLogFilename << std::endl;
00223 }
00224
00225 return 0;
00226 }
00227
00228 // //////////////////////////////////////
00229 stdair::BookingRequestStruct
00230 parseBookingRequest (const std::string& iRequestOption) {
00231     typedef boost::tokenizer<boost::char_separator<char> > tokenizer;
00232     boost::char_separator<char> sep(" -:");
00233
00234     tokenizer tokens (iRequestOption, sep);
00235
00236     // Origin (e.g., "NCE")
00237     tokenizer::iterator tok_iter = tokens.begin();
00238     assert (tok_iter != tokens.end());
00239     const stdair::AirportCode_T iOrigin (*tok_iter);
00240
00241     // Destination (e.g., "BKK")
00242     ++tok_iter; assert (tok_iter != tokens.end());
00243     const stdair::AirportCode_T iDestination (*tok_iter);
00244
00245     // POS (e.g., "NCE")
00246     ++tok_iter; assert (tok_iter != tokens.end());
00247     const stdair::AirportCode_T iPOS (*tok_iter);
00248
00249     // Preferred departure date (e.g., "2007-04-21")
00250     ++tok_iter; assert (tok_iter != tokens.end());
00251     const short lDepDateYear = boost::lexical_cast<short> (*tok_iter);
00252     ++tok_iter; assert (tok_iter != tokens.end());
00253     const short lDepDateMonth = boost::lexical_cast<short> (*tok_iter);
00254     ++tok_iter; assert (tok_iter != tokens.end());
00255     const short lDepDateDay = boost::lexical_cast<short> (*tok_iter);
00256     const stdair::Date_T iDepartureDate (lDepDateYear, lDepDateMonth, lDepDateDay)
00257 ;
00258
00259     // Request date (e.g., "2007-03-21")
00260     ++tok_iter; assert (tok_iter != tokens.end());
00261     const short lReqDateYear = boost::lexical_cast<short> (*tok_iter);
00262     ++tok_iter; assert (tok_iter != tokens.end());
00263     const short lReqDateMonth = boost::lexical_cast<short> (*tok_iter);
00264     ++tok_iter; assert (tok_iter != tokens.end());
00265     const short lReqDateDay = boost::lexical_cast<short> (*tok_iter);
00266     const stdair::Date_T iRequestDate (lReqDateYear, lReqDateMonth, lReqDateDay);

```

```

00266
00267 // Request time (e.g., "08:34:23")
00268 ++tok_iter; assert (tok_iter != tokens.end());
00269 const short lReqTimeHours = boost::lexical_cast<short> (*tok_iter);
00270 ++tok_iter; assert (tok_iter != tokens.end());
00271 const short lReqTimeMinutes = boost::lexical_cast<short> (*tok_iter);
00272 ++tok_iter; assert (tok_iter != tokens.end());
00273 const short lReqTimeSeconds = boost::lexical_cast<short> (*tok_iter);
00274 const stdair::Duration_T iRequestTime (lReqTimeHours, lReqTimeMinutes,
00275                                         lReqTimeSeconds);
00276
00277 // Request date-time (aggregation of the two items above)
00278 const stdair::DateTime_T iRequestDateTime (iRequestDate, iRequestTime);
00279
00280 // Preferred cabin (e.g., "C")
00281 ++tok_iter; assert (tok_iter != tokens.end());
00282 const stdair::CabinCode_T iPreferredCabin (*tok_iter);
00283
00284 // Party size (e.g., 1)
00285 ++tok_iter; assert (tok_iter != tokens.end());
00286 const stdair::NbOfSeats_T iPartySize = 1;
00287
00288 // Channel (e.g., "DF")
00289 ++tok_iter; assert (tok_iter != tokens.end());
00290 const stdair::ChannelLabel_T iChannel (*tok_iter);
00291
00292 // Trip type (e.g., "RO")
00293 ++tok_iter; assert (tok_iter != tokens.end());
00294 const stdair::TripType_T iTripType (*tok_iter);
00295
00296 // Stay duration (e.g., 5)
00297 ++tok_iter; assert (tok_iter != tokens.end());
00298 const stdair::DayDuration_T iStayDuration = 5;
00299
00300 // Frequent flyer (e.g., "NONE")
00301 ++tok_iter; assert (tok_iter != tokens.end());
00302 const stdair::FrequentFlyer_T iFrequentFlyerType ("NONE");
00303
00304 // Preferred departure time (e.g., "10:00:00")
00305 ++tok_iter; assert (tok_iter != tokens.end());
00306 const short lPrefTimeHours = boost::lexical_cast<short> (*tok_iter);
00307 ++tok_iter; assert (tok_iter != tokens.end());
00308 const short lPrefTimeMinutes = boost::lexical_cast<short> (*tok_iter);
00309 ++tok_iter; assert (tok_iter != tokens.end());
00310 const short lPrefTimeSeconds = boost::lexical_cast<short> (*tok_iter);
00311 const stdair::Duration_T iPreferredDepartureTime (lPrefTimeHours,
00312                                                    lPrefTimeMinutes,
00313                                                    lPrefTimeSeconds);
00314
00315 // Willingness-to-pay (e.g., 2000.0)
00316 ++tok_iter; assert (tok_iter != tokens.end());
00317 const stdair::WTP_T iWTP = 2000.0;
00318
00319 // Value of time (e.g., 20.0)
00320 ++tok_iter; assert (tok_iter != tokens.end());
00321 const stdair::PriceValue_T iValueOfTime = 20.0;
00322
00323 // Change fee acceptance (e.g., true)
00324 //++tok_iter; assert (tok_iter != tokens.end());
00325 const stdair::ChangeFees_T iChangeFees = true;
00326 const stdair::Disutility_T iChangeFeeDisutility = 50;
00327
00328 // Non refundable acceptance (e.g., true)
00329 //++tok_iter; assert (tok_iter != tokens.end());
00330 const stdair::NonRefundable_T iNonRefundable = true;
00331 const stdair::Disutility_T iNonRefundableDisutility = 50;
00332
00333 // Build and return the booking request structure
00334 return stdair::BookingRequestStruct (iOrigin,
00335                                     iDestination, iPOS,
00336                                     iDepartureDate, iRequestDateTime,
00337                                     iPreferredCabin, iPartySize,
00338                                     iChannel, iTripType, iStayDuration,
00339                                     iFrequentFlyerType,
00340                                     iPreferredDepartureTime, iWTP,
00341                                     iValueOfTime, iChangeFees,
00342                                     iChangeFeeDisutility, iNonRefundable,
00343                                     iNonRefundableDisutility);
00344 }
00345
00346 // ////////// M A I N //////////
00347 int main (int argc, char* argv[]) {
00348
00349 // State whether the BOM tree should be built-in or parsed from an
00350 // input file
00351 bool isBuiltin;
00352

```



```

00353 // A booking request should be given as command-line option
00354 bool readBookingRequestFromCmdLine;
00355
00356 // Input file name
00357 stdair::Filename_T lInputFilename;
00358
00359 // Output log File
00360 stdair::Filename_T lLogFilename;
00361
00362 // Booking request string
00363 std::string lBookingRequestString;
00364
00365 // Call the command-line option parser
00366 const int lOptionParserStatus =
00367     readConfiguration (argc, argv, isBuiltin,
readBookingRequestFromCmdLine,
00368         lInputFilename, lLogFilename, lBookingRequestString);
00369
00370 if (lOptionParserStatus == K_AIRSCHED_EARLY_RETURN_STATUS
) {
00371     return 0;
00372 }
00373
00374 // Set the log parameters
00375 std::ofstream logOutputFile;
00376 // Open and clean the log outputfile
00377 logOutputFile.open (lLogFilename.c_str());
00378 logOutputFile.clear();
00379
00380 // Initialise the AirSched service object
00381 const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
00382 AIRSCHED::AIRSCHED_Service airschedService (
lLogParams);
00383
00384 // Check whether or not (CSV) input files should be read
00385 if (isBuiltin == true) {
00386
00387     // Build the sample BOM tree
00388     airschedService.buildSampleBom();
00389
00390 } else {
00391     // Build the BOM tree from parsing input files
00392     const stdair::ScheduleFilePath lScheduleFilePath (lInputFilename);
00393     airschedService.parseAndLoad (lScheduleFilePath);
00394 }
00395
00396 // Check whether or not a booking request is given as a command-line option
00397 if (readBookingRequestFromCmdLine == false) {
00398     lBookingRequestString = K_AIRSCHED_DEFAULT_BOOKING_REQUEST
;
00399 }
00400
00401 // DEBUG
00402 STDAIR_LOG_DEBUG("Booking request string: '" << lBookingRequestString << "'")
;
00403
00404 // Create a booking request object
00405 const stdair::BookingRequestStruct& lBookingRequest =
00406     parseBookingRequest (lBookingRequestString);
00407
00408 //
00409 stdair::TravelSolutionList_T lTravelSolutionList;
00410 airschedService.buildSegmentPathList (lTravelSolutionList
, lBookingRequest);
00411
00412 // DEBUG
00413 STDAIR_LOG_DEBUG ("Parsed booking request: " << lBookingRequest);
00414
00415 // DEBUG
00416 std::ostream oStream;
00417 stdair::BomDisplay::csvDisplay (oStream, lTravelSolutionList);
00418 STDAIR_LOG_DEBUG (oStream.str());
00419
00420 // Close the Log outputFile
00421 logOutputFile.close();
00422
00423 return 0;
00424 }

```

## 24.15 airsched/batches/BookingRequestParser.cpp File Reference

```
#include <cassert>
```

```
#include <sstream>
#include <fstream>
#include <boost/date_time/posix_time/posix_time.hpp>
#include <boost/date_time/gregorian/gregorian.hpp>
#include <boost/spirit/home/classic/core.hpp>
#include <boost/spirit/home/classic/attribute.hpp>
#include <boost/spirit/home/classic/utility/functor_parser.hpp>
#include <boost/spirit/home/classic/utility/loops.hpp>
#include <boost/spirit/home/classic/utility/chset.hpp>
#include <boost/spirit/home/classic/utility/config.hpp>
#include <boost/spirit/home/classic/iterator/file_iterator.hpp>
#include <boost/spirit/home/classic/actor/push_back_actor.hpp>
#include <boost/spirit/home/classic/actor/assign_actor.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/batches/BookingRequestParser.hpp>
```

## Classes

- struct [airsched::store\\_place\\_element](#)
- struct [airsched::store\\_date](#)
- struct [airsched::store\\_airline\\_sign](#)
- struct [airsched::store\\_airline\\_code](#)
- struct [airsched::store\\_airline\\_name](#)
- struct [airsched::store\\_passenger\\_number](#)
- struct [airsched::store\\_adult\\_passenger\\_type](#)
- struct [airsched::store\\_child\\_passenger\\_type](#)
- struct [airsched::store\\_pet\\_passenger\\_type](#)
- struct [airsched::SearchStringParser](#)
- struct [airsched::SearchStringParser::definition< ScannerT >](#)

## Namespaces

- namespace [airsched](#)

## Macros

- `#define` [BOOST\\_SPIRIT\\_DEBUG](#)

## Typedefs

- typedef char [char\\_t](#)
- typedef char const \* [iterator\\_t](#)
- typedef  
    [boost::spirit::classic::scanner](#)  
    < [iterator\\_t](#) > [scanner\\_t](#)
- typedef  
    [boost::spirit::classic::rule](#)  
    < [scanner\\_t](#) > [rule\\_t](#)

## Functions

- SearchString\_T [airsched::parseBookingRequest](#) (const std::string &iSearchString)

## Variables

- boost::spirit::classic::int\_parser  
< unsigned int, 10, 1, 1 > [airsched::int1\\_p](#)
- boost::spirit::classic::uint\_parser  
< unsigned int, 10, 1, 1 > [airsched::uint1\\_p](#)
- boost::spirit::classic::uint\_parser  
< unsigned int, 10, 1, 2 > [airsched::uint1\\_2\\_p](#)
- boost::spirit::classic::uint\_parser  
< int, 10, 2, 2 > [airsched::uint2\\_p](#)
- boost::spirit::classic::uint\_parser  
< int, 10, 2, 4 > [airsched::uint2\\_4\\_p](#)
- boost::spirit::classic::uint\_parser  
< int, 10, 4, 4 > [airsched::uint4\\_p](#)
- boost::spirit::classic::uint\_parser  
< int, 10, 1, 4 > [airsched::uint1\\_4\\_p](#)

## 24.15.1 Macro Definition Documentation

## 24.15.1.1 #define BOOST\_SPIRIT\_DEBUG

Definition at line 12 of file [BookingRequestParser.cpp](#).

## 24.15.2 Typedef Documentation

## 24.15.2.1 typedef char char\_t

Definition at line 28 of file [BookingRequestParser.cpp](#).

## 24.15.2.2 typedef char const\* iterator\_t

Definition at line 29 of file [BookingRequestParser.cpp](#).

## 24.15.2.3 typedef boost::spirit::classic::scanner&lt;iterator\_t&gt; scanner\_t

Definition at line 31 of file [BookingRequestParser.cpp](#).

## 24.15.2.4 typedef boost::spirit::classic::rule&lt;scanner\_t&gt; rule\_t

Definition at line 32 of file [BookingRequestParser.cpp](#).

## 24.16 BookingRequestParser.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 #include <fstream>
00008 // Boost (Extended STL)
00009 #include <boost/date_time/posix_time/posix_time.hpp>
00010 #include <boost/date_time/gregorian/gregorian.hpp>
00011 // Boost Spirit (Parsing)
00012 #define BOOST_SPIRIT_DEBUG
00013 #include <boost/spirit/home/classic/core.hpp>
00014 #include <boost/spirit/home/classic/attribute.hpp>
00015 #include <boost/spirit/home/classic/utility/functor_parser.hpp>
00016 #include <boost/spirit/home/classic/utility/loops.hpp>
00017 #include <boost/spirit/home/classic/utility/chset.hpp>
00018 #include <boost/spirit/home/classic/utility/config.hpp>
00019 #include <boost/spirit/home/classic/iterator/file_iterator.hpp>
00020 #include <boost/spirit/home/classic/actor/push_back_actor.hpp>

```

```

00021 #include <boost/spirit/home/classic/actor/assign_actor.hpp>
00022 // StdAir
00023 #include <stdair/service/Logger.hpp>
00024 // AirSched
00025 #include <airsched/batches/BookingRequestParser.hpp>
00026 >
00027 // Type definitions
00028 typedef char char_t;
00029 typedef char const* iterator_t;
00030 //typedef boost::spirit::classic::file_iterator<char_t> iterator_t;
00031 typedef boost::spirit::classic::scanner<iterator_t> scanner_t;
00032 typedef boost::spirit::classic::rule<scanner_t> rule_t;
00033
00034 namespace airsched {
00035
00036     struct store_place_element {
00037         store_place_element (SearchString_T&
00038 ioSearchString)
00039         : _searchString (ioSearchString) {}
00040
00041         void operator() (iterator_t iStr, iterator_t
00042 iStrEnd) const {
00043             std::string lPlace (iStr, iStrEnd);
00044             // std::cout << "Place: " << lPlace << std::endl;
00045
00046             // Set the place
00047             _searchString._tmpPlace._name += " " + lPlace;
00048
00049             // Add the parsed place to the list
00050             // _searchString._placeList.push_back (_searchString._tmpPlace);
00051         }
00052     };
00053
00054     SearchString_T& _searchString;
00055 };
00056
00057 struct store_date {
00058     store_date (SearchString_T& ioSearchString)
00059     : _searchString (ioSearchString) {}
00060
00061     void operator() (iterator_t iStr, iterator_t
00062 iStrEnd) const {
00063         _searchString._tmpDate._date = _searchString
00064 ._tmpDate.getDate();
00065         // std::cout << "Board date: "
00066         // << _searchString._date << std::endl;
00067
00068         // Add the parsed date to the list
00069         _searchString._dateList.push_back (_searchString
00070 ._tmpDate);
00071     }
00072
00073     SearchString_T& _searchString;
00074 };
00075
00076 struct store_airline_sign {
00077     store_airline_sign (SearchString_T&
00078 ioSearchString)
00079     : _searchString (ioSearchString) {}
00080
00081     void operator() (bool iAirlineSign) const {
00082         _searchString._tmpAirline._isPreferred
00083 = !iAirlineSign;
00084         // std::cout << "Airline is preferred: " << iAirlineSign << std::endl;
00085     }
00086
00087     SearchString_T& _searchString;
00088 };
00089
00090 struct store_airline_code {
00091     store_airline_code (SearchString_T&
00092 ioSearchString)
00093     : _searchString (ioSearchString) {}
00094
00095     void operator() (iterator_t iStr, iterator_t
00096 iStrEnd) const {
00097         std::string lAirlineCode (iStr, iStrEnd);
00098         _searchString._tmpAirline._code =
00099 lAirlineCode;
00100         // std::cout << "Airline code: " << lAirlineCode << std::endl;
00101
00102         // Add the parsed airline to the list
00103         _searchString._airlineList.push_back (
00104 _searchString._tmpAirline);
00105     }
00106
00107     SearchString_T& _searchString;

```

```

00108     };
00109
00111     struct store_airline_name {
00113         store_airline_name (SearchString_T&
ioSearchString)
00114             : _searchString (ioSearchString) {}
00115
00117         void operator() (iterator_t iStr, iterator_t
iStrEnd) const {
00118             std::string lAirlineName (iStr, iStrEnd);
00119             _searchString._tmpAirline._name =
lAirlineName;
00120             // std::cout << "Airline: " << lAirlineName << std::endl;
00121
00122             // Add the parsed airline to the list
00123             _searchString._airlineList.push_back (
_searchString._tmpAirline);
00124         }
00125
00126         SearchString_T& _searchString;
00127     };
00128
00130     struct store_passenger_number {
00132         store_passenger_number (SearchString_T&
ioSearchString)
00133             : _searchString (ioSearchString) {}
00134
00136         void operator() (unsigned int iNumber) const {
00137             _searchString._tmpPassenger._number =
iNumber;
00138             // std::cout << "Number of passengers: " << iNumber << std::endl;
00139         }
00140
00141         SearchString_T& _searchString;
00142     };
00143
00145     struct store_adult_passenger_type {
00147         store_adult_passenger_type (SearchString_T
& ioSearchString)
00148             : _searchString (ioSearchString) {}
00149
00151         void operator() (iterator_t iStr, iterator_t
iStrEnd) const {
00152             std::string lPassengerType (iStr, iStrEnd);
00153             _searchString._tmpPassenger._type =
Passenger_T::ADULT;
00154             // std::cout << "Passenger type: " << lPassengerType << std::endl;
00155
00156             // Add the parsed passenger to the list
00157             _searchString._passengerList.push_back (
_searchString._tmpPassenger);
00158         }
00159
00160         SearchString_T& _searchString;
00161     };
00162
00164     struct store_child_passenger_type {
00166         store_child_passenger_type (SearchString_T
& ioSearchString)
00167             : _searchString (ioSearchString) {}
00168
00170         void operator() (iterator_t iStr, iterator_t
iStrEnd) const {
00171             std::string lPassengerType (iStr, iStrEnd);
00172             _searchString._tmpPassenger._type =
Passenger_T::CHILD;
00173             // std::cout << "Passenger type: " << lPassengerType << std::endl;
00174
00175             // Add the parsed passenger to the list
00176             _searchString._passengerList.push_back (
_searchString._tmpPassenger);
00177         }
00178
00179         SearchString_T& _searchString;
00180     };
00181
00183     struct store_pet_passenger_type {
00185         store_pet_passenger_type (SearchString_T
& ioSearchString)
00186             : _searchString (ioSearchString) {}
00187
00189         void operator() (iterator_t iStr, iterator_t
iStrEnd) const {
00190             std::string lPassengerType (iStr, iStrEnd);
00191             _searchString._tmpPassenger._type =
Passenger_T::PET;
00192             // std::cout << "Passenger type: " << lPassengerType << std::endl;

```

```

00193
00194     // Add the parsed passenger to the list
00195     _searchString._passengerList.push_back (
00196         _searchString._tmpPassenger);
00197     }
00198     SearchString_T& _searchString;
00199 };
00200
00201 // //////////// Utilities ////////////
00202 boost::spirit::classic::int_parser<unsigned int, 10, 1, 1> int1_p;
00203 boost::spirit::classic::uint_parser<unsigned int, 10, 1, 1> uint1_p;
00204 boost::spirit::classic::uint_parser<unsigned int, 10, 1, 2> uint1_2_p;
00205
00206 ;
00207 boost::spirit::classic::uint_parser<int, 10, 2, 2> uint2_p;
00208 boost::spirit::classic::uint_parser<int, 10, 2, 4> uint2_4_p;
00209 boost::spirit::classic::uint_parser<int, 10, 4, 4> uint4_p;
00210 boost::spirit::classic::uint_parser<int, 10, 1, 4> uint1_4_p;
00211
00212 //
00213 // Our calculator grammar (using subrules)
00214 //
00215 using namespace boost::spirit::classic;
00216
00217 struct SearchStringParser :
00218     public boost::spirit::classic::grammar<SearchStringParser> {
00219     SearchStringParser (SearchString_T&
00220         ioSearchString)
00221     : _searchString (ioSearchString) {
00222     }
00223
00224     template <typename ScannerT>
00225     struct definition {
00226     definition (SearchStringParser const& self) {
00227
00228         search_string = places
00229             >> !( dates )
00230             >> *( preferred_airlines )
00231             >> *( passengers )
00232             ;
00233
00234         places =
00235             +( place_element )
00236             ;
00237
00238         place_element =
00239             lexeme_d[ (repeat_p(1,20)[chset_p("a-z")]) [store_place_element
00240 (self._searchString)] ]
00241             ;
00242
00243         dates =
00244             date[store_date(self._searchString)]
00245             >> !date[store_date(self._searchString)]
00246             ;
00247
00248         date =
00249             ( month | day )
00250             >> boost::spirit::classic::chset_p("/")
00251             >> ( day | month )
00252             >> ! ( boost::spirit::classic::chset_p("/")
00253                 >> year )
00254             ;
00255
00256         day =
00257             lexeme_d[ limit_d(1u,31u)[uint1_2_p][assign_a(self.
00258 _searchString._tmpDate._day)] ]
00259             ;
00260
00261         month =
00262             lexeme_d[ limit_d(1u,12u)[uint1_2_p][assign_a(self.
00263 _searchString._tmpDate._month)] ]
00264             ;
00265
00266         year =
00267             lexeme_d[ limit_d(2000u,2099u)[uint4_p][assign_a(self.
00268 _searchString._tmpDate._year)] ]
00269             | lexeme_d[ limit_d(0u,99u)[uint2_p][assign_a(self.
00270 _searchString._tmpDate._year)] ]
00271             ;
00272
00273         preferred_airlines =
00274             !(boost::spirit::classic::sign_p)[store_airline_sign
00275 (self._searchString)]
00276             >> airline_code | airline_name
00277             ;
00278

```

```

00306
00307     airline_code =
00308         lexeme_d[ (repeat_p(2,3) [chset_p("0-9a-z")]) [store_airline_code
(self._searchString)] ]
00309     ;
00310
00311     airline_name =
00312         lexeme_d[ (repeat_p(4,20) [chset_p("0-9a-z")]) [store_airline_name
(self._searchString)] ]
00313     ;
00314
00315     passengers =
00316         passenger_number >> passenger_type
00317     ;
00318
00319     passenger_number =
00320         lexeme_d[ limit_d(1u, 9u) [uint1_p] [store_passenger_number
(self._searchString)] ]
00321     ;
00322
00323     passenger_type =
00324         passenger_adult_type[store_adult_passenger_type
(self._searchString)]
00325         | passenger_child_type[store_child_passenger_type
(self._searchString)]
00326         | passenger_pet_type[store_pet_passenger_type
(self._searchString)]
00327     ;
00328
00329     passenger_adult_type =
00330         lexeme_d[ as_lower_d [ str_p("adult") >> !ch_p('s') ] ]
00331     ;
00332
00333     passenger_child_type =
00334         lexeme_d[ as_lower_d [ str_p("child") >> !str_p("ren") ] ]
00335     ;
00336
00337     passenger_pet_type =
00338         lexeme_d[ as_lower_d [ str_p("dog") | str_p("cat") >> !ch_p('s') ] ]
00339     ;
00340
00341     BOOST_SPIRIT_DEBUG_NODE (search_string);
00342     BOOST_SPIRIT_DEBUG_NODE (places);
00343     BOOST_SPIRIT_DEBUG_NODE (place_element);
00344     BOOST_SPIRIT_DEBUG_NODE (dates);
00345     BOOST_SPIRIT_DEBUG_NODE (date);
00346     BOOST_SPIRIT_DEBUG_NODE (day);
00347     BOOST_SPIRIT_DEBUG_NODE (month);
00348     BOOST_SPIRIT_DEBUG_NODE (year);
00349     BOOST_SPIRIT_DEBUG_NODE (preferred_airlines);
00350     BOOST_SPIRIT_DEBUG_NODE (airline_code);
00351     BOOST_SPIRIT_DEBUG_NODE (airline_name);
00352     BOOST_SPIRIT_DEBUG_NODE (passengers);
00353     BOOST_SPIRIT_DEBUG_NODE (passenger_number);
00354     BOOST_SPIRIT_DEBUG_NODE (passenger_type);
00355     BOOST_SPIRIT_DEBUG_NODE (passenger_adult_type);
00356     BOOST_SPIRIT_DEBUG_NODE (passenger_child_type);
00357     BOOST_SPIRIT_DEBUG_NODE (passenger_pet_type);
00358 }
00359
00360 boost::spirit::classic::rule<ScannerT> search_string, places,
place_element,
00361     dates, date, month, day, year,
00362     preferred_airlines, airline_code, airline_name,
00363     passengers, passenger_number, passenger_type, passenger_adult_type,
00364     passenger_child_type, passenger_pet_type;
00365
00366 boost::spirit::classic::rule<ScannerT> const& start() const { return
search_string; }
00367 };
00368
00369 SearchString_T& _searchString;
00370 };
00371
00372 // //////////////////////////////////////
00373 SearchString_T parseBookingRequest (const
std::string& iSearchString) {
00374     SearchString_T oSearchStringStruct;
00375
00376     // Read the search string
00377     iterator_t lStringIterator = iSearchString.c_str();
00378
00379     // Instantiate the structure that will hold the result of the parsing.
00380     SearchStringParser lSearchStringParser (
oSearchStringStruct);
00381     boost::spirit::classic::parse_info<iterator_t> info =
00382     boost::spirit::classic::parse (lStringIterator, lSearchStringParser,

```

```

00383                                     boost::spirit::classic::space_p);
00384
00385     STDAIR_LOG_DEBUG ("-----");
00386
00387     bool hasBeenParsingSuccessful = info.full;
00388     if (hasBeenParsingSuccessful == true) {
00389         STDAIR_LOG_DEBUG ("Parsing succeeded");
00390
00391     } else {
00392         STDAIR_LOG_DEBUG ("Parsing failed");
00393     }
00394     STDAIR_LOG_DEBUG ("-----");
00395
00396     return oSearchStringStruct;
00397 }
00398
00399 }
```

## 24.17 airsched/batches/BookingRequestParser.hpp File Reference

```

#include <string>
#include <vector>
```

### Classes

- struct [airsched::Place\\_T](#)
- struct [airsched::Date\\_T](#)
- struct [airsched::Airline\\_T](#)
- struct [airsched::Passenger\\_T](#)
- struct [airsched::SearchString\\_T](#)

### Namespaces

- namespace [airsched](#)

### Typedefs

- typedef std::vector< Place\_T > [airsched::PlaceList\\_T](#)
- typedef std::vector< Date\_T > [airsched::DateList\\_T](#)
- typedef std::vector< Airline\_T > [airsched::AirlineList\\_T](#)
- typedef std::vector< Passenger\_T > [airsched::PassengerList\\_T](#)

### Functions

- SearchString\_T [airsched::parseBookingRequest](#) (const std::string &iSearchString)

## 24.18 BookingRequestParser.hpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <string>
00006 #include <vector>
00007
00008 namespace airsched {
00009
00011     struct Place_T {
00012         // Attributes
00013         std::string _name;
00014         std::string _code;
00016         Place_T () : _name (""), _code ("") {}
00017         /* Display. */
```



```

00018     void display() const {
00019         std::cout << "Place: " << _name << " (" << _code << ")" <<
std::endl;
00020     }
00021 };
00022
00024     typedef std::vector<Place_T> PlaceList_T;
00025
00027     struct Date_T {
00028         // Attributes
00029         boost::gregorian::date _date;
00030         unsigned int _reldays;
00031         unsigned int _day;
00032         unsigned int _month;
00033         unsigned int _year;
00035         Date_T () : _reldays (14), _day(1), _month(1),
_year(1970) {}
00036         /* Display. */
00037         void display() const {
00038             std::cout << "Date: " << _date << " (" << _day << "/" << _month
00039                 << "/" << _year << ")", i.e. in " << _reldays << "
days"
<< std::endl;
00040         }
00041     }
00043     boost::gregorian::date getDate() const {
00044         return boost::gregorian::date (_year, _month, _day);
00045     }
00046 };
00047
00049     typedef std::vector<Date_T> DateList_T;
00050
00052     struct Airline_T {
00053         // Attributes
00054         bool _isPreferred;
00055         std::string _name;
00056         std::string _code;
00058         Airline_T () : _isPreferred (true), _name(""),
_code("") {}
00059         /* Display. */
00060         void display() const {
00061             const std::string isPreferredStr = (_isPreferred)?"+":"-";
00062             std::cout << "Airline: " << isPreferredStr << _name << " (" << _code
<< ")"
<< std::endl;
00063         }
00064     };
00065 };
00066
00068     typedef std::vector<Airline_T> AirlineList_T;
00069
00071     struct Passenger_T {
00072         // Attributes
00073         typedef enum { ADULT = 0, CHILD, PET, LAST_VALUE }
PassengerType_T;
00074         static const std::string _labels[LAST_VALUE];
00075         PassengerType_T _type;
00076         unsigned short _number;
00078         Passenger_T () : _type(ADULT), _number(1) {}
00079         /* Display. */
00080         void display() const {
00081             std::cout << "Passenger: " << _number << " (" << _labels[
_type] << ")"
<< std::endl;
00082         }
00083     };
00084 };
00085
00087     const std::string Passenger_T::_labels[
Passenger_T::LAST_VALUE] =
{ "Adult", "Child", "Pet" };
00088
00091     typedef std::vector<Passenger_T> PassengerList_T;
00092
00094     struct SearchString_T {
00095         // Attributes
00096         PlaceList_T _placeList;
00097         DateList_T _dateList;
00098         AirlineList_T _airlineList;
00099         PassengerList_T _passengerList;
00100
00102         SearchString_T () {}
00103
00104         /* Display. */
00105         void display() const {
00106             std::cout << std::endl;
00107
00108             for (PlaceList_T::const_iterator itPlace = _placeList.begin();
itPlace != _placeList.end(); ++itPlace) {
00109                 const Place_T& lPlace = *itPlace;
00110

```

```

00111         lPlace.display();
00112     }
00113
00114     for (DateList_T::const_iterator itDate = _dateList.begin();
00115          itDate != _dateList.end(); ++itDate) {
00116         const Date_T& lDate = *itDate;
00117         lDate.display();
00118     }
00119
00120     for (AirlineList_T::const_iterator itAirline = _airlineList.
begin();
00121          itAirline != _airlineList.end(); ++itAirline) {
00122         const Airline_T& lAirline = *itAirline;
00123         lAirline.display();
00124     }
00125
00126     for (PassengerList_T::const_iterator itPassenger = _passengerList
.begin();
00127          itPassenger != _passengerList.end(); ++itPassenger) {
00128         const Passenger_T& lPassenger = *itPassenger;
00129         lPassenger.display();
00130     }
00131
00132     std::cout << "-- Staging --" << std::endl;
00133     _tmpPlace.display();
00134 }
00135
00136 // //// Staging ////
00137 Place_T _tmpPlace;
00138 Date_T _tmpDate;
00139 Airline_T _tmpAirline;
00140 Passenger_T _tmpPassenger;
00141 };
00142
00143 //
00144 // The booking request grammar (using subrules)
00145 //
00146 //
00147
00148 SearchString_T parseBookingRequest (const
std::string& iSearchString);
00175
00176 }

```

## 24.19 airsched/bom/AirportList.hpp File Reference

```

#include <set>
#include <vector>
#include <stdair/stdair_basic_types.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

### Typedefs

- typedef std::set  
< stdair::AirportCode\_T > [AIRSCHED::AirportList\\_T](#)
- typedef std::vector  
< stdair::AirportCode\_T > [AIRSCHED::AirportOrderedList\\_T](#)

## 24.20 AirportList.hpp

```

00001 #ifndef __AIRSCHED_BOM_AIRPORTLIST_HPP
00002 #define __AIRSCHED_BOM_AIRPORTLIST_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <set>
00009 #include <vector>

```

```

00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012
00013 namespace AIRSCHED {
00014
00016     typedef std::set<stdair::AirportCode_T> AirportList_T;
00017     typedef std::vector<stdair::AirportCode_T> AirportOrderedList_T
00018 ;
00019 }
00020 #endif // __AIRSCHED_BOM_AIRPORTLIST_HPP

```

## 24.21 airsched/bom/BomDisplay.cpp File Reference

```

#include <cassert>
#include <ostream>
#include <stdair/basic/BasConst_BomDisplay.hpp>
#include <stdair/bom/BomManager.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <airsched/bom/ReachableUniverse.hpp>
#include <airsched/bom/BomDisplay.hpp>

```

### Classes

- struct [AIRSCHED::FlagSaver](#)

### Namespaces

- namespace [AIRSCHED](#)

## 24.22 BomDisplay.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <ostream>
00007 // StdAir
00008 #include <stdair/basic/BasConst_BomDisplay.hpp>
00009 #include <stdair/bom/BomManager.hpp>
00010 #include <stdair/bom/BomRoot.hpp>
00011 // AirSched
00012 #include <airsched/bom/ReachableUniverse.hpp>
00013 #include <airsched/bom/BomDisplay.hpp>
00014
00015 namespace AIRSCHED {
00016
00022     struct FlagSaver {
00023     public:
00025         FlagSaver (std::ostream& oStream)
00026             : _oStream (oStream), _streamFlags (oStream.flags()) {
00027         }
00028
00030         ~FlagSaver() {
00031             // Reset formatting flags of the given output stream
00032             _oStream.flags (_streamFlags);
00033         }
00034
00035     private:
00037         std::ostream& _oStream;
00039         std::ios::fmtflags _streamFlags;
00040     };
00041
00042 // //////////////////////////////////////
00043     std::string BomDisplay::csvDisplay (const
stdair::BomRoot& iBomRoot) {
00044         std::ostringstream oStream;
00045
00049         oStream << std::endl;

```

```

00050     ostream << "=====
"
00051         << std::endl;
00052     ostream << "BomRoot: " << iBomRoot.describeKey() << std::endl;
00053     ostream << "=====
"
00054         << std::endl;
00055
00056     // Check whether there are ReachableUniverse objects
00057     if (stdair::BomManager::hasList<ReachableUniverse> (iBomRoot) == false) {
00058         return ostream.str();
00059     }
00060
00061     // Retrieve the ReachableUniverse list
00062     const ReachableUniverseList_T&
lReachableUniverseList =
00063         stdair::BomManager::getList<ReachableUniverse> (iBomRoot);
00064
00065     // Browse the networks for each departure airport
00066     for (ReachableUniverseList_T::const_iterator itReachableUniverse =
00067         lReachableUniverseList.begin();
00068         itReachableUniverse != lReachableUniverseList.end();
00069         ++itReachableUniverse) {
00070         ReachableUniverse* lReachableUniverse_ptr = *
itReachableUniverse;
00071         assert (lReachableUniverse_ptr != NULL);
00072
00073         // Display the reachable universe
00074         csvDisplay (ostream, *lReachableUniverse_ptr);
00075     }
00076
00077     return ostream.str();
00078 }
00079
00080 // //////////////////////////////////////
00081 void BomDisplay::csvDisplay (std::ostream& ostream,
00082                             const ReachableUniverse&
iReachableUniverse) {
00083     // Save the formatting flags for the given STL output stream
00084     FlagSaver flagSaver (ostream);
00085
00086     ostream << "+++++" << std::endl;
00087
00088     ostream << iReachableUniverse.toString();
00089     ostream << "+++++" << std::endl;
00090 }
00091
00092 }
00093
00094 }

```

## 24.23 airsched/bom/BomDisplay.hpp File Reference

```

#include <iosfwd>
#include <string>

```

### Classes

- class [AIRSCHED::BomDisplay](#)  
*Utility class to display AirSched objects with a pretty format.*

### Namespaces

- namespace [stdair](#)  
*Forward declarations.*
- namespace [AIRSCHED](#)

## 24.24 BomDisplay.hpp

```

00001 #ifndef __AIRSCHED_BOM_BOMDISPLAY_HPP
00002 #define __AIRSCHED_BOM_BOMDISPLAY_HPP
00003

```

```

00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // AirSched
00011
00013 namespace stdair {
00014     class BomRoot;
00015 }
00016
00017 namespace AIRSCHED {
00018
00020     class ReachableUniverse;
00021
00026     class BomDisplay {
00027     public:
00028         // ////////////////////////////////// Display support methods //////////////////////////////////
00037         static std::string csvDisplay (const stdair::BomRoot&);
00038
00047         static void csvDisplay (std::ostream&, const ReachableUniverse
&);
00048     };
00049
00050 }
00051 #endif // __AIRSCHED_BOM_BOMDISPLAY_HPP

```

## 24.25 airsched/bom/FareFamilyStruct.cpp File Reference

```

#include <cassert>
#include <sstream>
#include <airsched/bom/FareFamilyStruct.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

## 24.26 FareFamilyStruct.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // AIRSCHED
00008 #include <airsched/bom/FareFamilyStruct.hpp>
00009
00010 namespace AIRSCHED {
00011
00012     // //////////////////////////////////////
00013     FareFamilyStruct::
00014     FareFamilyStruct (const stdair::FamilyCode_T& iFamilyCode,
00015                     const stdair::CurveKey_T& iFRAT5Key,
00016                     const stdair::CurveKey_T& iFFDisutilityKey,
00017                     const stdair::ClassList_String_T& iClasses)
00018         : _familyCode (iFamilyCode), _frat5CurveKey (iFRAT5Key),
00019         _ffDisutilityCurveKey (iFFDisutilityKey), _classes (iClasses) {
00020     }
00021
00022     // //////////////////////////////////////
00023     const std::string FareFamilyStruct::describe ()
const {
00024         std::ostringstream ostr;
00025         ostr << " " << _familyCode << " "
00026             << _frat5CurveKey << " " << _ffDisutilityCurveKey
00027             << " " << _classes << ", ";
00028         return ostr.str();
00029     }
00030
00031 }

```

## 24.27 airsched/bom/FareFamilyStruct.hpp File Reference

```
#include <string>
#include <vector>
#include <stdair/stdair_inventory_types.hpp>
#include <stdair/basic/StructAbstract.hpp>
```

### Classes

- struct [AIRSCHEDED::FareFamilyStruct](#)

### Namespaces

- namespace [AIRSCHEDED](#)

### Typedefs

- typedef std::vector  
< FareFamilyStruct > [AIRSCHEDED::FareFamilyStructList\\_T](#)

## 24.28 FareFamilyStruct.hpp

```
00001 #ifndef __AIRSCHEDED_BOM_FAREFAMILYSTRUCT_HPP
00002 #define __AIRSCHEDED_BOM_FAREFAMILYSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_inventory_types.hpp>
00012 #include <stdair/basic/StructAbstract.hpp>
00013
00014 namespace AIRSCHEDED {
00015
00016     struct FareFamilyStruct : public stdair::StructAbstract {
00017         // Attributes
00018         stdair::FamilyCode_T _familyCode;
00019         stdair::CurveKey_T _frat5CurveKey;
00020         stdair::CurveKey_T _ffDisutilityCurveKey;
00021         stdair::ClassList_String_T _classes;
00022
00023         FareFamilyStruct (const stdair::FamilyCode_T&,
00024                         const stdair::CurveKey_T&, const stdair::CurveKey_T&,
00025                         const stdair::ClassList_String_T&);
00026
00027         const std::string describe() const;
00028     };
00029
00030     typedef std::vector<FareFamilyStruct> FareFamilyStructList_T
00031 ;
00032
00033 }
00034 #endif // __AIRSCHEDED_BOM_FAREFAMILYSTRUCT_HPP
```

## 24.29 airsched/bom/FlightPeriodStruct.cpp File Reference

```
#include <cassert>
#include <sstream>
#include <stdair/basic/BasConst_Period_BOM.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/AIRSCHEDED_Types.hpp>
#include <airsched/bom/FlightPeriodStruct.hpp>
```

## Namespaces

- namespace AIRSCHED

## 24.30 FlightPeriodStruct.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // StdAir
00008 #include <stdair/basic/BasConst_Period_BOM.hpp>
00009 #include <stdair/service/Logger.hpp>
00010 // AirSched
00011 #include <airsched/AIRSCHED_Types.hpp>
00012 #include <airsched/bom/FlightPeriodStruct.hpp>
00013 >
00014 namespace AIRSCHED {
00015
00016 // //////////////////////////////////////
00017 FlightPeriodStruct::FlightPeriodStruct
00018 ()
00019 : _dateRange (stdair::BOOST_DEFAULT_DATE_PERIOD),
00020   _dow (stdair::DEFAULT_DOW_STRING),
00021   _legAlreadyDefined (false), _itSeconds (0) {
00022 }
00023 // //////////////////////////////////////
00024 stdair::Date_T FlightPeriodStruct::getDate() const
00025 {
00026     return stdair::Date_T (_itYear, _itMonth, _itDay);
00027 }
00028 // //////////////////////////////////////
00029 stdair::Duration_T FlightPeriodStruct::getTime()
00030 const {
00031     return boost::posix_time::hours (_itHours)
00032         + boost::posix_time::minutes (_itMinutes)
00033         + boost::posix_time::seconds (_itSeconds);
00034 }
00035 // //////////////////////////////////////
00036 const std::string FlightPeriodStruct::describe()
00037 const {
00038     std::ostringstream ostr;
00039     ostr << _airlineCode << _flightNumber << ", " <<
00040     _dateRange
00041     << " - " << _dow << std::endl;
00042     for (LegStructList_T::const_iterator itLeg = _legList.begin();
00043          itLeg != _legList.end(); ++itLeg) {
00044         const LegStruct& lLeg = *itLeg;
00045         ostr << lLeg.describe();
00046     }
00047     for (SegmentStructList_T::const_iterator itSegment = _segmentList
00048 .begin();
00049          itSegment != _segmentList.end(); ++itSegment) {
00050         const SegmentStruct& lSegment = *itSegment;
00051         ostr << lSegment.describe();
00052     }
00053     //ostr << "[Debug] - Staging Leg: ";
00054     //ostr << _itLeg.describe();
00055     //ostr << "[Debug] - Staging Cabin: ";
00056     //ostr << _itCabin.describe();
00057     return ostr.str();
00058 }
00059 }
00060 // //////////////////////////////////////
00061 void FlightPeriodStruct::addAirport (const
00062 stdair::AirportCode_T& iAirport) {
00063     AirportList_T::const_iterator itAirport = _airportList.find (
00064 iAirport);
00065     if (itAirport == _airportList.end()) {

```

```

00065         // Add the airport code to the airport set
00066         const bool insertSuccessful = _airportList.insert (iAirport).
second;
00067
00068         if (insertSuccessful == false) {
00069             // TODO: throw an exception
00070         }
00071
00072         // Add the airport code to the airport vector
00073         _airportOrderedList.push_back (iAirport);
00074     }
00075 }
00076
00077 ///////////////////////////////////////////////////////////////////
00078 void FlightPeriodStruct::buildSegments () {
00079     // The list of airports encompasses all the airports on which
00080     // the flight takes off or lands. Moreover, that list is
00081     // time-ordered: the first airport is the initial departure of
00082     // the flight, and the last airport is the eventual point of
00083     // rest of the flight.
00084     // Be l the size of the ordered list of airports.
00085     // We want to generate all the segment combinations from the legs
00086     // and, hence, from all the possible (time-ordered) airport pairs.
00087     // Thus, we both iterator on i=0...l-1 and j=i+1...l
00088     assert (_airportOrderedList.size() >= 2);
00089
00090     _segmentList.clear();
00091     for (AirportOrderedList_T::const_iterator itAirport_i =
00092         _airportOrderedList.begin();
00093         itAirport_i != _airportOrderedList.end()-1; ++
itAirport_i) {
00094         for (AirportOrderedList_T::const_iterator itAirport_j = itAirport_i + 1;
00095             itAirport_j != _airportOrderedList.end(); ++
itAirport_j) {
00096             SegmentStruct lSegmentStruct;
00097             lSegmentStruct._boardingPoint = *itAirport_i;
00098             lSegmentStruct._offPoint = *itAirport_j;
00099
00100             _segmentList.push_back (lSegmentStruct);
00101         }
00102     }
00103
00104     // Clear the lists of airports, so that it is ready for the next flight
00105     _airportList.clear();
00106     _airportOrderedList.clear();
00107 }
00108
00109 ///////////////////////////////////////////////////////////////////
00110 void FlightPeriodStruct::
00111 addSegmentCabin (const SegmentStruct& iSegment,
00112                 const SegmentCabinStruct& iCabin) {
00113     // Retrieve the Segment structure corresponding to the (boarding, off)
point
00114     // pair.
00115     SegmentStructList_T::iterator itSegment = _segmentList.begin();
00116     for ( ; itSegment != _segmentList.end(); ++itSegment) {
00117         const SegmentStruct& lSegment = *itSegment;
00118
00119         const stdair::AirportCode_T& lBoardingPoint = iSegment._boardingPoint
;
00120         const stdair::AirportCode_T& lOffPoint = iSegment._offPoint;
00121         if (lSegment._boardingPoint == lBoardingPoint
00122             && lSegment._offPoint == lOffPoint) {
00123             break;
00124         }
00125     }
00126
00127     if (itSegment == _segmentList.end()) {
00128         std::ostringstream oStr;
00129         oStr << "Within the schedule input file, there is a flight, for which "
00130             << "the airports of segments and those of the legs "
00131             << "do not correspond";
00132         STDAIR_LOG_ERROR (oStr.str());
00133         throw SegmentDateNotFoundException (oStr.str(
));
00134     }
00135
00136     // Add the Cabin structure to the Segment Cabin structure.
00137     assert (itSegment != _segmentList.end());
00138     SegmentStruct& lSegment = *itSegment;
00139     lSegment._cabinList.push_back (iCabin);
00140 }
00141
00142 ///////////////////////////////////////////////////////////////////
00143 void FlightPeriodStruct::
00144 addSegmentCabin (const SegmentCabinStruct&
iCabin) {

```



```

00150     // Iterate on all the Segment structures (as they get the same cabin
00151     // definitions)
00152     for (SegmentStructList_T::iterator itSegment = _segmentList.
begin();
00153         itSegment != _segmentList.end(); ++itSegment) {
00154         SegmentStruct& lSegment = *itSegment;
00155
00156         lSegment._cabinList.push_back (iCabin);
00157     }
00158 }
00159
00160 // //////////////////////////////////////
00161 void FlightPeriodStruct::
00162 addFareFamily (const SegmentStruct& iSegment,
00163               const SegmentCabinStruct& iCabin,
00164               const FareFamilyStruct& iFareFamily) {
00165     // Retrieve the Segment structure corresponding to the (boarding, off)
point
00166     // pair.
00167     SegmentStructList_T::iterator itSegment = _segmentList.begin();
00168     for ( ; itSegment != _segmentList.end(); ++itSegment) {
00169         const SegmentStruct& lSegment = *itSegment;
00170
00171         const stdair::AirportCode_T& lBoardingPoint = iSegment._boardingPoint
;
00172         const stdair::AirportCode_T& lOffPoint = iSegment._offPoint;
00173         if (lSegment._boardingPoint == lBoardingPoint
00174             && lSegment._offPoint == lOffPoint) {
00175             break;
00176         }
00177     }
00178
00184     if (itSegment == _segmentList.end()) {
00185         std::ostringstream ostr;
00186         ostr << "Within the schedule input file, there is a flight, for which "
00187             << "the airports of segments and those of the legs "
00188             << "do not correspond";
00189         STDAIR_LOG_ERROR (ostr.str());
00190         throw SegmentDateNotFoundException (ostr.str(
));
00191     }
00192
00193     // Add the Cabin structure to the Segment Cabin structure.
00194     assert (itSegment != _segmentList.end());
00195     SegmentStruct& lSegment = *itSegment;
00196
00197     // Retrieve the Segment cabin structure given the cabin code
00198     SegmentCabinStructList_T::iterator itCabin = lSegment._cabinList.
begin();
00199     for ( ; itCabin != lSegment._cabinList.end(); ++itCabin) {
00200         const SegmentCabinStruct& lCabin = *itCabin;
00201
00202         const stdair::CabinCode_T& lCabinCode = lCabin._cabinCode;
00203         if (iCabin._cabinCode == lCabinCode) {
00204             break;
00205         }
00206     }
00207
00213     if (itCabin == lSegment._cabinList.end()) {
00214         std::ostringstream ostr;
00215         ostr << "Within the schedule input file, there is a flight "
00216             << "for which the cabin code does not exist.";
00217         STDAIR_LOG_ERROR (ostr.str());
00218         throw SegmentDateNotFoundException (ostr.str(
));
00219     }
00220
00221     // Add the Cabin structure to the Segment Cabin structure.
00222     assert (itCabin != lSegment._cabinList.end());
00223     SegmentCabinStruct& lCabin = *itCabin;
00224     lCabin._fareFamilies.push_back (iFareFamily);
00225 }
00226
00227 // //////////////////////////////////////
00228 void FlightPeriodStruct::
00229 addFareFamily (const SegmentCabinStruct&
iCabin,
00230               const FareFamilyStruct& iFareFamily) {
00231     // Iterate on all the Segment structures (as they get the same cabin
00232     // definitions)
00233
00234     for (SegmentStructList_T::iterator itSegment = _segmentList.
begin();
00235         itSegment != _segmentList.end(); ++itSegment) {
00236         SegmentStruct& lSegment = *itSegment;
00237
00238         // Retrieve the Segment cabin structure given the cabin code

```

```

00239     SegmentCabinStructList_T::iterator itCabin = lSegment._cabinList
    .begin();
00240     for ( ; itCabin != lSegment._cabinList.end(); ++itCabin) {
00241         const SegmentCabinStruct& lCabin = *itCabin;
00242
00243         const stdair::CabinCode_T& lCabinCode = lCabin._cabinCode;
00244         if (lCabin._cabinCode == lCabinCode) {
00245             break;
00246         }
00247     }
00248
00254     if (itCabin == lSegment._cabinList.end()) {
00255         std::ostringstream ostr;
00256         ostr << "Within the schedule input file, there is a flight "
00257             << "for which the cabin code does not exist.";
00258         STDAIR_LOG_ERROR (ostr.str());
00259         throw SegmentDateNotFoundException (ostr.
    str());
00260     }
00261
00262     // Add the Cabin structure to the Segment Cabin structure.
00263     assert (itCabin != lSegment._cabinList.end());
00264     SegmentCabinStruct& lCabin = *itCabin;
00265     lCabin._fareFamilies.push_back(iFareFamily);
00266 }
00267 }
00268
00269 }

```

## 24.31 airsched/bom/FlightPeriodStruct.hpp File Reference

```

#include <string>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/basic/StructAbstract.hpp>
#include <stdair/bom/DoWStruct.hpp>
#include <airsched/bom/LegCabinStruct.hpp>
#include <airsched/bom/LegStruct.hpp>
#include <airsched/bom/SegmentStruct.hpp>
#include <airsched/bom/SegmentCabinStruct.hpp>
#include <airsched/bom/FareFamilyStruct.hpp>
#include <airsched/bom/AirportList.hpp>

```

### Classes

- struct [AIRSCHEDED::FlightPeriodStruct](#)

### Namespaces

- namespace [AIRSCHEDED](#)

## 24.32 FlightPeriodStruct.hpp

```

00001 #ifndef __AIRSCHEDED_BOM_FLIGHTPERIODSTRUCT_HPP
00002 #define __AIRSCHEDED_BOM_FLIGHTPERIODSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>
00011 #include <stdair/basic/StructAbstract.hpp>
00012 #include <stdair/bom/DoWStruct.hpp>
00013 // AirSched
00014 #include <airsched/bom/LegCabinStruct.hpp>
00015 #include <airsched/bom/LegStruct.hpp>
00016 #include <airsched/bom/SegmentStruct.hpp>
00017 #include <airsched/bom/SegmentCabinStruct.hpp>

```

```

>
00018 #include <airsched/bom/FareFamilyStruct.hpp>
00019 #include <airsched/bom/AirportList.hpp>
00020
00021 namespace AIRSCHED {
00022
00026     struct FlightPeriodStruct : public stdair::StructAbstract {
00027
00029         stdair::Date_T getDate() const;
00030
00032         stdair::Duration_T getTime() const;
00033
00035         const std::string describe() const;
00036
00039         void addAirport (const stdair::AirportCode_T&);
00040
00042         void buildSegments();
00043
00050         void addSegmentCabin (const SegmentStruct&,
00051                             const SegmentCabinStruct&);
00052
00058         void addSegmentCabin (const SegmentCabinStruct
00059                               &);
00066         void addFareFamily (const SegmentStruct&,
00067                             const SegmentCabinStruct&,
00068                             const FareFamilyStruct&);
00069
00075         void addFareFamily (const SegmentCabinStruct
00076                               &,
00077                             const FareFamilyStruct&);
00081         FlightPeriodStruct();
00082
00083         // Attributes
00084         stdair::AirlineCode_T _airlineCode;
00085         stdair::FlightNumber_T _flightNumber;
00086         stdair::DatePeriod_T _dateRange;
00087         stdair::DoWStruct _dow;
00088         LegStructList_T _legList;
00089         SegmentStructList_T _segmentList;
00090
00093         bool _legAlreadyDefined;
00094         LegStruct _itLeg;
00095         LegCabinStruct _itLegCabin;
00096
00098         stdair::Date_T _dateRangeStart;
00099         stdair::Date_T _dateRangeEnd;
00100         unsigned int _itYear;
00101         unsigned int _itMonth;
00102         unsigned int _itDay;
00103         int _dateOffset;
00104
00106         long _itHours;
00107         long _itMinutes;
00108         long _itSeconds;
00109
00112         AirportList_T _airportList;
00113         AirportOrderedList_T _airportOrderedList
00114     ;
00116         bool _areSegmentDefinitionsSpecific;
00117         SegmentStruct _itSegment;
00118         SegmentCabinStruct _itSegmentCabin;
00119     };
00120
00121 }
00122 #endif // __AIRSCHED_BOM_FLIGHTPERIODSTRUCT_HPP

```

## 24.33 airsched/bom/LegCabinStruct.cpp File Reference

```

#include <cassert>
#include <sstream>
#include <stdair/bom/LegCabin.hpp>
#include <airsched/bom/LegCabinStruct.hpp>

```

## Namespaces

- namespace [AIRSCHED](#)

## 24.34 LegCabinStruct.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // STDAIR
00008 #include <stdair/bom/LegCabin.hpp>
00009 // AIRSCHED
00010 #include <airsched/bom/LegCabinStruct.hpp>
00011
00012 namespace AIRSCHED {
00013
00014     // //////////////////////////////////////
00015     const std::string LegCabinStruct::describe() const {
00016         std::ostringstream ostr;
00017         ostr << " " << _cabinCode << " " << _capacity <<
00018         ", ";
00019     }
00020
00021     // //////////////////////////////////////
00022     void LegCabinStruct::fill (stdair::LegCabin& ioLegCabin)
00023     const {
00024         // Set the Capacity
00025         ioLegCabin.setCapacities (_capacity);
00026     }
00027 }

```

## 24.35 airsched/bom/LegCabinStruct.hpp File Reference

```

#include <string>
#include <vector>
#include <stdair/stdair_inventory_types.hpp>
#include <stdair/basic/StructAbstract.hpp>

```

## Classes

- struct [AIRSCHED::LegCabinStruct](#)

## Namespaces

- namespace [stdair](#)  
*Forward declarations.*
- namespace [AIRSCHED](#)

## Typedefs

- typedef std::vector  
< LegCabinStruct > [AIRSCHED::LegCabinStructList\\_T](#)

## 24.36 LegCabinStruct.hpp

```

00001 #ifndef __AIRSCHED_BOM_LEGCABINSTRUCT_HPP
00002 #define __AIRSCHED_BOM_LEGCABINSTRUCT_HPP
00003

```

```

00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_inventory_types.hpp>
00012 #include <stdair/basic/StructAbstract.hpp>
00013
00014 // Forward declarations
00015 namespace stdair {
00016     class LegCabin;
00017 }
00018
00019 namespace AIRSCHED {
00020
00022     struct LegCabinStruct : public stdair::StructAbstract {
00023         // Attributes
00024         stdair::CabinCode_T _cabinCode;
00025         stdair::CabinCapacity_T _capacity;
00026
00029         void fill (stdair::LegCabin&) const;
00030
00032         const std::string describe() const;
00033     };
00034
00036     typedef std::vector<LegCabinStruct> LegCabinStructList_T;
00037
00038 }
00039 #endif // __AIRSCHED_BOM_LEGCABINSTRUCT_HPP

```

## 24.37 airsched/bom/LegStruct.cpp File Reference

```

#include <cassert>
#include <sstream>
#include <stdair/basic/BasConst_Period_BOM.hpp>
#include <stdair/bom/LegDate.hpp>
#include <airsched/bom/LegStruct.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

## 24.38 LegStruct.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // STDAIR
00008 #include <stdair/basic/BasConst_Period_BOM.hpp>
00009 #include <stdair/bom/LegDate.hpp>
00010 // AIRSCHED
00011 #include <airsched/bom/LegStruct.hpp>
00012
00013 namespace AIRSCHED {
00014
00015 // //////////////////////////////////////
00016 LegStruct::LegStruct ()
00017 : _boardingDateOffset (stdair::DEFAULT_DATE_OFFSET),
00018   _offDateOffset (stdair::DEFAULT_DATE_OFFSET) {
00019 }
00020
00021 // //////////////////////////////////////
00022 const std::string LegStruct::describe() const {
00023     std::ostringstream ostr;
00024     ostr << " " << _boardingPoint << " / "
00025     << boost::posix_time::to_simple_string(_boardingTime);
00026     if (_boardingDateOffset.days() != 0) {
00027         ostr << " [" << _boardingDateOffset.days() << "]";
00028     }

```

```

00029     ostr << " -- " << _offPoint << " / "
00030         << boost::posix_time::to_simple_string(_offTime);
00031     if (_offDateOffset.days() != 0) {
00032         ostr << " [" << _offDateOffset.days() << "]";
00033     }
00034     ostr << " --> "
00035         << boost::posix_time::to_simple_string(_elapsed)
00036         << std::endl;
00037     for (LegCabinStructList_T::const_iterator itCabin = _cabinList.
begin();
00038         itCabin != _cabinList.end(); itCabin++) {
00039         const LegCabinStruct& lCabin = *itCabin;
00040         ostr << lCabin.describe();
00041     }
00042     ostr << std::endl;
00043
00044     return ostr.str();
00045 }
00046
00047 ///////////////////////////////////////////////////////////////////
00048 void LegStruct::fill (const stdair::Date_T& iRefDate,
00049                     stdair::LegDate& ioLegDate) const {
00050     // Set the Off Point
00051     ioLegDate.setOffPoint (_offPoint);
00052
00053     // Set the Boarding Date
00054     ioLegDate.setBoardingDate (iRefDate + _boardingDateOffset
);
00055
00056     // Set the Boarding Time
00057     ioLegDate.setBoardingTime (_boardingTime);
00058
00059     // Set the Off Date
00060     ioLegDate.setOffDate (iRefDate + _offDateOffset);
00061
00062     // Set the Off Time
00063     ioLegDate.setOffTime (_offTime);
00064
00065     // Set the Elapsed Time
00066     ioLegDate.setElapsedTime (_elapsed);
00067
00068     // Set the operating airline code
00069     ioLegDate.setOperatingAirlineCode (_airlineCode);
00070
00071     // Set the operating flight number
00072     ioLegDate.setOperatingFlightNumber (_flightNumber);
00073 }
00074
00075
00076 }

```

## 24.39 airsched/bom/LegStruct.hpp File Reference

```

#include <string>
#include <vector>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/basic/StructAbstract.hpp>
#include <airsched/bom/LegCabinStruct.hpp>

```

### Classes

- struct [AIRSCHED::LegStruct](#)

### Namespaces

- namespace [stdair](#)  
Forward declarations.
- namespace [AIRSCHED](#)

## Typedefs

- typedef std::vector< LegStruct > AIRSCHEDED::LegStructList\_T

## 24.40 LegStruct.hpp

```

00001 #ifndef __AIRSCHEDED_BOM_LEGSTRUCT_HPP
00002 #define __AIRSCHEDED_BOM_LEGSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/basic/StructAbstract.hpp>
00013 // AirSched
00014 #include <airsched/bom/LegCabinStruct.hpp>
00015
00016 // Forward declarations
00017 namespace stdair {
00018     class LegDate;
00019 }
00020
00021 namespace AIRSCHEDED {
00022
00024     struct LegStruct : public stdair::StructAbstract {
00025         // Attributes
00026         stdair::AirlineCode_T _airlineCode;
00027         stdair::FlightNumber_T _flightNumber;
00028         stdair::AirportCode_T _boardingPoint;
00029         stdair::DateOffset_T _boardingDateOffset;
00030         stdair::Duration_T _boardingTime;
00031         stdair::AirportCode_T _offPoint;
00032         stdair::DateOffset_T _offDateOffset;
00033         stdair::Duration_T _offTime;
00034         stdair::Duration_T _elapsed;
00035         LegCabinStructList_T _cabinList;
00036
00042         void fill (const stdair::Date_T& iRefDate, stdair::LegDate&) const;
00043
00045         const std::string describe() const;
00046
00048         LegStruct();
00049     };
00050
00052     typedef std::vector<LegStruct> LegStructList_T;
00053 }
00054 }
00055 #endif // __AIRSCHEDED_BOM_LEGSTRUCT_HPP

```

## 24.41 airsched/bom/OnDPeriodStruct.cpp File Reference

```

#include <cassert>
#include <iostream>
#include <stdair/basic/BasConst_Period_BOM.hpp>
#include <stdair/basic/BasConst_General.hpp>
#include <stdair/basic/BasConst_Inventory.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/bom/OnDPeriodStruct.hpp>

```

## Namespaces

- namespace AIRSCHEDED

## 24.42 OnDPeriodStruct.cpp

```

00001 // //////////////////////////////////////

```

```

00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <iostream>
00007 // StdAir
00008 #include <stdair/basic/BasConst_Period_BOM.hpp>
00009 #include <stdair/basic/BasConst_General.hpp>
00010 #include <stdair/basic/BasConst_Inventory.hpp>
00011 #include <stdair/service/Logger.hpp>
00012 // AIRSCHEd
00013 #include <airsched/bom/OnDPeriodStruct.hpp>
00014
00015 namespace AIRSCHEd {
00016 // //////////////////////////////////////
00017 OnDPeriodStruct::OnDPeriodStruct ()
00018 : _datePeriod (stdair::BOOST_DEFAULT_DATE_PERIOD),
00019   _timeRangeStart (stdair::NULL_BOOST_TIME_DURATION),
00020   _timeRangeEnd (stdair::NULL_BOOST_TIME_DURATION),
00021   _nbOfAirlines (stdair::DEFAULT_NB_OF_AIRLINES),
00022   _airlineCode (stdair::DEFAULT_NULL_AIRLINE_CODE),
00023   _classCode (stdair::DEFAULT_NULL_CLASS_CODE),
00024   _itSeconds (0) {
00025 }
00026
00027 // //////////////////////////////////////
00028 stdair::Date_T OnDPeriodStruct::getDate() const {
00029     return stdair::Date_T (_itYear, _itMonth, _itDay);
00030 }
00031
00032 // //////////////////////////////////////
00033 stdair::Duration_T OnDPeriodStruct::getTime() const {
00034     return boost::posix_time::hours (_itHours)
00035         + boost::posix_time::minutes (_itMinutes)
00036         + boost::posix_time::seconds (_itSeconds);
00037 }
00038
00039 // //////////////////////////////////////
00040 const std::string OnDPeriodStruct::describe() const
00041 {
00042     std::ostringstream ostr;
00043     ostr << _origin << "-" << _destination << ", "
00044         << _datePeriod << ", between "
00045         << boost::posix_time::to_simple_string(_timeRangeStart)
00046         << " to "
00047         << boost::posix_time::to_simple_string(_timeRangeEnd) <<
00048         ", "
00049         << _classCode << ", "
00050         << _airlineCode << ", "
00051         << std::endl;
00052     return ostr.str();
00053 }
00054 // //////////////////////////////////////
00055 const std::string OnDPeriodStruct::describeTSKey
00056 () const {
00057     std::ostringstream ostr;
00058     ostr << _origin << "-" << _destination << ", "
00059         << _airlineCode << ", " << _classCode <<
00060     std::endl;
00061     return ostr.str();
00062 }
00063 // //////////////////////////////////////
00064 const stdair::AirlineCode_T& OnDPeriodStruct::getFirstAirlineCode
00065 () const {
00066     assert (_airlineCodeList.size() > 0);
00067     stdair::AirlineCodeList_T::const_iterator itFirstAirlineCode =
00068         _airlineCodeList.begin();
00069     return *itFirstAirlineCode;
00070 }
00071 }

```

## 24.43 airsched/bom/OnDPeriodStruct.hpp File Reference

```

#include <string>
#include <stdair/stdair_inventory_types.hpp>
#include <stdair/basic/StructAbstract.hpp>

```



## Classes

- struct AIRSCHEd::OnDPeriodStruct

## Namespaces

- namespace AIRSCHEd

## 24.44 OnDPeriodStruct.hpp

```

00001 #ifndef __AIRSCHEd_BOM_ONDPERIODSTRUCT_HPP
00002 #define __AIRSCHEd_BOM_ONDPERIODSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_inventory_types.hpp>
00011 #include <stdair/basic/StructAbstract.hpp>
00012
00013 namespace AIRSCHEd {
00015     struct OnDPeriodStruct : public stdair::StructAbstract {
00016     public:
00017         // ////////////////////////////////// Getters //////////////////////////////////
00019         const stdair::AirlineCode_T& getFirstAirlineCode ()
00020         const;
00022         stdair::Date_T getDate() const;
00023
00025         stdair::Duration_T getTime() const;
00026
00027         // ////////////////////////////////// Display Methods //////////////////////////////////
00029         const std::string describe() const;
00030
00033         const std::string describeTSKey() const;
00034
00035     public:
00037         OnDPeriodStruct ();
00038
00039     public:
00040         // Attributes
00041         stdair::AirportCode_T _origin;
00042         stdair::AirportCode_T _destination;
00043         stdair::DatePeriod_T _datePeriod;
00044         stdair::Duration_T _timeRangeStart;
00045         stdair::Duration_T _timeRangeEnd;
00046         stdair::NbOfAirlines_T _nbOfAirlines;
00047         stdair::AirlineCode_T _airlineCode;
00048         stdair::ClassCode_T _classCode;
00049         stdair::AirlineCodeList_T _airlineCodeList;
00050         stdair::ClassCodeList_T _classCodeList;
00051
00053         stdair::Date_T _dateRangeStart;
00054         stdair::Date_T _dateRangeEnd;
00055         unsigned int _itYear;
00056         unsigned int _itMonth;
00057         unsigned int _itDay;
00058
00060         long _itHours;
00061         long _itMinutes;
00062         long _itSeconds;
00063     };
00064 }
00065 #endif // __AIRSCHEd_BOM_ONDPERIODSTRUCT_HPP

```

## 24.45 airsched/bom/OriginDestinationSet.cpp File Reference

```
#include <cassert>
#include <sstream>
#include <boost/archive/text_iarchive.hpp>
#include <boost/archive/text_oarchive.hpp>
#include <boost/serialization/access.hpp>
#include <stdair/basic/BasConst_Inventory.hpp>
#include <airsched/bom/OriginDestinationSet.hpp>
```

## Namespaces

- namespace [AIRSCHED](#)

## Functions

- template void [AIRSCHED::OriginDestinationSet::serialize< ba::text\\_oarchive >](#) (ba::text\_oarchive &, unsigned int)
- template void [AIRSCHED::OriginDestinationSet::serialize< ba::text\\_iarchive >](#) (ba::text\_iarchive &, unsigned int)

## 24.46 OriginDestinationSet.cpp

```
00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_Inventory.hpp>
00013 // AirSched
00014 #include <airsched/bom/OriginDestinationSet.hpp>
00015 >
00016 namespace AIRSCHED {
00017
00018 // //////////////////////////////////////
00019 OriginDestinationSet::OriginDestinationSet ()
00020 : _key (stdair::DEFAULT_ORIGIN), _parent (NULL) {
00021     assert (false);
00022 }
00023
00024 // //////////////////////////////////////
00025 OriginDestinationSet::OriginDestinationSet (const OriginDestinationSet&)
00026 : _key (stdair::DEFAULT_ORIGIN), _parent (NULL) {
00027     assert (false);
00028 }
00029
00030 // //////////////////////////////////////
00031 OriginDestinationSet::OriginDestinationSet (const Key_T& iKey)
00032 : _key (iKey), _parent (NULL) {
00033 }
00034
00035 // //////////////////////////////////////
00036 OriginDestinationSet::~OriginDestinationSet
00037 () {
00038 }
00039
00040 // //////////////////////////////////////
00040 std::string OriginDestinationSet::toString ()
00041 const {
00041     std::ostringstream oStr;
00042     oStr << _key.toString();
00043     return oStr.str();
00044 }
00045
```

```

00046 ///////////////////////////////////////////////////////////////////
00047 void OriginDestinationSet::serialisationImplementationExport() const {
00048     std::ostringstream oStr;
00049     boost::archive::text_oarchive oa (oStr);
00050     oa << *this;
00051 }
00052
00053 ///////////////////////////////////////////////////////////////////
00054 void OriginDestinationSet::serialisationImplementationImport() {
00055     std::istringstream iStr;
00056     boost::archive::text_iarchive ia (iStr);
00057     ia >> *this;
00058 }
00059
00060 ///////////////////////////////////////////////////////////////////
00061 template<class Archive>
00062 void OriginDestinationSet::serialize (Archive&
ioArchive,
                                const unsigned int iFileVersion) {
00063     ioArchive & _key;
00064 }
00065
00066 ///////////////////////////////////////////////////////////////////
00067 // Explicit template instantiation
00068 namespace ba = boost::archive;
00069 template
00070 void OriginDestinationSet::serialize<ba::text_oarchive> (ba::text_oarchive&,
                                unsigned int);
00071 template
00072 void OriginDestinationSet::serialize<ba::text_iarchive> (ba::text_iarchive&,
                                unsigned int);
00073
00074 ///////////////////////////////////////////////////////////////////
00075 }
00076
00077
00078
00079

```

## 24.47 airsched/bom/OriginDestinationSet.hpp File Reference

```

#include <iosfwd>
#include <string>
#include <stdair/bom/BomAbstract.hpp>
#include <airsched/bom/OriginDestinationSetKey.hpp>
#include <airsched/bom/OriginDestinationSetTypes.hpp>

```

### Classes

- class [AIRSCHED::OriginDestinationSet](#)  
*Class representing a simple sub-network.*

### Namespaces

- namespace [boost](#)  
*Forward declarations.*
- namespace [boost::serialization](#)
- namespace [stdair](#)  
*Forward declarations.*
- namespace [AIRSCHED](#)

## 24.48 OriginDestinationSet.hpp

```

00001 #ifndef __AIRSCHED_BOM_ORIGINDESTINATIONSET_HPP
00002 #define __AIRSCHED_BOM_ORIGINDESTINATIONSET_HPP
00003
00004 ///////////////////////////////////////////////////////////////////
00005 // Import section
00006 ///////////////////////////////////////////////////////////////////
00007 // STL

```

```

00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/bom/BomAbstract.hpp>
00012 // AirSched
00013 #include <airsched/bom/OriginDestinationSetKey.hpp>
00014 #include <airsched/bom/OriginDestinationSetTypes.hpp>
00015
00016 namespace boost {
00017     namespace serialization {
00018         class access;
00019     }
00020 }
00021
00022 namespace stdair {
00023     template <typename BOM> class FacBom;
00024     class FacBomManager;
00025 }
00026
00027 namespace AIRSCHED {
00028
00029     class OriginDestinationSet : public stdair::BomAbstract {
00030     public:
00031         // ////////// Type definitions //////////
00032         typedef OriginDestinationSetKey Key_T;
00033
00034     public:
00035         // ////////// Getters //////////
00036         const Key_T& getKey() const {
00037             return _key;
00038         }
00039
00040         const stdair::AirportCode_T& getDestination() const {
00041             return _key.getOffPoint();
00042         }
00043
00044         stdair::BomAbstract* const getParent() const {
00045             return _parent;
00046         }
00047
00048         const stdair::HolderMap_T& getHolderMap() const {
00049             return _holderMap;
00050         }
00051
00052     public:
00053         // ////////// Display support methods //////////
00054         void toStream (std::ostream& ioOut) const {
00055             ioOut << toString();
00056         }
00057
00058         void fromStream (std::istream& ioIn) {
00059
00060         }
00061
00062         std::string toString() const;
00063
00064         const std::string describeKey() const {
00065             return _key.toString();
00066         }
00067
00068     public:
00069         // ////////// (Boost) Serialisation support methods //////////
00070         template<class Archive>
00071         void serialize (Archive& ar, const unsigned int iFileVersion);
00072
00073     private:
00074         void serialisationImplementationExport() const;
00075         void serialisationImplementationImport();
00076
00077     protected:
00078         // ////////// Constructors and destructors //////////
00079         OriginDestinationSet (const Key_T&);
00080
00081         ~OriginDestinationSet();
00082
00083     private:
00084         OriginDestinationSet();
00085
00086 }
00087
00088 }
00089
00090 }
00091
00092 }
00093
00094 }
00095
00096 }
00097
00098 }
00099
00100 }
00101
00102 }
00103
00104 }
00105
00106 }
00107
00108 }
00109
00110 }
00111
00112 }
00113
00114 }
00115
00116 }
00117
00118 }
00119
00120 }
00121
00122 }
00123
00124 }
00125
00126 }
00127
00128 }
00129
00130 }
00131
00132 }
00133
00134 }
00135
00136 }
00137
00138 }
00139
00140 }
00141
00142 }
00143
00144 }
00145
00146 }
00147
00148 }
00149
00150 }
00151
00152 }
00153
00154 }
00155
00156 }
00157

```

```

00161     OriginDestinationSet (const OriginDestinationSet
00162     &);
00162
00163     protected:
00164         // ////////// Attributes //////////
00165         Key_T _key;
00166
00167         stdair::BomAbstract* _parent;
00168
00169         stdair::HolderMap_T _holderMap;
00170     };
00171
00172 #endif // __AIRSCHED_BOM_ORIGINDESTINATIONSET_HPP
00173

```

## 24.49 airsched/bom/OriginDestinationSetKey.cpp File Reference

```

#include <cassert>
#include <sstream>
#include <boost/archive/text_iarchive.hpp>
#include <boost/archive/text_oarchive.hpp>
#include <boost/serialization/access.hpp>
#include <stdair/basic/BasConst_Inventory.hpp>
#include <airsched/bom/OriginDestinationSetKey.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

### Functions

- template void [AIRSCHED::OriginDestinationSetKey::serialize< ba::text\\_oarchive >](#) (ba::text\_oarchive &, unsigned int)
- template void [AIRSCHED::OriginDestinationSetKey::serialize< ba::text\\_iarchive >](#) (ba::text\_iarchive &, unsigned int)

## 24.50 OriginDestinationSetKey.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_Inventory.hpp>
00013 // AirSched
00014 #include <airsched/bom/OriginDestinationSetKey.hpp>
00015
00016 namespace AIRSCHED {
00017
00018     // //////////////////////////////////////
00019     OriginDestinationSetKey::OriginDestinationSetKey()
00020         : _destination (stdair::DEFAULT_DESTINATION) {
00021         assert (false);
00022     }
00023
00024     // //////////////////////////////////////
00025     OriginDestinationSetKey::
00026     OriginDestinationSetKey (const stdair::AirportCode_T& iDestination)
00027         : _destination (iDestination) {
00028     }
00029

```

```

00030 // //////////////////////////////////////
00031 OriginDestinationSetKey::
00032 OriginDestinationSetKey (const OriginDestinationSetKey
& iKey)
00033 : _destination (iKey._destination) {
00034 }
00035
00036 // //////////////////////////////////////
00037 OriginDestinationSetKey::~OriginDestinationSetKey
() {
00038 }
00039
00040 // //////////////////////////////////////
00041 void OriginDestinationSetKey::toStream (
std::ostream& ioOut) const {
00042     ioOut << "OriginDestinationSetKey: " << toString() << std::endl;
00043 }
00044
00045 // //////////////////////////////////////
00046 void OriginDestinationSetKey::fromStream (
std::istream& ioIn) {
00047 }
00048
00049 // //////////////////////////////////////
00050 const std::string OriginDestinationSetKey::toString
() const {
00051     std::ostringstream oStr;
00052     oStr << _destination;
00053     return oStr.str();
00054 }
00055
00056 // //////////////////////////////////////
00057 void OriginDestinationSetKey::serialisationImplementationExport() const {
00058     std::ostringstream oStr;
00059     boost::archive::text_oarchive oa (oStr);
00060     oa << *this;
00061 }
00062
00063 // //////////////////////////////////////
00064 void OriginDestinationSetKey::serialisationImplementationImport() {
00065     std::istringstream iStr;
00066     boost::archive::text_iarchive ia (iStr);
00067     ia >> *this;
00068 }
00069
00070 // //////////////////////////////////////
00071 template<class Archive>
00072 void OriginDestinationSetKey::serialize (
Archive& ioArchive,
00073                                     const unsigned int iFileVersion) {
00074     ioArchive & _destination;
00075 }
00076
00077 // //////////////////////////////////////
00078 // Explicit template instantiation
00079 namespace ba = boost::archive;
00080 template
00081 void OriginDestinationSetKey::serialize<ba::text_oarchive> (ba::text_oarchive
&,
00082                                     unsigned int);
00083 template
00084 void OriginDestinationSetKey::serialize<ba::text_iarchive> (ba::text_iarchive
&,
00085                                     unsigned int);
00086 // //////////////////////////////////////
00087
00088 }
00089
00090
00091
00092 }

```

## 24.51 airsched/bom/OriginDestinationSetKey.hpp File Reference

```

#include <iosfwd>
#include <string>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/bom/KeyAbstract.hpp>

```

### Classes

- struct [AIRSCHED::OriginDestinationSetKey](#)

*Structure representing the key of a sub-network.*

#### Namespaces

- namespace `boost`  
    *Forward declarations.*
- namespace `boost::serialization`
- namespace `AIRSCHEd`

## 24.52 OriginDestinationSetKey.hpp

```

00001 #ifndef __AIRSCHEd_BOM_ORIGINDESTINATIONSETKEY_HPP
00002 #define __AIRSCHEd_BOM_ORIGINDESTINATIONSETKEY_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/bom/KeyAbstract.hpp>
00013
00015 namespace boost {
00016     namespace serialization {
00017         class access;
00018     }
00019 }
00020
00021 namespace AIRSCHEd {
00022
00030     struct OriginDestinationSetKey : public
stdair::KeyAbstract {
00031         friend class boost::serialization::access;
00032
00033         // ////////////////////////////////// Constructors and destructors //////////////////////////////////
00034     private:
00038         OriginDestinationSetKey();
00039
00040     public:
00044         OriginDestinationSetKey (const stdair::AirportCode_T
& iDestination);
00045
00049         OriginDestinationSetKey (const
OriginDestinationSetKey&);
00050
00054         ~OriginDestinationSetKey();
00055
00056
00057     public:
00058         // ////////////////////////////////// Getters //////////////////////////////////
00062         const stdair::AirportCode_T& getOffPoint() const {
00063             return _destination;
00064         }
00065
00066
00067     public:
00068         // ////////////////////////////////// Display support methods //////////////////////////////////
00074         void toStream (std::ostream& ioOut) const;
00075
00081         void fromStream (std::istream& ioIn);
00082
00092         const std::string toString() const;
00093
00094
00095     public:
00096         // ////////////////////////////////// (Boost) Serialisation support methods //////////////////////////////////
00100         template<class Archive>
00101         void serialize (Archive& ar, const unsigned int iFileVersion);
00102
00103     private:
00108         void serialisationImplementationExport() const;
00109         void serialisationImplementationImport();
00110
00111
00112     private:
00113         // ////////////////////////////////// Attributes //////////////////////////////////
00117         stdair::AirportCode_T _destination;

```

```

00118     };
00119
00120 }
00121 #endif // __AIRSCHED_BOM_ORIGINDESTINATIONSETKEY_HPP

```

## 24.53 airsched/bom/OriginDestinationSetTypes.hpp File Reference

```

#include <map>
#include <list>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/bom/key_types.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

### Typedefs

- typedef std::list  
< OriginDestinationSet \* > [AIRSCHED::OriginDestinationSetList\\_T](#)
- typedef std::map< const  
stdair::MapKey\_T,  
OriginDestinationSet \* > [AIRSCHED::OriginDestinationSetMap\\_T](#)

## 24.54 OriginDestinationSetTypes.hpp

```

00001 // //////////////////////////////////////
00002 #ifndef __AIRSCHED_BOM_ORIGINDESTINATIONSETTYPES_HPP
00003 #define __AIRSCHED_BOM_ORIGINDESTINATIONSETTYPES_HPP
00004
00005 // //////////////////////////////////////
00006 // Import section
00007 // //////////////////////////////////////
00008 // STL
00009 #include <map>
00010 #include <list>
00011 // StdAir
00012 #include <stdair/stdair_basic_types.hpp>
00013 #include <stdair/bom/key_types.hpp>
00014
00015 namespace AIRSCHED {
00016
00017     // Forward declarations.
00018     class OriginDestinationSet;
00019
00020     typedef std::list<OriginDestinationSet*> OriginDestinationSetList_T
00021 ;
00022
00023     typedef std::map<const stdair::MapKey_T,
00024                     OriginDestinationSet*>
00025     OriginDestinationSetMap_T;
00026
00027 }
00028 #endif // __AIRSCHED_BOM_ORIGINDESTINATIONSETTYPES_HPP
00029

```



## 24.55 airsched/bom/ReachableUniverse.cpp File Reference

```
#include <cassert>
#include <sstream>
#include <boost/archive/text_iarchive.hpp>
#include <boost/archive/text_oarchive.hpp>
#include <boost/serialization/access.hpp>
#include <stdair/basic/BasConst_Inventory.hpp>
#include <airsched/bom/ReachableUniverse.hpp>
#include <airsched/bom/SegmentPathPeriod.hpp>
```

## Namespaces

- namespace [AIRSCHED](#)

## Functions

- template void [AIRSCHED::ReachableUniverse::serialize](#)< [ba::text\\_oarchive](#) > ([ba::text\\_oarchive](#) &, unsigned int)
- template void [AIRSCHED::ReachableUniverse::serialize](#)< [ba::text\\_iarchive](#) > ([ba::text\\_iarchive](#) &, unsigned int)

## 24.56 ReachableUniverse.cpp

```
00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_Inventory.hpp>
00013 // AirSched
00014 #include <airsched/bom/ReachableUniverse.hpp>
00015 #include <airsched/bom/SegmentPathPeriod.hpp>
00016
00017 namespace AIRSCHED {
00018
00019 // //////////////////////////////////////
00020 ReachableUniverse::ReachableUniverse()
00021 : _key (stdair::DEFAULT_ORIGIN), _parent (NULL) {
00022     assert (false);
00023 }
00024
00025 // //////////////////////////////////////
00026 ReachableUniverse::ReachableUniverse (const ReachableUniverse&)
00027 : _key (stdair::DEFAULT_ORIGIN), _parent (NULL) {
00028     assert (false);
00029 }
00030
00031 // //////////////////////////////////////
00032 ReachableUniverse::ReachableUniverse (const Key_T& iKey)
00033 : _key (iKey), _parent (NULL) {
00034 }
00035
00036 // //////////////////////////////////////
00037 ReachableUniverse::~ReachableUniverse()
00038 {
00039 }
00040
00041 // //////////////////////////////////////
00042 std::string ReachableUniverse::toString() const {
00043     std::ostringstream oStr;
00044     oStr << _key.toString();
00045     return oStr.str();
00046 }
```

```

00047 // //////////////////////////////////////
00048 void ReachableUniverse::serialisationImplementationExport() const {
00049     std::ostringstream ostr;
00050     boost::archive::text_oarchive oa (ostr);
00051     oa << *this;
00052 }
00053
00054 // //////////////////////////////////////
00055 void ReachableUniverse::serialisationImplementationImport() {
00056     std::istringstream istr;
00057     boost::archive::text_iarchive ia (istr);
00058     ia >> *this;
00059 }
00060
00061 // //////////////////////////////////////
00062 template<class Archive>
00063 void ReachableUniverse::serialize (Archive&
ioArchive,
                                const unsigned int iFileVersion) {
00064
00065     ioArchive & _key;
00066 }
00067
00068 // //////////////////////////////////////
00069 // Explicit template instantiation
00070 namespace ba = boost::archive;
00071 template
00072 void ReachableUniverse::serialize<ba::text_oarchive> (ba::text_oarchive&,
                                unsigned int);
00073
00074 template
00075 void ReachableUniverse::serialize<ba::text_iarchive> (ba::text_iarchive&,
                                unsigned int);
00076
00077 // //////////////////////////////////////
00078
00079 }
00080

```

## 24.57 airsched/bom/ReachableUniverse.hpp File Reference

```

#include <iosfwd>
#include <string>
#include <stdair/bom/BomAbstract.hpp>
#include <airsched/bom/ReachableUniverseKey.hpp>
#include <airsched/bom/ReachableUniverseTypes.hpp>
#include <airsched/bom/SegmentPathPeriodTypes.hpp>

```

### Classes

- class [AIRSCHED::ReachableUniverse](#)  
Class representing the root of the schedule-related BOM tree.

### Namespaces

- namespace [boost](#)  
Forward declarations.
- namespace [boost::serialization](#)
- namespace [stdair](#)  
Forward declarations.
- namespace [AIRSCHED](#)

## 24.58 ReachableUniverse.hpp

```

00001 #ifndef __AIRSCHED_BOM_REACHABLEUNIVERSE_HPP
00002 #define __AIRSCHED_BOM_REACHABLEUNIVERSE_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section

```

```

00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/bom/BomAbstract.hpp>
00012 // AirSched
00013 #include <airsched/bom/ReachableUniverseKey.hpp>
00014 >
00014 #include <airsched/bom/ReachableUniverseTypes.hpp>
00015 >
00015 #include <airsched/bom/SegmentPathPeriodTypes.hpp>
00016 >
00016 namespace boost {
00018     namespace serialization {
00019         class access;
00020     }
00021 }
00022 }
00023 namespace stdair {
00025     template <typename BOM> class FacBom;
00026     class FacBomManager;
00027 }
00028 }
00029 namespace AIRSCHED {
00030     class ReachableUniverse : public stdair::BomAbstract {
00031     public:
00041         template <typename BOM> friend class stdair::FacBom;
00045         friend class stdair::FacBomManager;
00046         friend class SegmentPathGenerator;
00047         friend class boost::serialization::access;
00048     public:
00051         // ////////// Type definitions //////////
00055         typedef ReachableUniverseKey Key_T;
00056     public:
00057         // ////////// Getters //////////
00063         const Key_T& getKey() const {
00064             return _key;
00065         }
00066         const stdair::AirportCode_T& getOrigin() const {
00070             return _key.getBoardingPoint();
00071         }
00072         stdair::BomAbstract* getParent() const {
00077             return _parent;
00078         }
00079         const stdair::HolderMap_T& getHolderMap() const {
00084             return _holderMap;
00085         }
00086         const SegmentPathPeriodListList_T&
00091         getSegmentPathPeriodListList() const {
00092             return _segmentPathPeriodListList;
00093         }
00094     public:
00096         // ////////// Display support methods //////////
00097         void toStream (std::ostream& ioOut) const {
00103             ioOut << toString();
00104         }
00105         void fromStream (std::istream& ioIn) {
00112             }
00113         std::string toString() const;
00114         const std::string describeKey() const {
00123             return _key.toString();
00124         }
00125     private:
00126         void serialisationImplementationExport() const;
00141         void serialisationImplementationImport();
00142     }
00143 }
00144

```

```

00145     protected:
00146         // ////////// Constructors and destructors //////////
00150         ReachableUniverse (const Key_T&);
00151
00155         ~ReachableUniverse();
00156
00157     private:
00161         ReachableUniverse();
00162
00166         ReachableUniverse (const ReachableUniverse
00167         &);
00168
00169     protected:
00170         // ////////// Attributes //////////
00174         Key_T _key;
00175
00179         stdair::BomAbstract* _parent;
00180
00184         stdair::HolderMap_T _holderMap;
00185
00191         SegmentPathPeriodListList_T
00192         _segmentPathPeriodListList;
00193     };
00194 }
00195 #endif // __AIRSCHED_BOM_REACHABLEUNIVERSE_HPP
00196

```

## 24.59 airsched/bom/ReachableUniverseKey.cpp File Reference

```

#include <cassert>
#include <sstream>
#include <boost/archive/text_iarchive.hpp>
#include <boost/archive/text_oarchive.hpp>
#include <boost/serialization/access.hpp>
#include <stdair/basic/BasConst_Inventory.hpp>
#include <airsched/bom/ReachableUniverseKey.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

### Functions

- template void [AIRSCHED::ReachableUniverseKey::serialize< ba::text\\_oarchive >](#) (ba::text\_oarchive &, unsigned int)
- template void [AIRSCHED::ReachableUniverseKey::serialize< ba::text\\_iarchive >](#) (ba::text\_iarchive &, unsigned int)

## 24.60 ReachableUniverseKey.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_Inventory.hpp>
00013 // AirSched
00014 #include <airsched/bom/ReachableUniverseKey.hpp>
00015 >
00016 namespace AIRSCHED {

```

```

00017
00018 ///////////////////////////////////////////////////////////////////
00019 ReachableUniverseKey::ReachableUniverseKey()
00020 : _origin (stdair::DEFAULT_ORIGIN) {
00021     assert (false);
00022 }
00023
00024 ///////////////////////////////////////////////////////////////////
00025 ReachableUniverseKey::
00026 ReachableUniverseKey (const ReachableUniverseKey& iKey)
00027 : _origin (iKey._origin) {
00028 }
00029
00030 ///////////////////////////////////////////////////////////////////
00031 ReachableUniverseKey::
00032 ReachableUniverseKey (const stdair::AirportCode_T& iAirportCode)
00033 : _origin (iAirportCode) {
00034 }
00035
00036 ///////////////////////////////////////////////////////////////////
00037 ReachableUniverseKey::~ReachableUniverseKey
00038 () {
00039 }
00040
00041 ///////////////////////////////////////////////////////////////////
00042 void ReachableUniverseKey::toStream (
00043     std::ostream& ioOut) const {
00044     ioOut << "ReachableUniverseKey: " << toString() << std::endl;
00045 }
00046
00047 ///////////////////////////////////////////////////////////////////
00048 void ReachableUniverseKey::fromStream (
00049     std::istream& ioIn) {
00050 }
00051
00052 ///////////////////////////////////////////////////////////////////
00053 const std::string ReachableUniverseKey::toString
00054 () const {
00055     std::ostringstream oStr;
00056     oStr << _origin;
00057     return oStr.str();
00058 }
00059
00060 ///////////////////////////////////////////////////////////////////
00061 void ReachableUniverseKey::serialisationImplementationExport() const {
00062     std::ostringstream oStr;
00063     boost::archive::text_oarchive oa (oStr);
00064     oa << *this;
00065 }
00066
00067 ///////////////////////////////////////////////////////////////////
00068 void ReachableUniverseKey::serialisationImplementationImport() {
00069     std::istringstream iStr;
00070     boost::archive::text_iarchive ia (iStr);
00071     ia >> *this;
00072 }
00073
00074 ///////////////////////////////////////////////////////////////////
00075 template<class Archive>
00076 void ReachableUniverseKey::serialize (Archive&
00077     ioArchive,
00078     const unsigned int iFileVersion) {
00079     ioArchive & _origin;
00080 }
00081
00082 ///////////////////////////////////////////////////////////////////
00083 // Explicit template instantiation
00084 namespace ba = boost::archive;
00085 template
00086 void ReachableUniverseKey::serialize<ba::text_oarchive> (ba::text_oarchive&,
00087     unsigned int);
00088 template
00089 void ReachableUniverseKey::serialize<ba::text_iarchive> (ba::text_iarchive&,
00090     unsigned int);
00091 ///////////////////////////////////////////////////////////////////
00092 }

```

## 24.61 airsched/bom/ReachableUniverseKey.hpp File Reference

```
#include <iosfwd>
#include <string>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/bom/KeyAbstract.hpp>
```

### Classes

- struct [AIRSCHEd::ReachableUniverseKey](#)  
Structure representing the key of the schedule-related BOM tree root.

### Namespaces

- namespace [boost](#)  
Forward declarations.
- namespace [boost::serialization](#)
- namespace [AIRSCHEd](#)

## 24.62 ReachableUniverseKey.hpp

```
00001 #ifndef __AIRSCHEd_BOM_REACHABLEUNIVERSEKEY_HPP
00002 #define __AIRSCHEd_BOM_REACHABLEUNIVERSEKEY_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/bom/KeyAbstract.hpp>
00013
00015 namespace boost {
00016     namespace serialization {
00017         class access;
00018     }
00019 }
00020
00021 namespace AIRSCHEd {
00022
00033     struct ReachableUniverseKey : public stdair::KeyAbstract
00034     {
00035         friend class boost::serialization::access;
00036
00037         // ////////////////////////////////// Constructors and destructors //////////////////////////////////
00038     private:
00039         ReachableUniverseKey();
00040
00041     public:
00042         ReachableUniverseKey (const stdair::AirportCode_T&
00043                               iOrigin);
00044
00045         ReachableUniverseKey (const ReachableUniverseKey
00046                               &);
00047
00048         ~ReachableUniverseKey();
00049
00050     public:
00051         // ////////////////////////////////// Getters //////////////////////////////////
00052         const stdair::AirportCode_T& getBoardingPoint() const {
00053             return _origin;
00054         }
00055
00056     public:
00057         // ////////////////////////////////// Display support methods //////////////////////////////////
00058         void toStream (std::ostream& ioOut) const;
```

```

00085     void fromStream (std::istream& ioIn);
00086
00096     const std::string toString() const;
00097
00098
00099 public:
00100     // ////////// (Boost) Serialisation support methods //////////
00104     template<class Archive>
00105     void serialize (Archive& ar, const unsigned int iFileVersion);
00106
00107 private:
00112     void serialisationImplementationExport() const;
00113     void serialisationImplementationImport();
00114
00115
00116 private:
00117     // ////////// Attributes //////////
00122     stdair::AirportCode_T _origin;
00123 };
00124
00125 }
00126
00127 #endif // __AIRSCHED_BOM_REACHABLEUNIVERSEKEY_HPP

```

## 24.63 airsched/bom/ReachableUniverseTypes.hpp File Reference

```

#include <map>
#include <list>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/bom/key_types.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

### Typedefs

- typedef std::list  
< ReachableUniverse \* > [AIRSCHED::ReachableUniverseList\\_T](#)
- typedef std::map< const  
stdair::MapKey\_T,  
ReachableUniverse \* > [AIRSCHED::ReachableUniverseMap\\_T](#)

## 24.64 ReachableUniverseTypes.hpp

```

00001 // //////////////////////////////////////
00002 #ifndef __AIRSCHED_BOM_REACHABLEUNIVERSETYPES_HPP
00003 #define __AIRSCHED_BOM_REACHABLEUNIVERSETYPES_HPP
00004
00005 // //////////////////////////////////////
00006 // Import section
00007 // //////////////////////////////////////
00008 // STL
00009 #include <map>
00010 #include <list>
00011 // StdAir
00012 #include <stdair/stdair_basic_types.hpp>
00013 #include <stdair/bom/key_types.hpp>
00014
00015 namespace AIRSCHED {
00016
00017     // Forward declarations.
00018     class ReachableUniverse;
00019
00021     typedef std::list<ReachableUniverse*> ReachableUniverseList_T
00022 ;
00024     typedef std::map<const stdair::MapKey_T,
00025                     ReachableUniverse*> ReachableUniverseMap_T
00026 ;

```

```

00026
00027 }
00028 #endif // __AIRSCHED_BOM_REACHABLEUNIVERSETYPES_HPP
00029

```

## 24.65 airsched/bom/SegmentCabinStruct.cpp File Reference

```

#include <cassert>
#include <sstream>
#include <stdair/bom/SegmentCabin.hpp>
#include <airsched/bom/SegmentCabinStruct.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

## 24.66 SegmentCabinStruct.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // STDAIR
00008 #include <stdair/bom/SegmentCabin.hpp>
00009 // AIRSCHED
00010 #include <airsched/bom/SegmentCabinStruct.hpp>
00011 >
00012 namespace AIRSCHED {
00013
00014 // //////////////////////////////////////
00015 const std::string SegmentCabinStruct::describe()
00016 const {
00017     std::ostringstream ostr;
00018     ostr << " " << _cabinCode << " " << _classes;
00019     return ostr.str();
00020 }
00021 // //////////////////////////////////////
00022 void SegmentCabinStruct::fill (stdair::SegmentCabin&
00023 ioSegmentCabin) const {
00024 }
00025 }

```

## 24.67 airsched/bom/SegmentCabinStruct.hpp File Reference

```

#include <string>
#include <vector>
#include <stdair/stdair_inventory_types.hpp>
#include <stdair/basic/StructAbstract.hpp>
#include <airsched/bom/FareFamilyStruct.hpp>

```

### Classes

- struct [AIRSCHED::SegmentCabinStruct](#)

### Namespaces

- namespace [stdair](#)



*Forward declarations.*

- namespace AIRSCHED

#### Typedefs

- typedef std::vector  
< SegmentCabinStruct > AIRSCHED::SegmentCabinStructList\_T

## 24.68 SegmentCabinStruct.hpp

```

00001 #ifndef __AIRSCHED_BOM_SEGMENTCABINSTRUCT_HPP
00002 #define __AIRSCHED_BOM_SEGMENTCABINSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_inventory_types.hpp>
00012 #include <stdair/basic/StructAbstract.hpp>
00013 // AirSched
00014 #include <airsched/bom/FareFamilyStruct.hpp>
00015
00016 // Forward declarations
00017 namespace stdair {
00018     class SegmentCabin;
00019 }
00020
00021 namespace AIRSCHED {
00022
00024     struct SegmentCabinStruct : public stdair::StructAbstract {
00025         // Attributes
00026         stdair::CabinCode_T _cabinCode;
00027         stdair::ClassList_String_T _classes;
00028         stdair::FamilyCode_T _itFamilyCode;
00029         stdair::CurveKey_T _itFRAT5CurveKey;
00030         stdair::CurveKey_T _itFFDisutilityCurveKey;
00031         FareFamilyStructList_T _fareFamilies;
00032
00035         void fill (stdair::SegmentCabin& const;
00036
00038         const std::string describe() const;
00039
00040     };
00041
00043     typedef std::vector<SegmentCabinStruct> SegmentCabinStructList_T
00044 ;
00045 }
00046 #endif // __AIRSCHED_BOM_SEGMENTCABINSTRUCT_HPP

```

## 24.69 airsched/bom/SegmentPathPeriod.cpp File Reference

```

#include <cassert>
#include <sstream>
#include <boost/archive/text_iarchive.hpp>
#include <boost/archive/text_oarchive.hpp>
#include <boost/serialization/access.hpp>
#include <stdair/basic/BasConst_General.hpp>
#include <stdair/basic/BasConst_Inventory.hpp>
#include <stdair/basic/BasConst_Period_BOM.hpp>
#include <stdair/basic/BasConst_TravelSolution.hpp>
#include <stdair/bom/Inventory.hpp>
#include <stdair/bom/FlightPeriod.hpp>
#include <stdair/bom/SegmentPeriod.hpp>
#include <stdair/bom/BomManager.hpp>
#include <airsched/bom/SegmentPathPeriod.hpp>

```

## Namespaces

- namespace AIRSCHED

## Functions

- template void AIRSCHED::SegmentPathPeriod::serialize< ba::text\_oarchive > (ba::text\_oarchive &, unsigned int)
- template void AIRSCHED::SegmentPathPeriod::serialize< ba::text\_iarchive > (ba::text\_iarchive &, unsigned int)

## 24.70 SegmentPathPeriod.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_General.hpp>
00013 #include <stdair/basic/BasConst_Inventory.hpp>
00014 #include <stdair/basic/BasConst_Period_BOM.hpp>
00015 #include <stdair/basic/BasConst_TravelSolution.hpp>
00016 #include <stdair/bom/Inventory.hpp>
00017 #include <stdair/bom/FlightPeriod.hpp>
00018 #include <stdair/bom/SegmentPeriod.hpp>
00019 #include <stdair/bom/BomManager.hpp>
00020 // AirSched
00021 #include <airsched/bom/SegmentPathPeriod.hpp>
00022
00023 namespace AIRSCHED {
00024
00025 // //////////////////////////////////////
00026 SegmentPathPeriod::SegmentPathPeriod()
00027 : _key (stdair::PeriodStruct (stdair::BOOST_DEFAULT_DATE_PERIOD,
00028                             stdair::DEFAULT_DOW_STRING),
00029         stdair::NULL_BOOST_TIME_DURATION, stdair::NULL_BOOST_TIME_DURATION
00030 ,
00031         DateOffsetList_T(),
00032         stdair::DEFAULT_NBOFAIRLINES),
00033   _parent (NULL) {
00034     assert (false);
00035 }
00036
00037 // //////////////////////////////////////
00038 SegmentPathPeriod::SegmentPathPeriod (const SegmentPathPeriod& iSPP)
00039 : _key (iSPP._key), _parent (NULL) {
00040     assert (false);
00041 }
00042
00043 // //////////////////////////////////////
00044 SegmentPathPeriod::SegmentPathPeriod (const Key_T& iKey)
00045 : _key (iKey), _parent (NULL) {
00046 }
00047
00048 // //////////////////////////////////////
00049 SegmentPathPeriod::~SegmentPathPeriod()
00050 {
00051 }
00052
00053 // //////////////////////////////////////
00054 std::string SegmentPathPeriod::toString() const {
00055     std::ostringstream oStr;
00056     oStr << _key.toString();
00057     return oStr.str();
00058 }
00059
00060 // //////////////////////////////////////
00061 void SegmentPathPeriod::serialisationImplementationExport() const {
00062     std::ostringstream oStr;
00063     boost::archive::text_oarchive oa (oStr);
00064     oa << *this;
00065 }

```

```

00065 ///////////////////////////////////////////////////////////////////
00066 void SegmentPathPeriod::serialisationImplementationImport() {
00067     std::istream iStr;
00068     boost::archive::text_iarchive ia (iStr);
00069     ia >> *this;
00070 }
00071
00072 ///////////////////////////////////////////////////////////////////
00073 template<class Archive>
00074 void SegmentPathPeriod::serialize (Archive&
00075 ioArchive,
00076                                     const unsigned int iFileVersion) {
00077     ioArchive & _key;
00078 }
00079
00080 ///////////////////////////////////////////////////////////////////
00081 // Explicit template instantiation
00082 namespace ba = boost::archive;
00083 template
00084 void SegmentPathPeriod::serialize<ba::text_oarchive> (ba::text_oarchive&,
00085                                                         unsigned int);
00086 template
00087 void SegmentPathPeriod::serialize<ba::text_iarchive> (ba::text_iarchive&,
00088                                                         unsigned int);
00089 ///////////////////////////////////////////////////////////////////
00090 ///////////////////////////////////////////////////////////////////
00091 stdair::SegmentPeriod* SegmentPathPeriod::getLastSegmentPeriod
00092 () const {
00093     // Retrieve the last segment of the list
00094     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00095         stdair::BomManager::getList<stdair::SegmentPeriod> (*this);
00096     stdair::SegmentPeriodList_T::const_reverse_iterator itLastSegment =
00097         lSegmentPeriodList.rbegin();
00098     if (itLastSegment == lSegmentPeriodList.rend()) {
00099         return NULL;
00100     }
00101     stdair::SegmentPeriod* oSegment_ptr = *itLastSegment;
00102     assert (oSegment_ptr != NULL);
00103     return oSegment_ptr;
00104 }
00105
00106 ///////////////////////////////////////////////////////////////////
00107
00108 stdair::SegmentPeriod* SegmentPathPeriod::getFirstSegmentPeriod
00109 () const {
00110     // Retrieve the first segment of the list
00111     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00112         stdair::BomManager::getList<stdair::SegmentPeriod> (*this);
00113     stdair::SegmentPeriodList_T::const_iterator itFirstSegment =
00114         lSegmentPeriodList.begin();
00115     if (itFirstSegment == lSegmentPeriodList.end()) {
00116         return NULL;
00117     }
00118     stdair::SegmentPeriod* oSegment_ptr = *itFirstSegment;
00119     assert (oSegment_ptr != NULL);
00120     return oSegment_ptr;
00121 }
00122
00123 ///////////////////////////////////////////////////////////////////
00124
00125 const stdair::AirportCode_T& SegmentPathPeriod::getDestination
00126 () const {
00127     const stdair::SegmentPeriod* lLastSegment_ptr = getLastSegmentPeriod
00128 ();
00129     assert (lLastSegment_ptr != NULL);
00130     return lLastSegment_ptr->getOffPoint();
00131 }
00132
00133 ///////////////////////////////////////////////////////////////////
00134 bool SegmentPathPeriod::
00135 isAirlineFlown (const stdair::AirlineCode_T& iAirlineCode)
00136 const {
00137     bool oAirlineFlown = false;
00138     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00139         stdair::BomManager::getList<stdair::SegmentPeriod> (*this);
00140     for (stdair::SegmentPeriodList_T::const_iterator itSegmentPeriod =
00141         lSegmentPeriodList.begin();
00142         itSegmentPeriod != lSegmentPeriodList.end(); ++itSegmentPeriod) {
00143         const stdair::SegmentPeriod* lSegmentPeriod_ptr = *itSegmentPeriod;
00144         assert (lSegmentPeriod_ptr != NULL);
00145     }

```

```

00146     const stdair::FlightPeriod& lFlightPeriod =
00147         stdair::BomManager::getParent<stdair::FlightPeriod>
00148         (*lSegmentPeriod_ptr);
00149     const stdair::Inventory& lInventory =
00150         stdair::BomManager::getParent<stdair::Inventory> (lFlightPeriod);
00151     const stdair::AirlineCode_T& lSegmentAirlineCode =
00152         lInventory.getAirlineCode ();
00153     if (lSegmentAirlineCode == iAirlineCode) {
00154         oAirlineFlown = true;
00155         break;
00156     }
00157     return oAirlineFlown;
00158 }
00159
00160 // //////////////////////////////////////
00161 SegmentPathPeriodKey SegmentPathPeriod::
00162 connectWithAnotherSegment(const SegmentPathPeriod
00163 & iSingleSegmentPath) const {
00164     SegmentPathPeriodKey oSegmentPathPeriodKey;
00165     // Retrieve the (only) segment period of the single segment path.
00166     const stdair::SegmentPeriod* lNextSegmentPeriod_ptr =
00167         iSingleSegmentPath.getFirstSegmentPeriod();
00168     assert (lNextSegmentPeriod_ptr != NULL);
00169     // Retrive the last segment period of the current segment path and check
00170     // if the combination of the last segment and the next segment that we
00171     // want to add to the current segment path will create a new segment
00172     // (i.e., the two segment period belongs to the same flight number).
00173     const stdair::SegmentPeriod* lLastSegmentPeriod_ptr = getLastSegmentPeriod
00174 ();
00175     assert (lLastSegmentPeriod_ptr != NULL);
00176     const stdair::FlightPeriod& lLastFlightPeriod = stdair::BomManager::
00177         getParent<stdair::FlightPeriod> (*lLastSegmentPeriod_ptr);
00178     const stdair::Inventory& lLastInventory =
00179         stdair::BomManager::getParent<stdair::Inventory> (lLastFlightPeriod);
00180     const stdair::FlightPeriod& lNextFlightPeriod = stdair::BomManager::
00181         getParent<stdair::FlightPeriod> (*lNextSegmentPeriod_ptr);
00182     const stdair::Inventory& lNextInventory =
00183         stdair::BomManager::getParent<stdair::Inventory> (lNextFlightPeriod);
00184     if (lLastFlightPeriod.getFlightNumber() == lNextFlightPeriod.getFlightNumber()
00185         && lLastInventory.getAirlineCode() == lNextInventory.getAirlineCode())
00186     {
00187         return oSegmentPathPeriodKey;
00188     }
00189     // Check if the new segment period will create a circle.
00190     const stdair::AirportCode_T& lDestination =
00191         lNextSegmentPeriod_ptr->getOffPoint();
00192     if (checkCircle (lDestination) == true) {
00193         return oSegmentPathPeriodKey;
00194     }
00195     // Check if a passenger can connect from the last segment of the
00196     // current segment path to the first segment of the to-be-added
00197     // segment path. If yes, build a new departure period for the new
00198     // segment path.
00199     DateOffsetList_T lBoardingDateOffsetList =
00200         getBoardingDateOffsetList ();
00201     const stdair::PeriodStruct& lCurrentDeparturePeriod = getDeparturePeriod
00202 ();
00203     const stdair::PeriodStruct& lNextDeparturePeriod =
00204         iSingleSegmentPath.getDeparturePeriod();
00205     const stdair::Duration_T& lLastOffTime =
00206         lLastSegmentPeriod_ptr->getOffTime();
00207     const stdair::Duration_T& lNextBoardingTime =
00208         lNextSegmentPeriod_ptr->getBoardingTime();
00209     // If the next boarding time is later than the last off time, check if
00210     // the passengers will have enough time for the transfer. If the next
00211     // boarding time is earlier than the last off time, check if the passengers
00212     // can connect to a flight in the next day.
00213     if (lNextBoardingTime >= lLastOffTime) {
00214         const stdair::Duration_T lStopTime = lNextBoardingTime - lLastOffTime;
00215         if (lStopTime < stdair::DEFAULT_MINIMAL_CONNECTION_TIME) {
00216             return oSegmentPathPeriodKey;
00217         } else {
00218             // Calulcate the date offset of the next segment compare to
00219             // the first one. In this case, this value is equal to the offset
00220             // of the off date of the last segment compare to the boarding date
00221             // of the first segment.
00222             const stdair::DateOffset_T& lLastBoardingDateOffset =
00223                 lBoardingDateOffsetList.at (getNbOfSegments() - 1);

```

```

00227     const stdair::DateOffset_T lNextBoardingDateOffset =
00228         lLastBoardingDateOffset + lLastSegmentPeriod_ptr->getOffDateOffset()
00229         - lLastSegmentPeriod_ptr->getBoardingDateOffset();
00230     const stdair::DateOffset_T lNegativeNextBoardingDateOffset =
00231         stdair::DateOffset_T(0) - lNextBoardingDateOffset;
00232
00233     // Compute the adjusted departure period of the next segment by
00234     // subtracting the origin one with the boarding date offset.
00235     const stdair::PeriodStruct lAdjustedNextDeparturePeriod =
00236         lNextDeparturePeriod.addDateOffset(lNegativeNextBoardingDateOffset);
00237
00238     // Build the intersection of the two periods.
00239     const stdair::PeriodStruct lNewDeparturePeriod =
00240         lCurrentDeparturePeriod.intersection(lAdjustedNextDeparturePeriod);
00241     stdair::Duration_T lNewElapsed = getElapsedTime() +
lStopTime +
00242         lNextSegmentPeriod_ptr->getElapsedTime();
00243     lBoardingDateOffsetList.push_back(lNextBoardingDateOffset);
00244     oSegmentPathPeriodKey.setPeriod(lNewDeparturePeriod);
00245     oSegmentPathPeriodKey.setElapsedTime(lNewElapsed);
00246 }
00247 } else {
00248     const stdair::Duration_T lStopTime =
00249         lNextBoardingTime - lLastOffTime + stdair::Duration_T(24, 0, 0);
00250     if (lStopTime < stdair::DEFAULT_MINIMAL_CONNECTION_TIME) {
00251         return oSegmentPathPeriodKey;
00252     } else {
00253         // Calculate the date offset of the next segment compare to
00254         // the first one.
00255         const stdair::DateOffset_T& lLastBoardingDateOffset =
00256             lBoardingDateOffsetList.at(getNbOfSegments() - 1);
00257         const stdair::DateOffset_T lNextBoardingDateOffset =
00258             lLastBoardingDateOffset + lLastSegmentPeriod_ptr->getOffDateOffset()
00259             - lLastSegmentPeriod_ptr->getBoardingDateOffset() +
00260             stdair::DateOffset_T(1);
00261         const stdair::DateOffset_T lNegativeNextBoardingDateOffset =
00262             stdair::DateOffset_T(0) - lNextBoardingDateOffset;
00263
00264         // Compute the adjusted departure period of the next segment by
00265         // subtracting the origin one with the boarding date offset.
00266         const stdair::PeriodStruct lAdjustedNextDeparturePeriod =
00267             lNextDeparturePeriod.addDateOffset(lNegativeNextBoardingDateOffset);
00268
00269         // Build the intersection of the two periods.
00270         const stdair::PeriodStruct lNewDeparturePeriod =
00271             lCurrentDeparturePeriod.intersection(lAdjustedNextDeparturePeriod);
00272         stdair::Duration_T lNewElapsed = getElapsedTime() +
lStopTime +
00273             lNextSegmentPeriod_ptr->getElapsedTime();
00274         lBoardingDateOffsetList.push_back(lNextBoardingDateOffset);
00275         oSegmentPathPeriodKey.setPeriod(lNewDeparturePeriod);
00276         oSegmentPathPeriodKey.setElapsedTime(lNewElapsed);
00277     }
00278 }
00279
00280     const stdair::Duration_T& lBoardingTime = getBoardingTime();
00281     oSegmentPathPeriodKey.setBoardingTime(lBoardingTime);
00282     oSegmentPathPeriodKey.setBoardingDateOffsetList(
lBoardingDateOffsetList);
00283
00284     return oSegmentPathPeriodKey;
00285 }
00286
00287 // //////////////////////////////////////
00288 bool SegmentPathPeriod::
00289 checkCircle(const stdair::AirlineCode_T& iDestination) const {
00290     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00291         stdair::BomManager::getList<stdair::SegmentPeriod>(*this);
00292     for (stdair::SegmentPeriodList_T::const_iterator itSegment =
00293         lSegmentPeriodList.begin();
00294         itSegment != lSegmentPeriodList.end(); ++itSegment) {
00295         const stdair::SegmentPeriod* lCurrentSegment_ptr = *itSegment;
00296         assert(lCurrentSegment_ptr != NULL);
00297         const stdair::AirlineCode_T& lCurrentBoardingPoint =
00298             lCurrentSegment_ptr->getBoardingPoint();
00299         if (lCurrentBoardingPoint == iDestination) {
00300             return true;
00301         }
00302     }
00303     return false;
00304 }
00305
00306 // //////////////////////////////////////
00307 bool SegmentPathPeriod::
00308 isDepartureDateValid(const stdair::Date_T&
iDepartureDate) const {
00309     const stdair::PeriodStruct& lPeriod = getDeparturePeriod

```

```

    () ;
00310
00311     // Check if the departure date is within the date range.
00312     const stdair::DatePeriod_T& lDeparturePeriod = lPeriod.getDateRange ();
00313     if (lDeparturePeriod.contains (iDepartureDate) == false) {
00314         return false;
00315     }
00316
00317     // Check if the departure date is valid within the DOW.
00318     // 0 = Sunday, 1 = Monday, etc.
00319     const short lDay = iDepartureDate.day_of_week ();
00320     const stdair::DoWStruct& lDoW = lPeriod.getDoW ();
00321     if (lDoW.getStandardDayOfWeek (lDay) == false) {
00322         return false;
00323     }
00324
00325     return true;
00326 }
00327
00328 }

```

## 24.71 airsched/bom/SegmentPathPeriod.hpp File Reference

```

#include <iosfwd>
#include <string>
#include <stdair/bom/BomAbstract.hpp>
#include <airsched/bom/SegmentPathPeriodKey.hpp>
#include <airsched/bom/SegmentPathPeriodTypes.hpp>

```

### Classes

- class [AIRSCHED::SegmentPathPeriod](#)  
Class representing a segment/path.

### Namespaces

- namespace [boost](#)  
Forward declarations.
- namespace [boost::serialization](#)
- namespace [stdair](#)  
Forward declarations.
- namespace [AIRSCHED](#)

## 24.72 SegmentPathPeriod.hpp

```

00001 #ifndef __AIRSCHED_BOM_SEGMENTPATHPERIOD_HPP
00002 #define __AIRSCHED_BOM_SEGMENTPATHPERIOD_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/bom/BomAbstract.hpp>
00012 // AirSched
00013 #include <airsched/bom/SegmentPathPeriodKey.hpp>
00014 >
00014 #include <airsched/bom/SegmentPathPeriodTypes.hpp>
00015 >
00015
00017 namespace boost {
00018     namespace serialization {
00019         class access;
00020     }
00021 }

```

```

00022
00024 namespace stdair {
00025     template <typename BOM> class FacBom;
00026     class FacBomManager;
00027     class SegmentPeriod;
00028 }
00029
00030 namespace AIRSCHED {
00031
00039     class SegmentPathPeriod : public stdair::BomAbstract {
00043         template <typename BOM> friend class stdair::FacBom;
00044         friend class stdair::FacBomManager;
00045         friend class boost::serialization::access;
00046
00047     public:
00048         // ////////// Type definitions //////////
00052         typedef SegmentPathPeriodKey Key_T;
00053
00054
00055     public:
00056         // ////////// Getters //////////
00060         const Key_T& getKey() const {
00061             return _key;
00062         }
00063
00067         stdair::BomAbstract* const getParent() const {
00068             return _parent;
00069         }
00070
00072         const stdair::PeriodStruct& getDeparturePeriod() const {
00073             return _key.getPeriod();
00074         }
00075
00077         const DateOffsetList_T& getBoardingDateOffsetList
00078         () const {
00079             return _key.getBoardingDateOffsetList();
00080         }
00082         const stdair::NbOfSegments_T getNbOfSegments() const {
00083             return _key.getNbOfSegments();
00084         }
00085
00087         const stdair::NbOfAirlines_T& getNbOfAirlines() const {
00088             return _key.getNbOfAirlines();
00089         }
00090
00092         const stdair::Duration_T& getElapsedTime() const {
00093             return _key.getElapsedTime();
00094         }
00095
00097         const stdair::Duration_T& getBoardingTime() const {
00098             return _key.getBoardingTime();
00099         }
00100
00104         const stdair::HolderMap_T& getHolderMap() const {
00105             return _holderMap;
00106         }
00107
00113         stdair::SegmentPeriod* getLastSegmentPeriod() const;
00114
00120         stdair::SegmentPeriod* getFirstSegmentPeriod() const;
00121
00126         const stdair::AirportCode_T& getDestination() const;
00127
00128
00129     public:
00130         // ////////// Business methods //////////
00148         Key_T connectWithAnotherSegment (const
SegmentPathPeriod&) const;
00149
00155         bool checkCircle (const stdair::AirportCode_T&) const;
00156
00161         bool isAirlineFlown (const stdair::AirlineCode_T&) const;
00162
00167         bool isDepartureDateValid (const stdair::Date_T&) const
;
00168
00169     public:
00170         // ////////// Display support methods //////////
00176         void toStream (std::ostream& ioOut) const {
00177             ioOut << toString();
00178         }
00179
00185         void fromStream (std::istream& ioIn) {
00186         }
00187
00191         std::string toString() const;

```

```

00192
00196     const std::string describeKey() const {
00197         return _key.toString();
00198     }
00199
00200
00201 public:
00202     // ////////// (Boost) Serialisation support methods //////////
00206     template<class Archive>
00207     void serialize (Archive& ar, const unsigned int iFileVersion);
00208
00209 private:
00214     void serialisationImplementationExport() const;
00215     void serialisationImplementationImport();
00216
00217
00218 protected:
00219     // ////////// Constructors and destructors //////////
00223     SegmentPathPeriod (const Key_T&);
00224
00228     ~SegmentPathPeriod();
00229
00230 private:
00234     SegmentPathPeriod();
00235
00239     SegmentPathPeriod (const SegmentPathPeriod
&);
00240
00241
00242 protected:
00243     // ////////// Attributes //////////
00249     Key_T _key;
00250
00254     stdair::BomAbstract* _parent;
00255
00262     stdair::HolderMap_T _holderMap;
00263 };
00264
00265 }
00266 #endif // __AIRSCHED_BOM_SEGMENTPATHPERIOD_HPP
00267

```

## 24.73 airsched/bom/SegmentPathPeriodKey.cpp File Reference

```

#include <cassert>
#include <sstream>
#include <boost/archive/text_iarchive.hpp>
#include <boost/archive/text_oarchive.hpp>
#include <boost/serialization/access.hpp>
#include <stdair/basic/BasConst_General.hpp>
#include <stdair/basic/BasConst_Inventory.hpp>
#include <stdair/basic/BasConst_Period_BOM.hpp>
#include <stdair/basic/BasConst_TravelSolution.hpp>
#include <airsched/bom/SegmentPathPeriodKey.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

### Functions

- template void [AIRSCHED::SegmentPathPeriodKey::serialize< ba::text\\_oarchive >](#) (ba::text\_oarchive &, unsigned int)
- template void [AIRSCHED::SegmentPathPeriodKey::serialize< ba::text\\_iarchive >](#) (ba::text\_iarchive &, unsigned int)



## 24.74 SegmentPathPeriodKey.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_General.hpp>
00013 #include <stdair/basic/BasConst_Inventory.hpp>
00014 #include <stdair/basic/BasConst_Period_BOM.hpp>
00015 #include <stdair/basic/BasConst_TravelSolution.hpp>
00016 // AirSched
00017 #include <airsched/bom/SegmentPathPeriodKey.hpp>
00018 >
00019 namespace AIRSCHED {
00020
00021 // //////////////////////////////////////
00022 SegmentPathPeriodKey::SegmentPathPeriodKey
00023 ()
00024 : _period (stdair::BOOST_DEFAULT_DATE_PERIOD, stdair::DEFAULT_DOW_STRING),
00025   _boardingTime (stdair::NULL_BOOST_TIME_DURATION),
00026   _elapsed (stdair::NULL_BOOST_TIME_DURATION),
00027   _nbOfAirlines (stdair::DEFAULT_NBFAIRLINES) {
00028 }
00029
00030 SegmentPathPeriodKey::SegmentPathPeriodKey
00031 (const SegmentPathPeriodKey& iSPPK)
00032 : _period (iSPPK._period),
00033   _boardingTime (iSPPK._boardingTime),
00034   _elapsed (iSPPK._elapsed),
00035   _boardingDateOffsetList (iSPPK._boardingDateOffsetList),
00036   _nbOfAirlines (iSPPK._nbOfAirlines) {
00037 }
00038
00039 SegmentPathPeriodKey::
00040 SegmentPathPeriodKey (const stdair::PeriodStruct&
00041 iPeriod,
00042                      const stdair::Duration_T& iBoardingTime,
00043                      const stdair::Duration_T& iElapsedTime,
00044                      const DateOffsetList_T&
00045 iBoardingDateOffsetList,
00046                      const stdair::NbOfAirlines_T& iNbOfAirlines)
00047 : _period (iPeriod),
00048   _boardingTime (iBoardingTime),
00049   _elapsed (iElapsedTime),
00050   _boardingDateOffsetList (iBoardingDateOffsetList),
00051   _nbOfAirlines (iNbOfAirlines) {
00052 }
00053 SegmentPathPeriodKey::~SegmentPathPeriodKey
00054 () {
00055 }
00056
00057 void SegmentPathPeriodKey::toStream (
00058 std::ostream& ioOut) const {
00059   ioOut << "SegmentPathPeriodKey: " << toString() << std::endl;
00060 }
00061
00062 void SegmentPathPeriodKey::fromStream (
00063 std::istream& ioIn) {
00064 }
00065
00066 const std::string SegmentPathPeriodKey::toString
00067 () const {
00068   std::ostringstream oStr;
00069   oStr << _period.describeShort() << ", "
00070     << _boardingTime << ", " << _elapsed << ", ";
00071   for (DateOffsetList_T::const_iterator itOffset =
00072         _boardingDateOffsetList.begin();
00073        itOffset != _boardingDateOffsetList.end(); ++itOffset) {
00074     const stdair::DateOffset_T& lDateOffset = *itOffset;
00075     oStr << lDateOffset.days() << ", ";
00076   }

```

```

00077
00078     ostr << _nbOfAirlines ;
00079     return ostr.str();
00080 }
00081
00082 // //////////////////////////////////////
00083 void SegmentPathPeriodKey::serialisationImplementationExport() const {
00084     std::ostringstream ostr;
00085     boost::archive::text_oarchive oa (ostr);
00086     oa << *this;
00087 }
00088
00089 // //////////////////////////////////////
00090 void SegmentPathPeriodKey::serialisationImplementationImport() {
00091     std::istringstream istr;
00092     boost::archive::text_iarchive ia (istr);
00093     ia >> *this;
00094 }
00095
00096 // //////////////////////////////////////
00097 template<class Archive>
00098 void SegmentPathPeriodKey::serialize (Archive&
00099 ioArchive,
00100                                     const unsigned int iFileVersion) {
00101     //ioArchive & _period & _boardingTime & _elapsed & _nbOfAirlines;
00102     std::string lBTStr = boost::posix_time::to_simple_string (_boardingTime);
00103     std::string lElapsedStr = boost::posix_time::to_simple_string (_elapsed);
00104     ioArchive & lBTStr & lElapsedStr & _nbOfAirlines;
00105 }
00106
00107 // //////////////////////////////////////
00108 // Explicit template instantiation
00109 namespace ba = boost::archive;
00110 template
00111 void SegmentPathPeriodKey::serialize<ba::text_oarchive> (ba::text_oarchive&,
00112                                                         unsigned int);
00113 template
00114 void SegmentPathPeriodKey::serialize<ba::text_iarchive> (ba::text_iarchive&,
00115                                                         unsigned int);
00116 // //////////////////////////////////////
00117
00118 }
00119
00120 }
00121

```

## 24.75 airsched/bom/SegmentPathPeriodKey.hpp File Reference

```

#include <iosfwd>
#include <string>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_date_time_types.hpp>
#include <stdair/bom/KeyAbstract.hpp>
#include <stdair/bom/PeriodStruct.hpp>
#include <airsched/bom/SegmentPathPeriodTypes.hpp>

```

### Classes

- struct [AIRSCHED::SegmentPathPeriodKey](#)  
Structure representing the key of a segment/path.

### Namespaces

- namespace [boost](#)  
Forward declarations.
- namespace [boost::serialization](#)
- namespace [AIRSCHED](#)

## 24.76 SegmentPathPeriodKey.hpp

```

00001 #ifndef __AIRSCHED_BOM_SEGMENTPATHPERIODKEY_HPP

```

```

00002 #define __AIRSCHEDED_BOM_SEGMENTPATHPERIODKEY_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/stdair_date_time_types.hpp>
00013 #include <stdair/bom/KeyAbstract.hpp>
00014 #include <stdair/bom/PeriodStruct.hpp>
00015 // AirSched
00016 #include <airsched/bom/SegmentPathPeriodTypes.hpp>
00017
00018
00019 namespace boost {
00020     namespace serialization {
00021         class access;
00022     }
00023 }
00024
00025 namespace AIRSCHEDED {
00026
00033     struct SegmentPathPeriodKey : public stdair::KeyAbstract
00034     {
00035         friend class boost::serialization::access;
00036
00037         // ////////////////////////////////// Constructors and destructors //////////////////////////////////
00038     public:
00039         SegmentPathPeriodKey (const stdair::PeriodStruct&,
00040                               const stdair::Duration_T& iBoardingTime,
00041                               const stdair::Duration_T& iElapsed,
00042                               const DateOffsetList_T&,
00043                               const stdair::NbOfAirlines_T&);
00044
00045         SegmentPathPeriodKey ();
00046
00047         SegmentPathPeriodKey (const SegmentPathPeriodKey
00048                               &);
00049
00050         ~SegmentPathPeriodKey ();
00051
00052     public:
00053         // ////////////////////////////////// Getters //////////////////////////////////
00054         const stdair::PeriodStruct& getPeriod() const {
00055             return _period;
00056         }
00057
00058         const DateOffsetList_T& getBoardingDateOffsetList
00059         () const {
00060             return _boardingDateOffsetList;
00061         }
00062
00063         const stdair::NbOfSegments_T getNbOfSegments() const {
00064             return _boardingDateOffsetList.size();
00065         }
00066
00067         const stdair::NbOfAirlines_T& getNbOfAirlines() const {
00068             return _nbOfAirlines;
00069         }
00070
00071         const stdair::Duration_T& getElapsedTime() const {
00072             return _elapsed;
00073         }
00074
00075         const stdair::Duration_T& getBoardingTime() const {
00076             return _boardingTime;
00077         }
00078
00079     public:
00080         // ////////////////////////////////// Setters //////////////////////////////////
00081         void setPeriod (const stdair::PeriodStruct& iPeriod) {
00082             _period = iPeriod;
00083         }
00084
00085         void setBoardingDateOffsetList (const
00086         DateOffsetList_T& iList) {
00087             _boardingDateOffsetList = iList;
00088         }
00089
00090         void setNbOfAirlines (const stdair::NbOfAirlines_T&
00091         iNbOfAirlines) {
00092             _nbOfAirlines = iNbOfAirlines;
00093         }
00094
00095
00096
00097
00098
00099
00100
00101
00102
00103
00104
00105
00106
00107
00108
00109
00110
00111
00112
00113
00114
00115
00116
00117
00118
00119
00120
00121

```

```

00122     }
00123
00125     void setElapsedTime (const stdair::Duration_T& iElapsed) {
00126         _elapsed = iElapsed;
00127     }
00128
00130     void setBoardingTime (const stdair::Duration_T&
iBoardingTime) {
00131         _boardingTime = iBoardingTime;
00132     }
00133
00134
00135     public:
00136         // //////////// Business methods ////////////
00138         const bool isValid () const {
00139             return _period.isValid ();
00140         }
00141
00142
00143     public:
00144         // //////////// Display support methods ////////////
00150         void toStream (std::ostream& ioOut) const;
00151
00157         void fromStream (std::istream& ioIn);
00158
00168         const std::string toString() const;
00169
00170
00171     public:
00172         // //////////// (Boost) Serialisation support methods ////////////
00176         template<class Archive>
00177         void serialize (Archive& ar, const unsigned int iFileVersion);
00178
00179     private:
00184         void serialisationImplementationExport() const;
00185         void serialisationImplementationImport();
00186
00187
00188     private:
00189         // //////////// Attributes ////////////
00193         stdair::PeriodStruct _period;
00194
00198         stdair::Duration_T _boardingTime;
00199
00203         stdair::Duration_T _elapsed;
00204
00209         DateOffsetList_T _boardingDateOffsetList;
00210
00214         stdair::NbOfAirlines_T _nbOfAirlines;
00215     };
00216
00217 }
00218 #endif // __AIRSCHED_BOM_SEGMENTPATHPERIODKEY_HPP

```

## 24.77 airsched/bom/SegmentPathPeriodTypes.hpp File Reference

```

#include <map>
#include <vector>
#include <list>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_date_time_types.hpp>
#include <stdair/bom/key_types.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

### Typedefs

- typedef std::list  
< SegmentPathPeriod \* > [AIRSCHED::SegmentPathPeriodList\\_T](#)

- typedef std::multimap< const stdair::MapKey\_T, SegmentPathPeriod \* > AIRSCHED::SegmentPathPeriodMultimap\_T
- typedef std::vector< const SegmentPathPeriod \* > AIRSCHED::SegmentPathPeriodLightList\_T
- typedef std::vector< SegmentPathPeriodLightList\_T > AIRSCHED::SegmentPathPeriodListList\_T
- typedef std::vector< stdair::DateOffset\_T > AIRSCHED::DateOffsetList\_T

## 24.78 SegmentPathPeriodTypes.hpp

```

00001 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00002 #ifndef __AIRSCHED_BOM_SEGMENTPATHPERIODTYPES_HPP
00003 #define __AIRSCHED_BOM_SEGMENTPATHPERIODTYPES_HPP
00004
00005 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00006 // Import section
00007 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00008 // STL
00009 #include <map>
00010 #include <vector>
00011 #include <list>
00012 // StdAir
00013 #include <stdair/stdair_basic_types.hpp>
00014 #include <stdair/stdair_date_time_types.hpp>
00015 #include <stdair/bom/key_types.hpp>
00016
00017 namespace AIRSCHED {
00018
00020     class SegmentPathPeriod;
00021
00023     typedef std::list<SegmentPathPeriod*> SegmentPathPeriodList_T
00024 ;
00026     typedef std::multimap<const stdair::MapKey_T,
00027                          SegmentPathPeriod*>
00028     SegmentPathPeriodMultimap_T;
00030     typedef std::vector<const SegmentPathPeriod*> SegmentPathPeriodLightList_T
00031 ;
00033     typedef std::vector<SegmentPathPeriodLightList_T>SegmentPathPeriodListList_T
00034 ;
00036     typedef std::vector<stdair::DateOffset_T> DateOffsetList_T;
00037 }
00038 #endif // __AIRSCHED_BOM_SEGMENTPATHPERIODTYPES_HPP
00039

```

## 24.79 airsched/bom/SegmentPeriodHelper.cpp File Reference

```

#include <cassert>
#include <stdair/basic/BasConst_General.hpp>
#include <stdair/bom/SegmentPeriod.hpp>
#include <airsched/bom/SegmentPeriodHelper.hpp>

```

### Namespaces

- namespace AIRSCHED

## 24.80 SegmentPeriodHelper.cpp

```

00001 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00002 // Import section
00003 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00004 // STL
00005 #include <cassert>

```

```

00006 // STDAIR
00007 #include <stdair/basic/BasConst_General.hpp>
00008 #include <stdair/bom/SegmentPeriod.hpp>
00009 // AIRSCHED
00010 #include <airsched/bom/SegmentPeriodHelper.hpp>
00011 >
00012 namespace AIRSCHED {
00013 // //////////////////////////////////////
00014 void SegmentPeriodHelper::fill (
00015     stdair::SegmentPeriod& ioSegmentPeriod,
00016     const SegmentStruct&
00017     iSegmentStruct) {
00018     // Browse the list of segment cabins and fill the cabin booking
00019     // class map of the BOM segment period.
00020     for (SegmentCabinStructList_T::const_iterator itCabin =
00021         iSegmentStruct._cabinList.begin();
00022         itCabin != iSegmentStruct._cabinList.end(); ++itCabin) {
00023         const SegmentCabinStruct& lSegmentCabinStruct = *
00024         itCabin;
00025         ioSegmentPeriod.
00026         addCabinBookingClassList (lSegmentCabinStruct._cabinCode,
00027         lSegmentCabinStruct._classes);
00028     }
00029 }
00030 // //////////////////////////////////////
00031 void SegmentPeriodHelper::fill (
00032     stdair::SegmentPeriod& ioSegmentPeriod,
00033     const LegStructList_T&
00034     iLegList) {
00035     const stdair::AirportCode_T& lBoardingPoint =
00036     ioSegmentPeriod.getBoardingPoint ();
00037     const stdair::AirportCode_T& lOffPoint = ioSegmentPeriod.getOffPoint ();
00038     stdair::Duration_T lElapsedTime;
00039     // Find the leg which has the same boarding point.
00040     LegStructList_T::const_iterator itLeg = iLegList.begin ();
00041     while (itLeg != iLegList.end()) {
00042         const LegStruct& lLeg = *itLeg;
00043         if (lLeg._boardingPoint == lBoardingPoint) {
00044             break;
00045         } else {
00046             ++itLeg;
00047         }
00048     }
00049     assert (itLeg != iLegList.end());
00050     const LegStruct& lFirstLeg = *itLeg;
00051     stdair::AirportCode_T lCurrentOffPoint = lFirstLeg._offPoint;
00052     stdair::Duration_T lCurrentOffTime = lFirstLeg._offTime;
00053     // Update the elapsed time.
00054     lElapsedTime += lFirstLeg._elapsed;
00055     // Find the last used leg.
00056     while (lCurrentOffPoint != lOffPoint) {
00057         ++itLeg;
00058         assert (itLeg != iLegList.end());
00059     }
00060     const LegStruct& lCurrentLeg = *itLeg;
00061     assert (lCurrentOffPoint == lCurrentLeg._boardingPoint);
00062     // As the boarding point of the current leg is the same as the off point
00063     // of the previous leg (by construction), there is no time difference.
00064     const stdair::Duration_T lStopOverTime =
00065     lCurrentLeg._boardingTime - lCurrentOffTime;
00066     lElapsedTime += lStopOverTime;
00067     // Add the elapsed time of the current leg
00068     lElapsedTime += lCurrentLeg._elapsed;
00069     lCurrentOffTime = lCurrentLeg._offTime;
00070     lCurrentOffPoint = lCurrentLeg._offPoint;
00071 }
00072 const LegStruct& lLastLeg = *itLeg;
00073 // Update the attributes of the segment-period.
00074 ioSegmentPeriod.setBoardingTime (lFirstLeg._boardingTime);
00075 ioSegmentPeriod.setOffTime (lLastLeg._offTime);
00076 ioSegmentPeriod.setBoardingDateOffset (lFirstLeg._boardingDateOffset);
00077 ioSegmentPeriod.setOffDateOffset (lLastLeg._offDateOffset);
00078 ioSegmentPeriod.setElapsedTime (lElapsedTime);
00079 }
00080 }
00081 }
00082 }
00083 }
00084 }

```

## 24.81 airsched/bom/SegmentPeriodHelper.hpp File Reference

```
#include <airsched/bom/LegStruct.hpp>
#include <airsched/bom/SegmentStruct.hpp>
```

### Classes

- class [AIRSCHED::SegmentPeriodHelper](#)

### Namespaces

- namespace [stdair](#)  
*Forward declarations.*
- namespace [AIRSCHED](#)

## 24.82 SegmentPeriodHelper.hpp

```
00001 #ifndef __AIRSCHED_BOM_SEGMENTPERIODHELPER_HPP
00002 #define __AIRSCHED_BOM_SEGMENTPERIODHELPER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // AIRSCHED
00008 #include <airsched/bom/LegStruct.hpp>
00009 #include <airsched/bom/SegmentStruct.hpp>
00010
00011 // Forward declarations
00012 namespace stdair {
00013     class SegmentPeriod;
00014 }
00015
00016 namespace AIRSCHED {
00019     class SegmentPeriodHelper {
00020     public:
00021         // ////////////////////////////////// Business Methods //////////////////////////////////
00024         static void fill (stdair::SegmentPeriod&, const SegmentStruct
&);
00025
00028         static void fill (stdair::SegmentPeriod&, const LegStructList_T
&);
00029     };
00030
00031 }
00032 #endif // __AIRSCHED_BOM_SEGMENTPERIODHELPER_HPP
```

## 24.83 airsched/bom/SegmentStruct.cpp File Reference

```
#include <cassert>
#include <sstream>
#include <stdair/bom/SegmentDate.hpp>
#include <airsched/bom/SegmentStruct.hpp>
```

### Namespaces

- namespace [AIRSCHED](#)

## 24.84 SegmentStruct.cpp

```
00001 // //////////////////////////////////////
00002 // Import section
```

```

00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // STDAIR
00008 #include <stdair/bom/SegmentDate.hpp>
00009 // AIRSCHED
00010 #include <airsched/bom/SegmentStruct.hpp>
00011
00012 namespace AIRSCHED {
00013
00014 // //////////////////////////////////////
00015 const std::string SegmentStruct::describe() const {
00016     std::ostringstream ostr;
00017     ostr << "      " << _boardingPoint << " / "
00018         << boost::posix_time::to_simple_string(_boardingTime)
00019         << " -- " << _offPoint << " / "
00020         << boost::posix_time::to_simple_string(_offTime)
00021         << " --> "
00022         << boost::posix_time::to_simple_string(_elapsed)
00023         << std::endl;
00024     for (SegmentCabinStructList_T::const_iterator itCabin =
00025         _cabinList.begin(); itCabin != _cabinList.end();
00026         itCabin++) {
00027         const SegmentCabinStruct& lCabin = *itCabin;
00028         ostr << lCabin.describe();
00029     }
00030     ostr << std::endl;
00031     return ostr.str();
00032 }
00033
00034 // //////////////////////////////////////
00035 void SegmentStruct::fill (stdair::SegmentDate&
ioSegmentDate) const {
00036     // Note that some parameters (boarding date, boarding time, off
00037     // date, off time, elapsed time) are set by
00038     // SegmentDate::fillFromRouting() when the routing (with legs) is
00039     // built. So, it is useless to set those parameters here.
00040
00041     // At that time, there are no other parameters.
00042 }
00043
00044 }

```

## 24.85 airsched/bom/SegmentStruct.hpp File Reference

```

#include <string>
#include <vector>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/basic/StructAbstract.hpp>
#include <airsched/bom/SegmentCabinStruct.hpp>

```

### Classes

- struct [AIRSCHED::SegmentStruct](#)

### Namespaces

- namespace [stdair](#)  
Forward declarations.
- namespace [AIRSCHED](#)

### Typedefs

- typedef std::vector  
< SegmentStruct > [AIRSCHED::SegmentStructList\\_T](#)



## 24.86 SegmentStruct.hpp

```

00001 #ifndef __AIRSCHED_BOM_SEGMENTSTRUCT_HPP
00002 #define __AIRSCHED_BOM_SEGMENTSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/basic/StructAbstract.hpp>
00013 // AirSched
00014 #include <airsched/bom/SegmentCabinStruct.hpp>
00015 >
00016 // Forward declarations
00017 namespace stdair {
00018     class SegmentDate;
00019 }
00020
00021 namespace AIRSCHED {
00022
00024     struct SegmentStruct : public stdair::StructAbstract {
00025         // Attributes
00026         stdair::AirportCode_T _boardingPoint;
00027         stdair::Date_T _boardingDate;
00028         stdair::Duration_T _boardingTime;
00029         stdair::AirportCode_T _offPoint;
00030         stdair::Date_T _offDate;
00031         stdair::Duration_T _offTime;
00032         stdair::Duration_T _elapsed;
00033         SegmentCabinStructList_T _cabinList;
00034
00037         void fill (stdair::SegmentDate&) const;
00038
00040         const std::string describe() const;
00041     };
00042
00044     typedef std::vector<SegmentStruct> SegmentStructList_T;
00045
00046 }
00047 #endif // __AIRSCHED_BOM_SEGMENTSTRUCT_HPP

```

## 24.87 airsched/command/InventoryGenerator.cpp File Reference

```

#include <cassert>
#include <boost/date_time/date_iterator.hpp>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/basic/BasConst_Inventory.hpp>
#include <stdair/bom/BomManager.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <stdair/bom/Inventory.hpp>
#include <stdair/bom/AirlineFeature.hpp>
#include <stdair/bom/FlightPeriod.hpp>
#include <stdair/bom/SegmentPeriod.hpp>
#include <stdair/factory/FacBomManager.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/bom/FlightPeriodStruct.hpp>
#include <airsched/bom/SegmentPeriodHelper.hpp>
#include <airsched/command/InventoryGenerator.hpp>

```

## Namespaces

- namespace [AIRSCHED](#)

## 24.88 InventoryGenerator.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // Boost
00007 #include <boost/date_time/date_iterator.hpp>
00008 // StdAir
00009 #include <stdair/stdair_basic_types.hpp>
00010 #include <stdair/basic/BasConst_Inventory.hpp>
00011 #include <stdair/bom/BomManager.hpp>
00012 #include <stdair/bom/BomRoot.hpp>
00013 #include <stdair/bom/Inventory.hpp>
00014 #include <stdair/bom/AirlineFeature.hpp>
00015 #include <stdair/bom/FlightPeriod.hpp>
00016 #include <stdair/bom/SegmentPeriod.hpp>
00017 #include <stdair/factory/FacBomManager.hpp>
00018 #include <stdair/service/Logger.hpp>
00019 // AirSched
00020 #include <airsched/bom/FlightPeriodStruct.hpp>
00021 >
00022 #include <airsched/bom/SegmentPeriodHelper.hpp>
00023 >
00024 #include <airsched/command/InventoryGenerator.hpp>
00025 >
00026 namespace AIRSCHED {
00027 // //////////////////////////////////////
00028 void InventoryGenerator::
00029     createFlightPeriod (stdair::BomRoot& ioBomRoot,
00030         const FlightPeriodStruct& iFlightPeriodStruct) {
00031     const stdair::AirlineCode_T& lAirlineCode = iFlightPeriodStruct.
00032         _airlineCode;
00033     // Instantiate an inventory object (if not exist)
00034     // for the given key (airline code)
00035     stdair::Inventory* lInventory_ptr = stdair::BomManager::
00036         getObjectPtr<stdair::Inventory> (ioBomRoot, lAirlineCode);
00037     if (lInventory_ptr == NULL) {
00038         stdair::InventoryKey lKey (lAirlineCode);
00039         lInventory_ptr =
00040             &stdair::FacBom<stdair::Inventory>::instance().create (lKey);
00041         stdair::FacBomManager::addToListAndMap (ioBomRoot, *lInventory_ptr);
00042         stdair::FacBomManager::linkWithParent (ioBomRoot, *lInventory_ptr);
00043         // Add the airline feature object to the inventory
00044         const stdair::AirlineFeatureKey lAirlineFeatureKey (lAirlineCode);
00045         stdair::AirlineFeature& lAirlineFeature =
00046             stdair::FacBom<stdair::AirlineFeature>::instance().create (
00047                 lAirlineFeatureKey);
00048         stdair::FacBomManager::setAirlineFeature (*lInventory_ptr,
00049             lAirlineFeature);
00050         stdair::FacBomManager::linkWithParent (*lInventory_ptr, lAirlineFeature);
00051         // Link the airline feature object with the top of the BOM tree
00052         stdair::FacBomManager::addToListAndMap (ioBomRoot, lAirlineFeature);
00053     }
00054     assert (lInventory_ptr != NULL);
00055     // Create the flight-period key.
00056     const stdair::PeriodStruct lPeriod (iFlightPeriodStruct._dateRange,
00057         iFlightPeriodStruct._dow);
00058     const stdair::FlightPeriodKey
00059         lFlightPeriodKey (iFlightPeriodStruct._flightNumber, lPeriod);
00060     // Check that the flight-period object is not already created.
00061     stdair::FlightPeriod* lFlightPeriod_ptr = stdair::BomManager::
00062         getObjectPtr<stdair::FlightPeriod> (*lInventory_ptr,
00063             lFlightPeriodKey.toString());
00064     if (lFlightPeriod_ptr != NULL) {
00065         throw stdair::ObjectCreationDuplicationException ("");
00066     }
00067     assert (lFlightPeriod_ptr == NULL);
00068     // Instantiate a flight-period object with the given key.
00069     lFlightPeriod_ptr = &stdair::FacBom<stdair::FlightPeriod>::
00070         instance().create (lFlightPeriodKey);
00071     stdair::FacBomManager::addToListAndMap (*lInventory_ptr, *lFlightPeriod_ptr);
00072     stdair::FacBomManager::linkWithParent (*lInventory_ptr, *lFlightPeriod_ptr);
00073     // Create the segment-periods.

```

```

00079     createSegmentPeriods (*lFlightPeriod_ptr, iFlightPeriodStruct);
00080 }
00081
00082 // //////////////////////////////////////
00083 void InventoryGenerator::
00084     createSegmentPeriods (stdair::FlightPeriod& ioFlightPeriod,
00085                          const FlightPeriodStruct& iFlightPeriodStruct) {
00086
00087     // Iterate on the segment strutures.
00088     const SegmentStructList_T& lSegmentList =
iFlightPeriodStruct._segmentList;
00089     for (SegmentStructList_T::const_iterator itSegment = lSegmentList.begin();
00090          itSegment != lSegmentList.end(); ++itSegment) {
00091
00092         const SegmentStruct& lSegment = *itSegment;
00093
00094         // Set the segment-period primary key.
00095         const stdair::AirportCode_T& lBoardingPoint = lSegment._boardingPoint;
00096         const stdair::AirportCode_T& lOffPoint = lSegment._offPoint;
00097         const stdair::SegmentPeriodKey lSegmentPeriodKey (lBoardingPoint,
00098                                                         lOffPoint);
00099
00100         // Instantiate a segment-period with the key.
00101         stdair::SegmentPeriod& lSegmentPeriod = stdair::
00102             FacBom<stdair::SegmentPeriod>::instance().create (lSegmentPeriodKey);
00103         stdair::FacBomManager::addToListAndMap (ioFlightPeriod, lSegmentPeriod);
00104         stdair::FacBomManager::linkWithParent (ioFlightPeriod, lSegmentPeriod);
00105
00106         // Set the segment-period attributes.
00107         SegmentPeriodHelper::fill (lSegmentPeriod,
lSegment);
00108         SegmentPeriodHelper::fill (lSegmentPeriod,
iFlightPeriodStruct._legList);
00109     }
00110 }
00111
00112 }

```

## 24.89 airsched/command/InventoryGenerator.hpp File Reference

```

#include <stdair/command/CmdAbstract.hpp>
#include <airsched/AIRSCHEDED_Types.hpp>

```

### Classes

- class [AIRSCHEDED::InventoryGenerator](#)

### Namespaces

- namespace [stdair](#)  
*Forward declarations.*
- namespace [AIRSCHEDED](#)
- namespace [AIRSCHEDED::ScheduleParserHelper](#)

## 24.90 InventoryGenerator.hpp

```

00001 #ifndef __AIRSCHEDED_CMD_INVENTORYGENERATOR_HPP
00002 #define __AIRSCHEDED_CMD_INVENTORYGENERATOR_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir
00008 #include <stdair/command/CmdAbstract.hpp>
00009 // AirSched
00010 #include <airsched/AIRSCHEDED_Types.hpp>
00011
00012 // Forward declarations
00013 namespace stdair {
00014     class BomRoot;
00015     class FlightPeriod;

```

```

00016 }
00017
00018 namespace AIRSCHED {
00019
00020     // Forward declarations
00021     struct FlightPeriodStruct;
00022     struct LegStruct;
00023     struct SegmentStruct;
00024     struct LegCabinStruct;
00025     struct SegmentCabinStruct;
00026     namespace ScheduleParserHelper {
00027         struct doEndFlight;
00028     }
00029
00030     class InventoryGenerator : public stdair::CmdAbstract {
00031     public:
00032         // Only the following class may use methods of InventoryGenerator.
00033         // Indeed, as those methods build the BOM, it is not good to expose
00034         // them publicly.
00035         friend class FlightPeriodFileParser;
00036         friend class FFFlightPeriodFileParser;
00037         friend struct ScheduleParserHelper::doEndFlight;
00038     private:
00039         friend class ScheduleParser;
00040
00041     private:
00042         static void createFlightPeriod (stdair::BomRoot&,
00043                                         const FlightPeriodStruct&
00044         );
00045         static void createSegmentPeriods (stdair::FlightPeriod&,
00046                                           const FlightPeriodStruct
00047                                           &);
00048     };
00049 };
00050 };
00051 };
00052 }
00053 #endif // __AIRSCHED_CMD_INVENTORYGENERATOR_HPP

```

## 24.91 airsched/command/OnDParser.cpp File Reference

```

#include <cassert>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/service/Logger.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <airsched/command/OnDParserHelper.hpp>
#include <airsched/command/OnDParser.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

## 24.92 OnDParser.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/basic/BasFileMgr.hpp>
00008 #include <stdair/service/Logger.hpp>
00009 #include <stdair/bom/BomRoot.hpp>
00010 // AirSched
00011 #include <airsched/command/OnDParserHelper.hpp>
00012 >
00013 #include <airsched/command/OnDParser.hpp>
00014 namespace AIRSCHED {
00015
00016     // //////////////////////////////////////
00017     void OnDParser::generateOnDPeriods (const
00018                                         stdair::ODFilePath& iODFilename,
00019                                         stdair::BomRoot& ioBomRoot) {
00020

```

```

00020     const stdair::Filename_T lFilename = iODFilename.name();
00021
00022     // Check that the file path given as input corresponds to an actual file
00023     const bool doesExistAndIsReadable =
00024         stdair::BasFileMgr::doesExistAndIsReadable (lFilename);
00025
00026     if (doesExistAndIsReadable == false) {
00027         STDAIR_LOG_ERROR ("The O&D input file, '" << lFilename
00028             << "', can not be retrieved on the file-system");
00029         throw OnDInputFileNotFoundException ("The
00030             O&D file " + lFilename
00031                 + " does not exist or can not be "
00032                 "read");
00033     }
00034     // Initialise the O&D-Period file parser.
00035     OnDPeriodFileParser lOnDPeriodParser (lFilename,
00036         ioBomRoot);
00037     // Parse the CSV-formatted O&D input file, and generate the
00038     // corresponding O&D-Period for the airlines.
00039     lOnDPeriodParser.generateOnDPeriods();
00040 }
00041
00042 }
```

## 24.93 airsched/command/OnDParser.hpp File Reference

```

#include <string>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_file.hpp>
#include <stdair/command/CmdAbstract.hpp>
```

### Classes

- class [AIRSCHEDED::OnDParser](#)  
*Class wrapping the parser entry point.*

### Namespaces

- namespace [stdair](#)  
*Forward declarations.*
- namespace [AIRSCHEDED](#)

## 24.94 OnDParser.hpp

```

00001 #ifndef __AIRSCHEDED_CMD_ONDPARSER_HPP
00002 #define __AIRSCHEDED_CMD_ONDPARSER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>
00011 #include <stdair/stdair_file.hpp>
00012 #include <stdair/command/CmdAbstract.hpp>
00013
00015 namespace stdair {
00016     class BomRoot;
00017 }
00018
00019 namespace AIRSCHEDED {
00020
00024     class OnDParser : public stdair::CmdAbstract {
00025     public:
00032         static void generateOnDPeriods (const stdair::ODFilePath&
00033             ,
00034             stdair::BomRoot&);
```

```

00034     };
00035
00036 }
00037 #endif // __AIRSCHED_CMD_ONDPARSER_HPP

```

## 24.95 airsched/command/OnDParserHelper.cpp File Reference

```

#include <cassert>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/command/OnDParserHelper.hpp>
#include <airsched/command/OnDPeriodGenerator.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)
- namespace [AIRSCHED::OnDParserHelper](#)

### Functions

- [chset\\_t AIRSCHED::OnDParserHelper::alpha\\_cap\\_set\\_p](#) ("A-Z")
- [repeat\\_p\\_t AIRSCHED::OnDParserHelper::airport\\_p](#) (chset\_t("0-9A-Z").derived(), 3, 3)
- [repeat\\_p\\_t AIRSCHED::OnDParserHelper::airline\\_code\\_p](#) (alpha\_cap\_set\_p.derived(), 2, 3)
- [bounded4\\_p\\_t AIRSCHED::OnDParserHelper::year\\_p](#) (uint4\_p.derived(), 2000u, 2099u)
- [bounded2\\_p\\_t AIRSCHED::OnDParserHelper::month\\_p](#) (uint2\_p.derived(), 1u, 12u)
- [bounded2\\_p\\_t AIRSCHED::OnDParserHelper::day\\_p](#) (uint2\_p.derived(), 1u, 31u)
- [bounded2\\_p\\_t AIRSCHED::OnDParserHelper::hours\\_p](#) (uint2\_p.derived(), 0u, 23u)
- [bounded2\\_p\\_t AIRSCHED::OnDParserHelper::minutes\\_p](#) (uint2\_p.derived(), 0u, 59u)
- [bounded2\\_p\\_t AIRSCHED::OnDParserHelper::seconds\\_p](#) (uint2\_p.derived(), 0u, 59u)
- [chset\\_t AIRSCHED::OnDParserHelper::class\\_code\\_p](#) ("A-Z")

### Variables

- [uint2\\_p\\_t AIRSCHED::OnDParserHelper::uint2\\_p](#)
- [uint4\\_p\\_t AIRSCHED::OnDParserHelper::uint4\\_p](#)
- [uint1\\_4\\_p\\_t AIRSCHED::OnDParserHelper::uint1\\_4\\_p](#)

## 24.96 OnDParserHelper.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/basic/BasFileMgr.hpp>
00008 #include <stdair/bom/BomRoot.hpp>
00009 #include <stdair/service/Logger.hpp>
00010 // AIRSCHED
00011 #include <airsched/command/OnDParserHelper.hpp>
00012 >
00012 #include <airsched/command/OnDPeriodGenerator.hpp>
00013 >
00013 namespace AIRSCHED {
00014
00015     namespace OnDParserHelper {
00016
00017
00018         // //////////////////////////////////////
00019         //

```

```

00020 // Semantic actions
00021 //
00022 // //////////////////////////////////////
00023
00024 ParserSemanticAction::
00025 ParserSemanticAction (OnDPeriodStruct
& ioOnDPeriod)
00026 : _onDPeriod (ioOnDPeriod) {
00027 }
00028
00029 // //////////////////////////////////////
00030 storeOrigin::storeOrigin (OnDPeriodStruct
& ioOnDPeriod)
00031 : ParserSemanticAction (ioOnDPeriod) {
00032 }
00033
00034 // //////////////////////////////////////
00035 void storeOrigin::operator() (iterator_t
iStr,
00036                               iterator_t iStrEnd) const {
00037     std::string lOrigin (iStr, iStrEnd);
00038     //STDAIR_LOG_DEBUG ( "Origin: " << lOrigin << std::endl);
00039
00040     // Set the origin
00041     _onDPeriod._origin = lOrigin;
00042     _onDPeriod._nbOfAirlines = 0;
00043     _onDPeriod._airlineCode = "";
00044     _onDPeriod._classCode = "";
00045     _onDPeriod._airlineCodeList.clear();
00046     _onDPeriod._classCodeList.clear();
00047 }
00048
00049 // //////////////////////////////////////
00050 storeDestination::storeDestination (
OnDPeriodStruct& ioOnDPeriod)
00051 : ParserSemanticAction (ioOnDPeriod) {
00052 }
00053
00054 // //////////////////////////////////////
00055 void storeDestination::operator() (iterator_t
iStr,
00056                               iterator_t iStrEnd) const {
00057     std::string lDestination (iStr, iStrEnd);
00058     //STDAIR_LOG_DEBUG ("Destination: " << lDestination << std::endl);
00059
00060     // Set the destination
00061     _onDPeriod._destination = lDestination;
00062 }
00063
00064 // //////////////////////////////////////
00065 storeDateRangeStart::
00066 storeDateRangeStart (OnDPeriodStruct&
ioOnDPeriod)
00067 : ParserSemanticAction (ioOnDPeriod) {
00068 }
00069
00070 // //////////////////////////////////////
00071 void storeDateRangeStart::operator() (
iterator_t iStr,
00072                               iterator_t iStrEnd) const {
00073     _onDPeriod._dateRangeStart = _onDPeriod
.getDate();
00074     /*STDAIR_LOG_DEBUG ("Date Range Start: "
00075     << _onDPeriod._dateRangeStart << std::endl);*/
00076
00077     // Reset the number of seconds
00078     _onDPeriod._itSeconds = 0;
00079 }
00080
00081 // //////////////////////////////////////
00082 storeDateRangeEnd::
00083 storeDateRangeEnd (OnDPeriodStruct&
ioOnDPeriod)
00084 : ParserSemanticAction (ioOnDPeriod) {
00085 }
00086
00087 // //////////////////////////////////////
00088 void storeDateRangeEnd::operator() (
iterator_t iStr,
00089                               iterator_t iStrEnd) const {
00090     // As a Boost date period (COM::DatePeriod_T) defines the last day of
00091     // the period to be end-date - one day, we have to add one day to that
00092     // end date before.
00093     const stdair::DateOffset_T oneDay (1);
00094     _onDPeriod._dateRangeEnd = _onDPeriod.
getDate() + oneDay;
00095     /*STDAIR_LOG_DEBUG ( "Date Range End: "

```

```

00096         << _onDPeriod._dateRangeEnd << std::endl);*/
00097
00098         // Transform the date pair (i.e., the date range) into a date period
00099         _onDPeriod._datePeriod =
00100             stdair::DatePeriod_T (_onDPeriod._dateRangeStart
00101
00102                                     _onDPeriod._dateRangeEnd);
00103
00104         // Reset the number of seconds
00105         _onDPeriod._itSeconds = 0;
00106     }
00107
00108     // ////////////////////////////////////////
00109     storeStartRangeTime::
00110     storeStartRangeTime (OnDPeriodStruct&
00111         ioOnDPeriod)
00112     : ParserSemanticAction (ioOnDPeriod) {
00113     }
00114
00115     // ////////////////////////////////////////
00116     void storeStartRangeTime::operator() (
00117         iterator_t iStr,
00118         iterator_t iStrEnd) const {
00119         _onDPeriod._timeRangeStart = _onDPeriod
00120             .getTime();
00121
00122         // Reset the number of seconds
00123         _onDPeriod._itSeconds = 0;
00124     }
00125
00126     // ////////////////////////////////////////
00127     storeEndRangeTime::
00128     storeEndRangeTime (OnDPeriodStruct&
00129         ioOnDPeriod)
00130     : ParserSemanticAction (ioOnDPeriod) {
00131     }
00132
00133     // ////////////////////////////////////////
00134     void storeEndRangeTime::operator() (
00135         iterator_t iStr,
00136         iterator_t iStrEnd) const {
00137         _onDPeriod._timeRangeEnd = _onDPeriod.
00138             getTime();
00139
00140         // Reset the number of seconds
00141         _onDPeriod._itSeconds = 0;
00142     }
00143
00144     // ////////////////////////////////////////
00145     storeAirlineCode::
00146     storeAirlineCode (OnDPeriodStruct&
00147         ioOnDPeriod)
00148     : ParserSemanticAction (ioOnDPeriod) {
00149     }
00150
00151     // ////////////////////////////////////////
00152     void storeAirlineCode::operator() (iterator_t
00153         iStr,
00154         iterator_t iStrEnd) const {
00155         const std::string lAirlineCodeStr (iStr, iStrEnd);
00156         const stdair::AirlineCode_T lAirlineCode(lAirlineCodeStr);
00157         // Test if the OnD Period Struct stands for interline products
00158         if (_onDPeriod._airlineCodeList.size() > 0) {
00159             // update the airline code
00160             std::ostringstream ostr;
00161             ostr << _onDPeriod._airlineCode << lAirlineCode;
00162             _onDPeriod._airlineCode = ostr.str();
00163             // Update the number of airlines if necessary
00164             const stdair::AirlineCode_T lPreviousAirlineCode =
00165                 _onDPeriod._airlineCodeList.back();
00166             if (lPreviousAirlineCode != lAirlineCode) {
00167                 _onDPeriod._nbOfAirlines = _onDPeriod
00168                     ._nbOfAirlines + 1;
00169             }
00170         }
00171         else {
00172             _onDPeriod._airlineCode = lAirlineCode;
00173             _onDPeriod._nbOfAirlines = 1;
00174         }
00175         _onDPeriod._airlineCodeList.push_back (
00176             lAirlineCode);
00177
00178         //STDAIR_LOG_DEBUG ( "Airline code: " << lAirlineCode << std::endl);
00179     }
00180
00181     // ////////////////////////////////////////
00182     storeClassCode::

```



```

00172     storeClassCode (OnDPeriodStruct&
ioOnDPeriod)
00173         : ParserSemanticAction (ioOnDPeriod) {
00174     }
00175
00176     // //////////////////////////////////////
00177     void storeClassCode::operator() (char iChar)
const {
00178         std::ostringstream ostr;
00179         ostr << iChar;
00180         std::string classCodeStr = ostr.str();
00181         const stdair::ClassCode_T lClassCode (classCodeStr);
00182         _onDPeriod._classCodeList.push_back(lClassCode);
00183         /*STDAIR_LOG_DEBUG ("Class Code: "
00184             << lClassCode << std::endl);*/
00185         // Insertion of this class Code in the whole classCode name
00186         std::ostringstream ostrr;
00187         ostrr << _onDPeriod._classCode << classCodeStr;
00188         _onDPeriod._classCode = ostrr.str();
00189     }
00190
00191     // //////////////////////////////////////
00192     doEndOnD::doEndOnD (stdair::BomRoot& ioBomRoot,
OnDPeriodStruct& ioOnDPeriod)
00193         : ParserSemanticAction (ioOnDPeriod),
_bomRoot (ioBomRoot) {
00194     }
00195
00196     // //////////////////////////////////////
00197     void doEndOnD::operator() (iterator_t iStr,
iterator_t iStrEnd) const {
00200
00201         // DEBUG: Display the result
00202         // STDAIR_LOG_DEBUG ("FareRule " << _onDPeriod.describe());
00203
00204         // Generation of the O&D-Period object.
00205         OnDPeriodGenerator::createOnDPeriod (_bomRoot, _onDPeriod
);
00206     }
00207
00208     // //////////////////////////////////////
00209     //
00210     // Utility Parsers
00211     //
00212     // //////////////////////////////////////
00213
00215     uint2_p_t uint2_p;
00216
00218     uint4_p_t uint4_p;
00219
00221     uint1_4_p_t uint1_4_p;
00222
00224     chset_t alpha_cap_set_p ("A-Z");
00225
00227     repeat_p_t airport_p (chset_t ("0-9A-Z").derived()
, 3, 3);
00228
00230     repeat_p_t airline_code_p (alpha_cap_set_p
.derived(), 2, 3);
00231
00233     bounded4_p_t year_p (uint4_p.derived(), 2000u,
2099u);
00234
00236     bounded2_p_t month_p (uint2_p.derived(), 1u, 12u)
;
00237
00239     bounded2_p_t day_p (uint2_p.derived(), 1u, 31u);
00240
00242     bounded2_p_t hours_p (uint2_p.derived(), 0u, 23u)
;
00243
00245     bounded2_p_t minutes_p (uint2_p.derived(), 0u,
59u);
00246
00248     bounded2_p_t seconds_p (uint2_p.derived(), 0u,
59u);
00249
00251     chset_t class_code_p ("A-Z");
00252
00254     //
00255     // (Boost Spirit) Grammar Definition
00256     //
00258
00259     // //////////////////////////////////////
00260     OnDParser::
00261     OnDParser (stdair::BomRoot& ioBomRoot, OnDPeriodStruct

```

```

    & ioOnDPeriod)
00262     : _bomRoot (ioBomRoot), _onDPeriod (ioOnDPeriod) {
00263     }
00264
00265     ///////////////////////////////////////////////////////////////////
00266     template<typename ScannerT>
00267     OnDParser::definition<ScannerT>::definition
00268     (OnDParser const& self) {
00269         ond_list = *( boost::spirit::classic::comment_p("//")
00270                     | boost::spirit::classic::comment_p("/*", "*/")
00271                     | ond )
00272         ;
00273
00274         ond = ond_key
00275         >> +( ';' >> segment )
00276         >> ond_end[doEndOnD(self._bomRoot, self._onDPeriod)]
00277         ;
00278
00279         ond_end = boost::spirit::classic::ch_p(';')
00280         ;
00281
00282         ond_key = (airport_p)[storeOrigin(self._onDPeriod)]
00283         >> ';' >> (airport_p)[storeDestination(self.
_onDPeriod)]
00284         >> ';' >> date[storeDateRangeStart(self._onDPeriod)]
00285         >> ';' >> date[storeDateRangeEnd(self._onDPeriod)]
00286         >> ';' >> time[storeStartRangeTime(self._onDPeriod)]
00287         >> ';' >> time[storeEndRangeTime(self._onDPeriod)]
00288         ;
00289
00290         date = boost::spirit::classic::
00291         lexeme_d[ (year_p)[boost::spirit::classic::
00292                     assign_a(self._onDPeriod._itYear)]
00293         >> '-'
00294         >> (month_p)[boost::spirit::classic::
00295                     assign_a(self._onDPeriod._itMonth)]
00296         >> '-'
00297         >> (day_p)[boost::spirit::classic::
00298                     assign_a(self._onDPeriod._itDay)] ]
00299         ;
00300
00301         time = boost::spirit::classic::
00302         lexeme_d[ (hours_p)[boost::spirit::classic::
00303                     assign_a(self._onDPeriod._itHours)]
00304         >> ':'
00305         >> (minutes_p)[boost::spirit::classic::
00306                     assign_a(self._onDPeriod._itMinutes)]
00307         >> !(':' >> (seconds_p)[boost::spirit::classic::
00308                     assign_a(self._onDPeriod._itSeconds)]) ]
00309     ;
00310
00311     segment = boost::spirit::classic::
00312     lexeme_d[ (airline_code_p)[storeAirlineCode
00313     (self._onDPeriod)] ]
00314     >> ';' >> (class_code_p)[storeClassCode(self.
_onDPeriod)]
00315     ;
00316     //BOOST_SPIRIT_DEBUG_NODE (OnDParser);
00317     BOOST_SPIRIT_DEBUG_NODE (ond_list);
00318     BOOST_SPIRIT_DEBUG_NODE (ond);
00319     BOOST_SPIRIT_DEBUG_NODE (segment);
00320     BOOST_SPIRIT_DEBUG_NODE (ond_key);
00321     BOOST_SPIRIT_DEBUG_NODE (ond_end);
00322     BOOST_SPIRIT_DEBUG_NODE (date);
00323     BOOST_SPIRIT_DEBUG_NODE (time);
00324 }
00325
00326 ///////////////////////////////////////////////////////////////////
00327 template<typename ScannerT>
00328 boost::spirit::classic::rule<ScannerT> const&
00330 OnDParser::definition<ScannerT>::start
00331 () const {
00332     return ond_list;
00333 }
00334
00335 //
00336 // Entry class for the file parser
00337 //
00338 //
00339 ///////////////////////////////////////////////////////////////////
00340
00341 OnDPeriodFileParser::OnDPeriodFileParser
00342 (const stdair::Filename_T& iFilename,

```

```

00343                                     stdair::BomRoot& ioBomRoot)
00344 : _filename (iFilename), _bomRoot (ioBomRoot) {
00345     init();
00346 }
00347
00348 // //////////////////////////////////////
00349 void OnDPeriodFileParser::init() {
00350     // Check that the file exists and is readable
00351     const bool doesExistAndIsReadable =
00352         stdair::BasFileMgr::doesExistAndIsReadable (_filename);
00353
00354     if (doesExistAndIsReadable == false) {
00355         STDAIR_LOG_ERROR ("The O&D file " << _filename
00356             << " does not exist or can not be read.");
00357
00358         throw OnDInputFileNotFoundException ("The
00359 O&D file " + _filename
00360             + " does not exist or can not be
00361 read");
00362     }
00363
00364     // Open the file
00365     _startIterator = iterator_t (_filename);
00366
00367     // Check that the filename exists and can be open
00368     if (!_startIterator) {
00369         STDAIR_LOG_DEBUG ("The O&D file " << _filename << " can not be open."
00370             << std::endl);
00371         throw OnDInputFileNotFoundException ("The file " + _filename
00372             + " does not exist or can not be
00373 read");
00374     }
00375
00376     // Create an EOF iterator
00377     _endIterator = _startIterator.make_end();
00378 }
00379
00380 // //////////////////////////////////////
00381 bool OnDPeriodFileParser::generateOnDPeriods
00382 () {
00383     bool oResult = false;
00384
00385     STDAIR_LOG_DEBUG ("Parsing O&D input file: " << _filename);
00386
00387     // Initialise the parser (grammar) with the helper/staging structure.
00388     OnDParserHelper::OnDParser lODParser (_bomRoot,
00389         _onDPeriod);
00390
00391     // Launch the parsing of the file and, thanks to the doEndOnD
00392     // call-back structure, filling the worldSchedule (Fares)
00393     boost::spirit::classic::parse_info<iterator_t> info =
00394         boost::spirit::classic::parse (_startIterator, _endIterator, lODParser,
00395             boost::spirit::classic::space_p);
00396
00397     // Retrieves whether or not the parsing was successful
00398     oResult = info.hit;
00399
00400     const std::string hasBeenFullyReadStr = (info.full == true)?"":"not ";
00401     if (oResult == true) {
00402         STDAIR_LOG_DEBUG ("Parsing of O&D input file: " << _filename
00403             << " succeeded: read " << info.length
00404             << " characters. The input file has "
00405             << hasBeenFullyReadStr
00406             << "been fully read. Stop point: " << info.stop);
00407     } else {
00408         // TODO: decide whether to throw an exception
00409         STDAIR_LOG_ERROR ("Parsing of O&D input file: " << _filename
00410             << " failed: read " << info.length
00411             << " characters. The input file has "
00412             << hasBeenFullyReadStr
00413             << "been fully read. Stop point: " << info.stop);
00414     }
00415
00416     return oResult;
00417 }

```

## 24.97 airsched/command/OnDParserHelper.hpp File Reference

```
#include <string>
#include <boost/date_time/posix_time/posix_time.hpp>
#include <boost/date_time/gregorian/gregorian.hpp>
#include <stdair/command/CmdAbstract.hpp>
#include <airsched/AIRSCHEDED_Types.hpp>
#include <airsched/basic/BasParserTypes.hpp>
#include <airsched/bom/OnDPeriodStruct.hpp>
```

## Classes

- struct [AIRSCHEDED::OnDParserHelper::ParserSemanticAction](#)
- struct [AIRSCHEDED::OnDParserHelper::storeOrigin](#)
- struct [AIRSCHEDED::OnDParserHelper::storeDestination](#)
- struct [AIRSCHEDED::OnDParserHelper::storeDateRangeStart](#)
- struct [AIRSCHEDED::OnDParserHelper::storeDateRangeEnd](#)
- struct [AIRSCHEDED::OnDParserHelper::storeStartRangeTime](#)
- struct [AIRSCHEDED::OnDParserHelper::storeEndRangeTime](#)
- struct [AIRSCHEDED::OnDParserHelper::storeAirlineCode](#)
- struct [AIRSCHEDED::OnDParserHelper::storeClassCode](#)
- struct [AIRSCHEDED::OnDParserHelper::doEndOnD](#)
- struct [AIRSCHEDED::OnDParserHelper::OnDParser](#)
- struct [AIRSCHEDED::OnDParserHelper::OnDParser::definition< ScannerT >](#)
- class [AIRSCHEDED::OnDPeriodFileParser](#)

## Namespaces

- namespace [stdair](#)  
*Forward declarations.*
- namespace [AIRSCHEDED](#)
- namespace [AIRSCHEDED::OnDParserHelper](#)

## 24.98 OnDParserHelper.hpp

```
00001 #ifndef __AIRSCHEDED_CMD_ONDPARSERHELPER_HPP
00002 #define __AIRSCHEDED_CMD_ONDPARSERHELPER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // Boost (Extended STL)
00010 #include <boost/date_time/posix_time/posix_time.hpp>
00011 #include <boost/date_time/gregorian/gregorian.hpp>
00012 // StdAir
00013 #include <stdair/command/CmdAbstract.hpp>
00014 // AirSched
00015 #include <airsched/AIRSCHEDED_Types.hpp>
00016 #include <airsched/basic/BasParserTypes.hpp>
00017 #include <airsched/bom/OnDPeriodStruct.hpp>
00018
00019 // Forward declarations
00020 namespace stdair {
00021     class BomRoot;
00022 }
00023
00024 namespace AIRSCHEDED {
00025
00026     namespace OnDParserHelper {
00027
00028         // //////////////////////////////////////
```

```

00029     //
00030     // Semantic actions
00031     //
00032     // //////////////////////////////////////
00033     struct ParserSemanticAction {
00034         ParserSemanticAction (OnDPeriodStruct&
00035 );
00036         OnDPeriodStruct& _onDPeriod;
00037     };
00038
00042     struct storeOrigin : public ParserSemanticAction
00043     {
00044         storeOrigin (OnDPeriodStruct&);
00045         void operator() (iterator_t iStr, iterator_t
00046 iStrEnd) const;
00047     };
00048
00050     struct storeDestination : public ParserSemanticAction
00051     {
00052         storeDestination (OnDPeriodStruct&);
00053         void operator() (iterator_t iStr, iterator_t
00054 iStrEnd) const;
00055     };
00056
00058     struct storeDateRangeStart : public ParserSemanticAction
00059     {
00060         storeDateRangeStart (OnDPeriodStruct&);
00061         void operator() (iterator_t iStr, iterator_t
00062 iStrEnd) const;
00063     };
00064
00066     struct storeDateRangeEnd : public ParserSemanticAction
00067     {
00068         storeDateRangeEnd (OnDPeriodStruct&);
00069         void operator() (iterator_t iStr, iterator_t
00070 iStrEnd) const;
00071     };
00072
00074     struct storeStartRangeTime : public ParserSemanticAction
00075     {
00076         storeStartRangeTime (OnDPeriodStruct&);
00077         void operator() (iterator_t iStr, iterator_t
00078 iStrEnd) const;
00079     };
00080
00082     struct storeEndRangeTime : public ParserSemanticAction
00083     {
00084         storeEndRangeTime (OnDPeriodStruct&);
00085         void operator() (iterator_t iStr, iterator_t
00086 iStrEnd) const;
00087     };
00088
00090     struct storeAirlineCode : public ParserSemanticAction
00091     {
00092         storeAirlineCode (OnDPeriodStruct&);
00093         void operator() (iterator_t iStr, iterator_t
00094 iStrEnd) const;
00095     };
00096
00098     struct storeClassCode : public ParserSemanticAction
00099     {
00100         storeClassCode (OnDPeriodStruct&);
00101         void operator() (char iChar) const;
00102     };
00103
00106     struct doEndOnD : public ParserSemanticAction {
00107         doEndOnD (stdair::BomRoot&, OnDPeriodStruct&);
00108         void operator() (iterator_t iStr, iterator_t
00109 iStrEnd) const;
00110         stdair::BomRoot& _bomRoot;
00111     };
00112
00116     //
00117     // (Boost Spirit) Grammar Definition
00118     //
00120
00127     struct OnDParser :
00128     public boost::spirit::classic::grammar<OnDParser> {
00129
00130         OnDParser (stdair::BomRoot&, OnDPeriodStruct&);
00131
00132         template <typename ScannerT>
00133         struct definition {
00134             definition (OnDParser const& self);
00135
00136             // Instantiation of rules
00137             boost::spirit::classic::rule<ScannerT> ond_list, ond,

```

```

segment,
00138     ond_key, ond_end, date, time;
00139
00141     boost::spirit::classic::rule<ScannerT> const& start() const;
00142 };
00143
00144     // Parser Context
00145     stdair::BomRoot& _bomRoot;
00146     OnDPeriodStruct& _onDPeriod;
00147 };
00148 }
00149
00151 //
00152 // Entry class for the file parser
00153 //
00155
00161 class OnDPeriodFileParser : public stdair::CmdAbstract {
00162 public:
00164     OnDPeriodFileParser (const stdair::Filename_T& iFilename
00165 ,
                                stdair::BomRoot& ioBomRoot);
00166
00168     bool generateOnDPeriods ();
00169
00170 private:
00172     void init();
00173
00174 private:
00175     // Attributes
00177     stdair::Filename_T _filename;
00178
00180     iterator_t _startIterator;
00181
00183     iterator_t _endIterator;
00184
00186     stdair::BomRoot& _bomRoot;
00187
00189     OnDPeriodStruct _onDPeriod;
00190 };
00191
00192 }
00193 #endif // __AIRSCHED_CMD_ONDPARSERHELPER_HPP

```

## 24.99 airsched/command/OnDPeriodGenerator.cpp File Reference

```

#include <cassert>
#include <stdair/stdair_date_time_types.hpp>
#include <stdair/bom/BomManager.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <stdair/factory/FacBomManager.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/bom/OnDPeriodStruct.hpp>
#include <airsched/command/OnDPeriodGenerator.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

## 24.100 OnDPeriodGenerator.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/stdair_date_time_types.hpp>
00008 #include <stdair/bom/BomManager.hpp>
00009 #include <stdair/bom/BomRoot.hpp>
00010 #include <stdair/factory/FacBomManager.hpp>
00011 #include <stdair/service/Logger.hpp>
00012 // AirSched
00013 #include <airsched/bom/OnDPeriodStruct.hpp>

```

```

00014 #include <airsched/command/OnDPeriodGenerator.hpp>
00015 >
00016 namespace AIRSCHED {
00017
00018 // //////////////////////////////////////
00019 void OnDPeriodGenerator::
00020 createOnDPeriod (stdair::BomRoot& ioBomRoot,
00021                 const OnDPeriodStruct& iOnDPeriodStruct) {
00022 }
00023 }

```

## 24.101 airsched/command/OnDPeriodGenerator.hpp File Reference

```

#include <stdair/command/CmdAbstract.hpp>
#include <airsched/AIRSCHED_Types.hpp>

```

### Classes

- class [AIRSCHED::OnDPeriodGenerator](#)  
Class handling the generation / instantiation of the O&D-Period BOM.

### Namespaces

- namespace [stdair](#)  
Forward declarations.
- namespace [AIRSCHED](#)
- namespace [AIRSCHED::OnDParserHelper](#)

## 24.102 OnDPeriodGenerator.hpp

```

00001 #ifndef __AIRSCHED_CMD_ONDPERIODGENERATOR_HPP
00002 #define __AIRSCHED_CMD_ONDPERIODGENERATOR_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir
00008 #include <stdair/command/CmdAbstract.hpp>
00009 // AirSched
00010 #include <airsched/AIRSCHED_Types.hpp>
00011
00013 namespace stdair {
00014     class BomRoot;
00015 }
00016
00017 namespace AIRSCHED {
00018
00020     struct OnDPeriodStruct_T;
00021     namespace OnDParserHelper {
00022         struct doEndOnD;
00023     }
00024
00029     class OnDPeriodGenerator : public stdair::CmdAbstract {
00035         friend class OnDPeriodFileParser;
00036         friend struct OnDParserHelper::doEndOnD;
00037         friend class OnDParser;
00038
00039     private:
00048         static void createOnDPeriod (stdair::BomRoot&, const OnDPeriodStruct
00049     };
00050
00051 }
00052 #endif // __AIRSCHED_CMD_ONDPERIODGENERATOR_HPP

```

## 24.103 airsched/command/ScheduleParser.cpp File Reference

```

#include <cassert>
#include <string>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/command/SegmentPathGenerator.hpp>
#include <airsched/command/ScheduleParserHelper.hpp>
#include <airsched/command/ScheduleParser.hpp>

```

## Namespaces

- namespace [AIRSCHED](#)

## 24.104 ScheduleParser.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <string>
00007 // StdAir
00008 #include <stdair/basic/BasFileMgr.hpp>
00009 #include <stdair/bom/BomRoot.hpp>
00010 #include <stdair/service/Logger.hpp>
00011 // AirSched
00012 #include <airsched/command/SegmentPathGenerator.hpp>
00013 >
00014 #include <airsched/command/ScheduleParserHelper.hpp>
00015 >
00016 #include <airsched/command/ScheduleParser.hpp>
00017 >
00018 namespace AIRSCHED {
00019 // //////////////////////////////////////
00020 void ScheduleParser::generateInventories
00021 (const stdair::ScheduleFilePath& iScheduleFilename,
00022  stdair::BomRoot& ioBomRoot) {
00023     const stdair::Filename_T lFilename = iScheduleFilename.name();
00024     // Check that the file path given as input corresponds to an actual file
00025     const bool doesExistAndIsReadable =
00026         stdair::BasFileMgr::doesExistAndIsReadable (lFilename);
00027     if (doesExistAndIsReadable == false) {
00028         STDAIR_LOG_ERROR ("The schedule input file, '" << lFilename
00029             << "', can not be retrieved on the file-system");
00030         throw ScheduleInputFileNotFoundExpection
00031             ("The schedule file " + lFilename
00032              + " does not exist or can not "
00033              "be read");
00034     }
00035     // Initialise the Flight-Period file parser.
00036     FlightPeriodFileParser lFlightPeriodParser (ioBomRoot
00037         , lFilename);
00038     // Parse the CSV-formatted schedule input file, and generate the
00039     // corresponding inventories for the airlines.
00040     lFlightPeriodParser.generateInventories();
00041 }
00042 }
00043 }
00044 }
00045 }

```



## 24.105 airsched/command/ScheduleParser.hpp File Reference

```
#include <string>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/command/CmdAbstract.hpp>
#include <stdair/stdair_file.hpp>
```

## Classes

- class [AIRSCHED::ScheduleParser](#)

## Namespaces

- namespace [stdair](#)  
*Forward declarations.*
- namespace [AIRSCHED](#)

## 24.106 ScheduleParser.hpp

```
00001 #ifndef __AIRSCHED_CMD_SCHEDULEPARSER_HPP
00002 #define __AIRSCHED_CMD_SCHEDULEPARSER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>
00011 #include <stdair/command/CmdAbstract.hpp>
00012 #include <stdair/stdair_file.hpp>
00013
00014 // Forward declarations.
00015 namespace stdair {
00016     class BomRoot;
00017 }
00018
00019 namespace AIRSCHED {
00020
00022     class ScheduleParser : public stdair::CmdAbstract {
00023     public:
00029         static void generateInventories (const
stdair::ScheduleFilePath&,
stdair::BomRoot&);
00030
00031     };
00032 }
00033 #endif // __AIRSCHED_CMD_SCHEDULEPARSER_HPP
```

## 24.107 airsched/command/ScheduleParserHelper.cpp File Reference

```
#include <cassert>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/command/ScheduleParserHelper.hpp>
#include <airsched/command/InventoryGenerator.hpp>
```

## Namespaces

- namespace [AIRSCHED](#)
- namespace [AIRSCHED::ScheduleParserHelper](#)

## Functions

- repeat\_p\_t AIRSCHED::ScheduleParserHelper::airline\_code\_p (chset\_t("0-9A-Z").derived(), 2, 3)
- bounded1\_4\_p\_t AIRSCHED::ScheduleParserHelper::flight\_number\_p (uint1\_4\_p.derived(), 0u, 9999u)
- bounded4\_p\_t AIRSCHED::ScheduleParserHelper::year\_p (uint4\_p.derived(), 2000u, 2099u)
- bounded2\_p\_t AIRSCHED::ScheduleParserHelper::month\_p (uint2\_p.derived(), 1u, 12u)
- bounded2\_p\_t AIRSCHED::ScheduleParserHelper::day\_p (uint2\_p.derived(), 1u, 31u)
- repeat\_p\_t AIRSCHED::ScheduleParserHelper::dow\_p (chset\_t("0-1").derived().derived(), 7, 7)
- repeat\_p\_t AIRSCHED::ScheduleParserHelper::airport\_p (chset\_t("0-9A-Z").derived(), 3, 3)
- bounded2\_p\_t AIRSCHED::ScheduleParserHelper::hours\_p (uint2\_p.derived(), 0u, 23u)
- bounded2\_p\_t AIRSCHED::ScheduleParserHelper::minutes\_p (uint2\_p.derived(), 0u, 59u)
- bounded2\_p\_t AIRSCHED::ScheduleParserHelper::seconds\_p (uint2\_p.derived(), 0u, 59u)
- chset\_t AIRSCHED::ScheduleParserHelper::cabin\_code\_p ("A-Z")
- repeat\_p\_t AIRSCHED::ScheduleParserHelper::key\_p (chset\_t("0-9A-Z").derived(), 1, 10)
- repeat\_p\_t AIRSCHED::ScheduleParserHelper::class\_code\_list\_p (chset\_t("A-Z").derived(), 1, 26)

## Variables

- int1\_p\_t AIRSCHED::ScheduleParserHelper::int1\_p
- uint2\_p\_t AIRSCHED::ScheduleParserHelper::uint2\_p
- uint4\_p\_t AIRSCHED::ScheduleParserHelper::uint4\_p
- uint1\_4\_p\_t AIRSCHED::ScheduleParserHelper::uint1\_4\_p
- int1\_p\_t AIRSCHED::ScheduleParserHelper::family\_code\_p

## 24.108 ScheduleParserHelper.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/basic/BasFileMgr.hpp>
00008 #include <stdair/bom/BomRoot.hpp>
00009 #include <stdair/service/Logger.hpp>
00010 // AIRSCHED
00011 // #define BOOST_SPIRIT_DEBUG
00012 #include <airsched/command/ScheduleParserHelper.hpp>
00013 >
00014 #include <airsched/command/InventoryGenerator.hpp>
00015 >
00014 namespace bsc = boost::spirit::classic;
00016 namespace AIRSCHED {
00017     namespace ScheduleParserHelper {
00018     // //////////////////////////////////////
00019     // Semantic actions
00020     // //////////////////////////////////////
00021     ParserSemanticAction::
00022     ParserSemanticAction (FlightPeriodStruct
00023     & ioFlightPeriod)
00024     : _flightPeriod (ioFlightPeriod) {
00025     }
00026     // //////////////////////////////////////
00027     storeAirlineCode::
00028     storeAirlineCode (FlightPeriodStruct&
00029     ioFlightPeriod)
00030     : ParserSemanticAction (ioFlightPeriod) {
00031     }
00032     // //////////////////////////////////////
00033     void storeAirlineCode::operator() (iterator_t
00034     iStr,
00035     iterator_t iStrEnd) const {
00036     const stdair::AirlineCode_T lAirlineCode (iStr, iStrEnd);
00037     _flightPeriod._airlineCode = lAirlineCode;
00038     }

```

```

00041         //STDAIR_LOG_DEBUG ("Airline code: " << lAirlineCode);
00042
00043         // As that's the beginning of a new flight, the list of legs
00044         // must be reset
00045         _flightPeriod._legList.clear();
00046     }
00047
00048     // //////////////////////////////////////
00049     storeFlightNumber::
00050     storeFlightNumber (FlightPeriodStruct
00051 & ioFlightPeriod)
00052     : ParserSemanticAction (ioFlightPeriod) {
00053     }
00054
00055     // //////////////////////////////////////
00056     void storeFlightNumber::operator() (unsigned
00057 int iNumber) const {
00058         _flightPeriod._flightNumber = iNumber;
00059         //STDAIR_LOG_DEBUG ("Flight number: " << iNumber);
00060     }
00061
00062     // //////////////////////////////////////
00063     storeDateRangeStart::
00064     storeDateRangeStart (FlightPeriodStruct
00065 & ioFlightPeriod)
00066     : ParserSemanticAction (ioFlightPeriod) {
00067     }
00068
00069     // //////////////////////////////////////
00070     void storeDateRangeStart::operator() (
00071 iterator_t iStr,
00072                                     iterator_t iStrEnd) const {
00073         _flightPeriod._dateRangeStart = _flightPeriod
00074 .getDate();
00075
00076         // Reset the number of seconds
00077         _flightPeriod._itSeconds = 0;
00078     }
00079
00080     // //////////////////////////////////////
00081     storeDateRangeEnd::
00082     storeDateRangeEnd (FlightPeriodStruct
00083 & ioFlightPeriod)
00084     : ParserSemanticAction (ioFlightPeriod) {
00085     }
00086
00087     // //////////////////////////////////////
00088     void storeDateRangeEnd::operator() (
00089 iterator_t iStr,
00090                                     iterator_t iStrEnd) const {
00091         // As a Boost date period (DatePeriod_T) defines the last day of
00092         // the period to be end-date - one day, we have to add one day to that
00093         // end date before.
00094         const stdair::DateOffset_T oneDay (1);
00095         _flightPeriod._dateRangeEnd = _flightPeriod
00096 .getDate() + oneDay;
00097
00098         // Transform the date pair (i.e., the date range) into a date period
00099         _flightPeriod._dateRange =
00100         stdair::DatePeriod_T (_flightPeriod._dateRangeStart
00101 ,
00102                             _flightPeriod._dateRangeEnd
00103 );
00104
00105         // Reset the number of seconds
00106         _flightPeriod._itSeconds = 0;
00107
00108         // Set the (default) operating airline and flight number
00109         _flightPeriod._itLeg._airlineCode =
00110         _flightPeriod._airlineCode;
00111         _flightPeriod._itLeg._flightNumber =
00112         _flightPeriod._flightNumber;
00113     }
00114
00115     // //////////////////////////////////////
00116     storeDow::storeDow (FlightPeriodStruct&
00117 ioFlightPeriod)
00118     : ParserSemanticAction (ioFlightPeriod) {
00119     }
00120
00121     // //////////////////////////////////////
00122     void storeDow::operator() (iterator_t iStr,
00123 iterator_t iStrEnd) const {
00124         stdair::DOW_String_T lDow (iStr, iStrEnd);
00125         _flightPeriod._dow = lDow;
00126         //STDAIR_LOG_DEBUG ("DOW: " << lDow);
00127     }

```

```

00114
00115 ///////////////////////////////////////////////////////////////////
00116     storeLegBoardingPoint::
00117     storeLegBoardingPoint (FlightPeriodStruct
00118 & ioFlightPeriod)
00119     : ParserSemanticAction (ioFlightPeriod) {
00120     }
00121 ///////////////////////////////////////////////////////////////////
00122     void storeLegBoardingPoint::operator() (
00123     iterator_t iStr,
00124                                     iterator_t iStrEnd) const
00125     {
00126         stdair::AirportCode_T lBoardingPoint (iStr, iStrEnd);
00127         // If a leg has already been parsed, add it to the FlightPeriod
00128         if (_flightPeriod._legAlreadyDefined ==
00129 true) {
00130             _flightPeriod._legList.push_back (_flightPeriod
00131 ._itLeg);
00132         } else {
00133             _flightPeriod._legAlreadyDefined = true;
00134         }
00135         // Set the (new) boarding point
00136         _flightPeriod._itLeg._boardingPoint =
00137 lBoardingPoint;
00138         // As that's the beginning of a new leg, the list of cabins
00139         // must be reset
00140         _flightPeriod._itLeg._cabinList.clear();
00141         // Add the airport code if it is not already stored in the airport lists
00142         _flightPeriod.addAirport (lBoardingPoint);
00143     }
00144 ///////////////////////////////////////////////////////////////////
00145     storeLegOffPoint::
00146     storeLegOffPoint (FlightPeriodStruct&
00147 ioFlightPeriod)
00148     : ParserSemanticAction (ioFlightPeriod) {
00149     }
00150 ///////////////////////////////////////////////////////////////////
00151     void storeLegOffPoint::operator() (iterator_t
00152 iStr,
00153                                     iterator_t iStrEnd) const {
00154         stdair::AirportCode_T lOffPoint (iStr, iStrEnd);
00155         _flightPeriod._itLeg._offPoint = lOffPoint;
00156         // Add the airport code if it is not already stored in the airport lists
00157         _flightPeriod.addAirport (lOffPoint);
00158     }
00159 ///////////////////////////////////////////////////////////////////
00160     storeOperatingAirlineCode::
00161     storeOperatingAirlineCode (FlightPeriodStruct
00162 & ioFlightPeriod)
00163     : ParserSemanticAction (ioFlightPeriod) {
00164     }
00165 ///////////////////////////////////////////////////////////////////
00166     void storeOperatingAirlineCode::operator()
00167 (iterator_t iStr,
00168                                     iterator_t iStrEnd)
00169     const {
00170         const stdair::AirlineCode_T lAirlineCode (iStr, iStrEnd);
00171         if (lAirlineCode.size() == 2) {
00172             _flightPeriod._itLeg._airlineCode =
00173 lAirlineCode;
00174         }
00175         //STDAIR_LOG_DEBUG ("Airline code: " << lAirlineCode);
00176     }
00177 ///////////////////////////////////////////////////////////////////
00178     storeOperatingFlightNumber::
00179     storeOperatingFlightNumber (
00180 FlightPeriodStruct& ioFlightPeriod)
00181     : ParserSemanticAction (ioFlightPeriod) {
00182     }
00183 ///////////////////////////////////////////////////////////////////
00184     void storeOperatingFlightNumber::operator()
00185 (unsigned int iNumber) const {
00186         _flightPeriod._itLeg._flightNumber =
00187 iNumber;

```

```

00186         //STDAIR_LOG_DEBUG ("Flight number: " << iNumber);
00187     }
00188
00189     // //////////////////////////////////////
00190     storeBoardingTime::
00191     storeBoardingTime (FlightPeriodStruct
& ioFlightPeriod)
00192     : ParserSemanticAction (ioFlightPeriod) {
00193     }
00194
00195     // //////////////////////////////////////
00196     void storeBoardingTime::operator() (
iterator_t iStr,
00197                                     iterator_t iStrEnd) const {
00198         _flightPeriod._itLeg._boardingTime =
_flightPeriod.getTime();
00199
00200         // Reset the number of seconds
00201         _flightPeriod._itSeconds = 0;
00202
00203         // Reset the date off-set
00204         _flightPeriod._dateOffset = 0;
00205     }
00206
00207     // //////////////////////////////////////
00208     storeOffTime::
00209     storeOffTime (FlightPeriodStruct&
ioFlightPeriod)
00210     : ParserSemanticAction (ioFlightPeriod) {
00211     }
00212
00213     // //////////////////////////////////////
00214     void storeOffTime::operator() (iterator_t
iStr,
00215                                     iterator_t iStrEnd) const {
00216         _flightPeriod._itLeg._offTime = _flightPeriod
.getTime();
00217
00218         // Reset the number of seconds
00219         _flightPeriod._itSeconds = 0;
00220
00221         // As the boarding date off set is optional, it can be set only
00222         // afterwards, based on the staging date off-set value
00223         // (_flightPeriod._dateOffset).
00224         const stdair::DateOffset_T lDateOffset (_flightPeriod.
_dateOffset);
00225         _flightPeriod._itLeg._boardingDateOffset
= lDateOffset;
00226     }
00227
00228     // //////////////////////////////////////
00229     storeElapsedTime::
00230     storeElapsedTime (FlightPeriodStruct&
ioFlightPeriod)
00231     : ParserSemanticAction (ioFlightPeriod) {
00232     }
00233
00234     // //////////////////////////////////////
00235     void storeElapsedTime::operator() (iterator_t
iStr,
00236                                     iterator_t iStrEnd) const {
00237         _flightPeriod._itLeg._elapsed = _flightPeriod
.getTime();
00238
00239         // Reset the number of seconds
00240         _flightPeriod._itSeconds = 0;
00241
00242         // As the boarding date off set is optional, it can be set only
00243         // afterwards, based on the staging date off-set value
00244         // (_flightPeriod._dateOffset).
00245         const stdair::DateOffset_T lDateOffset (_flightPeriod.
_dateOffset);
00246         _flightPeriod._itLeg._offDateOffset =
lDateOffset;
00247     }
00248
00249     // //////////////////////////////////////
00250     storeLegCabinCode::
00251     storeLegCabinCode (FlightPeriodStruct
& ioFlightPeriod)
00252     : ParserSemanticAction (ioFlightPeriod) {
00253     }
00254
00255     // //////////////////////////////////////
00256     void storeLegCabinCode::operator() (char
iChar) const {
00257         _flightPeriod._itLegCabin._cabinCode =

```

```

iChar;
00258 //STDAIR_LOG_DEBUG ("Cabin code: " << iChar);
00259 }
00260
00261 // //////////////////////////////////////
00262 storeCapacity::
00263 storeCapacity (FlightPeriodStruct&
ioFlightPeriod)
00264 : ParserSemanticAction (ioFlightPeriod) {
00265 }
00266
00267 // //////////////////////////////////////
00268 void storeCapacity::operator() (double iReal)
const {
00269 _flightPeriod._itLegCabin._capacity =
iReal;
00270 //STDAIR_LOG_DEBUG ("Capacity: " << iReal);
00271
00272 // The capacity is the last (according to the arrival order
00273 // within the schedule input file) detail of the leg cabin. Hence,
00274 // when a capacity is parsed, it means that the full cabin
00275 // details have already been parsed as well: the cabin can
00276 // thus be added to the leg.
00277 _flightPeriod._itLeg._cabinList.push_back (
_flightPeriod._itLegCabin);
00278 }
00279
00280 // //////////////////////////////////////
00281 storeSegmentSpecificity::
00282 storeSegmentSpecificity (FlightPeriodStruct
& ioFlightPeriod)
00283 : ParserSemanticAction (ioFlightPeriod) {
00284 }
00285
00286 // //////////////////////////////////////
00287 void storeSegmentSpecificity::operator()
(char iChar) const {
00288 if (iChar == '0') {
00289 _flightPeriod._areSegmentDefinitionsSpecific
= false;
00290 } else {
00291 _flightPeriod._areSegmentDefinitionsSpecific
= true;
00292 }
00293
00294 // Do a few sanity checks: the two lists should get exactly the same
00295 // content (in terms of airport codes). The only difference is that one
00296 // is a STL set, and the other a STL vector.
00297 assert (_flightPeriod._airportList.size()
== _flightPeriod._airportOrderedList
.size());
00298 assert (_flightPeriod._airportList.size() >= 2);
00300
00301 // Since all the legs have now been parsed, we get all the airports
00302 // and the segments may be built.
00303 _flightPeriod.buildSegments();
00304 }
00305
00306 // //////////////////////////////////////
00307 storeSegmentBoardingPoint::
00308 storeSegmentBoardingPoint (FlightPeriodStruct
& ioFlightPeriod)
00309 : ParserSemanticAction (ioFlightPeriod) {
00310 }
00311
00312 // //////////////////////////////////////
00313 void storeSegmentBoardingPoint::operator()
(iterator_t iStr,
iterator_t iStrEnd)
const {
00315 stdair::AirportCode_T lBoardingPoint (iStr, iStrEnd);
00316 _flightPeriod._itSegment._boardingPoint
= lBoardingPoint;
00317 }
00318
00319 // //////////////////////////////////////
00320 storeSegmentOffPoint::
00321 storeSegmentOffPoint (FlightPeriodStruct
& ioFlightPeriod)
00322 : ParserSemanticAction (ioFlightPeriod) {
00323 }
00324
00325 // //////////////////////////////////////
00326 void storeSegmentOffPoint::operator() (
iterator_t iStr,
iterator_t iStrEnd) const
{

```

```

00328     stdair::AirportCode_T lOffPoint (iStr, iStrEnd);
00329     _flightPeriod._itSegment._offPoint =
00330     lOffPoint;
00331 }
00332 // //////////////////////////////////////
00333 storeSegmentCabinCode::
00334 storeSegmentCabinCode (FlightPeriodStruct
00335 & ioFlightPeriod)
00336 : ParserSemanticAction (ioFlightPeriod) {
00337 }
00338 // //////////////////////////////////////
00339 void storeSegmentCabinCode::operator() (
00340 char iChar) const {
00341     _flightPeriod._itSegmentCabin._cabinCode
00342     = iChar;
00343 }
00344 // //////////////////////////////////////
00345 storeClasses::
00346 storeClasses (FlightPeriodStruct&
00347 ioFlightPeriod)
00348 : ParserSemanticAction (ioFlightPeriod) {
00349 }
00350 // //////////////////////////////////////
00351 void storeClasses::operator() (iterator_t
00352 iStr,
00353                               iterator_t iStrEnd) const {
00354     std::string lClasses (iStr, iStrEnd);
00355     _flightPeriod._itSegmentCabin._classes
00356     = lClasses;
00357 // The list of classes is the last (according to the arrival order
00358 // within the schedule input file) detail of the segment cabin. Hence,
00359 // when a list of classes is parsed, it means that the full segment
00360 // cabin details have already been parsed as well: the segment cabin
00361 // can thus be added to the segment.
00362 if (_flightPeriod._areSegmentDefinitionsSpecific
00363 == true) {
00364     _flightPeriod.addSegmentCabin (
00365     _flightPeriod._itSegment,
00366     _flightPeriod.
00367     _itSegmentCabin);
00368 } else {
00369     _flightPeriod.addSegmentCabin (
00370     _flightPeriod._itSegmentCabin);
00371 }
00372 }
00373 // //////////////////////////////////////
00374 storeFamilyCode::
00375 storeFamilyCode (FlightPeriodStruct&
00376 ioFlightPeriod)
00377 : ParserSemanticAction (ioFlightPeriod) {
00378 }
00379 // //////////////////////////////////////
00380 void storeFamilyCode::operator() (int iCode)
00381 const {
00382     std::ostringstream ostr;
00383     ostr << iCode;
00384     _flightPeriod._itSegmentCabin._itFamilyCode
00385     = ostr.str();
00386 }
00387 // //////////////////////////////////////
00388 storeFRAT5CurveKey::
00389 storeFRAT5CurveKey (FlightPeriodStruct
00390 & ioFlightPeriod)
00391 : ParserSemanticAction (ioFlightPeriod) {
00392 }
00393 // //////////////////////////////////////
00394 void storeFRAT5CurveKey::operator() (
00395 iterator_t iStr,
00396                               iterator_t iStrEnd) const {
00397     const std::string lKey (iStr, iStrEnd);
00398     _flightPeriod._itSegmentCabin.
00399     _itFRAT5CurveKey = lKey;
00400     //STDAIR_LOG_DEBUG ("FRAT5 key: " << lKey);
00401 }
00402 // //////////////////////////////////////
00403 storeFFDisutilityCurveKey::
00404 storeFFDisutilityCurveKey (FlightPeriodStruct

```

```

    & ioFlightPeriod)
00398     : ParserSemanticAction (ioFlightPeriod) {
00399     }
00400
00401     // //////////////////////////////////////
00402     void storeFFDisutilityCurveKey::operator()
00403     (iterator_t iStr,                                     iterator_t iStrEnd)
00404     const {
00405         const std::string lKey (iStr, iStrEnd);
00406         _flightPeriod._itSegmentCabin.
00407         _itFFDisutilityCurveKey = lKey;
00408     }
00409     // //////////////////////////////////////
00410     storeFCClasses::
00411     storeFCClasses (FlightPeriodStruct&
00412     ioFlightPeriod)
00413     : ParserSemanticAction (ioFlightPeriod) {
00414     }
00415     // //////////////////////////////////////
00416     void storeFCClasses::operator() (iterator_t
00417     iStr,                                     iterator_t iStrEnd) const {
00418         std::string lClasses (iStr, iStrEnd);
00419         FareFamilyStruct lFareFamily(_flightPeriod.
00420         _itSegmentCabin._itFamilyCode,
00421         _flightPeriod._itSegmentCabin
00422         ._itFRAT5CurveKey,
00423         _flightPeriod._itSegmentCabin
00424         ._itFFDisutilityCurveKey,
00425         lClasses);
00426
00427         // The list of classes is the last (according to the arrival order
00428         // within the schedule input file) detail of the segment cabin. Hence,
00429         // when a list of classes is parsed, it means that the full segment
00430         // cabin details have already been parsed as well: the segment cabin
00431         // can thus be added to the segment.
00432         if (_flightPeriod._areSegmentDefinitionsSpecific
00433         == true) {
00434             _flightPeriod.addFareFamily (_flightPeriod
00435             ._itSegment,
00436             _flightPeriod._itSegmentCabin
00437             ,
00438             lFareFamily);
00439         } else {
00440             _flightPeriod.addFareFamily (_flightPeriod
00441             ._itSegmentCabin,
00442             lFareFamily);
00443         }
00444     }
00445     // //////////////////////////////////////
00446     doEndFlight::
00447     doEndFlight (stdair::BomRoot& ioBomRoot,
00448     FlightPeriodStruct& ioFlightPeriod)
00449     : ParserSemanticAction (ioFlightPeriod),
00450     _bomRoot (ioBomRoot) {
00451     }
00452     // //////////////////////////////////////
00453     // void doEndFlight::operator() (char iChar) const {
00454     void doEndFlight::operator() (iterator_t
00455     iStr,                                     iterator_t iStrEnd) const {
00456         assert (_flightPeriod._legAlreadyDefined
00457         == true);
00458         _flightPeriod._legList.push_back (_flightPeriod
00459         ._itLeg);
00460
00461         // The lists of legs and cabins must be reset
00462         _flightPeriod._legAlreadyDefined = false;
00463         _flightPeriod._itLeg._cabinList.clear();
00464
00465         // DEBUG: Display the result
00466         STDAIR_LOG_DEBUG ("FlightPeriod: " << _flightPeriod.describe
00467         ());
00468
00469         // Create the FlightPeriod BOM objects, and potentially the intermediary
00470         // objects (e.g., Inventory).
00471         InventoryGenerator::createFlightPeriod (_bomRoot, _flightPeriod
00472         );
00473     }
00474 }
00475
00476
00477

```



```

00467 // //////////////////////////////////////
00468 //
00469 //   Utility Parsers
00470 //
00471 // //////////////////////////////////////
00473 int1_p_t int1_p;
00474
00476 uint2_p_t uint2_p;
00477
00479 uint4_p_t uint4_p;
00480
00482 uint1_4_p_t uint1_4_p;
00483
00485 repeat_p_t airline_code_p (chset_t("0-9A-Z")
.derived(), 2, 3);
00486
00488 bounded1_4_p_t flight_number_p (uint1_4_p
.derived(), 0u, 9999u);
00489
00491 bounded4_p_t year_p (uint4_p.derived(), 2000u,
2099u);
00492
00494 bounded2_p_t month_p (uint2_p.derived(), 1u, 12u)
;
00495
00497 bounded2_p_t day_p (uint2_p.derived(), 1u, 31u);
00498
00500 repeat_p_t dow_p (chset_t("0-1").derived().derived(),
7, 7);
00501
00503 repeat_p_t airport_p (chset_t("0-9A-Z").derived()
, 3, 3);
00504
00506 bounded2_p_t hours_p (uint2_p.derived(), 0u, 23u)
;
00507
00509 bounded2_p_t minutes_p (uint2_p.derived(), 0u,
59u);
00510
00512 bounded2_p_t seconds_p (uint2_p.derived(), 0u,
59u);
00513
00515 chset_t cabin_code_p ("A-Z");
00516
00518 int1_p_t family_code_p;
00519
00521 repeat_p_t key_p (chset_t("0-9A-Z").derived(), 1, 10)
;
00522
00524 repeat_p_t class_code_list_p (chset_t("
A-Z").derived(), 1, 26);
00525
00526
00527 // //////////////////////////////////////
00528 //   (Boost Spirit) Grammar Definition
00529 //   //////////////////////////////////////
00530
00531 // //////////////////////////////////////
00532 FlightPeriodParser::
00533 FlightPeriodParser (stdair::BomRoot& ioBomRoot,
FlightPeriodStruct& ioFlightPeriod)
00534 : _bomRoot (ioBomRoot),
00536 _flightPeriod (ioFlightPeriod) {
00537 }
00538
00539 // //////////////////////////////////////
00540 template<typename ScannerT>
00541 FlightPeriodParser::definition<ScannerT>::
00542 definition (FlightPeriodParser const& self)
{
00543
00544     flight_period_list = *(not_to_be_parsed
| flight_period )
00545     ;
00546
00547     not_to_be_parsed = bsc::
lexeme_d[bsc::comment_p("//") | bsc::comment_p("/*", "*/")
| bsc::eol_p];
00548
00549     flight_period = flight_key
>> +( ';> leg )
00550 >> ';> segment_section
00551 >> flight_period_end[doEndFlight (self._bomRoot, self.
_flightPeriod)]
00552 ;
00553
00554     flight_period_end =

```

```

00559         bsc::ch_p(';')
00560         ;
00561
00562         flight_key = airline_code
00563         >> ';' >> flight_number
00564         >> ';' >> date[storeDateRangeStart(self.
_flightPeriod)]
00565         >> ';' >> date[storeDateRangeEnd(self._flightPeriod)]
00566         >> ';' >> dow[storeDow(self._flightPeriod)]
00567         ;
00568
00569         airline_code =bsc::
00570         lexeme_d[ (airline_code_p) [storeAirlineCode
(self._flightPeriod)] ]
00571         ;
00572
00573         flight_number =bsc::
00574         lexeme_d[ (flight_number_p) [storeFlightNumber
(self._flightPeriod)] ]
00575         ;
00576
00577         date =bsc::
00578         lexeme_d[ (year_p) [bsc::assign_a(self._flightPeriod._itYear)]
00579         >> '-'
00580         >> (month_p) [bsc::assign_a(self._flightPeriod._itMonth)
]
00581         >> '-'
00582         >> (day_p) [bsc::assign_a(self._flightPeriod._itDay)]
00583         ]
00584         ;
00585
00586         dow =bsc::lexeme_d[ dow_p ]
00587         ;
00588
00589         leg = !( operating_leg_details >> ';' )
00590         >> leg_key
00591         >> ';' >> leg_details
00592         >> +( ';' >> leg_cabin_details )
00593         ;
00594
00595         leg_key = (airport_p) [storeLegBoardingPoint
(self._flightPeriod)]
00596         >> ';'
00597         >> (airport_p) [storeLegOffPoint(self.
_flightPeriod)]
00598         ;
00599
00600         operating_leg_details =
00601         bsc::lexeme_d[ (airline_code_p) [storeOperatingAirlineCode
(self._flightPeriod)] ]
00602         >> ";"
00603         >> bsc::lexeme_d[ (flight_number_p) [
storeOperatingFlightNumber(self._flightPeriod)] ]
00604         ;
00605
00606         leg_details =
00607         time[storeBoardingTime(self._flightPeriod)]
00608         >> !(date_offset)
00609         >> ';'
00610         >> time[storeOffTime(self._flightPeriod)]
00611         >> !(date_offset)
00612         >> ';'
00613         >> time[storeElapsedTime(self._flightPeriod)]
00614         ;
00615
00616         time =bsc::
00617         lexeme_d[ (hours_p) [bsc::assign_a(self._flightPeriod._itHours)]
00618         >> ':'
00619         >> (minutes_p) [bsc::assign_a(self._flightPeriod.
_itMinutes)]
00620         >> !(':'
00621         >> (seconds_p) [bsc::assign_a(self._flightPeriod.
_itSeconds)])
00622         ]
00623         ;
00624
00625         date_offset =bsc::ch_p('/')
00626         >> (int1_p) [bsc::assign_a(self._flightPeriod._dateOffset)]
00627         ;
00628
00629         leg_cabin_details = (cabin_code_p) [storeLegCabinCode
(self._flightPeriod)]
00630         >> ';' >> (bsc::ureal_p) [storeCapacity(self._flightPeriod)
]
00631         ;
00632
00633         segment_key =

```

```

00634         (airport_p)[storeSegmentBoardingPoint
(self._flightPeriod)]
00635         >> ',';
00636         >> (airport_p)[storeSegmentOffPoint(self.
_flightPeriod)]
00637         ;
00638
00639         segment_section =
00640         generic_segment | specific_segment_list
00641         ;
00642
00643         generic_segment =bsc::
00644         ch_p('0')[storeSegmentSpecificity(self.
_flightPeriod)]
00645         >> +(','; >> segment_cabin_details)
00646         ;
00647
00648         specific_segment_list =bsc::
00649         ch_p('1')[storeSegmentSpecificity(self.
_flightPeriod)]
00650         >> +(','; >> segment_key >> full_segment_cabin_details)
00651         ;
00652
00653         full_segment_cabin_details =
00654         +(','; >> segment_cabin_details)
00655         ;
00656
00657         segment_cabin_details =
00658         (cabin_code_p)[storeSegmentCabinCode(
self._flightPeriod)]
00659         >> ','; >> (class_code_list_p)[storeClasses
(self._flightPeriod)]
00660         >> *(','; >> family_cabin_details)
00661         ;
00662
00663         family_cabin_details =
00664         (family_code_p)[storeFamilyCode(self.
_flightPeriod)]
00665         >> ',';
00666         >> (key_p)[storeFRAT5CurveKey(self._flightPeriod
)]
00667         >> ',';
00668         >> (key_p)[storeFFDisutilityCurveKey(self
._flightPeriod)]
00669         >> ',';
00670         >> (class_code_list_p)[storeFCClasses(self
._flightPeriod)]
00671         ;
00672
00673         // BOOST_SPIRIT_DEBUG_NODE (FlightPeriodParser);
00674         BOOST_SPIRIT_DEBUG_NODE (flight_period_list);
00675         BOOST_SPIRIT_DEBUG_NODE (flight_period);
00676         BOOST_SPIRIT_DEBUG_NODE (not_to_be_parsed);
00677         BOOST_SPIRIT_DEBUG_NODE (flight_period_end);
00678         BOOST_SPIRIT_DEBUG_NODE (flight_key);
00679         BOOST_SPIRIT_DEBUG_NODE (airline_code);
00680         BOOST_SPIRIT_DEBUG_NODE (flight_number);
00681         BOOST_SPIRIT_DEBUG_NODE (date);
00682         BOOST_SPIRIT_DEBUG_NODE (dow);
00683         BOOST_SPIRIT_DEBUG_NODE (leg);
00684         BOOST_SPIRIT_DEBUG_NODE (leg_key);
00685         BOOST_SPIRIT_DEBUG_NODE (leg_details);
00686         BOOST_SPIRIT_DEBUG_NODE (time);
00687         BOOST_SPIRIT_DEBUG_NODE (date_offset);
00688         BOOST_SPIRIT_DEBUG_NODE (leg_cabin_details);
00689         BOOST_SPIRIT_DEBUG_NODE (segment_section);
00690         BOOST_SPIRIT_DEBUG_NODE (segment_key);
00691         BOOST_SPIRIT_DEBUG_NODE (generic_segment);
00692         BOOST_SPIRIT_DEBUG_NODE (specific_segment_list);
00693         BOOST_SPIRIT_DEBUG_NODE (full_segment_cabin_details);
00694         BOOST_SPIRIT_DEBUG_NODE (segment_cabin_details);
00695         BOOST_SPIRIT_DEBUG_NODE (family_cabin_details);
00696     }
00697
00698     // ////////////////////////////////////////////
00699     template<typename ScannerT>
00700     bsc::rule<ScannerT> const&
00701     FlightPeriodParser::definition<ScannerT>::start
00702     () const {
00703         return flight_period_list;
00704     }
00705 }
00706
00707 //
00708 // Entry class for the file parser

```

```

00711 //
00713
00714 // //////////////////////////////////////
00715 FlightPeriodFileParser::
00716 FlightPeriodFileParser (stdair::BomRoot& ioBomRoot,
00717                         const stdair::Filename_T& iFilename)
00718 : _filename (iFilename), _bomRoot (ioBomRoot) {
00719     init();
00720 }
00721
00722 // //////////////////////////////////////
00723 void FlightPeriodFileParser::init() {
00724     // Check that the file exists and is readable
00725     const bool doesExistAndIsReadable =
00726         stdair::BasFileMgr::doesExistAndIsReadable (_filename);
00727
00728     if (doesExistAndIsReadable == false) {
00729         STDAIR_LOG_ERROR ("The schedule file " << _filename
00730             << " does not exist or can not be read.");
00731
00732         throw ScheduleInputFileNotFoundException
00733             ("The schedule file " + _filename
00734             + " does not exist or can not
00735             be read");
00736     }
00737
00738     // Open the file
00739     _startIterator = iterator_t (_filename);
00740
00741     // Check the filename exists and can be open
00742     if (!_startIterator) {
00743         STDAIR_LOG_ERROR ("The schedule file " << _filename << " can not be open.
00744         "
00745             << std::endl);
00746
00747         throw ScheduleInputFileNotFoundException ("The file " + _filename
00748             + " does not exist or can not
00749             be read");
00750     }
00751
00752     // Create an EOF iterator
00753     _endIterator = _startIterator.make_end();
00754 }
00755
00756 // //////////////////////////////////////
00757 bool FlightPeriodFileParser::generateInventories
00758 () {
00759     bool oResult = false;
00760
00761     STDAIR_LOG_DEBUG ("Parsing schedule input file: " << _filename);
00762
00763     // Initialise the parser (grammar) with the helper/staging structure.
00764     ScheduleParserHelper::FlightPeriodParser
00765     lFPParser (_bomRoot,
00766               _flightPeriod);
00767
00768     // Launch the parsing of the file and, thanks to the doEndFlight
00769     // call-back structure, the building of the whole BomRoot BOM
00770     // (i.e., including Inventory, FlightDate, LegDate, SegmentDate, etc.)
00771     bsc::parse_info<iterator_t> info =
00772         bsc::parse (_startIterator, _endIterator, lFPParser,
00773             bsc::space_p - bsc::eol_p);
00774
00775     // Retrieves whether or not the parsing was successful
00776     oResult = info.hit;
00777
00778     const std::string hasBeenFullyReadStr = (info.full == true) ? "":"not ";
00779     if (oResult == true) {
00780         STDAIR_LOG_DEBUG ("Parsing of schedule input file: " << _filename
00781             << " succeeded: read " << info.length
00782             << " characters. The input file has "
00783             << hasBeenFullyReadStr
00784             << "been fully read. Stop point: " << info.stop);
00785     } else {
00786         // TODO: decide whether to throw an exception
00787         STDAIR_LOG_ERROR ("Parsing of schedule input file: " << _filename
00788             << " failed: read " << info.length
00789             << " characters. The input file has "
00790             << hasBeenFullyReadStr
00791             << "been fully read. Stop point: " << info.stop);
00792     }
00793
00794     return oResult;
00795 }
00796
00797 }
00798
00799 }

```

## 24.109 airsched/command/ScheduleParserHelper.hpp File Reference

```
#include <string>
#include <stdair/command/CmdAbstract.hpp>
#include <airsched/AIRSCHEDED_Types.hpp>
#include <airsched/basic/BasParserTypes.hpp>
#include <airsched/bom/FlightPeriodStruct.hpp>
```

### Classes

- struct [AIRSCHEDED::ScheduleParserHelper::ParserSemanticAction](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeAirlineCode](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeFlightNumber](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeDateRangeStart](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeDateRangeEnd](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeDow](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeLegBoardingPoint](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeLegOffPoint](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeOperatingAirlineCode](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeOperatingFlightNumber](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeBoardingTime](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeOffTime](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeElapsedTime](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeLegCabinCode](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeCapacity](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeSegmentSpecificity](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeSegmentBoardingPoint](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeSegmentOffPoint](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeSegmentCabinCode](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeClasses](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeFamilyCode](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeFRAT5CurveKey](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeFFDisutilityCurveKey](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeFCClasses](#)
- struct [AIRSCHEDED::ScheduleParserHelper::doEndFlight](#)
- struct [AIRSCHEDED::ScheduleParserHelper::FlightPeriodParser](#)
- struct [AIRSCHEDED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >](#)
- class [AIRSCHEDED::FlightPeriodFileParser](#)

### Namespaces

- namespace [stdair](#)
  - *Forward declarations.*
- namespace [AIRSCHEDED](#)
- namespace [AIRSCHEDED::ScheduleParserHelper](#)

## 24.110 ScheduleParserHelper.hpp

```

00001 #ifndef __AIRSCHED_CMD_SCHEDULEPARSERHELPER_HPP
00002 #define __AIRSCHED_CMD_SCHEDULEPARSERHELPER_HPP
00003
00004 // ////////////////////////////////////////
00005 // Import section
00006 // ////////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/command/CmdAbstract.hpp>
00011 // AirSched
00012 #include <airsched/AIRSCHED_Types.hpp>
00013 #include <airsched/basic/BasParserTypes.hpp>
00014 #include <airsched/bom/FlightPeriodStruct.hpp>
00015 >
00016 // Forward declarations
00017 namespace stdair {
00018     class BomRoot;
00019 }
00020
00021 namespace AIRSCHED {
00022
00023     namespace ScheduleParserHelper {
00024
00025         // ////////////////////////////////////////
00026         // Semantic actions
00027         // ////////////////////////////////////////
00029         struct ParserSemanticAction {
00031             ParserSemanticAction (FlightPeriodStruct
00033 &);
00034             FlightPeriodStruct& _flightPeriod;
00035         };
00037         struct storeAirlineCode : public ParserSemanticAction
00039         {
00041             storeAirlineCode (FlightPeriodStruct&);
00042             void operator() (iterator_t iStr, iterator_t
00043 iStrEnd) const;
00044         };
00045         struct storeFlightNumber : public ParserSemanticAction
00047         {
00049             storeFlightNumber (FlightPeriodStruct&
00050 );
00051             void operator() (unsigned int iNumber) const;
00052         };
00053         struct storeDateRangeStart : public ParserSemanticAction
00055         {
00057             storeDateRangeStart (FlightPeriodStruct
00058 &);
00059             void operator() (iterator_t iStr, iterator_t
00060 iStrEnd) const;
00061         };
00062         struct storeDateRangeEnd : public ParserSemanticAction
00063         {
00065             storeDateRangeEnd (FlightPeriodStruct&
00066 );
00067             void operator() (iterator_t iStr, iterator_t
00068 iStrEnd) const;
00069         };
00070         struct storeDow : public ParserSemanticAction {
00071             storeDow (FlightPeriodStruct&);
00072             void operator() (iterator_t iStr, iterator_t
00073 iStrEnd) const;
00074         };
00075         struct storeLegBoardingPoint : public
00076 ParserSemanticAction {
00077             storeLegBoardingPoint (FlightPeriodStruct
00078 &);
00079             void operator() (iterator_t iStr, iterator_t
00080 iStrEnd) const;
00081         };
00082         struct storeLegOffPoint : public ParserSemanticAction
00083         {
00085             storeLegOffPoint (FlightPeriodStruct&);
00086             void operator() (iterator_t iStr, iterator_t
00087 iStrEnd) const;
00088         };
00089         struct storeLegOffPoint : public ParserSemanticAction
00090         {
00091             storeLegOffPoint (FlightPeriodStruct&);
00092             void operator() (iterator_t iStr, iterator_t
00093 iStrEnd) const;
00094         };
00095     }
00096 }
00097
00098 #endif

```

```

00093     struct storeOperatingAirlineCode : public
ParserSemanticAction {
00095         storeOperatingAirlineCode (FlightPeriodStruct
&);
00097         void operator() (iterator_t iStr, iterator_t
iStrEnd) const;
00098     };
00099
00101     struct storeOperatingFlightNumber : public
ParserSemanticAction {
00103         storeOperatingFlightNumber (FlightPeriodStruct
&);
00105         void operator() (unsigned int iNumber) const;
00106     };
00107
00109     struct storeBoardingTime : public ParserSemanticAction
{
00111         storeBoardingTime (FlightPeriodStruct&
);
00113         void operator() (iterator_t iStr, iterator_t
iStrEnd) const;
00114     };
00115
00117     struct storeOffTime : public ParserSemanticAction
{
00119         storeOffTime (FlightPeriodStruct&);
00121         void operator() (iterator_t iStr, iterator_t
iStrEnd) const;
00122     };
00123
00125     struct storeElapsedTime : public ParserSemanticAction
{
00127         storeElapsedTime (FlightPeriodStruct&);
00129         void operator() (iterator_t iStr, iterator_t
iStrEnd) const;
00130     };
00131
00133     struct storeLegCabinCode : public ParserSemanticAction
{
00135         storeLegCabinCode (FlightPeriodStruct&
);
00137         void operator() (char iChar) const;
00138     };
00139
00141     struct storeCapacity : public ParserSemanticAction
{
00143         storeCapacity (FlightPeriodStruct&);
00145         void operator() (double iReal) const;
00146     };
00147
00152     struct storeSegmentSpecificity : public
ParserSemanticAction {
00154         storeSegmentSpecificity (FlightPeriodStruct
&);
00156         void operator() (char iChar) const;
00157     };
00158
00160     struct storeSegmentBoardingPoint : public
ParserSemanticAction {
00162         storeSegmentBoardingPoint (FlightPeriodStruct
&);
00164         void operator() (iterator_t iStr, iterator_t
iStrEnd) const;
00165     };
00166
00168     struct storeSegmentOffPoint : public
ParserSemanticAction {
00170         storeSegmentOffPoint (FlightPeriodStruct
&);
00172         void operator() (iterator_t iStr, iterator_t
iStrEnd) const;
00173     };
00174
00176     struct storeSegmentCabinCode : public
ParserSemanticAction {
00178         storeSegmentCabinCode (FlightPeriodStruct
&);
00180         void operator() (char iChar) const;
00181     };
00182
00184     struct storeClasses : public ParserSemanticAction
{
00186         storeClasses (FlightPeriodStruct&);
00188         void operator() (iterator_t iStr, iterator_t
iStrEnd) const;
00189     };
00190

```

```

00192     struct storeFamilyCode : public ParserSemanticAction
00193     {
00194         storeFamilyCode (FlightPeriodStruct&);
00196         void operator() (int iCode) const;
00197     };
00198
00200     struct storeFRAT5CurveKey : public ParserSemanticAction
00201     {
00202         storeFRAT5CurveKey (FlightPeriodStruct
00203 &);
00204         void operator() (iterator_t iStr, iterator_t
00205 iStrEnd) const;
00206     };
00208     struct storeFFDisutilityCurveKey : public
00209 ParserSemanticAction {
00210         storeFFDisutilityCurveKey (FlightPeriodStruct
00211 &);
00212         void operator() (iterator_t iStr, iterator_t
00213 iStrEnd) const;
00214     };
00216     struct storeFClasses : public ParserSemanticAction
00217     {
00218         storeFClasses (FlightPeriodStruct&);
00220         void operator() (iterator_t iStr, iterator_t
00221 iStrEnd) const;
00222     };
00224     struct doEndFlight : public ParserSemanticAction
00225     {
00226         doEndFlight (stdair::BomRoot&, FlightPeriodStruct
00227 &);
00228         void operator() (iterator_t iStr, iterator_t
00229 iStrEnd) const;
00230         stdair::BomRoot& _bomRoot;
00231     };
00232
00233     //
00235     // (Boost Spirit) Grammar Definition
00237     //
00239
00281     struct FlightPeriodParser :
00282     public boost::spirit::classic::grammar<FlightPeriodParser> {
00283
00284         FlightPeriodParser (stdair::BomRoot&,
00285 FlightPeriodStruct&);
00286
00287         template <typename ScannerT>
00288         struct definition {
00289             definition (FlightPeriodParser const& self)
00290             ;
00291             // Instantiation of rules
00292             boost::spirit::classic::rule<ScannerT> flight_period_list
00293 , flight_period,
00294         not_to_be_parsed, flight_period_end,
00295         flight_key, airline_code,
00296         flight_number, date, dow, time, date_offset
00297 ,
00298         leg, leg_key, operating_leg_details,
00299         leg_details, leg_cabin_details,
00300         segment_section, segment_key,
00301         full_segment_cabin_details,
00302         segment_cabin_details, full_family_cabin_details
00303 ,
00304         family_cabin_details, generic_segment
00305 , specific_segment_list;
00306
00307         boost::spirit::classic::rule<ScannerT> const& start() const;
00308     };
00309
00310     // Parser Context
00311     stdair::BomRoot& _bomRoot;
00312     FlightPeriodStruct& _flightPeriod;
00313 };
00314
00315 // Entry class for the file parser
00316 //
00318
00323     class FlightPeriodFileParser : public
00324     stdair::CmdAbstract {
00325     public:

```



```

00326     FlightPeriodFileParser (stdair::BomRoot& ioBomRoot,
00327                             const stdair::Filename_T& iFilename);
00328
00330     bool generateInventories ();
00331
00332 private:
00334     void init();
00335
00336 private:
00337     // Attributes
00339     stdair::Filename_T _filename;
00340
00342     iterator_t _startIterator;
00343
00345     iterator_t _endIterator;
00346
00348     stdair::BomRoot& _bomRoot;
00349
00351     FlightPeriodStruct _flightPeriod;
00352 };
00353
00354 }
00355 #endif // __AIRSCHED_CMD_SCHEDULEPARSERHELPER_HPP

```

## 24.111 airsched/command/SegmentPathGenerator.cpp File Reference

```

#include <cassert>
#include <vector>
#include <stdair/basic/BasConst_Inventory.hpp>
#include <stdair/bom/BomManager.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <stdair/bom/Inventory.hpp>
#include <stdair/bom/FlightPeriod.hpp>
#include <stdair/bom/SegmentPeriod.hpp>
#include <stdair/factory/FacBomManager.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/bom/ReachableUniverse.hpp>
#include <airsched/bom/OriginDestinationSet.hpp>
#include <airsched/bom/SegmentPathPeriod.hpp>
#include <airsched/command/SegmentPathGenerator.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

## 24.112 SegmentPathGenerator.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <vector>
00007 // StdAir
00008 #include <stdair/basic/BasConst_Inventory.hpp>
00009 #include <stdair/bom/BomManager.hpp>
00010 #include <stdair/bom/BomRoot.hpp>
00011 #include <stdair/bom/Inventory.hpp>
00012 #include <stdair/bom/FlightPeriod.hpp>
00013 #include <stdair/bom/SegmentPeriod.hpp>
00014 #include <stdair/factory/FacBomManager.hpp>
00015 #include <stdair/service/Logger.hpp>
00016 // AirSched
00017 #include <airsched/bom/ReachableUniverse.hpp>
00018 #include <airsched/bom/OriginDestinationSet.hpp>
00019 #include <airsched/bom/SegmentPathPeriod.hpp>
00020 #include <airsched/command/SegmentPathGenerator.hpp>
00021

```

```

00022 namespace AIRSCHED {
00023
00024 // //////////////////////////////////////
00025 void SegmentPathGenerator::
00026 createSegmentPathNetwork (const stdair::BomRoot&
00027 iBomRoot) {
00028     // Build the list of single-segment segment path objects.
00029     const stdair::InventoryList_T& lInventoryList =
00030         stdair::BomManager::getList<stdair::Inventory> (iBomRoot);
00031     for (stdair::InventoryList_T::const_iterator itInv = lInventoryList.begin();
00032          itInv != lInventoryList.end(); ++itInv) {
00033         const stdair::Inventory* lCurrentInventory_ptr = *itInv;
00034         assert (lCurrentInventory_ptr != NULL);
00035         //
00036         createSinglePaths (*lCurrentInventory_ptr);
00037     }
00038     // Build the list of i-fixed-length segment path objects. In other words,
00039     // build the whole segment path network.
00040     for (stdair::NbOfSegments_T i = 2;
00041          i <= stdair::MAXIMAL_NUMBER_OF_SEGMENTS_IN_OND; ++i) {
00042         buildSegmentPathNetwork (iBomRoot, i);
00043     }
00044 }
00045
00046 // //////////////////////////////////////
00047 void SegmentPathGenerator::
00048 createSinglePaths (const stdair::Inventory& iInventory) {
00049     const stdair::FlightPeriodList_T& lFlightPeriodList =
00050         stdair::BomManager::getList<stdair::FlightPeriod> (iInventory);
00051     for (stdair::FlightPeriodList_T::const_iterator itFlightPeriod =
00052          lFlightPeriodList.begin();
00053          itFlightPeriod != lFlightPeriodList.end(); ++itFlightPeriod) {
00054         const stdair::FlightPeriod* lCurrentFlightPeriod_ptr = *itFlightPeriod;
00055         assert (lCurrentFlightPeriod_ptr != NULL);
00056         //
00057         createSinglePaths (*lCurrentFlightPeriod_ptr);
00058     }
00059 }
00060
00061 // //////////////////////////////////////
00062 void SegmentPathGenerator::
00063 createSinglePaths (const stdair::FlightPeriod& iFlightPeriod) {
00064     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00065         stdair::BomManager::getList<stdair::SegmentPeriod> (iFlightPeriod);
00066     for (stdair::SegmentPeriodList_T::const_iterator itSegmentPeriod =
00067          lSegmentPeriodList.begin();
00068          itSegmentPeriod != lSegmentPeriodList.end(); ++itSegmentPeriod) {
00069         const stdair::SegmentPeriod* lCurrentSegmentPeriod_ptr = *itSegmentPeriod;
00070         assert (lCurrentSegmentPeriod_ptr != NULL);
00071         //
00072         createSinglePath (*lCurrentSegmentPeriod_ptr);
00073     }
00074 }
00075
00076 // //////////////////////////////////////
00077 void SegmentPathGenerator::
00078 createSinglePath (stdair::SegmentPeriod& ioSegmentPeriod) {
00079     // Retrieve the BOM tree root
00080     const stdair::AirportCode_T& lOrigin = ioSegmentPeriod.getBoardingPoint();
00081     const stdair::FlightPeriod& lFlightPeriod =
00082         stdair::BomManager::getParent<stdair::FlightPeriod> (ioSegmentPeriod);
00083     const stdair::Inventory& lInventory =
00084         stdair::BomManager::getParent<stdair::Inventory> (lFlightPeriod);
00085     stdair::BomRoot& lBomRoot =
00086         stdair::BomManager::getParent<stdair::BomRoot> (lInventory);
00087     // Retrieve the ReachableUniverse (if existing) which corresponds
00088     // to the origin. If it does not exist, then create one.
00089     ReachableUniverse* lReachableUniverse_ptr =
00090         stdair::BomManager::getObjectPtr<ReachableUniverse> (lBomRoot, lOrigin);
00091     if (lReachableUniverse_ptr == NULL) {
00092         ReachableUniverseKey lKey (lOrigin);
00093         lReachableUniverse_ptr =
00094             stdair::FacBomManager::instance().create (lKey);
00095         stdair::FacBomManager::addToListAndMap (lBomRoot, *lReachableUniverse_ptr);
00096     };
00097     stdair::FacBomManager::linkWithParent (lBomRoot, *lReachableUniverse_ptr);
00098 }

```

```

00105     }
00106     assert (lReachableUniverse_ptr != NULL);
00107
00108     //
00109     createSinglePath (*lReachableUniverse_ptr, ioSegmentPeriod);
00110 }
00111
00112 // //////////////////////////////////////
00113 void SegmentPathGenerator::
00114 createSinglePath (ReachableUniverse& ioReachableUniverse,
00115                  stdair::SegmentPeriod& ioSegmentPeriod) {
00116
00117     const stdair::AirportCode_T& lDestination = ioSegmentPeriod.getOffPoint();
00118
00119     // Retrieve the origin-destination set (if existing) which corresponds
00120     // to the destination. If it does not exist, then create one.
00121     OriginDestinationSet* lOriginDestinationSet_ptr =
00122         stdair::BomManager::getObjectPtr<OriginDestinationSet>(
00123             ioReachableUniverse,
00124                                     lDestination);
00125
00126     if (lOriginDestinationSet_ptr == NULL) {
00127         OriginDestinationSetKey lKey (lDestination);
00128
00129         lOriginDestinationSet_ptr =
00130             &stdair::FacBom<OriginDestinationSet>::instance().create (lKey);
00131         stdair::FacBomManager::addToListAndMap (ioReachableUniverse,
00132                                                 *lOriginDestinationSet_ptr);
00133         stdair::FacBomManager::linkWithParent (ioReachableUniverse,
00134                                                 *lOriginDestinationSet_ptr);
00135     }
00136     assert (lOriginDestinationSet_ptr != NULL);
00137
00138     // Create a segment path period and add it to the corresponding
00139     // origin-destination set and reachable-universe.
00140     const stdair::FlightPeriod& lFlightPeriod =
00141         stdair::BomManager::getParent<stdair::FlightPeriod> (ioSegmentPeriod);
00142     const stdair::PeriodStruct& lPeriodOfFlight = lFlightPeriod.getPeriod();
00143
00144     // The departure period of the segment is the departure period of
00145     // the flight plus the boarding date offset of the segment.
00146     const stdair::DateOffset_T& lBoardingDateOffset =
00147         ioSegmentPeriod.getBoardingDateOffset();
00148
00149     const stdair::PeriodStruct lPeriodOfSegment =
00150         lPeriodOfFlight.addDateOffset (lBoardingDateOffset);
00151
00152     const stdair::Duration_T& lBoardingTime = ioSegmentPeriod.getBoardingTime()
;
00153     const stdair::Duration_T& lElapsed = ioSegmentPeriod.getElapsedTime();
00154
00155     DateOffsetList_T lDateOffsetList;
00156     const stdair::DateOffset_T lFirstDateOffset (0);
00157     lDateOffsetList.push_back (lFirstDateOffset);
00158
00159     const SegmentPathPeriodKey lSegmentPathKey (lPeriodOfSegment,
00160                                                  lBoardingTime, lElapsed,
00161                                                  lDateOffsetList, 1);
00162
00163     SegmentPathPeriod& lSegmentPathPeriod =
00164         stdair::FacBom<SegmentPathPeriod>::instance().create (lSegmentPathKey);
00165
00166     addSegmentPathPeriod (ioReachableUniverse, lSegmentPathPeriod);
00167
00168     // Link the SegmentPathPeriod object with its parent, namely
00169     // OriginDestinationSet
00170     stdair::FacBomManager::addToList (*lOriginDestinationSet_ptr,
00171                                       lSegmentPathPeriod);
00172     stdair::FacBomManager::linkWithParent (*lOriginDestinationSet_ptr,
00173                                           lSegmentPathPeriod);
00174
00175     // Link the SegmentPathPeriod and SegmentPeriod objects. Note that
00176     // the SegmentPeriod object has already a parent, namely FlightPeriod.
00177     stdair::FacBomManager::addToList (lSegmentPathPeriod,
00178                                       ioSegmentPeriod);
00179 }
00180
00181 // //////////////////////////////////////
00182 void SegmentPathGenerator::
00183 addSegmentPathPeriod (ReachableUniverse& ioReachableUniverse,
00184                     const SegmentPathPeriod& iSegmentPathPeriod) {
00185
00186     const stdair::NbOfSegments_T& lNbOfSegments =
00187         iSegmentPathPeriod.getNbOfSegments();
00188
00189     assert (lNbOfSegments > 0
00190           && lNbOfSegments <= stdair::MAXIMAL_NUMBER_OF_SEGMENTS_IN_OND);
00191
00192

```

```

00196     // If needed, initialise the list of lists with empty fixed-length
00197     // segment path period lists.
00198
00199     SegmentPathPeriodListList_T&
00200     lSegmentPathPeriodListList =
00201         ioReachableUniverse._segmentPathPeriodListList;
00202     while (lSegmentPathPeriodListList.size() < lNbOfSegments) {
00203         SegmentPathPeriodLightList_T
00204         lSegmentPathPeriodList;
00205         lSegmentPathPeriodListList.push_back (lSegmentPathPeriodList);
00206     }
00207     // Retrieve the i-fixed-length segment path period list (i = number of
00208     // segments).
00209     SegmentPathPeriodLightList_T&
00210     lSegmentPathPeriodList =
00211         lSegmentPathPeriodListList.at (lNbOfSegments-1);
00212     // Add the SegmentPathPeriod to that fixed-length-path list.
00213     lSegmentPathPeriodList.push_back (&iSegmentPathPeriod);
00214 }
00215
00216 // //////////////////////////////////////
00217 void SegmentPathGenerator::
00218     buildSegmentPathNetwork (const stdair::BomRoot& iBomRoot,
00219                             const stdair::NbOfSegments_T& lNbOfSegments) {
00220
00221     const ReachableUniverseList_T&
00222     lReachableUniverseList =
00223         stdair::BomManager::getList<ReachableUniverse> (iBomRoot);
00224     for (ReachableUniverseList_T::const_iterator itReachableUniverse =
00225         lReachableUniverseList.begin();
00226         itReachableUniverse != lReachableUniverseList.end();
00227         ++itReachableUniverse) {
00228         ReachableUniverse* lReachableUniverse_ptr = *itReachableUniverse;
00229         assert (lReachableUniverse_ptr != NULL);
00230
00231         //
00232         buildSegmentPathNetwork (*lReachableUniverse_ptr, lNbOfSegments);
00233     }
00234 }
00235
00236 // //////////////////////////////////////
00237 void SegmentPathGenerator::
00238     buildSegmentPathNetwork (ReachableUniverse& ioReachableUniverse,
00239                             const stdair::NbOfSegments_T& iNbOfSegments) {
00240
00241     // The goal of that method is to build the i-fixed-length
00242     // segment path period objects, knowing that all the
00243     // lower-fixed-length segment path period objects have already been
00244     // built during the previous steps. Once an i-fixed-length
00245     // segment path period object is created, it is added to the list of
00246     // the (fixed-length segment path period object) lists.
00247
00248     // Hence, at that iteration, by construction, the list of the
00249     // (fixed-length segment path period object) lists should already get
00250     // a size of i-1, if there were such possibilities (in terms of
00251     // segment path period). In that case, at the end of the method, its
00252     // size should be of i.
00253
00254     // If the size of the list of the (fixed-length segment path period
00255     // object) lists is (strictly) less than i-1, it means that that
00256     // reachable universe has no more possibilities of destinations. We
00257     // are thus done at that stage.
00258     const SegmentPathPeriodListList_T&
00259     lSegmentPathPeriodListList =
00260         ioReachableUniverse.getSegmentPathPeriodListList();
00261     const unsigned short lNbOfSegments_m1 = iNbOfSegments - 1;
00262     assert (lNbOfSegments_m1 >= 0);
00263     if (lSegmentPathPeriodListList.size() < lNbOfSegments_m1) {
00264         return;
00265     }
00266
00267     // Retrieve the (i-1)-fixed-length segment path period list (i = number of
00268     // segments).
00269
00270     // Note that a STL vector starts at 0, whereas the number of segments
00271     // starts at 1. Hence, (i-1) for the length (in number of segments)
00272     // corresponds to [iNbOfSegments-2] for the STL vector.
00273
00274     // As the lSegmentPathPeriodListList may change during the next loop
00275     // iterations (as some SegmentPathPeriod objects are created and linked to
00276     // ReachableUniverse), we need to take the initial copy of that list.
00277     const SegmentPathPeriodLightList_T
00278     lSegmentPathPeriodLightList_i1 =
00279         lSegmentPathPeriodListList.at (iNbOfSegments-2);
00280
00281

```

```

00282 // Iterate on the (i-1)-fixed-length segment path period objects, in order
00283 // to build a i-fixed-length segment path period objects.
00284 // There are two steps:
00285 // 1. Retrieve the airport-dates at a (i-1) length (in number of segments)
00286 // of the origin airport-date.
00287 // 2. From each of such (i-1) airport-date, add the single-segment pathes
00288 // to the (i-1)-length pathes, so as to make i-length pathes.
00289 for (SegmentPathPeriodLightList_T::const_iterator itSegmentPathPeriodList =
00290      lSegmentPathPeriodLightList_iml.begin();
00291      itSegmentPathPeriodList != lSegmentPathPeriodLightList_iml.end();
00292      ++itSegmentPathPeriodList) {
00293     const SegmentPathPeriod* lSegmentPathPeriod_iml_ptr =
00294         *itSegmentPathPeriodList;
00295     assert (lSegmentPathPeriod_iml_ptr != NULL);
00296
00297     // Get the reachable-universe departing from the destination of
00298     // the current segment path period.
00299     const stdair::AirportCode_T& lDestination_iml =
00300         lSegmentPathPeriod_iml_ptr->getDestination();
00301     const stdair::BomRoot& lBomRoot =
00302         stdair::BomManager::getParent<stdair::BomRoot> (ioReachableUniverse);
00303     const ReachableUniverse* lReachableUniverseFromDestination_iml_ptr =
00304         stdair::BomManager::getObjectPtr<ReachableUniverse> (lBomRoot,
00305                                                                lDestination_iml);
00306
00307     // If there is no ReachableUniverse corresponding to the destination (off
00308     // point of the last SegmentDate), it means that the destination is
00309     // an end point (no other SegmentDate is starting from there).
00310     // Hence, there is nothing else to do for now for that (final)
00311     // destination, and we can process the next (i-1)-segment path period.
00312     if (lReachableUniverseFromDestination_iml_ptr == NULL) {
00313         continue;
00314     }
00315     assert (lReachableUniverseFromDestination_iml_ptr != NULL);
00316
00317     // Retrieve the single-segment segment path period list,
00318     // so as to make a i-length SegmentPathPeriod.
00319     const SegmentPathPeriodListList_T&
00320         lSegmentPathPeriodListListFromDestination_iml =
00321         lReachableUniverseFromDestination_iml_ptr->
00322         getSegmentPathPeriodListList();
00323     assert (lSegmentPathPeriodListListFromDestination_iml.size() >= 1);
00324
00325     // As the lSegmentPathPeriodListListFromDestination_iml may change during
00326     // the next loop iterations (as some SegmentPathPeriod objects are
00327     // created and linked to ReachableUniverse), we need to take the initial
00328     // copy of that list.
00329     const SegmentPathPeriodLightList_T
00330         lSingleSegmentPathPeriodLightListFromDestination_iml =
00331         lSegmentPathPeriodListListFromDestination_iml.at (0);
00332
00333     for (SegmentPathPeriodLightList_T::const_iterator
00334          itSegmentPathPeriodFromDestination_iml =
00335          lSingleSegmentPathPeriodLightListFromDestination_iml.begin();
00336          itSegmentPathPeriodFromDestination_iml
00337          != lSingleSegmentPathPeriodLightListFromDestination_iml.end();
00338          ++itSegmentPathPeriodFromDestination_iml) {
00339         const SegmentPathPeriod*
00340             lSingleSegmentPathPeriodFromDestination_iml_ptr =
00341             *itSegmentPathPeriodFromDestination_iml;
00342         assert (lSingleSegmentPathPeriodFromDestination_iml_ptr != NULL);
00343
00344         // Check if the (i-1)-length segment path period can be fused with the
00345         // single segment segment path period in order to create an i-length
00346         // segment path period. The function will return a valid or non-valid
00347         // segment path period key.
00348
00349         // The two segment path period above can be fused (and will produce a
00350         // valid new segment path period key) if:
00351         // 1. A passenger can connect from the last segment of the
00352         // first segment path and the first segment of the next segment path.
00353         // These two segments should not create another segment.
00354         // 2. There is no circle within the new segment path.
00355         // 3. The intersection of the two periods is non-empty.
00356         SegmentPathPeriodKey lSegmentPathPeriodKey_i =
00357             lSegmentPathPeriod_iml_ptr->connectWithAnotherSegment (*
00358             lSingleSegmentPathPeriodFromDestination_iml_ptr);
00359
00360         if (lSegmentPathPeriodKey_i.isValid () == false) {
00361             continue;
00362         }
00363
00364         // Get the off point of the single-segment SegmentPathPeriod
00365         // attached to the intermediate destination (iml). That off point is
00366         // at a length i of the initial ReachableUniverse: (i-1) + 1.
00367         const stdair::AirportCode_T& lDestination_i =
00368             lSingleSegmentPathPeriodFromDestination_iml_ptr->getDestination();

```

```

00366
00367 // Build the i-length SegmentPathPeriod
00368 // Get the parameters of the last segment
00369 stdair::SegmentPeriod* lSegmentPeriod_l_ptr =
00370     lSingleSegmentPathPeriodFromDestination_iml_ptr->
getFirstSegmentPeriod();
00371     assert (lSegmentPeriod_l_ptr != NULL);
00372
00373 // Calculate the number of airlines flown by the i-length
00374 // segment path period
00375 const stdair::FlightPeriod& lFlightPeriod = stdair::BomManager::
00376     getParent<stdair::FlightPeriod> (*lSegmentPeriod_l_ptr);
00377 const stdair::Inventory& lInventory =
00378     stdair::BomManager::getParent<stdair::Inventory> (lFlightPeriod);
00379 const stdair::AirlineCode_T& lAirlineCode_l = lInventory.getAirlineCode(
);
00380     stdair::NbOfAirlines_T lNbOfAirlines_i =
00381     lSegmentPathPeriod_iml_ptr->getNbOfAirlines();
00382     if (lSegmentPathPeriod_iml_ptr->isAirlineFlown(lAirlineCode_l) == false
){
00383         ++lNbOfAirlines_i;
00384     }
00385     lSegmentPathPeriodKey_i.setNbOfAirlines (lNbOfAirlines_i);
00386
00387 // Create the new segment path and add it to the dedicated lists.
00388 OriginDestinationSet* lOriginDestinationSet_ptr = stdair::BomManager::
00389     getObjectPtr<OriginDestinationSet>(ioReachableUniverse,lDestination_i
);
00390     if (lOriginDestinationSet_ptr == NULL) {
00391         OriginDestinationSetKey lKey (lDestination_i);
00392         lOriginDestinationSet_ptr =
00393             &stdair::FacBom<OriginDestinationSet>::instance().create (lKey);
00394         stdair::FacBomManager::addToListAndMap (ioReachableUniverse,
00395             *lOriginDestinationSet_ptr);
00396         stdair::FacBomManager::linkWithParent (ioReachableUniverse,
00397             *lOriginDestinationSet_ptr);
00398     }
00399     assert (lOriginDestinationSet_ptr != NULL);
00400
00401
00402 SegmentPathPeriod& lSegmentPathPeriod_i = stdair::
00403     FacBom<SegmentPathPeriod>::instance().create (lSegmentPathPeriodKey_i
);
00404     stdair::FacBomManager::addToList (*lOriginDestinationSet_ptr,
00405         lSegmentPathPeriod_i);
00406     stdair::FacBomManager::linkWithParent (*lOriginDestinationSet_ptr,
00407         lSegmentPathPeriod_i);
00408
00409 // Clone the list of SegmentPeriod references of the given
00410 // SegmentPathPeriod object (passed as the second parameter).
00411 stdair::FacBomManager::
00412     cloneHolder<stdair::SegmentPeriod> (lSegmentPathPeriod_i,
00413         *lSegmentPathPeriod_iml_ptr);
00414
00415
00416 // Add the SegmentPeriod reference to the dedicated list within
00417 // the SegmentPathPeriod. Note that this must be done before
00418 // the link between the SegmentPathPeriod and
00419 // ReachableUniverse, as that latter method uses the number of
00420 // segments within the SegmentPathPeriod object.
00421 stdair::FacBomManager::addToList (lSegmentPathPeriod_i,
00422     *lSegmentPeriod_l_ptr);
00423
00424 addSegmentPathPeriod (ioReachableUniverse, lSegmentPathPeriod_i);
00425 }
00426 }
00427 }
00428 }
00429 }
00430 }
00431 }
00432 }
00433 }
00434 }
00435 }

```

## 24.113 airsched/command/SegmentPathGenerator.hpp File Reference

```

#include <vector>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/command/CmdAbstract.hpp>
#include <airsched/AIRSCHED_Types.hpp>

```

## Classes

- class [AIRSCHED::SegmentPathGenerator](#)  
Class handling the generation / instantiation of the network BOM.

## Namespaces

- namespace [stdair](#)  
Forward declarations.
- namespace [AIRSCHED](#)

## 24.114 SegmentPathGenerator.hpp

```

00001 #ifndef __AIRSCHED_CMD_SEGMENTPATHGENERATOR_HPP
00002 #define __AIRSCHED_CMD_SEGMENTPATHGENERATOR_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <vector>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>
00011 #include <stdair/command/CmdAbstract.hpp>
00012 // AirSched
00013 #include <airsched/AIRSCHED_Types.hpp>
00014
00016 namespace stdair {
00017     class BomRoot;
00018     class Inventory;
00019     class FlightPeriod;
00020     class SegmentPeriod;
00021 }
00022
00023 namespace AIRSCHED {
00024
00026     class ReachableUniverse;
00027     class OriginDestinationSet;
00028     class SegmentPathPeriod;
00029
00030
00034     class SegmentPathGenerator : public stdair::CmdAbstract {
00035     public:
00039         static void createSegmentPathNetwork (const
stdair::BomRoot&);
00040
00041     private:
00046         static void createSinglePaths (const stdair::Inventory&);
00047         static void createSinglePaths (const stdair::FlightPeriod&);
00048
00053         static void createSinglePath (stdair::SegmentPeriod&);
00054         static void createSinglePath (ReachableUniverse&,
stdair::SegmentPeriod&);
00055
00059         static void buildSegmentPathNetwork (const stdair::BomRoot&,
const stdair::NbOfSegments_T&);
00060         static void buildSegmentPathNetwork (ReachableUniverse&,
const stdair::NbOfSegments_T&);
00061
00067         static void addSegmentPathPeriod (ReachableUniverse&,
const SegmentPathPeriod&
00068     );
00069     };
00070
00071 }
00072 #endif // __AIRSCHED_CMD_SEGMENTPATHGENERATOR_HPP

```

## 24.115 airsched/command/SegmentPathProvider.cpp File Reference

```

#include <cassert>
#include <string>
#include <sstream>
#include <stdair/basic/BasConst_BomDisplay.hpp>
#include <stdair/bom/BomManager.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <stdair/bom/Inventory.hpp>
#include <stdair/bom/FlightPeriod.hpp>
#include <stdair/bom/SegmentPeriod.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/bom/TravelSolutionStruct.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/basic/BasConst_General.hpp>
#include <airsched/bom/ReachableUniverse.hpp>
#include <airsched/bom/OriginDestinationSet.hpp>
#include <airsched/bom/SegmentPathPeriod.hpp>
#include <airsched/command/SegmentPathProvider.hpp>

```

## Namespaces

- namespace [AIRSCHED](#)

## 24.116 SegmentPathProvider.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <string>
00007 #include <sstream>
00008 // StdAir
00009 #include <stdair/basic/BasConst_BomDisplay.hpp>
00010 #include <stdair/bom/BomManager.hpp>
00011 #include <stdair/bom/BomRoot.hpp>
00012 #include <stdair/bom/Inventory.hpp>
00013 #include <stdair/bom/FlightPeriod.hpp>
00014 #include <stdair/bom/SegmentPeriod.hpp>
00015 #include <stdair/bom/BookingRequestStruct.hpp>
00016 #include <stdair/bom/TravelSolutionStruct.hpp>
00017 #include <stdair/service/Logger.hpp>
00018 // AirSched
00019 #include <airsched/basic/BasConst_General.hpp>
00020 >
00021 #include <airsched/bom/ReachableUniverse.hpp>
00022 #include <airsched/bom/OriginDestinationSet.hpp>
00023 >
00024 #include <airsched/bom/SegmentPathPeriod.hpp>
00025 #include <airsched/command/SegmentPathProvider.hpp>
00026 >
00027 namespace AIRSCHED {
00028 // //////////////////////////////////////
00029 void SegmentPathProvider::
00030 buildSegmentPathList (stdair::TravelSolutionList_T& ioTravelSolutionList,
00031                      const stdair::BomRoot& iBomRoot,
00032                      const stdair::BookingRequestStruct& iBookingRequest) {
00033 // Retrieve the reachable universe object corresponding to the
00034 // origin of the booking request.
00035 const stdair::AirportCode_T& lOrigin = iBookingRequest.getOrigin ();
00036 const ReachableUniverse* lReachableUniverse_ptr =
00037     stdair::BomManager::getObjectPtr<ReachableUniverse> (iBomRoot, lOrigin);
00038 if (lReachableUniverse_ptr != NULL) {
00039     buildSegmentPathList (ioTravelSolutionList, *lReachableUniverse_ptr,
00040                          iBookingRequest);
00041 }
00042 }

```



```

00043 // //////////////////////////////////////
00044 void SegmentPathProvider::
00045 buildSegmentPathList (stdair::TravelSolutionList_T& ioTravelSolutionList,
00046                      const ReachableUniverse& iReachableUniverse,
00047                      const stdair::BookingRequestStruct& iBookingRequest) {
00048     // Retrieve the origin-destination set objet corresponding to the
00049     // destination of the booking request.
00050     const stdair::AirportCode_T& lDestination = iBookingRequest.getDestination(
00051 );
00052     const OriginDestinationSet* lOriginDestinationSet_ptr =
00053     stdair::BomManager::getObjectPtr<OriginDestinationSet> (
00054 iReachableUniverse,
00055                                     lDestination);
00056     if (lOriginDestinationSet_ptr != NULL) {
00057         buildSegmentPathList (ioTravelSolutionList, *lOriginDestinationSet_ptr,
00058                               iBookingRequest);
00059     }
00060 }
00061 // //////////////////////////////////////
00062 void SegmentPathProvider::
00063 buildSegmentPathList (stdair::TravelSolutionList_T& ioTravelSolutionList,
00064                      const OriginDestinationSet& iOriginDestinationSet,
00065                      const stdair::BookingRequestStruct& iBookingRequest) {
00066     // Retrieve the departure date of the booking request.
00067     const stdair::Date_T& lPreferredDepartureDate =
00068     iBookingRequest.getPreferredDepartureDate ();
00069     // Browse the list of segment path periods and find those which content
00070     // the preferred departure date.
00071     const SegmentPathPeriodList_T&
00072     lSegmentPathPeriodList =
00073     stdair::BomManager::getList<SegmentPathPeriod> (iOriginDestinationSet);
00074     for (SegmentPathPeriodList_T::const_iterator itSegmentPath =
00075          lSegmentPathPeriodList.begin ();
00076          itSegmentPath != lSegmentPathPeriodList.end (); ++itSegmentPath) {
00077         const SegmentPathPeriod* lCurrentSegmentPath_ptr = *itSegmentPath;
00078         assert (lCurrentSegmentPath_ptr != NULL);
00079         if (lCurrentSegmentPath_ptr->isDepartureDateValid(lPreferredDepartureDate)
00080 ) {
00081             const stdair::DateTime_T lRequestDateTime =
00082             iBookingRequest.getRequestDateTime();
00083             const stdair::Duration_T& lBoardingTime =
00084             lCurrentSegmentPath_ptr->getBoardingTime();
00085             const stdair::DateTime_T lDepartureDateTime (lPreferredDepartureDate,
00086                                                         lBoardingTime);
00087             const bool IsDepartureDateValid =
00088             ((lRequestDateTime + MINIMUM_TIME_BETWEEN_REQUEST_AND_DEPARTURE
00089 ) <= lDepartureDateTime);
00090             if (IsDepartureDateValid == false) {
00091                 return;
00092             }
00093             buildSegmentPathList (ioTravelSolutionList, *lCurrentSegmentPath_ptr,
00094                                   iBookingRequest);
00095         }
00096     }
00097 }
00098 // //////////////////////////////////////
00099 void SegmentPathProvider::
00100 buildSegmentPathList (stdair::TravelSolutionList_T& ioTravelSolutionList,
00101                      const SegmentPathPeriod& iSegmentPathPeriod,
00102                      const stdair::BookingRequestStruct& iBookingRequest) {
00103     // Create a new travel solution.
00104     stdair::TravelSolutionStruct lTravelSolution;
00105     // Browse the list of segments and retrieve the necessary informations
00106     // for identifying the corresponding segment-date.
00107     const stdair::Date_T& lPreferredDepartureDate =
00108     iBookingRequest.getPreferredDepartureDate ();
00109     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00110     stdair::BomManager::getList<stdair::SegmentPeriod> (iSegmentPathPeriod);
00111     const DateOffsetList_T& lBoardingDateOffsetList =
00112     iSegmentPathPeriod.getBoardingDateOffsetList ();
00113     assert (lSegmentPeriodList.size() == lBoardingDateOffsetList.size());
00114     DateOffsetList_T::const_iterator itOffset = lBoardingDateOffsetList.begin();
00115     for (stdair::SegmentPeriodList_T::const_iterator itSegment =
00116          lSegmentPeriodList.begin();
00117          itSegment != lSegmentPeriodList.end(); ++itSegment) {
00118         const stdair::SegmentPeriod* lSegmentPeriod_ptr = *itSegment;
00119         assert (lSegmentPeriod_ptr != NULL);
00120         const stdair::DateOffset_T& lBoardingDateOffset = *itOffset;
00121         // Find the corresponding segment-date within the segment period.
00122         const stdair::DateOffset_T& lSegmentBoardingDateOffset =
00123         lSegmentPeriod_ptr->getBoardingDateOffset();

```

```

00124     const stdair::Date_T& lReferenceFlightDate = lPreferredDepartureDate
00125         + lBoardingDateOffset - lSegmentBoardingDateOffset;
00126
00127     // Build the whole segment-date key string.
00128     const stdair::FlightPeriod& lFlightPeriod =
00129         stdair::BomManager::getParent<stdair::FlightPeriod>
00130         (*lSegmentPeriod_ptr);
00131     const stdair::Inventory& lInventory =
00132         stdair::BomManager::getParent<stdair::Inventory> (lFlightPeriod);
00133     const stdair::Duration_T lBoardingTime = lSegmentPeriod_ptr->
00134         getBoardingTime();
00135     std::ostringstream oStr;
00136     oStr << lInventory.getAirlineCode()
00137         << stdair::DEFAULT_KEY_FLD_DELIMITER
00138         << lFlightPeriod.getFlightNumber()
00139         << stdair::DEFAULT_KEY_SUB_FLD_DELIMITER
00140         << boost::gregorian::to_simple_string (lReferenceFlightDate)
00141         << stdair::DEFAULT_KEY_FLD_DELIMITER
00142         << lSegmentPeriod_ptr->getBoardingPoint()
00143         << stdair::DEFAULT_KEY_SUB_FLD_DELIMITER
00144         << lSegmentPeriod_ptr->getOffPoint()
00145         << stdair::DEFAULT_KEY_FLD_DELIMITER
00146         << lBoardingTime;
00147
00148     lTravelSolution.addSegment (oStr.str());
00149     ++itOffset;
00150 }
00151 ioTravelSolutionList.push_back (lTravelSolution);
00152 }
00153 }

```

## 24.117 airsched/command/SegmentPathProvider.hpp File Reference

```

#include <stdair/bom/TravelSolutionTypes.hpp>
#include <stdair/command/CmdAbstract.hpp>

```

### Classes

- class [AIRSCHEd::SegmentPathProvider](#)  
Class building the travel solutions from airline schedules.

### Namespaces

- namespace [stdair](#)  
Forward declarations.
- namespace [AIRSCHEd](#)

## 24.118 SegmentPathProvider.hpp

```

00001 #ifndef __AIRSCHEd_COM_CMD_SEGMENTPATHPROVIDER_HPP
00002 #define __AIRSCHEd_COM_CMD_SEGMENTPATHPROVIDER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir
00008 #include <stdair/bom/TravelSolutionTypes.hpp>
00009 #include <stdair/command/CmdAbstract.hpp>
00010
00011 namespace stdair {
00012     class BomRoot;
00013     struct BookingRequestStruct;
00014 }
00015
00016 namespace AIRSCHEd {
00017
00018     class ReachableUniverse;
00019     class OriginDestinationSet;
00020     class SegmentPathPeriod;

```

```

00023
00027 class SegmentPathProvider : public stdair::CmdAbstract {
00028     friend class AIRSCHED_Service;
00029
00030 private:
00031     // ////////////////////////////////// Business Methods //////////////////////////////////
00042     static void buildSegmentPathList (stdair::TravelSolutionList_T&,
00043                                     const stdair::BomRoot&,
00044                                     const stdair::BookingRequestStruct&);
00045
00056     static void buildSegmentPathList (stdair::TravelSolutionList_T&,
00057                                     const ReachableUniverse&
00058                                     const stdair::BookingRequestStruct&);
00059
00070     static void buildSegmentPathList (stdair::TravelSolutionList_T&,
00071                                     const OriginDestinationSet
00072                                     const stdair::BookingRequestStruct&);
00073
00084     static void buildSegmentPathList (stdair::TravelSolutionList_T&,
00085                                     const SegmentPathPeriod&
00086                                     const stdair::BookingRequestStruct&);
00087 };
00088
00089 }
00090 #endif // __AIRSCHED_COM_CMD_SEGMENTPATHPROVIDER_HPP

```

## 24.119 airsched/command/Simulator.cpp File Reference

```

#include <cassert>
#include <string>
#include <sstream>
#include <stdair/basic/BasConst_General.hpp>
#include <stdair/bom/BomManager.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/command/Simulator.hpp>

```

### Namespaces

- namespace [AIRSCHED](#)

## 24.120 Simulator.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <string>
00007 #include <sstream>
00008 // StdAir
00009 #include <stdair/basic/BasConst_General.hpp>
00010 #include <stdair/bom/BomManager.hpp>
00011 #include <stdair/bom/BookingRequestStruct.hpp>
00012 #include <stdair/service/Logger.hpp>
00013 // AIRSCHED
00014 #include <airsched/command/Simulator.hpp>
00015
00016 namespace AIRSCHED {
00017
00018     // //////////////////////////////////////
00019     void Simulator::simulate (stdair::BomRoot& ioBomRoot) {
00020
00021         // Delegate to the dedicated StdAir utility class
00022         // std::ostringstream oStream;
00023         // stdair::BomManager::display (oStream, ioBomRoot);
00024
00025         // DEBUG
00026         // STDAIR_LOG_DEBUG ("BOM Tree: ");
00027         // STDAIR_LOG_DEBUG (oStream.str());

```

```

00028
00029 // TODO: do not hardcode the booking request (get it from the
00030 // demand generation module instead).
00031 // stdair::BookingRequestStruct ("LHR", "JFK", stdair::Date_T (2009, 01,
16),
00032 //                                stdair::DEFAULT_DATETIME, "Y", 1);
00033 }
00034
00035 }

```

## 24.121 airsched/command/Simulator.hpp File Reference

```
#include <stdair/command/CmdAbstract.hpp>
```

### Classes

- class [AIRSCHEDED::Simulator](#)

### Namespaces

- namespace [stdair](#)  
*Forward declarations.*
- namespace [AIRSCHEDED](#)

## 24.122 Simulator.hpp

```

00001 #ifndef __AIRSCHEDED_COM_CMD_SIMULATOR_HPP
00002 #define __AIRSCHEDED_COM_CMD_SIMULATOR_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir
00008 #include <stdair/command/CmdAbstract.hpp>
00009
00010 // Forward declarations
00011 namespace stdair {
00012     class BomRoot;
00013 }
00014
00015 namespace AIRSCHEDED {
00016
00017     class Simulator : public stdair::CmdAbstract {
00018     public:
00019
00020         // ////////// Business Methods //////////
00021         static void simulate (stdair::BomRoot&);
00022     };
00023 }
00024
00025 #endif // __AIRSCHEDED_COM_CMD_SIMULATOR_HPP

```

## 24.123 airsched/command/TravelSolutionParser.cpp File Reference

```

#include <sstream>
#include <fstream>
#include <cassert>
#include <stdair/stdair_exceptions.hpp>
#include <stdair/basic/BasConst_TravelSolution.hpp>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <stdair/service/Logger.hpp>
#include <airsched/command/TravelSolutionParser.hpp>

```

## Namespaces

- namespace AIRSCHED

## 24.124 TravelSolutionParser.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <sstream>
00006 #include <fstream>
00007 #include <cassert>
00008 // StdAir
00009 #include <stdair/stdair_exceptions.hpp>
00010 #include <stdair/basic/BasConst_TravelSolution.hpp>
00011 #include <stdair/basic/BasFileMgr.hpp>
00012 #include <stdair/bom/BomRoot.hpp>
00013 #include <stdair/service/Logger.hpp>
00014 // AirSched
00015 #include <airsched/command/TravelSolutionParser.hpp>
00016 >
00017 namespace AIRSCHED {
00018
00019     // //////////////////////////////////////
00020     bool TravelSolutionParser::
00021     parseInputFileAndBuildBom (const std::string&
00022     iInputFileName) {
00023         bool hasReadBeenSuccessful = false;
00024
00025         // Check that the file path given as input corresponds to an actual file
00026         const bool doesExistAndIsReadable =
00027             stdair::BasFileMgr::doesExistAndIsReadable (iInputFileName);
00028         if (doesExistAndIsReadable == false) {
00029             std::ostringstream oMessage;
00030             oMessage << "The input file, '" << iInputFileName
00031                 << "', can not be retrieved on the file-system";
00032             throw stdair::FileNotFoundException (oMessage.str());
00033         }
00034
00035         // Open the input file
00036         std::ifstream inputFile (iInputFileName.c_str());
00037         if (! inputFile) {
00038             STDAIR_LOG_ERROR ("Can not open input file '" << iInputFileName << "'");
00039             throw new stdair::FileNotFoundException ("Can not open input file '"
00040                 + iInputFileName + "'");
00041         }
00042
00043         char buffer[80];
00044         double dval = 0.0;
00045         std::string dvalStr;
00046         short i = 1;
00047         bool hasAllParams = true;
00048
00049         stdair::AirportCode_T dAirport;
00050         stdair::AirportCode_T aAirport;
00051         stdair::Date_T depDate;
00052         stdair::Duration_T depTime;
00053         stdair::Duration_T arTime;
00054         stdair::Duration_T dur;
00055         //bool Ref;
00056         stdair::AirlineCode_T airline;
00057         stdair::CabinCode_T cabin;
00058         //stdair::FlightNumber_T flightNum;
00059         //stdair::Fare_T fare;
00060         //int lagsNum;
00061         //bool SNS;
00062         //bool change;
00063
00064         while (inputFile.getline (buffer, sizeof (buffer), ';')) {
00065             std::istringstream iStringStr (buffer);
00066
00067             bool hasRead = false;
00068
00069             if (i == 1) {
00070                 hasAllParams = true;
00071             }
00072
00073             if (i>=1 && i<=14) {
00074                 hasRead = (iStringStr >> dvalStr);
00075             }

```

```

00076     if (i == 15) {
00077         hasRead = (iStringStr >> dval);
00078     }
00079
00080     if (hasRead) {
00081         if (i == 1) {
00082             dAirport = dvalStr;
00083
00084         } else if (i == 2) {
00085             aAirport = dvalStr;
00086             // std::cout << "City Pair = '" << dAiport
00087             // << "-" << aAirport << "'" << std::endl;
00088
00089         } else if (i == 3) {
00090             depDate = boost::gregorian::from_simple_string (dvalStr);
00091             // std::cout << "Date = '" << depDate << "'" << std::endl;
00092
00093         } else if (i == 4) {
00094             depTime = boost::posix_time::duration_from_string (dvalStr);
00095
00096         } else if (i == 5) {
00097             arTime = boost::posix_time::duration_from_string (dvalStr);
00098
00099         } else if (i == 6) {
00100             dur = boost::posix_time::duration_from_string (dvalStr);
00101
00102         } else if (i == 7) {
00103             //if (dvalStr == "refundable fare")
00104             // Ref = true;
00105             //else Ref = false;
00106
00107         } else if (i == 8) {
00108             airline = dvalStr;
00109
00110         } else if (i == 9) {
00111             cabin = dvalStr;
00112
00113         } else if (i == 10) {
00114             //flightNum = dval;
00115
00116         } else if (i == 11) {
00117             //fare = dval;
00118
00119         } else if (i == 12) {
00120             //lagsNum = dval;
00121
00122         } else if (i == 13) {
00123             //if (dvalStr == "Saturday Nigth Stay mandatory")
00124             // SNS = true;
00125             //else SNS = false;
00126
00127         } else if (i == 14) {
00128             //if (dvalStr == "changeable fare")
00129             // change = true;
00130             //else change = false;
00131             i = 0;
00132         }
00133
00134         //
00135         ++i;
00136
00137     } else {
00138         hasAllParams = false;
00139     }
00140 }
00141
00142 if (hasAllParams && i == 1) {
00143     STDAIR_LOG_DEBUG ("Successfully read");
00144 }
00145
00146 //
00147 if (!inputFile.eof()) {
00148     STDAIR_LOG_ERROR ("Problem when reading input file '" << iInputFileName
00149     << "'");
00150     return hasReadBeenSuccessful;
00151 }
00152
00153 //
00154 hasReadBeenSuccessful = true;
00155 return hasReadBeenSuccessful;
00156 }
00157
00158 }

```

## 24.125 airsched/command/TravelSolutionParser.hpp File Reference

```
#include <string>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/command/CmdAbstract.hpp>
```

## Classes

- class [AIRSCHEDED::TravelSolutionParser](#)

*Class filling the TravelSolutionHolder structure (representing a list of classes/travelSolutions) from a given input file.*

## Namespaces

- namespace [AIRSCHEDED](#)

## 24.126 TravelSolutionParser.hpp

```
00001 #ifndef __AIRSCHEDED_CMD_TRAVELSOLUTIONPARSER_HPP
00002 #define __AIRSCHEDED_CMD_TRAVELSOLUTIONPARSER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>
00011 #include <stdair/command/CmdAbstract.hpp>
00012
00013 namespace AIRSCHEDED {
00014
00019     class TravelSolutionParser : public stdair::CmdAbstract {
00020     public:
00028         static bool parseInputFileAndBuildBom (const
stdair::Filename_T&);
00029     };
00030 }
00031 #endif // __AIRSCHEDED_CMD_TRAVELSOLUTIONPARSER_HPP

*/
#ifndef <strong>AIRSCHEDED_PATHS_HPP</strong>
#define <strong>AIRSCHEDED_PATHS_HPP</strong>

#define PACKAGE "airsched"
#define PACKAGE_NAME "AIRSCHEDED"
#define PACKAGE_VERSION "1.00.0"
#define PREFIXDIR "/usr"
#define EXEC_PREFIX "/usr"
#define BINDIR "/usr/bin"
#define LIBDIR "/usr/lib"
#define LIBEXECDIR "/usr/libexec"
#define SBINDIR "/usr/sbin"
#define SYSCONFDIR "/usr/etc"
#define INCLUDEDIR "/usr/include"
#define DATAROOTDIR "/usr/share"
#define DATADIR "/usr/share"
#define DOCDIR "/usr/share/doc/airsched-1.00.0"
#define MANDIR "/usr/share/man"
#define INFODIR "/usr/share/info"
#define HTMLEDIR "/usr/share/doc/airsched-1.00.0/html"
#define PDFDIR "/usr/share/doc/airsched-1.00.0/html"
#define STDAIR_SAMPLE_DIR "/usr/share/stdair/samples"

#endif // <strong>AIRSCHEDED_PATHS_HPP</strong>

/*!

*/
#ifndef <strong>AIRSCHEDED_PATHS_HPP</strong>
#define <strong>AIRSCHEDED_PATHS_HPP</strong>

#define PACKAGE "@PACKAGE@"
```

```

#define PACKAGE_NAME "@PACKAGE_NAME@"
#define PACKAGE_VERSION "@PACKAGE_VERSION@"
#define PREFIXDIR "@prefix@"
#define EXEC_PREFIX "@exec_prefix@"
#define BINDIR "@bindir@"
#define LIBDIR "@libdir@"
#define LIBEXECDIR "@libexecdir@"
#define SBINDIR "@sbindir@"
#define SYSCONFDIR "@sysconfdir@"
#define INCLUDEDIR "@includedir@"
#define DATAROOTDIR "@datarootdir@"
#define DATADIR "@datadir@"
#define DOCDIR "@docdir@"
#define MANDIR "@mandir@"
#define INFODIR "@infodir@"
#define HTMLEDIR "@htmldir@"
#define PDFDIR "@pdfdir@"
#define STDAIR_SAMPLE_DIR "@sampledir@"

#endif // <strong>AIRSCHED_PATHS_HPP</strong>

/*!

```

## 24.127 airsched-paths.hpp

```

00001
00005 #ifndef __AIRSCHED_PATHS_HPP__
00006 #define __AIRSCHED_PATHS_HPP__
00007
00008 #define PACKAGE "airsched"
00009 #define PACKAGE_NAME "AIRSCHED"
00010 #define PACKAGE_VERSION "1.00.0"
00011 #define PREFIXDIR "/usr"
00012 #define EXEC_PREFIX "/usr"
00013 #define BINDIR "/usr/bin"
00014 #define LIBDIR "/usr/lib"
00015 #define LIBEXECDIR "/usr/libexec"
00016 #define SBINDIR "/usr/sbin"
00017 #define SYSCONFDIR "/usr/etc"
00018 #define INCLUDEDIR "/usr/include"
00019 #define DATAROOTDIR "/usr/share"
00020 #define DATADIR "/usr/share"
00021 #define DOCDIR "/usr/share/doc/airsched-1.00.0"
00022 #define MANDIR "/usr/share/man"
00023 #define INFODIR "/usr/share/info"
00024 #define HTMLEDIR "/usr/share/doc/airsched-1.00.0/html"
00025 #define PDFDIR "/usr/share/doc/airsched-1.00.0/html"
00026 #define STDAIR_SAMPLE_DIR "/usr/share/stdair/samples"
00027
00028 #endif // __AIRSCHED_PATHS_HPP__
00029

```

## 24.128 airsched/config/airsched-paths.hpp.in File Reference

### 24.129 airsched-paths.hpp.in

```

00001
00005 #ifndef __AIRSCHED_PATHS_HPP__
00006 #define __AIRSCHED_PATHS_HPP__
00007
00008 #define PACKAGE "@PACKAGE@"
00009 #define PACKAGE_NAME "@PACKAGE_NAME@"
00010 #define PACKAGE_VERSION "@PACKAGE_VERSION@"
00011 #define PREFIXDIR "@prefix@"
00012 #define EXEC_PREFIX "@exec_prefix@"
00013 #define BINDIR "@bindir@"
00014 #define LIBDIR "@libdir@"
00015 #define LIBEXECDIR "@libexecdir@"
00016 #define SBINDIR "@sbindir@"
00017 #define SYSCONFDIR "@sysconfdir@"
00018 #define INCLUDEDIR "@includedir@"
00019 #define DATAROOTDIR "@datarootdir@"
00020 #define DATADIR "@datadir@"
00021 #define DOCDIR "@docdir@"
00022 #define MANDIR "@mandir@"
00023 #define INFODIR "@infodir@"
00024 #define HTMLEDIR "@htmldir@"
00025 #define PDFDIR "@pdfdir@"
00026 #define STDAIR_SAMPLE_DIR "@sampledir@"
00027

```



```
00028 #endif // __AIRSCHED_PATHS_HPP__
00029
```

## 24.130 airsched/factory/FacAIRSCHEDServiceContext.cpp File Reference

```
#include <cassert>
#include <stdair/service/FacSupervisor.hpp>
#include <airsched/factory/FacAIRSCHEDServiceContext.hpp>
#include <airsched/service/AIRSCHED_ServiceContext.hpp>
```

### Namespaces

- namespace [AIRSCHED](#)

### 24.131 FacAIRSCHEDServiceContext.cpp

```
00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/service/FacSupervisor.hpp>
00008 // AirSched
00009 #include <airsched/factory/FacAIRSCHEDServiceContext.hpp>
00010 #include <airsched/service/AIRSCHED_ServiceContext.hpp>
00011
00012 namespace AIRSCHED {
00013
00014     FacAIRSCHEDServiceContext* FacAIRSCHEDServiceContext::_instance = NULL;
00015
00016     // //////////////////////////////////////
00017     FacAIRSCHEDServiceContext::~FacAIRSCHEDServiceContext
00018     () {
00019         _instance = NULL;
00020     }
00021
00022     // //////////////////////////////////////
00023     FacAIRSCHEDServiceContext&
00024     FacAIRSCHEDServiceContext::instance () {
00025
00026         if (_instance == NULL) {
00027             _instance = new FacAIRSCHEDServiceContext();
00028             assert (_instance != NULL);
00029
00030             stdair::FacSupervisor::instance().
00031             registerServiceFactory (_instance);
00032         }
00033         return *_instance;
00034     }
00035
00036     // //////////////////////////////////////
00037     AIRSCHED_ServiceContext&
00038     FacAIRSCHEDServiceContext::create () {
00039         AIRSCHED_ServiceContext* aServiceContext_ptr = NULL;
00040
00041         aServiceContext_ptr = new AIRSCHED_ServiceContext();
00042         assert (aServiceContext_ptr != NULL);
00043
00044         // The new object is added to the Bom pool
00045         _pool.push_back (aServiceContext_ptr);
00046
00047         return *aServiceContext_ptr;
00048     }
00049 }
```

## 24.132 airsched/factory/FacAIRSCHEDServiceContext.hpp File Reference

```
#include <stdair/stdair_basic_types.hpp>
#include <stdair/service/FacServiceAbstract.hpp>
```

## Classes

- class [AIRSCHED::FacAIRSCHEDServiceContext](#)  
*Factory for the service context.*

## Namespaces

- namespace [AIRSCHED](#)

## 24.133 FacAIRSCHEDServiceContext.hpp

```
00001 #ifndef __AIRSCHED_FAC_FACAIRSCHEDSERVICECONTEXT_HPP
00002 #define __AIRSCHED_FAC_FACAIRSCHEDSERVICECONTEXT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir
00008 #include <stdair/stdair_basic_types.hpp>
00009 #include <stdair/service/FacServiceAbstract.hpp>
00010
00011 namespace AIRSCHED {
00012
00014     class AIRSCHED_ServiceContext;
00015
00019     class FacAIRSCHEDServiceContext : public
stdair::FacServiceAbstract {
00020     public:
00021
00028         static FacAIRSCHEDServiceContext& instance
();
00029
00036         ~FacAIRSCHEDServiceContext();
00037
00045         AIRSCHED_ServiceContext& create();
00046
00047
00048     protected:
00054         FacAIRSCHEDServiceContext() {}
00055
00056     private:
00060         static FacAIRSCHEDServiceContext* _instance;
00061
00062     };
00063 }
00064 #endif // __AIRSCHED_FAC_FACAIRSCHEDSERVICECONTEXT_HPP
```

## 24.134 airsched/factory/FacServiceAbstract.cpp File Reference

```
#include <assert.h>
#include <airsched/service/ServiceAbstract.hpp>
#include <airsched/factory/FacServiceAbstract.hpp>
```

## Namespaces

- namespace [AIRSCHED](#)

## 24.135 FacServiceAbstract.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // C
00005 #include <assert.h>
00006 // TRAVEL-CCM
00007 #include <airsched/service/ServiceAbstract.hpp>
00008 >
00009 #include <airsched/factory/FacServiceAbstract.hpp>
00010 >
00011 namespace AIRSCHED {
00012 // //////////////////////////////////////
00013 FacServiceAbstract::~FacServiceAbstract
00014 () {
00015     clean ();
00016 }
00017 // //////////////////////////////////////
00018 void FacServiceAbstract::clean() {
00019     for (ServicePool_T::iterator itService = _pool.begin();
00020          itService != _pool.end(); itService++) {
00021         ServiceAbstract* currentService_ptr = *itService;
00022         assert (currentService_ptr != NULL);
00023
00024         delete (currentService_ptr); currentService_ptr = NULL;
00025     }
00026
00027     // Empty the pool of Service Factories
00028     _pool.clear();
00029 }
00030
00031 }

```

## 24.136 airsched/factory/FacServiceAbstract.hpp File Reference

```
#include <vector>
```

## Classes

- class [AIRSCHED::FacServiceAbstract](#)

## Namespaces

- namespace [AIRSCHED](#)

## 24.137 FacServiceAbstract.hpp

```

00001 #ifndef __AIRSCHED_FAC_FACSERVICEABSTRACT_HPP
00002 #define __AIRSCHED_FAC_FACSERVICEABSTRACT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <vector>
00009
00010 namespace AIRSCHED {
00011
00012     // Forward declarations
00013     class ServiceAbstract;
00014
00015     class FacServiceAbstract {
00016     public:
00017
00018         typedef std::vector<ServiceAbstract*> ServicePool_T;
00019
00020         virtual ~FacServiceAbstract ();
00021
00022         void clean();
00023
00024     };
00025
00026 }

```

```

00027
00028     protected:
00031         FacServiceAbstract() {}
00032
00033         ServicePool_T _pool;
00034     };
00035 }
00036 #endif // __AIRSCHEd_FAC_FACSERVICEABSTRACT_HPP

```

## 24.138 airsched/service/AIRSCHEd\_Service.cpp File Reference

```

#include <cassert>
#include <sstream>
#include <boost/make_shared.hpp>
#include <stdair/basic/BasChronometer.hpp>
#include <stdair/bom/BomManager.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/bom/TravelSolutionStruct.hpp>
#include <stdair/service/Logger.hpp>
#include <stdair/STDAIR_Service.hpp>
#include <airsched/basic/BasConst_AIRSCHEd_Service.hpp>
#include <airsched/factory/FacAIRSCHEdServiceContext.hpp>
#include <airsched/command/Simulator.hpp>
#include <airsched/command/ScheduleParser.hpp>
#include <airsched/command/OnDParser.hpp>
#include <airsched/command/SegmentPathProvider.hpp>
#include <airsched/command/InventoryGenerator.hpp>
#include <airsched/command/SegmentPathGenerator.hpp>
#include <airsched/service/AIRSCHEd_ServiceContext.hpp>
#include <airsched/AIRSCHEd_Service.hpp>

```

### Namespaces

- namespace [AIRSCHEd](#)

## 24.139 AIRSCHEd\_Service.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost
00008 #include <boost/make_shared.hpp>
00009 // StdAir
00010 #include <stdair/basic/BasChronometer.hpp>
00011 #include <stdair/bom/BomManager.hpp>
00012 #include <stdair/bom/BookingRequestStruct.hpp>
00013 #include <stdair/bom/TravelSolutionStruct.hpp>
00014 #include <stdair/service/Logger.hpp>
00015 #include <stdair/STDAIR_Service.hpp>
00016 // AirSched
00017 #include <airsched/basic/BasConst_AIRSCHEd_Service.hpp>
00018 >
00019 #include <airsched/factory/FacAIRSCHEdServiceContext.hpp>
00020 >
00021 #include <airsched/command/Simulator.hpp>
00022 #include <airsched/command/ScheduleParser.hpp>
00023 >
00024 #include <airsched/command/OnDParser.hpp>
00025 #include <airsched/command/SegmentPathProvider.hpp>
00026 >
00027 #include <airsched/command/InventoryGenerator.hpp>
00028 >
00029 #include <airsched/command/SegmentPathGenerator.hpp>
00030 >

```

```

00025 #include <airsched/service/AIRSCHED_ServiceContext.hpp>
00026 #include <airsched/AIRSCHED_Service.hpp>
00027
00028 namespace AIRSCHED {
00029
00030 // //////////////////////////////////////
00031 AIRSCHED_Service::AIRSCHED_Service() : _airschedServiceContext (NULL) {
00032     assert (false);
00033 }
00034
00035 // //////////////////////////////////////
00036 AIRSCHED_Service::AIRSCHED_Service (const AIRSCHED_Service& iService)
00037 : _airschedServiceContext (NULL) {
00038     assert (false);
00039 }
00040
00041 // //////////////////////////////////////
00042 AIRSCHED_Service::AIRSCHED_Service (const stdair::BasLogParams& iLogParams)
00043 : _airschedServiceContext (NULL) {
00044
00045     // Initialise the STDAIR service handler
00046     stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00047         initStdAirService (iLogParams);
00048
00049     // Initialise the service context
00050     initServiceContext();
00051
00052     // Add the StdAir service context to the AirSched service context
00053     // \note AirSched owns the STDAIR service resources here.
00054     const bool ownStdairService = true;
00055     addStdAirService (lSTDAIR_Service_ptr, ownStdairService);
00056
00057     // Initialise the (remaining of the) context
00058     initAirschedService();
00059 }
00060
00061 // //////////////////////////////////////
00062 AIRSCHED_Service::AIRSCHED_Service (const stdair::BasLogParams& iLogParams,
00063                                     const stdair::BasDBParams& iDBParams)
00064 : _airschedServiceContext (NULL) {
00065
00066     // Initialise the STDAIR service handler
00067     stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00068         initStdAirService (iLogParams, iDBParams);
00069
00070     // Initialise the service context
00071     initServiceContext();
00072
00073     // Add the StdAir service context to the AirSched service context
00074     // \note AirSched owns the STDAIR service resources here.
00075     const bool ownStdairService = true;
00076     addStdAirService (lSTDAIR_Service_ptr, ownStdairService);
00077
00078     // Initialise the (remaining of the) context
00079     initAirschedService();
00080 }
00081
00082 // //////////////////////////////////////
00083 AIRSCHED_Service::
00084 AIRSCHED_Service (stdair::STDAIR_ServicePtr_T ioSTDAIRServicePtr)
00085 : _airschedServiceContext (NULL) {
00086
00087     // Initialise the service context
00088     initServiceContext();
00089
00090     // Add the StdAir service context to the AirSched service context.
00091     // \note AirSched does not own the STDAIR service resources here.
00092     const bool doesNotOwnStdairService = false;
00093     addStdAirService (ioSTDAIRServicePtr, doesNotOwnStdairService);
00094
00095     // Initialise the context
00096     initAirschedService();
00097 }
00098
00099 // //////////////////////////////////////
00100 AIRSCHED_Service::~AIRSCHED_Service() {
00101     // Delete/Clean all the objects from memory
00102     finalise();
00103 }
00104
00105 // //////////////////////////////////////
00106 void AIRSCHED_Service::finalise() {
00107     assert (_airschedServiceContext != NULL);
00108     // Reset the (Boost.)Smart pointer pointing on the STDAIR_Service object.
00109     _airschedServiceContext->reset();
00110 }

```

```

00111
00112 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00113 void AIRSCHED_Service::initServiceContext() {
00114     // Initialise the service context
00115     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00116         FacAIRSCHEDServiceContext::instance().
create();
00117     _airschedServiceContext = &lAIRSCHED_ServiceContext;
00118 }
00119
00120 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00121 void AIRSCHED_Service::
00122 addStdAirService (stdair::STDAIR_ServicePtr_T ioSTDAIR_Service_ptr,
00123                 const bool iOwnStdairService) {
00124
00125     // Retrieve the AirSched service context
00126     assert (_airschedServiceContext != NULL);
00127     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00128         *_airschedServiceContext;
00129
00130     // Store the STDAIR service object within the (AirSched) service context
00131     lAIRSCHED_ServiceContext.setSTDAIR_Service (ioSTDAIR_Service_ptr,
00132                                                iOwnStdairService);
00133 }
00134
00135 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00136 stdair::STDAIR_ServicePtr_T AIRSCHED_Service::
00137 initStdAirService (const stdair::BasLogParams& iLogParams) {
00138
00139     stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00140         boost::make_shared<stdair::STDAIR_Service> (iLogParams);
00141
00142     return lSTDAIR_Service_ptr;
00143 }
00144
00145 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00146 stdair::STDAIR_ServicePtr_T AIRSCHED_Service::
00147 initStdAirService (const stdair::BasLogParams& iLogParams,
00148                 const stdair::BasDBParams& iDBParams) {
00149
00150     stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00151         boost::make_shared<stdair::STDAIR_Service> (iLogParams, iDBParams);
00152
00153     return lSTDAIR_Service_ptr;
00154 }
00155
00156 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00157 void AIRSCHED_Service::initAirschedService() {
00158     // Do nothing at this stage. A sample BOM tree may be built by
00159     // calling the buildSampleBom() method
00160 }
00161
00162 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00163 void AIRSCHED_Service::
00164 parseAndLoad (const stdair::ScheduleFilePath&
00165 iScheduleInputFilePath) {
00166
00167     // Retrieve the BOM tree root
00168     assert (_airschedServiceContext != NULL);
00169     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00170         *_airschedServiceContext;
00171     const bool doesOwnStdairService =
00172         lAIRSCHED_ServiceContext.getOwnStdairServiceFlag();
00173
00174     // Retrieve the StdAir service object from the (AirSched) service context
00175     stdair::STDAIR_Service& lSTDAIR_Service =
00176         lAIRSCHED_ServiceContext.getSTDAIR_Service();
00177     stdair::BomRoot& lPersistentBomRoot =
00178         lSTDAIR_Service.getPersistentBomRoot();
00179
00180     stdair::BasChronometer lINVGeneration; lINVGeneration.start();
00181     ScheduleParser::generateInventories (
00182         iScheduleInputFilePath,
00183         lPersistentBomRoot);
00184     buildComplementaryLinks (lPersistentBomRoot);
00185
00186     const double lGenerationMeasure = lINVGeneration.elapsed();
00187
00188     if (doesOwnStdairService == true) {
00189         //
00190         clonePersistentBom ();
00191     }
00192
00193     // DEBUG
00194     STDAIR_LOG_DEBUG ("Inventory generation time: " << lGenerationMeasure);
00195 }

```

```

00227
00228 ///////////////////////////////////////////////////////////////////
00229 void AIRSCHED_Service::
00230 parseAndLoad (const stdair::ScheduleFilePath&
00231               iScheduleInputFilePath,
00232               const stdair::ODFilePath& iODInputFilePath) {
00233     // First, build the airline inventories from the schedule file
00234     parseAndLoad (iScheduleInputFilePath);
00235
00236     // Retrieve the BOM tree root
00237     assert (_airschedServiceContext != NULL);
00238     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00239     *_airschedServiceContext;
00240     const bool doesOwnStdairService =
00241     lAIRSCHED_ServiceContext.getOwnStdairServiceFlag();
00242
00243     // Retrieve the StdAir service object from the (AirSched) service context
00244     stdair::STDAIR_Service& lSTDAIR_Service =
00245     lAIRSCHED_ServiceContext.getSTDAIR_Service();
00246     stdair::BomRoot& lPersistentBomRoot =
00247     lSTDAIR_Service.getPersistentBomRoot();
00248
00252     stdair::BasChronometer lOnDGeneration; lOnDGeneration.start();
00253     OnDParser::generateOnDPeriods (
00254     iODInputFilePath, lPersistentBomRoot);
00255     const double lGenerationMeasure = lOnDGeneration.elapsed();
00256
00268     if (doesOwnStdairService == true) {
00269
00270         //
00271         lSTDAIR_Service.clonePersistentBom ();
00272     }
00273
00278     stdair::BomRoot& lBomRoot =
00279     lSTDAIR_Service.getBomRoot();
00280     buildComplementaryLinks (lBomRoot);
00281
00282     // DEBUG
00283     STDAIR_LOG_DEBUG ("O&D generation time: " << lGenerationMeasure);
00284 }
00285
00286 ///////////////////////////////////////////////////////////////////
00287 void AIRSCHED_Service::buildSampleBom() {
00288
00289     // Retrieve the AirSched service context
00290     if (_airschedServiceContext == NULL) {
00291         throw stdair::NonInitialisedServiceException ("The AirSched service has "
00292                                                         "not been initialised");
00293     }
00294     assert (_airschedServiceContext != NULL);
00295
00296     // Retrieve the AirSched service context and whether it owns the Stdair
00297     // service
00298     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00299     *_airschedServiceContext;
00300     const bool doesOwnStdairService =
00301     lAIRSCHED_ServiceContext.getOwnStdairServiceFlag();
00302
00303     // Retrieve the StdAir service object from the (AirSched) service context
00304     stdair::STDAIR_Service& lSTDAIR_Service =
00305     lAIRSCHED_ServiceContext.getSTDAIR_Service();
00306
00311     if (doesOwnStdairService == true) {
00312         //
00313         lSTDAIR_Service.buildSampleBom();
00314     }
00315
00328     stdair::BomRoot& lPersistentBomRoot =
00329     lSTDAIR_Service.getPersistentBomRoot();
00330     buildComplementaryLinks (lPersistentBomRoot);
00331
00336     if (doesOwnStdairService == true) {
00337
00338         //
00339         clonePersistentBom ();
00340     }
00341 }
00342
00343 ///////////////////////////////////////////////////////////////////
00344 void AIRSCHED_Service::clonePersistentBom
00345 () {
00346     // Retrieve the AirSched service context
00347     if (_airschedServiceContext == NULL) {
00348         throw stdair::NonInitialisedServiceException ("The AirSched service has "
00349                                                         "not been initialised");

```

```

00350     }
00351     assert (_airschedServiceContext != NULL);
00352
00353     // Retrieve the AirSched service context and whether it owns the Stdair
00354     // service
00355     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00356     *_airschedServiceContext;
00357     const bool doesOwnStdairService =
00358     lAIRSCHED_ServiceContext.getOwnStdairServiceFlag();
00359
00360     // Retrieve the StdAIR service object from the (AirSched) service context
00361     stdair::STDAIR_Service& lSTDAIR_Service =
00362     lAIRSCHED_ServiceContext.getSTDAIR_Service();
00363
00364     if (doesOwnStdairService == true) {
00365         //
00366         lSTDAIR_Service.clonePersistentBom ();
00367     }
00368
00369     stdair::BomRoot& lBomRoot =
00370     lSTDAIR_Service.getBomRoot();
00371     buildComplementaryLinks (lBomRoot);
00372 }
00373
00374 void AIRSCHED_Service::buildComplementaryLinks
00375 (stdair::BomRoot& ioBomRoot) {
00376     // Retrieve the AirSched service context
00377     if (_airschedServiceContext == NULL) {
00378         throw stdair::NonInitialisedServiceException ("The AirSched service has "
00379             "not been initialised");
00380     }
00381     assert (_airschedServiceContext != NULL);
00382
00383     SegmentPathGenerator::createSegmentPathNetwork
00384     (ioBomRoot);
00385 }
00386
00387 // //////////////////////////////////////
00388 std::string AIRSCHED_Service::
00389 jsonExportFlightDateObjects (const
00390     stdair::AirlineCode_T& iAirlineCode,
00391     const stdair::FlightNumber_T& iFlightNumber,
00392     const stdair::Date_T& iDepartureDate) const {
00393     // Retrieve the AirSched service context
00394     if (_airschedServiceContext == NULL) {
00395         throw stdair::NonInitialisedServiceException ("The AirSched service "
00396             "has not been initialised");
00397     }
00398     assert (_airschedServiceContext != NULL);
00399
00400     // Retrieve the StdAIR service object from the (AirSched) service context
00401     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00402     *_airschedServiceContext;
00403     stdair::STDAIR_Service& lSTDAIR_Service =
00404     lAIRSCHED_ServiceContext.getSTDAIR_Service();
00405
00406     // Delegate the JSON export to the dedicated service
00407     return lSTDAIR_Service.jsonExportFlightDateObjects (iAirlineCode,
00408         iFlightNumber,
00409         iDepartureDate);
00410 }
00411
00412 // //////////////////////////////////////
00413 std::string AIRSCHED_Service::csvDisplay() const
00414 {
00415     // Retrieve the AirSched service context
00416     if (_airschedServiceContext == NULL) {
00417         throw stdair::NonInitialisedServiceException ("The AirSched service has "
00418             "not been initialised");
00419     }
00420     assert (_airschedServiceContext != NULL);
00421
00422     // Retrieve the STDAIR service object from the (AirSched) service context
00423     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00424     *_airschedServiceContext;
00425     stdair::STDAIR_Service& lSTDAIR_Service =
00426     lAIRSCHED_ServiceContext.getSTDAIR_Service();
00427     const stdair::BomRoot& lBomRoot = lSTDAIR_Service.getBomRoot();
00428
00429     // Delegate the BOM building to the dedicated service
00430     return lSTDAIR_Service.csvDisplay(lBomRoot);
00431 }

```



```

00443     }
00444
00445     // //////////////////////////////////////
00446     std::string AIRSCHED_Service::
00447     csvDisplay (const stdair::AirlineCode_T& iAirlineCode,
00448                 const stdair::FlightNumber_T& iFlightNumber,
00449                 const stdair::Date_T& iDepartureDate) const {
00450
00451         // Retrieve the AirSched service context
00452         if (_airschedServiceContext == NULL) {
00453             throw stdair::NonInitialisedServiceException ("The AirSched service has "
00454                                                         "not been initialised");
00455         }
00456         assert (_airschedServiceContext != NULL);
00457
00458         // Retrieve the STDAIR service object from the (AirSched) service context
00459         AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00460             *_airschedServiceContext;
00461         stdair::STDAIR_Service& lSTDAIR_Service =
00462             lAIRSCHED_ServiceContext.getSTDAIR_Service();
00463
00464         // Delegate the BOM display to the dedicated service
00465         return lSTDAIR_Service.csvDisplay (iAirlineCode, iFlightNumber,
00466                                           iDepartureDate);
00467     }
00468
00469     // //////////////////////////////////////
00470     void AIRSCHED_Service::simulate() {
00471
00472         // Retrieve the AirSched service context
00473         if (_airschedServiceContext == NULL) {
00474             throw stdair::NonInitialisedServiceException ("The AirSched service has "
00475                                                         "not been initialised");
00476         }
00477         assert (_airschedServiceContext != NULL);
00478
00479         // Retrieve the BOM tree root
00480         AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00481             *_airschedServiceContext;
00482         stdair::STDAIR_Service& lSTDAIR_Service =
00483             lAIRSCHED_ServiceContext.getSTDAIR_Service();
00484         stdair::BomRoot& lBomRoot = lSTDAIR_Service.getBomRoot();
00485
00486         // Call the underlying Use Case (command)
00487         stdair::BasChronometer lSimulateChronometer; lSimulateChronometer.start();
00488         Simulator::simulate (lBomRoot);
00489         const double lSimulateMeasure = lSimulateChronometer.elapsed();
00490
00491         // DEBUG
00492         STDAIR_LOG_DEBUG ("Simulation: " << lSimulateMeasure << " - "
00493                         << lAIRSCHED_ServiceContext.display());
00494     }
00495
00496     // //////////////////////////////////////
00497     void AIRSCHED_Service::
00498     buildSegmentPathList (stdair::TravelSolutionList_T&
00499                          ioTravelSolutionList,
00500                          const stdair::BookingRequestStruct& iBookingRequest) {
00501
00502         if (_airschedServiceContext == NULL) {
00503             throw stdair::NonInitialisedServiceException ("The AirSched service has "
00504                                                         "not been initialised");
00505         }
00506         assert (_airschedServiceContext != NULL);
00507
00508         // Retrieve the BOM tree root
00509         AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00510             *_airschedServiceContext;
00511         stdair::STDAIR_Service& lSTDAIR_Service =
00512             lAIRSCHED_ServiceContext.getSTDAIR_Service();
00513         stdair::BomRoot& lBomRoot = lSTDAIR_Service.getBomRoot();
00514
00515         // Delegate the call to the dedicated command
00516         stdair::BasChronometer lBuildChronometer; lBuildChronometer.start();
00517         SegmentPathProvider::buildSegmentPathList
00518         (ioTravelSolutionList,
00519          lBomRoot, iBookingRequest);
00519         const double lBuildMeasure = lBuildChronometer.elapsed();
00520
00521         // DEBUG
00522         STDAIR_LOG_DEBUG ("Segment-path build: " << lBuildMeasure << " - "
00523                         << lAIRSCHED_ServiceContext.display());
00524     }
00525 }

```

## 24.140 airsched/service/AIRSCHEd\_ServiceContext.cpp File Reference

```
#include <cassert>
#include <sstream>
#include <stdair/STDAIR_Service.hpp>
#include <airsched/basic/BasConst_AIRSCHEd_Service.hpp>
#include <airsched/service/AIRSCHEd_ServiceContext.hpp>
```

## Namespaces

- namespace [AIRSCHEd](#)

## 24.141 AIRSCHEd\_ServiceContext.cpp

```
00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // StdAir
00008 #include <stdair/STDAIR_Service.hpp>
00009 // AirSched
00010 #include <airsched/basic/BasConst_AIRSCHEd_Service.hpp>
00011 >
00012 #include <airsched/service/AIRSCHEd_ServiceContext.hpp>
00013 >
00012 namespace AIRSCHEd {
00013 namespace AIRSCHEd {
00014 // //////////////////////////////////////
00015 AIRSCHEd_ServiceContext::AIRSCHEd_ServiceContext()
00016 : _ownStdairService (false) {
00017 }
00018 }
00019 // //////////////////////////////////////
00020 AIRSCHEd_ServiceContext::
00021 AIRSCHEd_ServiceContext (const AIRSCHEd_ServiceContext&) {
00022     assert (false);
00023 }
00024 }
00025 // //////////////////////////////////////
00026 AIRSCHEd_ServiceContext::~AIRSCHEd_ServiceContext() {
00027 }
00028 }
00029 // //////////////////////////////////////
00030 stdair::STDAIR_Service& AIRSCHEd_ServiceContext::getSTDAIR_Service() const {
00031     assert (_stdairService != NULL);
00032     return *_stdairService;
00033 }
00034 }
00035 // //////////////////////////////////////
00036 const std::string AIRSCHEd_ServiceContext::shortDisplay() const {
00037     std::ostringstream ostr;
00038     ostr << "AIRSCHEd_ServiceContext -- Owns StdAir service: "
00039     << _ownStdairService;
00040     return ostr.str();
00041 }
00042 }
00043 // //////////////////////////////////////
00044 const std::string AIRSCHEd_ServiceContext::display() const {
00045     std::ostringstream ostr;
00046     ostr << shortDisplay();
00047     return ostr.str();
00048 }
00049 }
00050 // //////////////////////////////////////
00051 const std::string AIRSCHEd_ServiceContext::describe() const {
00052     return shortDisplay();
00053 }
00054 }
00055 // //////////////////////////////////////
00056 void AIRSCHEd_ServiceContext::reset() {
00057 // The shared_ptr<>::reset() method drops the refcount by one.
00058 // If the count result is dropping to zero, the resource pointed to
00059 // by the shared_ptr<> will be freed.
```

```

00062
00063     // Reset the stdair shared pointer
00064     _stdairService.reset();
00065 }
00066
00067 }

```

## 24.142 airsched/service/AIRSCHEd\_ServiceContext.hpp File Reference

```

#include <string>
#include <boost/shared_ptr.hpp>
#include <stdair/stdair_service_types.hpp>
#include <stdair/service/ServiceAbstract.hpp>
#include <airsched/AIRSCHEd_Types.hpp>

```

### Classes

- class [AIRSCHEd::AIRSCHEd\\_ServiceContext](#)  
Class holding the context of the AirSched services.

### Namespaces

- namespace [AIRSCHEd](#)

## 24.143 AIRSCHEd\_ServiceContext.hpp

```

00001 #ifndef __AIRSCHEd_SVC_AIRSCHEd_SERVICE_CONTEXT_HPP
00002 #define __AIRSCHEd_SVC_AIRSCHEd_SERVICE_CONTEXT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // Boost
00010 #include <boost/shared_ptr.hpp>
00011 // StdAir
00012 #include <stdair/stdair_service_types.hpp>
00013 #include <stdair/service/ServiceAbstract.hpp>
00014 // AirSched
00015 #include <airsched/AIRSCHEd_Types.hpp>
00016
00017 namespace AIRSCHEd {
00018
00022     class AIRSCHEd_ServiceContext : public
stdair::ServiceAbstract {
00028         friend class AIRSCHEd_Service;
00029         friend class FacAIRSCHEdServiceContext;
00030
00031     private:
00032         // ////////////////////////////////// Getters //////////////////////////////////
00036         stdair::STDAIR_ServicePtr_T getSTDAIR_ServicePtr() const {
00037             return _stdairService;
00038         }
00039
00043         stdair::STDAIR_Service& getSTDAIR_Service() const;
00044
00048         const bool getOwnStdairServiceFlag() const {
00049             return _ownStdairService;
00050         }
00051
00052     private:
00054         // ////////////////////////////////// Setters //////////////////////////////////
00058         void setSTDAIR_Service (stdair::STDAIR_ServicePtr_T ioSTDAIR_ServicePtr,
00059                                 const bool iOwnStdairService) {
00060             _stdairService = ioSTDAIR_ServicePtr;
00061             _ownStdairService = iOwnStdairService;
00062         }
00063

```

```

00064
00065 private:
00066     // ////////////////////////////////// Display Methods //////////////////////////////////
00070     const std::string shortDisplay() const;
00071
00075     const std::string display() const;
00076
00080     const std::string describe() const;
00081
00082 private:
00083
00085     AIRSCHED_ServiceContext ();
00089
00093     AIRSCHED_ServiceContext (const AIRSCHED_ServiceContext&);
00094
00098     void init();
00099
00103     ~AIRSCHED_ServiceContext ();
00104
00108     void reset();
00109
00110 private:
00111     // ////////////////////////////////// Children //////////////////////////////////
00116     stdair::STDAIR_ServicePtr_T _stdairService;
00117
00121     bool _ownStdairService;
00122 };
00123
00124 }
00125 #endif // __AIRSCHED_SVC_AIRSCHED_SERVICE_CONTEXT_HPP

```

## 24.144 airsched/service/ServiceAbstract.cpp File Reference

```
#include <airsched/service/ServiceAbstract.hpp>
```

### Namespaces

- namespace [AIRSCHED](#)

## 24.145 ServiceAbstract.cpp

```

00001 // //////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////
00004 // AIRSCHED
00005 #include <airsched/service/ServiceAbstract.hpp>
00006 >
00007 namespace AIRSCHED {
00008
00009 }

```

## 24.146 airsched/service/ServiceAbstract.hpp File Reference

```
#include <iostream>
#include <sstream>
```

### Classes

- class [AIRSCHED::ServiceAbstract](#)

### Namespaces

- namespace [AIRSCHED](#)

## Functions

- `template<class charT , class traits >`  
`std::basic_ostream< charT,`  
`traits > & operator<< (std::basic_ostream< charT, traits > &ioOut, const AIRSCHED::ServiceAbstract &i-`  
`Service)`
- `template<class charT , class traits >`  
`std::basic_istream< charT,`  
`traits > & operator>> (std::basic_istream< charT, traits > &ioIn, AIRSCHED::ServiceAbstract &ioService)`

## 24.146.1 Function Documentation

**24.146.1.1** `template<class charT , class traits > std::basic_ostream<charT, traits>& operator<< ( std::basic_ostream<`  
`charT, traits > & ioOut, const AIRSCHED::ServiceAbstract & iService ) [inline]`

Piece of code given by Nicolai M. Josuttis, Section 13.12.1 "Implementing Output Operators" (p653) of his book "The C++ Standard Library: A Tutorial and Reference", published by Addison-Wesley.

Definition at line 42 of file [ServiceAbstract.hpp](#).

**24.146.1.2** `template<class charT , class traits > std::basic_istream<charT, traits>& operator>> ( std::basic_istream<`  
`charT, traits > & ioIn, AIRSCHED::ServiceAbstract & ioService ) [inline]`

Piece of code given by Nicolai M. Josuttis, Section 13.12.1 "Implementing Output Operators" (pp655-657) of his book "The C++ Standard Library: A Tutorial and Reference", published by Addison-Wesley.

Definition at line 70 of file [ServiceAbstract.hpp](#).

References [AIRSCHED::ServiceAbstract::fromStream\(\)](#).

## 24.147 ServiceAbstract.hpp

```

00001 #ifndef __AIRSCHED_SERVICEABSTRACT_HPP
00002 #define __AIRSCHED_SERVICEABSTRACT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iostream>
00009 #include <sstream>
00010
00011 namespace AIRSCHED {
00012
00013     class ServiceAbstract {
00014     public:
00015
00016         virtual ~ServiceAbstract() {}
00017
00018         virtual void toStream (std::ostream& ioOut) const {}
00019
00020         virtual void fromStream (std::istream& ioIn) {}
00021
00022     protected:
00023         ServiceAbstract() {}
00024     };
00025 }
00026
00027 template <class charT, class traits>
00028 inline
00029 std::basic_ostream<charT, traits>&
00030 operator<< (std::basic_ostream<charT, traits>& ioOut,
00031            const AIRSCHED::ServiceAbstract & iService)
00032 {
00033     std::basic_ostringstream<charT,traits> ostr;
00034     ostr.copyfmt (ioOut);
00035     ostr.width (0);
00036
00037     // Fill string stream
00038     iService.toStream (ostr);
00039
00040     // Print string stream

```

```

00057   ioOut << ostr.str();
00058
00059   return ioOut;
00060 }
00061
00062 template <class charT, class traits>
00063 inline
00064 std::basic_istream<charT, traits>&
00065 operator>> (std::basic_istream<charT, traits>& ioIn,
00066             AIRSCHED::ServiceAbstract& ioService) {
00067     // Fill Service object with input stream
00068     ioService.fromStream (ioIn);
00069     return ioIn;
00070 }
00071
00072 #endif // __AIRSCHED_SERVICEABSTRACT_HPP

```

## 24.148 doc/local/authors.doc File Reference

## 24.149 doc/local/codingrules.doc File Reference

## 24.150 doc/local/copyright.doc File Reference

## 24.151 doc/local/documentation.doc File Reference

## 24.152 doc/local/features.doc File Reference

## 24.153 doc/local/help\_wanted.doc File Reference

## 24.154 doc/local/howto\_release.doc File Reference

## 24.155 doc/local/index.doc File Reference

## 24.156 doc/local/installation.doc File Reference

## 24.157 doc/local/linking.doc File Reference

## 24.158 doc/local/test.doc File Reference

## 24.159 doc/local/users\_guide.doc File Reference

## 24.160 doc/local/verification.doc File Reference

## 24.161 doc/tutorial/tutorial.doc File Reference

## 24.162 test/airsched/AirlineScheduleTestSuite.cpp File Reference

## 24.163 AirlineScheduleTestSuite.cpp

```

00001
00002 // //////////////////////////////////////
00003 // Import section
00004 // //////////////////////////////////////
00005 // STL
00006 #include <sstream>
00007 #include <fstream>
00008 #include <string>
00009 // Boost Unit Test Framework (UTF)
00010 #define BOOST_TEST_DYN_LINK
00011 #define BOOST_TEST_MAIN
00012 #define BOOST_TEST_MODULE InventoryTestSuite
00013 #include <boost/test/unit_test.hpp>
00014 // Boost Date-Time
00015 #include <boost/date_time/gregorian/gregorian.hpp>

```

```

00019 // StdAir
00020 #include <stdair/basic/BasFileMgr.hpp>
00021 #include <stdair/basic/BasLogParams.hpp>
00022 #include <stdair/basic/BasDBParams.hpp>
00023 #include <stdair/basic/BasFileMgr.hpp>
00024 #include <stdair/bom/TravelSolutionStruct.hpp>
00025 #include <stdair/bom/BookingRequestStruct.hpp>
00026 #include <stdair/service/Logger.hpp>
00027 // AirSched
00028 #include <airsched/AIRSCHEd_Types.hpp>
00029 #include <airsched/AIRSCHEd_Service.hpp>
00030 #include <airsched/config/airsched-paths.hpp>
00031
00032 namespace boost_utf = boost::unit_test;
00033
00034 // (Boost) Unit Test XML Report
00035 std::ofstream utfReportStream ("AirlineScheduleTestSuite_utfresults.xml");
00036
00040 struct UnitTestConfig {
00042     UnitTestConfig() {
00043         boost_utf::unit_test_log.set_stream (utfReportStream);
00044         boost_utf::unit_test_log.set_format (boost_utf::XML);
00045         boost_utf::unit_test_log.set_threshold_level (boost_utf::log_test_units);
00046         //boost_utf::unit_test_log.set_threshold_level
00047         (boost_utf::log_successful_tests);
00048     }
00049
00050     ~UnitTestConfig() {
00051     }
00052 };
00053
00054 // //////////////////////////////////////
00058 const unsigned int testScheduleHelper (const unsigned short iTestFlag,
00059                                       const stdair::Filename_T&
00060                                       iScheduleInputFilename,
00061                                       const stdair::Filename_T&
00062                                       iODInputFilename,
00063                                       const bool isBuiltin,
00064                                       const bool isWithOnD) {
00065     // Output log File
00066     std::ostringstream oStr;
00067     oStr << "AirlineScheduleTestSuite_" << iTestFlag << ".log";
00068     const stdair::Filename_T lLogFilename (oStr.str());
00069
00070     // Set the log parameters
00071     std::ofstream logOutputFile;
00072     // Open and clean the log outputfile
00073     logOutputFile.open (lLogFilename.c_str());
00074     logOutputFile.clear();
00075
00076     // Instantiate the AirSched service
00077     const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
00078     AIRSCHEd_Service airschedService (
00079         lLogParams);
00080
00081     stdair::AirportCode_T lOrigin;
00082     stdair::AirportCode_T lDestination;
00083     stdair::AirportCode_T lPOS;
00084     stdair::Date_T lPreferredDepartureDate;
00085     stdair::Date_T lRequestDate;
00086
00087     // Check whether or not a (CSV) input file should be read
00088     if (isBuiltin == true) {
00089         // Build the default sample BOM tree (filled with schedules)
00090         airschedService.buildSampleBom();
00091
00092         lOrigin = "SIN";
00093         lDestination = "BKK";
00094         lPOS = "SIN";
00095         lPreferredDepartureDate = boost::gregorian::from_string ("2010/02/08");
00096         lRequestDate = boost::gregorian::from_string ("2010/01/21");
00097     } else {
00098         if (isWithOnD == false) {
00099             // Build the BOM tree from parsing input files
00100             const stdair::ScheduleFilePath lScheduleFilePath (iScheduleInputFilename);
00101
00102             airschedService.parseAndLoad (lScheduleFilePath);
00103
00104             lOrigin = "NCE";
00105             lDestination = "BKK";
00106             lPOS = "NCE";
00107             lPreferredDepartureDate = boost::gregorian::from_string ("2007/04/21");

```

```

00109         lRequestDate = boost::gregorian::from_string ("2007/03/21");
00110     } else {
00111     }
00112     // Build the BOM tree from parsing input files
00113     const stdair::ScheduleFilePath lScheduleFilePath (iScheduleInputFilename)
00114 ;
00115     const stdair::ODFilePath lODFilePath (iODInputFilename);
00116     airschedService.parseAndLoad (lScheduleFilePath,
00117                                     lODFilePath);
00118
00119     lOrigin = "SIN";
00120     lDestination = "BKK";
00121     lPOS = "SIN";
00122     lPreferredDepartureDate = boost::gregorian::from_string ("2009/02/02");
00123     lRequestDate = boost::gregorian::from_string ("2009/01/01");
00124 }
00125
00126 }
00127
00128 // Create a booking request structure
00129 const stdair::Duration_T lRequestTime (boost::posix_time::hours(8));
00130 const stdair::DateTime_T lRequestDateTime (lRequestDate, lRequestTime);
00131 const stdair::CabinCode_T lPreferredCabin ("Bus");
00132 const stdair::PartySize_T lPartySize (3);
00133 const stdair::ChannelLabel_T lChannel ("DF");
00134 const stdair::TripType_T lTripType ("RO");
00135 const stdair::DayDuration_T lStayDuration (5);
00136 const stdair::FrequentFlyer_T lFrequentFlyerType ("NONE");
00137 const stdair::Duration_T lPreferredDepartureTime (boost::posix_time::hours(10
));
00138 const stdair::WTP_T lWTP (2000.0);
00139 const stdair::PriceValue_T lValueOfTime (20.0);
00140 const stdair::ChangeFees_T lChangeFees (true);
00141 const stdair::Disutility_T lChangeFeeDisutility (50);
00142 const stdair::NonRefundable_T lNonRefundable (true);
00143 const stdair::Disutility_T lNonRefundableDisutility (50);
00144
00145 const stdair::BookingRequestStruct lBookingRequest (lOrigin, lDestination,
00146                                                         lPOS,
00147                                                         lPreferredDepartureDate,
00148                                                         lRequestDateTime,
00149                                                         lPreferredCabin,
00150                                                         lPartySize, lChannel,
00151                                                         lTripType, lStayDuration,
00152                                                         lFrequentFlyerType,
00153                                                         lPreferredDepartureTime,
00154                                                         lWTP, lValueOfTime,
00155                                                         lChangeFees,
00156                                                         lChangeFeeDisutility,
00157                                                         lNonRefundable,
00158                                                         lNonRefundableDisutility)
;
00159
00160 // Build the segment path list
00161 stdair::TravelSolutionList_T lTravelSolutionList;
00162 airschedService.buildSegmentPathList (lTravelSolutionList, lBookingRequest);
00163 const unsigned int lNbOfTravelSolutions = lTravelSolutionList.size();
00164
00165 STDAIR_LOG_DEBUG ("The number of travel solutions for the booking request '"
00166                 << lBookingRequest.describe() << "' is equal to "
00167                 << lNbOfTravelSolutions << ".");
00168
00169 // Close the Log output file
00170 logOutputFile.close();
00171
00172 return lNbOfTravelSolutions;
00173 }
00174
00175
00176 // ////////////////////////////////// Main: Unit Test Suite //////////////////////////////////
00177
00178 // Set the UTF configuration (re-direct the output to a specific file)
00179 BOOST_GLOBAL_FIXTURE (UnitTestFixture);
00180
00181 // Start the test suite
00182 BOOST_AUTO_TEST_SUITE (master_test_suite)
00183
00184
00185 BOOST_AUTO_TEST_CASE (airsched_simple_build) {
00186
00187     // Input file name
00188     const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
00189                                                         "/schedule03.csv");
00190
00191     // State whether the BOM tree should be built-in or parsed from input files
00192     const bool isBuiltin = false;

```



```

00195     const bool isWithOnD = false;
00196
00197     // Try to build a travel solution list
00198     unsigned int lNbOfTravelSolutions = 0;
00199     BOOST_CHECK_NO_THROW (lNbOfTravelSolutions =
00200         testScheduleHelper (0, lScheduleInputFilename, " ",
00201             isBuiltin, isWithOnD));
00202
00203     // Check the size of the travel solution list
00204     const unsigned int lExpectedNbOfTravelSolutions = 4;
00205     BOOST_CHECK_MESSAGE (lNbOfTravelSolutions == lExpectedNbOfTravelSolutions,
00206         "The number of travel solutions is "
00207         << lNbOfTravelSolutions << " ", but it should be equal to "
00208         << lExpectedNbOfTravelSolutions);
00209
00210 }
00211
00215 BOOST_AUTO_TEST_CASE (airsched_default_bom_tree_simple_build) {
00216
00217     // State whether the BOM tree should be built-in or parsed from input files
00218     const bool isBuiltin = true;
00219     const bool isWithOnD = false;
00220
00221     // Try to build a travel solution list
00222     unsigned int lNbOfTravelSolutions = 0;
00223     BOOST_CHECK_NO_THROW (lNbOfTravelSolutions =
00224         testScheduleHelper (1, " ", " ", isBuiltin, isWithOnD));
00225
00226     // Check the size of the travel solution list
00227     const unsigned int lExpectedNbOfTravelSolutions = 1;
00228     BOOST_CHECK_MESSAGE (lNbOfTravelSolutions == lExpectedNbOfTravelSolutions,
00229         "The number of travel solutions is "
00230         << lNbOfTravelSolutions << " ", but it should be equal to "
00231         << lExpectedNbOfTravelSolutions);
00232
00233 }
00234
00238 BOOST_AUTO_TEST_CASE (airsched_OnD_input_file) {
00239
00240     // Input file names
00241     const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
00242         "/rds01/schedule05.csv");
00243     const stdair::Filename_T lODInputFilename (STDAIR_SAMPLE_DIR
00244         "/ond01.csv");
00245
00246     // State whether the BOM tree should be built-in or parsed from input files
00247     const bool isBuiltin = false;
00248     const bool isWithOnD = true;
00249
00250     // Try to build a travel solution list
00251     unsigned int lNbOfTravelSolutions = 0;
00252     BOOST_CHECK_NO_THROW (lNbOfTravelSolutions =
00253         testScheduleHelper (2, lScheduleInputFilename,
00254             lODInputFilename,
00255             isBuiltin, isWithOnD));
00256
00257     // Check the size of the travel solution list
00258     const unsigned int lExpectedNbOfTravelSolutions = 1;
00259     BOOST_CHECK_MESSAGE (lNbOfTravelSolutions == lExpectedNbOfTravelSolutions,
00260         "The number of travel solutions is "
00261         << lNbOfTravelSolutions << " ", but it should be equal to "
00262         << lExpectedNbOfTravelSolutions);
00263 }
00264
00268 BOOST_AUTO_TEST_CASE (airsched_missing_OnD_input_file) {
00269
00270     // Input file names
00271     const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
00272         "/schedule03.csv");
00273     const stdair::Filename_T lODInputFilename (STDAIR_SAMPLE_DIR
00274         "/missingFiles.csv");
00275
00276     // State whether the BOM tree should be built-in or parsed from input files
00277     const bool isBuiltin = false;
00278     const bool isWithOnD = true;
00279
00280     // Try to build a travel solution list
00281     BOOST_CHECK_THROW (testScheduleHelper (3, lScheduleInputFilename,
00282         lODInputFilename,
00283         isBuiltin, isWithOnD),
00284         AIRSCHED::OnDInputFileNotFoundException
00285     );
00286
00290 BOOST_AUTO_TEST_CASE (airsched_missing_schedule_input_file) {
00291

```

```

00292 // Input file name
00293 const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
00294                                                    "/missingFiles.csv");
00295
00296 // State whether the BOM tree should be built-in or parsed from input files
00297 const bool isBuiltin = false;
00298 const bool isWithOnD = false;
00299
00300 // Try to build a travel solution list
00301 BOOST_CHECK_THROW (testScheduleHelper (4, lScheduleInputFilename, " ",
00302                                         isBuiltin, isWithOnD),
00303                     AIRSCHED::ScheduleInputFileNotFoundException
00304 );
00305 }
00306
00310 BOOST_AUTO_TEST_CASE (airsched_segment_date_not_found) {
00311
00312 // Input file name
00313 const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
00314                                                    "/scheduleError03.csv");
00315
00316 // State whether the BOM tree should be built-in or parsed from input files
00317 const bool isBuiltin = false;
00318 const bool isWithOnD = false;
00319
00320 // Try to build a travel solution list
00321 BOOST_CHECK_THROW (testScheduleHelper (5, lScheduleInputFilename,
00322                                         " ",
00323                                         isBuiltin, isWithOnD),
00324                     AIRSCHED::SegmentDateNotFoundException
00325 );
00326
00327 }
00328
00329 // End the test suite
00331 BOOST_AUTO_TEST_SUITE_END()
00332
00333

```

## 24.164 test/airsched/AirlineScheduleTestSuite.hpp File Reference

```

#include <sstream>
#include <cppunit/extensions/HelperMacros.h>

```

### Classes

- class [AirlineScheduleTestSuite](#)

### Functions

- [CPPUNIT\\_TEST\\_SUITE\\_REGISTRATION \(AirlineScheduleTestSuite\)](#)

#### 24.164.1 Function Documentation

##### 24.164.1.1 CPPUNIT\_TEST\_SUITE\_REGISTRATION ( AirlineScheduleTestSuite )

## 24.165 AirlineScheduleTestSuite.hpp

```

00001 // STL
00002 #include <sstream>
00003 // CPPUNIT
00004 #include <cppunit/extensions/HelperMacros.h>
00005
00006 class AirlineScheduleTestSuite : public
00007     CppUnit::TestFixture {
00007     CPPUNIT_TEST_SUITE (AirlineScheduleTestSuite);
00008     // CPPUNIT_TEST (externalMemoryManagement);
00009     CPPUNIT_TEST (scheduleParsing);

```

```
00010  CPPUNIT_TEST_SUITE_END ();
00011  public:
00012
00019  void externalMemoryManagement ();
00020  void scheduleParsing ();
00021
00023  AirlineScheduleTestSuite ();
00024
00025  protected:
00026  std::stringstream _describeKey;
00027  };
00028  CPPUNIT_TEST_SUITE_REGISTRATION (
    AirlineScheduleTestSuite);
```