

# SEvMgr Reference Manual

1.00.1

Generated by Doxygen 1.4.7

Sun Dec 23 20:55:43 2012

## Contents

<b>1 SEvMgr Documentation</b>	<b>1</b>
<b>2 SEvMgr Directory Hierarchy</b>	<b>2</b>
<b>3 SEvMgr Namespace Index</b>	<b>3</b>
<b>4 SEvMgr Hierarchical Index</b>	<b>3</b>
<b>5 SEvMgr Class Index</b>	<b>5</b>
<b>6 SEvMgr File Index</b>	<b>6</b>
<b>7 SEvMgr Page Index</b>	<b>7</b>
<b>8 SEvMgr Directory Documentation</b>	<b>8</b>
<b>9 SEvMgr Namespace Documentation</b>	<b>10</b>
<b>10 SEvMgr Class Documentation</b>	<b>14</b>
<b>11 SEvMgr File Documentation</b>	<b>46</b>
<b>12 SEvMgr Page Documentation</b>	<b>59</b>

## 1 SEvMgr Documentation

### 1.1 Getting Started

- [Main features](#)
- [Installation](#)
- [Linking with SEvMgr](#)
- [Users Guide](#)
- [Tutorials](#)
- [Copyright and License](#)
- [Make a Difference](#)
- [Make a new release](#)
- [People](#)

## 1.2 SEvMgr at SourceForge

- [Project page](#)
- [Download SEvMgr](#)
- [Open a ticket for a bug or feature](#)
- [Mailing lists](#)
- [Forums](#)
  - [Discuss about Development issues](#)
  - [Ask for Help](#)
  - [Discuss SEvMgr](#)

## 1.3 SEvMgr Development

- [Git Repository](#)
- [Coding Rules](#)
- [Documentation Rules](#)
- [Test Rules](#)

## 1.4 External Libraries

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

## 1.5 Support SEvMgr

## 1.6 About SEvMgr

SEvMgr is a C++ library of discrete event queue management classes and functions, exclusively targeting simulation purposes. [N](#)

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

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

SEvMgr 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 SEvMgr 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 SEvMgr.

## 2 SEvMgr Directory Hierarchy

### 2.1 SEvMgr Directories

This directory hierarchy is sorted roughly, but not completely, alphabetically:

<b>sevmgr</b>	<b>9</b>
<b>basic</b>	<b>8</b>
<b>batches</b>	<b>8</b>
<b>bom</b>	<b>8</b>
<b>command</b>	<b>8</b>
<b>config</b>	<b>9</b>
<b>factory</b>	<b>9</b>
<b>python</b>	<b>9</b>
<b>service</b>	<b>9</b>
<b>ui</b>	<b>10</b>
<b>cmdline</b>	<b>8</b>
<b>test</b>	<b>10</b>
<b>sevmgr</b>	<b>9</b>

## 3 SEvMgr Namespace Index

### 3.1 SEvMgr Namespace List

Here is a list of all namespaces with brief descriptions:

<b>bpt</b>	<b>10</b>
<b>SEVMGR</b>	<b>10</b>
<b>stdair</b> (Forward declarations )	<b>14</b>

## 4 SEvMgr Hierarchical Index

### 4.1 SEvMgr Class Hierarchy

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

std::allocator< T >	
std::auto_ptr< T >	
std::basic_string< Char >	
std::basic_string< char >	
std::string	
std::basic_string< wchar_t >	
std::wstring	
std::bitset< Bits >	
<b>BomAbstract</b>	<b>14</b>
<b>SEVMGR::EventQueue</b>	<b>16</b>
<b>SEVMGR::BomJSONExport</b>	<b>15</b>
<b>CmdAbstract</b>	<b>15</b>
<b>SEVMGR::EventQueueManager</b>	<b>29</b>
std::complex	
std::deque< T >	
std::exception	
std::bad_alloc	
std::bad_cast	
std::bad_exception	
std::bad_typeid	
std::ios_base::failure	
std::logic_error	
std::domain_error	
std::invalid_argument	
std::length_error	
std::out_of_range	
std::runtime_error	
std::overflow_error	
std::range_error	
std::underflow_error	
<b>FacServiceAbstract</b>	<b>30</b>
<b>SEVMGR::FacSEVMGRServiceContext</b>	<b>30</b>
std::ios_base	
std::basic_ios	
std::basic_istream	
std::basic_ifstream	
std::basic_iostream	
std::basic_fstream	
std::basic_stringstream	
std::basic_istringstream	
std::basic_ostream	

```

std::basic_iostream
std::basic_ofstream
std::basic_ostringstream
std::basic_ios< char >
std::basic_istream< char >
std::basic_ifstream< char >
std::ifstream
std::basic_iostream< char >
std::basic_fstream< char >
std::fstream
std::basic_stringstream< char >
std::stringstream
std::basic_istringstream< char >
std::istringstream
std::istream
std::basic_ostream< char >
std::basic_iostream< char >
std::basic_ofstream< char >
std::ofstream
std::basic_ostringstream< char >
std::ostringstream
std::ostream
std::ios
std::basic_ios< wchar_t >
std::basic_istream< wchar_t >
std::basic_ifstream< wchar_t >
std::wifstream
std::basic_iostream< wchar_t >
std::basic_fstream< wchar_t >
std::wfstream
std::basic_stringstream< wchar_t >
std::wstringstream
std::basic_istringstream< wchar_t >
std::wistringstream
std::wistream
std::basic_ostream< wchar_t >
std::basic_iostream< wchar_t >
std::basic_ofstream< wchar_t >
std::wofstream
std::basic_ostringstream< wchar_t >
std::wostringstream
std::wostream
std::wios

```

**KeyAbstract**[32](#)**SEVMGR::EventQueueKey**[27](#)

```

std::list< T >
std::map< K, T >
std::multimap< K, T >
std::multiset< K >
std::priority_queue< T >

```

**SEVMGR::PYEventQueueManager**[32](#)

std::queue< T >	
<b>RootException</b>	<b>33</b>
<b>SEVMGR::SEvMgrException</b>	<b>45</b>
<b>SEVMGR::EventQueueException</b>	<b>27</b>
<b>ServiceAbstract</b>	<b>33</b>
<b>SEVMGR::SEVMGR_ServiceContext</b>	<b>44</b>
std::set< K >	
<b>SEVMGR::SEVMGR_Service</b>	<b>34</b>
std::stack< T >	
std::valarray< T >	
std::vector< T >	

## 5 SEvMgr Class Index

### 5.1 SEvMgr Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

<b>BomAbstract</b>	<b>14</b>
<b>SEVMGR::BomJSONExport</b> (Utility class to export StdAir objects in a JSON format )	<b>15</b>
<b>CmdAbstract</b>	<b>15</b>
<b>SEVMGR::EventQueue</b> (Class holding event structures )	<b>16</b>
<b>SEVMGR::EventQueueException</b>	<b>27</b>
<b>SEVMGR::EventQueueKey</b>	<b>27</b>
<b>SEVMGR::EventQueueManager</b> (Utility class for Demand and DemandStream objects )	<b>29</b>
<b>FacServiceAbstract</b>	<b>30</b>
<b>SEVMGR::FacSEVMGRServiceContext</b>	<b>30</b>
<b>KeyAbstract</b>	<b>32</b>
<b>SEVMGR::PYEventQueueManager</b>	<b>32</b>
<b>RootException</b>	<b>33</b>
<b>ServiceAbstract</b>	<b>33</b>
<b>SEVMGR::SEVMGR_Service</b> (Class holding the services related to Travel Demand Generation )	<b>34</b>
<b>SEVMGR::SEVMGR_ServiceContext</b> (Class holding the context of the Sevmgr services )	<b>44</b>

<a href="#">SEVMGR::SEvMgrException</a>	45
---	----

## 6 SEvMgr File Index

### 6.1 SEvMgr File List

Here is a list of all files with brief descriptions:

<a href="#">sevmgr/SEVMGR_Exceptions.hpp</a>	58
<a href="#">sevmgr/SEVMGR_Service.hpp</a>	58
<a href="#">sevmgr/SEVMGR_Types.hpp</a>	58
<a href="#">sevmgr/basic/BasConst.cpp</a>	46
<a href="#">sevmgr/basic/BasConst_EventQueueManager.hpp</a>	46
<a href="#">sevmgr/basic/BasConst_SEVMGR_Service.hpp</a>	47
<a href="#">sevmgr/basic/BasParserTypes.hpp</a>	47
<a href="#">sevmgr/batches/sevmgr_demo.cpp</a>	48
<a href="#">sevmgr/bom/BomJSONExport.cpp</a>	49
<a href="#">sevmgr/bom/BomJSONExport.hpp</a>	49
<a href="#">sevmgr/bom/EventQueue.cpp</a>	50
<a href="#">sevmgr/bom/EventQueue.hpp</a>	50
<a href="#">sevmgr/bom/EventQueueKey.cpp</a>	51
<a href="#">sevmgr/bom/EventQueueKey.hpp</a>	51
<a href="#">sevmgr/bom/EventQueueTypes.hpp</a>	51
<a href="#">sevmgr/command/EventQueueManager.cpp</a>	52
<a href="#">sevmgr/command/EventQueueManager.hpp</a>	52
<a href="#">sevmgr/config/sevmgr-paths.hpp.in</a>	53
<a href="#">sevmgr/factory/FacSEVMGRServiceContext.cpp</a>	55
<a href="#">sevmgr/factory/FacSEVMGRServiceContext.hpp</a>	55
<a href="#">sevmgr/python/pysevmgr.cpp</a>	55
<a href="#">sevmgr/service/SEVMGR_Service.cpp</a>	56
<a href="#">sevmgr/service/SEVMGR_ServiceContext.cpp</a>	57
<a href="#">sevmgr/service/SEVMGR_ServiceContext.hpp</a>	57



<a href="#">sevmgr/ui/cmdline/sevmgr.cpp</a>	59
<a href="#">test/sevmgr/EventQueueManagementTestSuite.cpp</a>	59

## 7 SEvMgr Page Index

### 7.1 SEvMgr Related Pages

Here is a list of all related documentation pages:

<b>People</b>	59
<b>Coding Rules</b>	59
<b>Copyright and License</b>	60
<b>Documentation Rules</b>	67
<b>Main features</b>	69
<b>Make a Difference</b>	69
<b>Make a new release</b>	70
<b>Installation</b>	73
<b>Linking with SEvMgr</b>	83
<b>Test Rules</b>	85
<b>Users Guide</b>	85
<b>Supported Systems</b>	137
<b>SEvMgr Supported Systems (Previous Releases)</b>	137
<b>Tutorials</b>	142
<b>Command-Line Test to Demonstrate How To Use Sevmgr elements</b>	144

## 8 SEvMgr Directory Documentation

### 8.1 sevmgr/basic/ Directory Reference

#### Files

- file [BasConst.cpp](#)
- file [BasConst\\_EventQueueManager.hpp](#)
- file [BasConst\\_SEVMGR\\_Service.hpp](#)
- file [BasParserTypes.hpp](#)

## 8.2 sevmgr/batches/ Directory Reference

### Files

- file [sevmgr\\_demo.cpp](#)

## 8.3 sevmgr/bom/ Directory Reference

### Files

- file [BomJSONExport.cpp](#)
- file [BomJSONExport.hpp](#)
- file [EventQueue.cpp](#)
- file [EventQueue.hpp](#)
- file [EventQueueKey.cpp](#)
- file [EventQueueKey.hpp](#)
- file [EventQueueTypes.hpp](#)

## 8.4 sevmgr/ui/cmdline/ Directory Reference

### Files

- file [sevmgr.cpp](#)

## 8.5 sevmgr/command/ Directory Reference

### Files

- file [EventQueueManager.cpp](#)
- file [EventQueueManager.hpp](#)

## 8.6 sevmgr/config/ Directory Reference

### Files

- file [sevmgr-paths.hpp.in](#)

## 8.7 sevmgr/factory/ Directory Reference

### Files

- file [FacSEVMGRServiceContext.cpp](#)
- file [FacSEVMGRServiceContext.hpp](#)

## 8.8 sevmgr/python/ Directory Reference

### Files

- file [pysevmgr.cpp](#)

## 8.9 sevmgr/service/ Directory Reference

### Files

- file [SEVMGR\\_Service.cpp](#)
- file [SEVMGR\\_ServiceContext.cpp](#)
- file [SEVMGR\\_ServiceContext.hpp](#)

## 8.10 test/sevmgr/ Directory Reference

### Files

- file [EventQueueManagementTestSuite.cpp](#)

## 8.11 sevmgr/ Directory Reference

### Directories

- directory [basic](#)
- directory [batches](#)
- directory [bom](#)
- directory [command](#)
- directory [config](#)
- directory [factory](#)
- directory [python](#)
- directory [service](#)
- directory [ui](#)

### Files

- file [SEVMGR\\_Exceptions.hpp](#)
- file [SEVMGR\\_Service.hpp](#)
- file [SEVMGR\\_Types.hpp](#)

## 8.12 test/ Directory Reference

### Directories

- directory [sevmgr](#)

## 8.13 sevmgr/ui/ Directory Reference

### Directories

- directory [cmdline](#)

## 9 SEvMgr Namespace Documentation

### 9.1 bpt Namespace Reference

#### Typedefs

- typedef char [ptree](#)
- typedef char [ptree](#)

#### 9.1.1 Typedef Documentation

##### 9.1.1.1 typedef char [bpt::ptree](#)

Definition at line 24 of file BomJSONExport.cpp.

##### 9.1.1.2 typedef char [bpt::ptree](#)

Definition at line 22 of file BomJSONExport.hpp.

### 9.2 SEVMGR Namespace Reference

#### Classes

- class [BomJSONExport](#)  
*Utility class to export StdAir objects in a JSON format.*
- class [EventQueue](#)  
*Class holding event structures.*
- struct [EventQueueKey](#)
- class [EventQueueManager](#)  
*Utility class for Demand and DemandStream objects.*
- class [FacSEVMGRServiceContext](#)
- struct [PYEventQueueManager](#)
- class [SEVMGR\\_ServiceContext](#)  
*Class holding the context of the Sevmgr services.*
- class [SEvMgrException](#)
- class [EventQueueException](#)
- class [SEVMGR\\_Service](#)  
*class holding the services related to Travel Demand Generation.*

#### Typedefs

- 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, 1, 2 > [uint1\\_2\\_p\\_t](#)
- typedef boost::spirit::classic::uint\_parser< unsigned int, 10, 1, 3 > [uint1\\_3\\_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< [uint1\\_2\\_p\\_t](#), unsigned int > [bounded1\\_2\\_p\\_t](#)
- typedef boost::spirit::classic::bounded< [uint1\\_3\\_p\\_t](#), unsigned int > [bounded1\\_3\\_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::list< [EventQueue \\*](#) > [EventQueueList\\_T](#)
- typedef std::map< const stdair::MapKey\_T, [EventQueue \\*](#) > [EventQueueMap\\_T](#)
- typedef boost::shared\_ptr< [SEVMGR\\_Service](#) > [SEVMGR\\_ServicePtr\\_T](#)
- typedef std::string [EventQueueID\\_T](#)
- typedef std::map< stdair::EventType::EN\_EventType, stdair::ProgressStatus > [ProgressStatus-Map\\_T](#)

## Functions

- const [EventQueueID\\_T](#) [DEFAULT\\_EVENT\\_QUEUE\\_ID](#) ("EQ01")

## Variables

- const [EventQueueID\\_T](#) [DEFAULT\\_EVENT\\_QUEUE\\_ID](#)

### 9.2.1 Typedef Documentation

#### 9.2.1.1 typedef char [SEVMGR::char\\_t](#)

Definition at line 31 of file BasParserTypes.hpp.

#### 9.2.1.2 typedef boost::spirit::classic::file\_iterator<[char\\_t](#)> [SEVMGR::iterator\\_t](#)

Definition at line 35 of file BasParserTypes.hpp.

#### 9.2.1.3 typedef boost::spirit::classic::scanner<[iterator\\_t](#)> [SEVMGR::scanner\\_t](#)

Definition at line 36 of file BasParserTypes.hpp.

#### 9.2.1.4 typedef boost::spirit::classic::rule<[scanner\\_t](#)> [SEVMGR::rule\\_t](#)

Definition at line 37 of file BasParserTypes.hpp.

#### 9.2.1.5 typedef boost::spirit::classic::int\_parser<unsigned int, 10, 1, 1> [SEVMGR::int1\\_p\\_t](#)

1-digit-integer parser

Definition at line 45 of file BasParserTypes.hpp.

**9.2.1.6** `typedef boost::spirit::classic::uint_parser<unsigned int, 10, 2, 2> SEVMGR::uint2_p_t`

2-digit-integer parser

Definition at line 48 of file BasParserTypes.hpp.

**9.2.1.7** `typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 2> SEVMGR::uint1_2_p_t`

Up-to-2-digit-integer parser

Definition at line 51 of file BasParserTypes.hpp.

**9.2.1.8** `typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 3> SEVMGR::uint1_3_p_t`

Up-to-3-digit-integer parser

Definition at line 54 of file BasParserTypes.hpp.

**9.2.1.9** `typedef boost::spirit::classic::uint_parser<unsigned int, 10, 4, 4> SEVMGR::uint4_p_t`

4-digit-integer parser

Definition at line 57 of file BasParserTypes.hpp.

**9.2.1.10** `typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 4> SEVMGR::uint1_4_p_t`

Up-to-4-digit-integer parser

Definition at line 60 of file BasParserTypes.hpp.

**9.2.1.11** `typedef boost::spirit::classic::chset<char_t> SEVMGR::chset_t`

character set

Definition at line 63 of file BasParserTypes.hpp.

**9.2.1.12** `typedef boost::spirit::classic::impl::loop_traits<chset_t, unsigned int, unsigned int>::type SEVMGR::repeat_p_t`

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

Definition at line 69 of file BasParserTypes.hpp.

**9.2.1.13** `typedef boost::spirit::classic::bounded<uint2_p_t, unsigned int> SEVMGR::bounded2_p_t`

Bounded-number-of-integers parser

Definition at line 72 of file BasParserTypes.hpp.

**9.2.1.14** `typedef boost::spirit::classic::bounded<uint1_2_p_t, unsigned int> SEVMGR::bounded1_2_p_t`

Definition at line 73 of file BasParserTypes.hpp.

**9.2.1.15** `typedef boost::spirit::classic::bounded<uint1_3_p_t, unsigned int> SEVMGR::bounded1_3_p_t`

Definition at line 74 of file BasParserTypes.hpp.

**9.2.1.16** `typedef boost::spirit::classic::bounded<uint4_p_t, unsigned int> SEVMGR::bounded4_p_t`

Definition at line 75 of file BasParserTypes.hpp.

**9.2.1.17** `typedef boost::spirit::classic::bounded<uint1_4_p_t, unsigned int> SEVMGR::bounded1_4_p_t`

Definition at line 76 of file BasParserTypes.hpp.

**9.2.1.18** `typedef std::list<EventQueue*> SEVMGR::EventQueueList_T`

Define the [EventQueue](#) list.

Definition at line 17 of file EventQueueTypes.hpp.

**9.2.1.19** `typedef std::map<const stdair::MapKey_T, EventQueue*> SEVMGR::EventQueue-Map_T`

Define the [EventQueue](#) map.

Definition at line 23 of file EventQueueTypes.hpp.

**9.2.1.20** `typedef boost::shared_ptr<SEVMGR_Service> SEVMGR::SEVMGR_ServicePtr_T`

(Smart) Pointer on the SEvMgr service handler.

Definition at line 18 of file SEVMGR\_Types.hpp.

**9.2.1.21** `typedef std::string SEVMGR::EventQueueID_T`

Define an ID for an [EventQueue](#) object.

Definition at line 27 of file SEVMGR\_Types.hpp.

**9.2.1.22** `typedef std::map<stdair::EventType::EN_EventType, stdair::ProgressStatus> SEVMGR::ProgressStatusMap_T`

Definition of the (STL) map of ProgressStatus structures, one for each event type (e.g., booking request, optimisation notification).

Definition at line 35 of file SEVMGR\_Types.hpp.

## 9.2.2 Function Documentation

**9.2.2.1** `const EventQueueID_T SEVMGR::DEFAULT_EVENT_QUEUE_ID ("EQ01")`

Default ID for the event queue.

### 9.2.3 Variable Documentation

#### 9.2.3.1 const [EventQueueID\\_T](#) SEVMGR::DEFAULT\_EVENT\_QUEUE\_ID

Default ID for the event queue.

## 9.3 stdair Namespace Reference

Forward declarations.

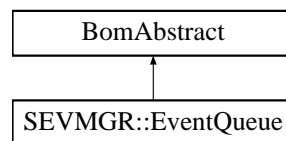
### 9.3.1 Detailed Description

Forward declarations.

## 10 SEvMgr Class Documentation

### 10.1 BomAbstract Class Reference

Inheritance diagram for BomAbstract::



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

- [sevmgr/bom/EventQueue.hpp](#)

### 10.2 SEVMGR::BomJSONExport Class Reference

Utility class to export StdAir objects in a JSON format.

```
#include <sevmgr/bom/BomJSONExport.hpp>
```

#### Static Public Member Functions

- static void [jsonExportEventQueue](#) (stdair::STDAIR\_ServicePtr\_T &, std::ostream &, const [EventQueue](#) &, const stdair::EventType::EN\_EventType &)

#### 10.2.1 Detailed Description

Utility class to export StdAir objects in a JSON format.

Definition at line 34 of file BomJSONExport.hpp.



### 10.2.2 Member Function Documentation

**10.2.2.1** `void SEVMGR::BomJSONExport::jsonExportEventQueue (stdair::STDAIR_ServicePtr_T &, std::ostream &, const EventQueue &, const stdair::EventType::EN_EventType &) [static]`

Export (dump in the underlying output log stream and in JSON format) the event struct objects contained in the event queue.

STDAIR\_ServicePtr\_T& Pointer on the StdAir service handler.

#### Parameters:

- std::ostream&* Output stream in which the events should be logged/dumped.
- const [EventQueue](#)&* Events queue to be stored in JSON-ified format.
- const stdair::EventType::EN\_EventType&* Filter to select objects with a certain event type.

Definition at line 32 of file BomJSONExport.cpp.

References SEVMGR::EventQueue::getEventList().

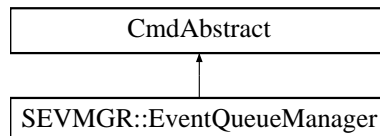
Referenced by SEVMGR::SEVMGR\_Service::jsonExportEventQueue().

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

- sevmgr/bom/[BomJSONExport.hpp](#)
- sevmgr/bom/[BomJSONExport.cpp](#)

## 10.3 CmdAbstract Class Reference

Inheritance diagram for CmdAbstract::



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

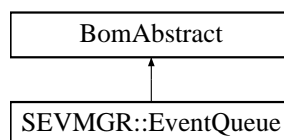
- sevmgr/command/[EventQueueManager.hpp](#)

## 10.4 SEVMGR::EventQueue Class Reference

Class holding event structures.

```
#include <sevmgr/bom/EventQueue.hpp>
```

Inheritance diagram for SEVMGR::EventQueue::



**Public Types**

- typedef [EventQueueKey](#) [Key\\_T](#)

**Public Member Functions**

- const [Key\\_T](#) & [getKey](#) () const
- [BomAbstract](#) \*const [getParent](#) () const
- const stdair::EventList\_T & [getEventList](#) () const
- const stdair::HolderMap\_T & [getHolderMap](#) () const
- const stdair::ProgressStatus & [getStatus](#) () const
- const stdair::Count\_T & [getCurrentNbOfEvents](#) () const
- const stdair::Count\_T & [getExpectedTotalNbOfEvents](#) () const
- const stdair::Count\_T & [getActualTotalNbOfEvents](#) () const
- const stdair::ProgressStatus & [getStatus](#) (const stdair::EventType::EN\_EventType &) const
- const stdair::Count\_T & [getCurrentNbOfEvents](#) (const stdair::EventType::EN\_EventType &) const
- const stdair::Count\_T & [getExpectedTotalNbOfEvents](#) (const stdair::EventType::EN\_EventType &) const
- const stdair::Count\_T & [getActualTotalNbOfEvents](#) (const stdair::EventType::EN\_EventType &) const
- bool [hasProgressStatus](#) (const stdair::EventType::EN\_EventType &) const
- void [setStatus](#) (const stdair::ProgressStatus &iProgressStatus)
- void [setStatus](#) (const stdair::Count\_T &iCurrentNbOfEvents, const stdair::Count\_T &iExpectedTotalNbOfEvents, const stdair::Count\_T &iActualTotalNbOfEvents)
- void [setStatus](#) (const stdair::Count\_T &iCurrentNbOfEvents, const stdair::Count\_T &iActualTotalNbOfEvents)
- void [setCurrentNbOfEvents](#) (const stdair::Count\_T &iCurrentNbOfEvents)
- void [setExpectedTotalNbOfEvents](#) (const stdair::Count\_T &iExpectedTotalNbOfEvents)
- void [setStatus](#) (const stdair::EventType::EN\_EventType &iType, const stdair::ProgressStatus &iProgressStatus)
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- std::string [toString](#) () const
- std::string [list](#) () const
- std::string [list](#) (const stdair::EventType::EN\_EventType &) const
- const std::string [describeKey](#) () const
- std::string [display](#) () const
- void [reset](#) ()
- stdair::ProgressStatusSet [popEvent](#) (stdair::EventStruct &)
- bool [addEvent](#) (stdair::EventStruct &)
- bool [hasEventDateTime](#) (const stdair::DateTime\_T &)
- bool [isQueueDone](#) () const
- void [addStatus](#) (const stdair::EventType::EN\_EventType &, const stdair::NbOfRequests\_T &iExpectedTotalNbOfEvents)
- void [updateStatus](#) (const stdair::EventType::EN\_EventType &, const stdair::ProgressStatus &iProgressStatus)
- void [updateStatus](#) (const stdair::EventType::EN\_EventType &, const stdair::NbOfEvents\_T &iActualTotalNbOfEvents)
- stdair::ProgressPercentage\_T [calculateProgress](#) () const
- stdair::ProgressPercentage\_T [calculateProgress](#) (const stdair::EventType::EN\_EventType &) const
- stdair::Count\_T [getQueueSize](#) () const
- bool [isQueueEmpty](#) () const

### Protected Member Functions

- [EventQueue](#) (const [Key\\_T](#) &)
- [EventQueue](#) (const [EventQueue](#) &)
- [~EventQueue](#) ()

### Protected Attributes

- [Key\\_T \\_key](#)
- [BomAbstract](#) \* [\\_parent](#)
- [stdair::HolderMap\\_T](#) [\\_holderMap](#)
- [stdair::EventList\\_T](#) [\\_eventList](#)
- [stdair::ProgressStatus](#) [\\_progressStatus](#)
- [ProgressStatusMap\\_T](#) [\\_progressStatusMap](#)

### Friends

- class [stdair::FacBom](#)
- class [stdair::FacBomManager](#)

#### 10.4.1 Detailed Description

Class holding event structures.

Event types may be:

- booking requests,
- optimisation notifications,
- (simulation) break point,
- schedule changes.

The event content would be, respectively:

- a demand stream (generating booking requests),
- a DCP rule (generation optimisation notifications),
- a break point rule (generating simulation break points),
- a schedule update (generating schedule changes).

The [EventQueue](#) object keeps track of the simulation progress, overall and broken down (independently) both by event type and by content key. Following is a full example:

- Break down by event type:
  - Booking request: 9 events out of {expected: 20, actual: 20}
  - Optimisation notification: 7 events out of {expected: 32, actual: 32}
- Break down by content key:

- "SIN-BKK" demand stream: 5 events out of {expected: 10, actual: 11}
- "SIN-NRT" demand stream: 4 events out of {expected: 10, actual: 9}
- "SQ 12" DCP rule: 2 events out of {expected: 16, actual: 16}
- "SQ 25" DCP rule: 5 events out of {expected: 16, actual: 16}
- Overall status: 16 events out of {expected: 52, actual: 52}

Definition at line 68 of file EventQueue.hpp.

#### 10.4.2 Member Typedef Documentation

##### 10.4.2.1 typedef [EventQueueKey](#) SEVMGR::EventQueue::Key\_T

Definition allowing to retrieve the associated BOM key type.

Definition at line 77 of file EventQueue.hpp.

#### 10.4.3 Constructor & Destructor Documentation

##### 10.4.3.1 SEVMGR::EventQueue::EventQueue (const [Key\\_T](#) &) [protected]

Constructor.

Definition at line 25 of file EventQueue.cpp.

##### 10.4.3.2 SEVMGR::EventQueue::EventQueue (const [EventQueue](#) &) [protected]

Default copy constructor.

Definition at line 32 of file EventQueue.cpp.

##### 10.4.3.3 SEVMGR::EventQueue::~~EventQueue () [protected]

Destructor.

Definition at line 40 of file EventQueue.cpp.

References `_eventList`.

#### 10.4.4 Member Function Documentation

##### 10.4.4.1 const [Key\\_T](#)& SEVMGR::EventQueue::getKey () const [inline]

Get the event queue key.

Definition at line 83 of file EventQueue.hpp.

References `_key`.

##### 10.4.4.2 [BomAbstract](#)\* const SEVMGR::EventQueue::getParent () const [inline]

Get the parent object.

Definition at line 88 of file EventQueue.hpp.

References `_parent`.

**10.4.4.3** `const stdair::EventList_T& SEVMGR::EventQueue::getEventList () const [inline]`

Get the list of events.

Definition at line 93 of file EventQueue.hpp.

References `_eventList`.

Referenced by `SEVMGR::BomJSONExport::jsonExportEventQueue()`.

**10.4.4.4** `const stdair::HolderMap_T& SEVMGR::EventQueue::getHolderMap () const [inline]`

Get the map of children holders.

Definition at line 98 of file EventQueue.hpp.

References `_holderMap`.

**10.4.4.5** `const stdair::ProgressStatus& SEVMGR::EventQueue::getStatus () const [inline]`

Get the overall progress status (for the whole event queue).

Definition at line 103 of file EventQueue.hpp.

References `_progressStatus`.

Referenced by `popEvent()`.

**10.4.4.6** `const stdair::Count_T& SEVMGR::EventQueue::getCurrentNbOfEvents () const [inline]`

Get the current number of events (for the whole event queue).

Definition at line 107 of file EventQueue.hpp.

References `_progressStatus`.

**10.4.4.7** `const stdair::Count_T& SEVMGR::EventQueue::getExpectedTotalNbOfEvents () const [inline]`

Get the expected total number of events (for the whole event queue).

Definition at line 111 of file EventQueue.hpp.

References `_progressStatus`.

**10.4.4.8** `const stdair::Count_T& SEVMGR::EventQueue::getActualTotalNbOfEvents () const [inline]`

Get the actual total number of events (for the whole event queue).

Definition at line 115 of file EventQueue.hpp.

References `_progressStatus`.

**10.4.4.9** `const stdair::ProgressStatus & SEVMGR::EventQueue::getStatus (const stdair::Event-Type::EN_EventType &) const`

Get the progress status for the given event type (e.g., booking request, optimisation notification, schedule change, break point).

Definition at line 327 of file EventQueue.cpp.

References `_progressStatusMap`, and `display()`.

#### **10.4.4.10 `const stdair::Count_T & SEVMGR::EventQueue::getCurrentNbOfEvents (const stdair::EventType::EN_EventType &) const`**

Get the current number of events for the given event type.

Definition at line 157 of file EventQueue.cpp.

References `_progressStatusMap`, and `display()`.

#### **10.4.4.11 `const stdair::Count_T & SEVMGR::EventQueue::getExpectedTotalNbOfEvents (const stdair::EventType::EN_EventType &) const`**

Get the expected total number of events for the given event type.

Definition at line 176 of file EventQueue.cpp.

References `_progressStatusMap`, and `display()`.

#### **10.4.4.12 `const stdair::Count_T & SEVMGR::EventQueue::getActualTotalNbOfEvents (const stdair::EventType::EN_EventType &) const`**

Get the actual total number of events for the given event type.

Definition at line 198 of file EventQueue.cpp.

References `_progressStatusMap`, and `display()`.

#### **10.4.4.13 `bool SEVMGR::EventQueue::hasProgressStatus (const stdair::EventType::EN_EventType &) const`**

Check if the event queue has already a progress status for the given event type

Definition at line 136 of file EventQueue.cpp.

References `_progressStatusMap`, and `display()`.

#### **10.4.4.14 `void SEVMGR::EventQueue::setStatus (const stdair::ProgressStatus & iProgressStatus) [inline]`**

Set/update the progress status.

Definition at line 141 of file EventQueue.hpp.

References `_progressStatus`.

Referenced by `popEvent()`.

#### **10.4.4.15 `void SEVMGR::EventQueue::setStatus (const stdair::Count_T & iCurrentNbOfEvents, const stdair::Count_T & iExpectedTotalNbOfEvents, const stdair::Count_T & iActualTotalNbOfEvents) [inline]`**

Set/update the progress status.

Definition at line 145 of file EventQueue.hpp.

References `_progressStatus`.

**10.4.4.16** `void SEVMGR::EventQueue::setStatus (const stdair::Count_T & iCurrentNbOfEvents, const stdair::Count_T & iActualTotalNbOfEvents) [inline]`

Set/update the progress status.

Definition at line 153 of file EventQueue.hpp.

References `_progressStatus`.

**10.4.4.17** `void SEVMGR::EventQueue::setCurrentNbOfEvents (const stdair::Count_T & iCurrentNbOfEvents) [inline]`

Set the current number of events (for the whole event queue).

Definition at line 159 of file EventQueue.hpp.

References `_progressStatus`.

**10.4.4.18** `void SEVMGR::EventQueue::setExpectedTotalNbOfEvents (const stdair::Count_T & iExpectedTotalNbOfEvents) [inline]`

Set the expected total number of events (for the whole event queue).

Definition at line 163 of file EventQueue.hpp.

References `_progressStatus`.

**10.4.4.19** `void SEVMGR::EventQueue::setStatus (const stdair::EventType::EN_EventType & iType, const stdair::ProgressStatus & iProgressStatus)`

Set the progress status for the given event type (e.g., booking request, optimisation notification, schedule change, break point).

Definition at line 311 of file EventQueue.cpp.

References `_progressStatusMap`.

**10.4.4.20** `void SEVMGR::EventQueue::toStream (std::ostream & ioOut) const [inline]`

Dump a Business Object into an output stream.

#### Parameters:

*ostream&* the output stream.

Definition at line 182 of file EventQueue.hpp.

References `toString()`.

**10.4.4.21** `void SEVMGR::EventQueue::fromStream (std::istream & ioIn) [inline]`

Read a Business Object from an input stream.

#### Parameters:

*istream&* the input stream.

Definition at line 191 of file EventQueue.hpp.

#### 10.4.4.22 `std::string SEVMGR::EventQueue::toString () const`

Get the serialised version of the Business Object.

Definition at line 45 of file EventQueue.cpp.

References `_eventList`, and `_progressStatus`.

Referenced by `display()`, `list()`, `toStream()`, and `updateStatus()`.

#### 10.4.4.23 `std::string SEVMGR::EventQueue::list () const`

Get the event list description.

Definition at line 64 of file EventQueue.cpp.

References `_eventList`, `describeKey()`, and `toString()`.

#### 10.4.4.24 `std::string SEVMGR::EventQueue::list (const stdair::EventType::EN_EventType &) const`

Get the event list description for a given event type

Definition at line 82 of file EventQueue.cpp.

References `_eventList`, `describeKey()`, and `toString()`.

#### 10.4.4.25 `const std::string SEVMGR::EventQueue::describeKey () const` `[inline]`

Get a string describing the key.

Definition at line 213 of file EventQueue.hpp.

References `_key`, and `SEVMGR::EventQueueKey::toString()`.

Referenced by `list()`, and `popEvent()`.

#### 10.4.4.26 `std::string SEVMGR::EventQueue::display () const`

Definition at line 55 of file EventQueue.cpp.

References `toString()`.

Referenced by `calculateProgress()`, `getActualTotalNbOfEvents()`, `getCurrentNbOfEvents()`, `getExpectedTotalNbOfEvents()`, `getStatus()`, and `hasProgressStatus()`.

#### 10.4.4.27 `void SEVMGR::EventQueue::reset ()`

Reset the event queue.

The event queue is fully emptied.

Definition at line 118 of file EventQueue.cpp.

References `_eventList`, `_progressStatus`, and `_progressStatusMap`.

#### 10.4.4.28 `stdair::ProgressStatusSet SEVMGR::EventQueue::popEvent (stdair::EventStruct &)`

Pop the next coming (in time) event, and remove it from the event queue.



- The next coming (in time) event corresponds to the event having the earliest date-time stamp. In other words, it is the first/front element of the event queue.
- That (first) event/element is then removed from the event queue
- The progress status is updated for the corresponding event generator.

Definition at line 368 of file EventQueue.cpp.

References `_eventList`, `_progressStatus`, `describeKey()`, `getStatus()`, and `setStatus()`.

#### 10.4.4.29 `bool SEVMGR::EventQueue::addEvent (stdair::EventStruct &)`

Add event.

If there already is an event with the same date-time, move the given event one nanosecond forward, and retry the insertion until it succeeds.

That method:

- first adds the event structure in the dedicated list,
- then retrieves the corresponding demand stream,
- and update accordingly the corresponding progress statuses.

##### Parameters:

*stdair::EventStruct&* The reference on EventStruct is not constant, because the EventStruct object can be altered: its date-time stamp can be changed accordingly to the location where it has been inserted in the event queue.

Definition at line 436 of file EventQueue.cpp.

References `_eventList`.

#### 10.4.4.30 `bool SEVMGR::EventQueue::hasEventDateTime (const stdair::DateTime_T &)`

Find the event with the given date time, if such event existed.

Definition at line 469 of file EventQueue.cpp.

References `_eventList`.

#### 10.4.4.31 `bool SEVMGR::EventQueue::isQueueDone () const`

States whether the event queue has reached the end.

For now, that method states whether the event queue is empty.

Definition at line 112 of file EventQueue.cpp.

References `_eventList`, and `isQueueEmpty()`.

#### 10.4.4.32 `void SEVMGR::EventQueue::addStatus (const stdair::EventType::EN_EventType &, const stdair::NbOfRequests_T & iExpectedTotalNbOfEvents)`

Initialise the progress statuses for the given event type (e.g., request, snapshot).

The progress status is actually a pair of counters:

- The current number of (already generated) events, for the given event type. That number is initialised to 0 (no event has been generated yet).
- The total number of events (to be generated), also for the given event type.

#### 10.4.4.33 void SEVMGR::EventQueue::updateStatus (const stdair::EventType::EN\_EventType &, const stdair::ProgressStatus & iProgressStatus)

Set/update the progress status for the corresponding event type (e.g., booking request, optimisation notification, schedule change, break point).

If there is no ProgressStatus object for that event type yet, one is inserted. Otherwise, the ProgressStatus object is updated.

Definition at line 216 of file EventQueue.cpp.

References `_progressStatusMap`, and `toString()`.

#### 10.4.4.34 void SEVMGR::EventQueue::updateStatus (const stdair::EventType::EN\_EventType &, const stdair::NbOfEvents\_T & iActualTotalNbOfEvents)

Update the progress statuses for the given event type (e.g., booking request, optimisation notification, schedule change, break point).

The progress status is actually a pair of counters:

- The current number of (already generated) events, for the given event type. That number is initialised to 0 (no event has been generated yet).
- The total number of events (to be generated), also for the given event type.

Definition at line 282 of file EventQueue.cpp.

References `_progressStatus`, and `_progressStatusMap`.

#### 10.4.4.35 stdair::ProgressPercentage\_T SEVMGR::EventQueue::calculateProgress () const [inline]

Calculate the progress status.

The progress status is the ratio of:

- the current number of events, summed over all the demand streams,
- over the total number of events, also summed over all the demand streams.

Definition at line 338 of file EventQueue.hpp.

References `_progressStatus`.

#### 10.4.4.36 stdair::ProgressPercentage\_T SEVMGR::EventQueue::calculateProgress (const stdair::EventType::EN\_EventType &) const

Calculate the progress status.

The progress status is the ratio of:

- the current number of events, summed over all the demand streams,

- over the total number of events, also summed over all the demand streams.

Definition at line 350 of file EventQueue.cpp.

References `_progressStatusMap`, and `display()`.

#### 10.4.4.37 `stdair::Count_T SEVMGR::EventQueue::getQueueSize () const`

Queue size

Definition at line 102 of file EventQueue.cpp.

References `_eventList`.

#### 10.4.4.38 `bool SEVMGR::EventQueue::isQueueEmpty () const`

Is queue empty

Definition at line 107 of file EventQueue.cpp.

References `_eventList`.

Referenced by `isQueueDone()`.

### 10.4.5 Friends And Related Function Documentation

#### 10.4.5.1 `friend class stdair::FacBom` [friend]

Definition at line 69 of file EventQueue.hpp.

#### 10.4.5.2 `friend class stdair::FacBomManager` [friend]

Definition at line 70 of file EventQueue.hpp.

### 10.4.6 Member Data Documentation

#### 10.4.6.1 `Key_T SEVMGR::EventQueue::_key` [protected]

Primary key (ID).

Definition at line 382 of file EventQueue.hpp.

Referenced by `describeKey()`, and `getKey()`.

#### 10.4.6.2 `BomAbstract* SEVMGR::EventQueue::_parent` [protected]

Pointer on the parent class (BomRoot).

Definition at line 387 of file EventQueue.hpp.

Referenced by `getParent()`.

#### 10.4.6.3 `stdair::HolderMap_T SEVMGR::EventQueue::_holderMap` [protected]

Map holding the children (e.g., DemandStream objects for booking requests, DCPRule objects for optimisation notifications).

Definition at line 394 of file EventQueue.hpp.

Referenced by `getHolderMap()`.

#### 10.4.6.4 `stdair::EventList_T SEVMGR::EventQueue::_eventList` [protected]

List of events.

Definition at line 399 of file `EventQueue.hpp`.

Referenced by `addEvent()`, `getEventList()`, `getQueueSize()`, `hasEventDateTime()`, `isQueueDone()`, `isQueueEmpty()`, `list()`, `popEvent()`, `reset()`, `toString()`, and `~EventQueue()`.

#### 10.4.6.5 `stdair::ProgressStatus SEVMGR::EventQueue::_progressStatus` [protected]

Counters holding the overall progress status.

Definition at line 404 of file `EventQueue.hpp`.

Referenced by `calculateProgress()`, `getActualTotalNbOfEvents()`, `getCurrentNbOfEvents()`, `getExpectedTotalNbOfEvents()`, `getStatus()`, `popEvent()`, `reset()`, `setCurrentNbOfEvents()`, `setExpectedTotalNbOfEvents()`, `setStatus()`, `toString()`, and `updateStatus()`.

#### 10.4.6.6 `ProgressStatusMap_T SEVMGR::EventQueue::_progressStatusMap` [protected]

Counters holding the overall progress status, for each event type (e.g., booking request, optimisation notification, schedule change, break point).

Definition at line 411 of file `EventQueue.hpp`.

Referenced by `calculateProgress()`, `getActualTotalNbOfEvents()`, `getCurrentNbOfEvents()`, `getExpectedTotalNbOfEvents()`, `getStatus()`, `hasProgressStatus()`, `reset()`, `setStatus()`, and `updateStatus()`.

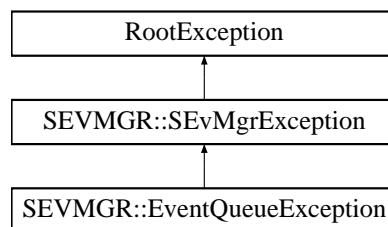
The documentation for this class was generated from the following files:

- `sevmgr/bom/EventQueue.hpp`
- `sevmgr/bom/EventQueue.cpp`

## 10.5 SEVMGR::EventQueueException Class Reference

```
#include <sevmgr/SEVMGR_Exceptions.hpp>
```

Inheritance diagram for `SEVMGR::EventQueueException`:



### Public Member Functions

- `EventQueueException` (const std::string &iWhat)

### 10.5.1 Detailed Description

[EventQueue](#).

Definition at line 28 of file SEVMGR\_Exceptions.hpp.

### 10.5.2 Constructor & Destructor Documentation

#### 10.5.2.1 SEVMGR::EventQueueException::EventQueueException (const std::string & *iWhat*) [inline]

Constructor.

Definition at line 31 of file SEVMGR\_Exceptions.hpp.

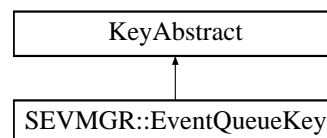
The documentation for this class was generated from the following file:

- [sevmgr/SEVMGR\\_Exceptions.hpp](#)

## 10.6 SEVMGR::EventQueueKey Struct Reference

```
#include <sevmgr/bom/EventQueueKey.hpp>
```

Inheritance diagram for SEVMGR::EventQueueKey::



### Public Member Functions

- [EventQueueKey](#) (const [EventQueueID\\_T](#) &)
- [EventQueueKey](#) (const [EventQueueKey](#) &)
- [~EventQueueKey](#) ()
- const [EventQueueID\\_T](#) & [getEventQueueID](#) () const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- const std::string [toString](#) () const

### 10.6.1 Detailed Description

Key of eventqueue.

Definition at line 17 of file EventQueueKey.hpp.

### 10.6.2 Constructor & Destructor Documentation

#### 10.6.2.1 SEVMGR::EventQueueKey::EventQueueKey (const [EventQueueID\\_T](#) &)

Constructors.

Definition at line 12 of file EventQueueKey.cpp.

### 10.6.2.2 SEVMGR::EventQueueKey::EventQueueKey (const [EventQueueKey](#) &)

Definition at line 16 of file EventQueueKey.cpp.

### 10.6.2.3 SEVMGR::EventQueueKey::~~EventQueueKey ()

Destructor.

Definition at line 21 of file EventQueueKey.cpp.

## 10.6.3 Member Function Documentation

### 10.6.3.1 const [EventQueueID\\_T](#)& SEVMGR::EventQueueKey::getEventQueueID () const [inline]

Get the ID of the [EventQueue](#) object.

Definition at line 33 of file EventQueueKey.hpp.

### 10.6.3.2 void SEVMGR::EventQueueKey::toStream (std::ostream & *ioOut*) const

Dump a Business Object Key into an output stream.

#### Parameters:

*ostream&* the output stream.

Definition at line 25 of file EventQueueKey.cpp.

References toString().

### 10.6.3.3 void SEVMGR::EventQueueKey::fromStream (std::istream & *ioIn*)

Read a Business Object Key from an input stream.

#### Parameters:

*istream&* the input stream.

Definition at line 30 of file EventQueueKey.cpp.

### 10.6.3.4 const std::string SEVMGR::EventQueueKey::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 34 of file EventQueueKey.cpp.

Referenced by SEVMGR::EventQueue::describeKey(), and toStream().

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

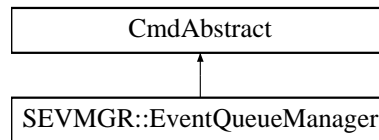
- sevmgr/bom/[EventQueueKey.hpp](#)
- sevmgr/bom/[EventQueueKey.cpp](#)

## 10.7 SEVMGR::EventQueueManager Class Reference

Utility class for Demand and DemandStream objects.

```
#include <sevmgr/command/EventQueueManager.hpp>
```

Inheritance diagram for SEVMGR::EventQueueManager::



### Friends

- class [SEVMGR\\_Service](#)

#### 10.7.1 Detailed Description

Utility class for Demand and DemandStream objects.

Definition at line 27 of file EventQueueManager.hpp.

#### 10.7.2 Friends And Related Function Documentation

##### 10.7.2.1 friend class [SEVMGR\\_Service](#) [friend]

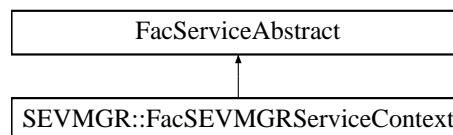
Definition at line 28 of file EventQueueManager.hpp.

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

- sevmgr/command/[EventQueueManager.hpp](#)
- sevmgr/command/[EventQueueManager.cpp](#)

## 10.8 FacServiceAbstract Class Reference

Inheritance diagram for FacServiceAbstract::



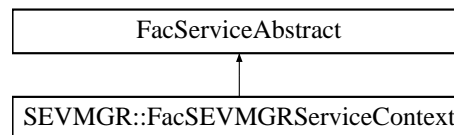
The documentation for this class was generated from the following file:

- sevmgr/factory/[FacSEVMGRServiceContext.hpp](#)

## 10.9 SEVMGR::FacSEVMGRServiceContext Class Reference

```
#include <sevmgr/factory/FacSEVMGRServiceContext.hpp>
```

Inheritance diagram for SEVMGR::FacSEVMGRServiceContext::



### Public Member Functions

- [~FacSEVMGRServiceContext \(\)](#)
- [SEVMGR\\_ServiceContext & create \(\)](#)

### Static Public Member Functions

- static [FacSEVMGRServiceContext & instance \(\)](#)

### Protected Member Functions

- [FacSEVMGRServiceContext \(\)](#)

### 10.9.1 Detailed Description

Factory for Bucket.

Definition at line 18 of file `FacSEVMGRServiceContext.hpp`.

### 10.9.2 Constructor & Destructor Documentation

#### 10.9.2.1 SEVMGR::FacSEVMGRServiceContext::~~FacSEVMGRServiceContext ()

Destructor.

The Destruction put the `_instance` to NULL in order to be clean for the next [FacSEVMGRServiceContext::instance\(\)](#).

Definition at line 17 of file `FacSEVMGRServiceContext.cpp`.

#### 10.9.2.2 SEVMGR::FacSEVMGRServiceContext::FacSEVMGRServiceContext () [inline, protected]

Default Constructor.

This constructor is protected in order to ensure the singleton pattern.

Definition at line 42 of file `FacSEVMGRServiceContext.hpp`.

Referenced by `instance()`.



### 10.9.3 Member Function Documentation

#### 10.9.3.1 [FacSEVMGRServiceContext](#) & SEVMGR::FacSEVMGRServiceContext::instance () [static]

Provide the unique instance.

The singleton is instantiated when first used

##### Returns:

[FacSEVMGRServiceContext](#)&

Definition at line 22 of file FacSEVMGRServiceContext.cpp.

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

#### 10.9.3.2 [SEVMGR\\_ServiceContext](#) & SEVMGR::FacSEVMGRServiceContext::create ()

Create a new [SEVMGR\\_ServiceContext](#) object.

This new object is added to the list of instantiated objects.

##### Returns:

[SEVMGR\\_ServiceContext](#)& The newly created object.

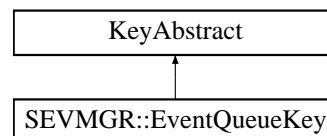
Definition at line 34 of file FacSEVMGRServiceContext.cpp.

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

- sevmgr/factory/[FacSEVMGRServiceContext.hpp](#)
- sevmgr/factory/[FacSEVMGRServiceContext.cpp](#)

## 10.10 KeyAbstract Class Reference

Inheritance diagram for KeyAbstract::



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

- sevmgr/bom/[EventQueueKey.hpp](#)

## 10.11 SEVMGR::PYEventQueueManager Struct Reference

### Public Member Functions

- std::string [sevmgr](#) ()
- [PYEventQueueManager](#) ()

- [PYEventQueueManager](#) (const [PYEventQueueManager](#) &iPYEventQueueManager)
- [~PYEventQueueManager](#) ()
- bool [init](#) (const std::string &iLogFilepath, const std::string &iDBUser, const std::string &iDBPasswd, const std::string &iDBHost, const std::string &iDBPort, const std::string &iDBDBName)

### 10.11.1 Detailed Description

Definition at line 22 of file pysevmgr.cpp.

### 10.11.2 Constructor & Destructor Documentation

#### 10.11.2.1 SEVMGR::PYEventQueueManager::PYEventQueueManager () [inline]

Default constructor.

Definition at line 76 of file pysevmgr.cpp.

#### 10.11.2.2 SEVMGR::PYEventQueueManager::PYEventQueueManager (const [PYEventQueueManager](#) &iPYEventQueueManager) [inline]

Default copy constructor.

Definition at line 80 of file pysevmgr.cpp.

#### 10.11.2.3 SEVMGR::PYEventQueueManager::~~PYEventQueueManager () [inline]

Default constructor.

Definition at line 86 of file pysevmgr.cpp.

### 10.11.3 Member Function Documentation

#### 10.11.3.1 std::string SEVMGR::PYEventQueueManager::sevmgr () [inline]

Wrapper around the travel demand generation use case.

Definition at line 25 of file pysevmgr.cpp.

Referenced by BOOST\_PYTHON\_MODULE().

#### 10.11.3.2 bool SEVMGR::PYEventQueueManager::init (const std::string &iLogFilepath, const std::string &iDBUser, const std::string &iDBPasswd, const std::string &iDBHost, const std::string &iDBPort, const std::string &iDBDBName) [inline]

Wrapper around the search use case.

Definition at line 92 of file pysevmgr.cpp.

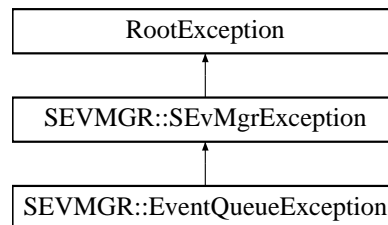
Referenced by BOOST\_PYTHON\_MODULE().

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

- [sevmgr/python/pysevmgr.cpp](#)

## 10.12 RootException Class Reference

Inheritance diagram for RootException::

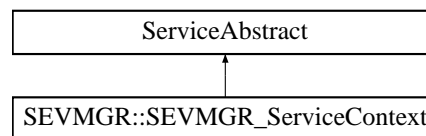


The documentation for this class was generated from the following file:

- [sevmgr/SEVMGR\\_Exceptions.hpp](#)

## 10.13 ServiceAbstract Class Reference

Inheritance diagram for ServiceAbstract::



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

- [sevmgr/service/SEVMGR\\_ServiceContext.hpp](#)

## 10.14 SEVMGR::SEVMGR\_Service Class Reference

class holding the services related to Travel Demand Generation.

```
#include <sevmgr/SEVMGR_Service.hpp>
```

### Public Member Functions

- [SEVMGR\\_Service](#) (const stdair::BasLogParams &, const stdair::BasDBParams &)  
*Constructor:*
- [SEVMGR\\_Service](#) (const stdair::BasLogParams &)
- [SEVMGR\\_Service](#) (stdair::STDAIR\_ServicePtr\_T)
- [~SEVMGR\\_Service](#) ()
- void [buildSampleQueue](#) ()
- stdair::BookingRequestStruct [buildSampleBookingRequest](#) (const bool isForCRS=false)
- stdair::ProgressStatusSet [popEvent](#) (stdair::EventStruct &) const
- void [run](#) (stdair::EventStruct &) const

- bool [select](#) (stdair::EventStruct &, const stdair::DateTime\_T &) const
- template<class EventGenerator> void [addEventGenerator](#) (EventGenerator &iEventGenerator) const
- void [addEvent](#) (stdair::EventStruct &) const
- void [reset](#) () const
- void [updateStatus](#) (const stdair::EventType::EN\_EventType &, const stdair::Count\_T &) const
- void [addStatus](#) (const stdair::EventType::EN\_EventType &, const stdair::Count\_T &) const
- bool [isQueueDone](#) () const
- bool [hasProgressStatus](#) (const stdair::EventType::EN\_EventType &) const
- [EventQueue](#) & [getEventQueue](#) () const
- const stdair::Count\_T & [getQueueSize](#) () const
- template<class EventGenerator, class Key> EventGenerator & [getEventGenerator](#) (const Key &iKey) const
- template<class EventGenerator> const std::list< EventGenerator \* > [getEventGeneratorList](#) () const
- template<class EventGenerator> bool [hasEventGeneratorList](#) () const
- const stdair::Count\_T & [getExpectedTotalNumberOfEventsToBeGenerated](#) () const
- const stdair::Count\_T & [getExpectedTotalNumberOfEventsToBeGenerated](#) (const stdair::EventType::EN\_EventType &) const
- const stdair::Count\_T & [getActualTotalNumberOfEventsToBeGenerated](#) () const
- const stdair::Count\_T & [getActualTotalNumberOfEventsToBeGenerated](#) (const stdair::EventType::EN\_EventType &) const
- const stdair::ProgressStatus & [getStatus](#) () const
- const stdair::ProgressStatus & [getStatus](#) (const stdair::EventType::EN\_EventType &) const
- std::string [describeKey](#) () const
- std::string [list](#) () const
- std::string [list](#) (const stdair::EventType::EN\_EventType &) const
- std::string [jsonHandler](#) (const stdair::JSONString &) const
- std::string [jsonExportEventQueue](#) (const stdair::EventType::EN\_EventType &=stdair::EventType::LAST\_VALUE) const
- std::string [jsonExportEvent](#) (const stdair::EventStruct &) const

### 10.14.1 Detailed Description

class holding the services related to Travel Demand Generation.

Definition at line 32 of file SEVMGR\_Service.hpp.

### 10.14.2 Constructor & Destructor Documentation

#### 10.14.2.1 SEVMGR::SEVMGR\_Service::SEVMGR\_Service (const stdair::BasLogParams &, const stdair::BasDBParams &)

Constructor.

The `initSevmgrService()` 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:**

*const* stdair::BasLogParams& Parameters for the output log stream.

*const* stdair::BasDBParams& Parameters for the database access.

Definition at line 43 of file SEVMGR\_Service.cpp.

**10.14.2.2 SEVMGR::SEVMGR\_Service::SEVMGR\_Service (const stdair::BasLogParams &)**

Constructor.

The initSevmgrService() 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:**

*const* stdair::BasLogParams& Parameters for the output log stream.

Definition at line 64 of file SEVMGR\_Service.cpp.

**10.14.2.3 SEVMGR::SEVMGR\_Service::SEVMGR\_Service (stdair::STDAIR\_ServicePtr\_T)**

Constructor.

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

Moreover, as no reference on any output stream is given, neither any database access parameter 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 [SEVMGR\\_Service](#) is itself being initialised by another library service such as TVLSIM\_Service).

**Parameters:**

*stdair::STDAIR\_ServicePtr\_T* Handler on the STDAIR\_Service.

Definition at line 85 of file SEVMGR\_Service.cpp.

**10.14.2.4 SEVMGR::SEVMGR\_Service::~~SEVMGR\_Service ()**

Destructor.

Definition at line 101 of file SEVMGR\_Service.cpp.

**10.14.3 Member Function Documentation****10.14.3.1 void SEVMGR::SEVMGR\_Service::buildSampleQueue ()**

Build a sample event queue.

Definition at line 175 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue(), and SEVMGR::SEVMGR\_ServiceContext::getSTDAIR\_ServicePtr().

Referenced by main().

### 10.14.3.2 stdair::BookingRequestStruct SEVMGR::SEVMGR\_Service::buildSampleBookingRequest (const bool *isForCRS* = false)

Build a sample booking request structure.

As of now (March 2011), the sample booking request is made of the following parameters:

- Return trip (inbound): LHR-SYD (POS: LHR, Channel: DN),
- Departing 10-JUN-2011 around 8:00, staying 7 days
- Requested on 15-MAY-2011 at 10:00
- Economy cabin, 3 persons, FF member
- WTP: 1000.0 EUR
- Dis-utility: 100.0 EUR/hour

As of now (March 2011), the CRS-related booking request is made of the following parameters:

- Return trip (inbound): SIN-BKK (POS: SIN, Channel: IN),
- Departing 30-JAN-2010 around 10:00, staying 7 days
- Requested on 22-JAN-2010 at 10:00
- Economy cabin, 3 persons, FF member
- WTP: 1000.0 EUR
- Dis-utility: 100.0 EUR/hour

**See also:**

stdair::CmdBomManager for more details.

**Parameters:**

**const** bool *isForCRS* Whether the sample booking request is for CRS.

**Returns:**

BookingRequestStruct& Sample booking request structure.

Definition at line 200 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getSTDAIR\_ServicePtr().

### 10.14.3.3 stdair::ProgressStatusSet SEVMGR::SEVMGR\_Service::popEvent (stdair::EventStruct &) const

Pop the next coming (in time) event, and remove it from the event queue.

- The next coming (in time) event corresponds to the event having the earliest date-time stamp. In other words, it is the first/front element of the event queue.
- That (first) event/element is then removed from the event queue
- The progress status is updated for the corresponding event generator.

**Returns:**

stdair::EventStruct A copy of the event structure, which comes first in time from within the event queue.

Definition at line 398 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

Referenced by main().

**10.14.3.4 void SEVMGR::SEVMGR\_Service::run (stdair::EventStruct &) const**

Played all events and stopped when the first break point was encountered.

**Returns:**

stdair::EventStruct A copy of the break point which came first in time within the event queue. If no break point was encountered, return a copy of the last event within the event queue.

Definition at line 417 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.5 bool SEVMGR::SEVMGR\_Service::select (stdair::EventStruct &, const stdair::DateTime\_T &) const**

Selected the event with the given date time, if such event existed.

**Returns:**

stdair::EventStruct A copy of the event with the given date time. If no event with the given DateTime was encountered, no copy are returned.

**Parameters:**

**const** stdair::DateTime\_T Date time of the event to be returned.

**Returns:**

bool States whether an event with the given date time had been encountered and thus returned.

/Note All events occurring before the selected one are played. Thus, the copy returned is the copy of the current first event of the queue.

Definition at line 437 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.6 template<class EventGenerator> void SEVMGR::SEVMGR\_Service::addEventGenerator (EventGenerator & iEventGenerator) const**

Add an event generator to the map holding the children of the queue. Be careful, this method is not implemented: its implementation is left to the appellant according the EventGenerator type.

**Note:**

An instance of implementation of that method can be found in the TraDemGen service.

**10.14.3.7 void SEVMGR::SEVMGR\_Service::addEvent (stdair::EventStruct &) const**

Add an event to the queue.

Definition at line 596 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.8 void SEVMGR::SEVMGR\_Service::reset () const**

Reset the context of the event generators for another event generation without having to reparse the demand input file.

Definition at line 561 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.9 void SEVMGR::SEVMGR\_Service::updateStatus (const stdair::EventType::EN\_EventType &, const stdair::Count\_T &) const**

Update the progress status for the given event type (e.g., booking request, optimisation notification, schedule change, break point).

**Parameters:**

*const* stdair::EventType::EN\_EventType& Type of the events for which the actual total count is updated.

**Returns:**

const stdair::Count\_T& Expected Actual count of such events already generated

Definition at line 458 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.10 void SEVMGR::SEVMGR\_Service::addStatus (const stdair::EventType::EN\_EventType &, const stdair::Count\_T &) const**

Initialise the progress statuses for the given event type (e.g., request, snapshot).

**Parameters:**

*const* stdair::EventType::EN\_EventType& Type of the events for which the actual total count is updated.

**Returns:**

const stdair::Count\_T& Expected Actual count of such events already generated

Definition at line 478 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.11 bool SEVMGR::SEVMGR\_Service::isQueueDone () const**

States whether the event queue has reached the end.

For now, that method states whether the event queue is empty.



Definition at line 497 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

Referenced by main().

#### 10.14.3.12 **bool SEVMGR::SEVMGR\_Service::hasProgressStatus (const stdair::EventType::EN\_EventType &) const**

Check if the event queue has already a progress status for the given event type

Definition at line 519 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

#### 10.14.3.13 **EventQueue & SEVMGR::SEVMGR\_Service::getEventQueue () const**

Definition at line 580 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

#### 10.14.3.14 **const stdair::Count\_T & SEVMGR::SEVMGR\_Service::getQueueSize () const**

Get the size of the queue.

Definition at line 542 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

#### 10.14.3.15 **template<class EventGenerator, class Key> EventGenerator& SEVMGR::SEVMGR\_Service::getEventGenerator (const Key & iKey) const**

Extract an event generator from the map holding the children of the queue. Be careful, this method is not implemented: its implementation is left to the appellant according the EventGenerator type.

##### **Note:**

An instance of implementation of that method can be found in the TraDemGen service.

#### 10.14.3.16 **template<class EventGenerator, class Key> bool SEVMGR::SEVMGR\_Service::hasEventGenerator (const Key & iKey) const**

Check whether the event generator object with the given key exists.

Be careful, this method is not implemented: its implementation is left to the appellant according the EventGenerator type.

##### **Note:**

An instance of implementation of that method can be found in the TraDemGen service.

#### 10.14.3.17 **template<class EventGenerator> const std::list<EventGenerator\*> SEVMGR::SEVMGR\_Service::getEventGeneratorList () const**

Extract the event generator list from the map holding the children of the queue. Be careful, this method is not implemented: its implementation is left to the appellant according the EventGenerator type.

**Note:**

An instance of implementation of that method can be found in the TraDemGen service.

**10.14.3.18 template<class EventGenerator> bool SEVMGR::SEVMGR\_Service::hasEventGeneratorList () const**

Check whether there are event generator objects.

Be careful, this method is not implemented: its implementation is left to the appellant according the Event-Generator type.

**Note:**

An instance of implementation of that method can be found in the TraDemGen service.

**10.14.3.19 const stdair::Count\_T & SEVMGR::SEVMGR\_Service::getExpectedTotalNumberOfEventsToBeGenerated () const**

Get the expected number of events to be generated.

The getExpectedTotalNbOfEvents() method is called on the underlying [EventQueue](#) object, which keeps track of that number.

**Note:**

That number usually corresponds to an expectation (i.e., the mean value of a random distribution), and may not be accurate. The actual number will be known after calling the generateFirstEvents() method for each event type (e.g., booking request, optimisation notification, etc).

**Returns:**

const Count\_T& Expected number of events to be generated.

Definition at line 616 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.20 const stdair::Count\_T & SEVMGR::SEVMGR\_Service::getExpectedTotalNumberOfEventsToBeGenerated (const stdair::EventType::EN\_EventType &) const**

Get the expected number of events to be generated for the given event type.

The getExpectedTotalNbOfEvents() method is called on the underlying [EventQueue](#) object, which keeps track of that number.

**Note:**

That number usually corresponds to an expectation (i.e., the mean value of a random distribution), and may not be accurate. The actual number will be known after calling the generateFirstEvents() method for each event type (e.g., booking request, optimisation notification, etc).

**Parameters:**

*const* EventType\_T& Event type for which the number is calculated.

**Returns:**

const Count\_T& Expected number of events to be generated.

Definition at line 636 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.21 const stdair::Count\_T & SEVMGR::SEVMGR\_Service::getActualTotalNumberOfEventsToBeGenerated () const**

Get the actual number of events to be generated for all the event generators.

The getActualTotalNbOfEvents() method is called on the underlying [EventQueue](#) object, which keeps track of that number.

**Note:**

That number is being known after calling the generateFirstEvents() method.

**Returns:**

const Count\_T& Expected number of events to be generated.

Definition at line 657 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.22 const stdair::Count\_T & SEVMGR::SEVMGR\_Service::getActualTotalNumberOfEventsToBeGenerated (const stdair::EventType::EN\_EventType &) const**

Get the expected number of events to be generated for the given event type.

The getExpectedTotalNbOfEvents() method is called on the underlying [EventQueue](#) object, which keeps track of that number.

**Note:**

That number usually corresponds to an expectation (i.e., the mean value of a random distribution), and may not be accurate. The actual number will be known after calling the generateFirstEvents() method for each event type (e.g., booking request, optimisation notification, etc).

**Parameters:**

*const* EventType\_T& Event type for which the number is calculated.

**Returns:**

const Count\_T& Expected number of events to be generated.

Definition at line 678 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.23 const stdair::ProgressStatus & SEVMGR::SEVMGR\_Service::getStatus () const**

Get the overall progress status (for the whole event queue).

Definition at line 715 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.24 const stdair::ProgressStatus & SEVMGR::SEVMGR\_Service::getStatus (const stdair::EventType::EN\_EventType &) const**

Get the progress status for the given event type (e.g., booking request, optimisation notification, schedule change, break point).

Definition at line 736 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.25 std::string SEVMGR::SEVMGR\_Service::describeKey () const**

Display (dump in the returned string) the key of the event queue.

**Returns:**

std::string Output string in which the key is logged/dumped.

Definition at line 224 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.26 std::string SEVMGR::SEVMGR\_Service::list () const**

Display (dump in the returned string) the event list of the event queue.

**Returns:**

std::string Output string in which the events are logged/dumped.

Definition at line 243 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.27 std::string SEVMGR::SEVMGR\_Service::list (const stdair::EventType::EN\_EventType &) const**

Display (dump in the returned string) the event list for the given event type (e.g., booking request, optimisation notification, schedule change, break point).

**Parameters:**

*const* EventType\_T& Event type for which the events are displayed

**Returns:**

std::string Output string in which the events are logged/dumped.

Definition at line 263 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue().

**10.14.3.28 std::string SEVMGR::SEVMGR\_Service::jsonHandler (const stdair::JSONString &) const**

Dispatch the JSon command string to the corresponding service.

**Parameters:**

**const** stdair::JSONString& Input string which contained the JSon command string.

**Returns:**

std::string Output string in which the asking objects are logged/dumped with a JSon format.

Definition at line 283 of file SEVMGR\_Service.cpp.

References jsonExportEventQueue().

**10.14.3.29** std::string SEVMGR::SEVMGR\_Service::jsonExportEventQueue (const stdair::EventType::EN\_EventType & = stdair::EventType::LAST\_VALUE) const

Dump in the returned string and in JSON format the whole list of events queue.

Definition at line 342 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getEventQueue(), SEVMGR::SEVMGR\_ServiceContext::getSTDAIR\_ServicePtr(), and SEVMGR::BomJSONExport::jsonExportEventQueue().

Referenced by jsonHandler().

**10.14.3.30** std::string SEVMGR::SEVMGR\_Service::jsonExportEvent (const stdair::EventStruct &) const

Dump in the returned string and in JSON format the given event.

Definition at line 372 of file SEVMGR\_Service.cpp.

References SEVMGR::SEVMGR\_ServiceContext::getSTDAIR\_Service().

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

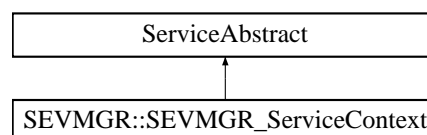
- sevmgr/[SEVMGR\\_Service.hpp](#)
- sevmgr/service/[SEVMGR\\_Service.cpp](#)

**10.15 SEVMGR::SEVMGR\_ServiceContext Class Reference**

Class holding the context of the Sevmgr services.

```
#include <sevmgr/service/SEVMGR_ServiceContext.hpp>
```

Inheritance diagram for SEVMGR::SEVMGR\_ServiceContext::

**Friends**

- class [SEVMGR\\_Service](#)
- class [FacSEVMGRServiceContext](#)

### 10.15.1 Detailed Description

Class holding the context of the Sevmgr services.

Definition at line 30 of file SEVMGR\_ServiceContext.hpp.

### 10.15.2 Friends And Related Function Documentation

#### 10.15.2.1 friend class [SEVMGR\\_Service](#) [friend]

The [SEVMGR\\_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 36 of file SEVMGR\_ServiceContext.hpp.

#### 10.15.2.2 friend class [FacSEVMGRServiceContext](#) [friend]

Definition at line 37 of file SEVMGR\_ServiceContext.hpp.

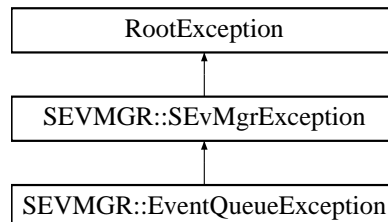
The documentation for this class was generated from the following files:

- sevmgr/service/[SEVMGR\\_ServiceContext.hpp](#)
- sevmgr/service/[SEVMGR\\_ServiceContext.cpp](#)

## 10.16 SEVMGR::SEvMgrException Class Reference

```
#include <sevmgr/SEVMGR_Exceptions.hpp>
```

Inheritance diagram for SEVMGR::SEvMgrException::



### Public Member Functions

- [SEvMgrException](#) (const std::string &iWhat)

### 10.16.1 Detailed Description

Root exception for the Sevmgr component

Definition at line 18 of file SEVMGR\_Exceptions.hpp.

### 10.16.2 Constructor & Destructor Documentation

#### 10.16.2.1 SEVMGR::SEvMgrException::SEvMgrException (const std::string & iWhat) [inline]

Constructor.

Definition at line 23 of file SEVMGR\_Exceptions.hpp.

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

- sevmgr/[SEVMGR\\_Exceptions.hpp](#)

## 11 SEvMgr File Documentation

### 11.1 doc/local/authors.doc File Reference

### 11.2 doc/local/codingrules.doc File Reference

### 11.3 doc/local/copyright.doc File Reference

### 11.4 doc/local/documentation.doc File Reference

### 11.5 doc/local/features.doc File Reference

### 11.6 doc/local/help\_wanted.doc File Reference

### 11.7 doc/local/howto\_release.doc File Reference

### 11.8 doc/local/index.doc File Reference

### 11.9 doc/local/installation.doc File Reference

### 11.10 doc/local/linking.doc File Reference

### 11.11 doc/local/test.doc File Reference

### 11.12 doc/local/users\_guide.doc File Reference

### 11.13 doc/local/verification.doc File Reference

### 11.14 doc/tutorial/tutorial.doc File Reference

### 11.15 sevmgr/basic/BasConst.cpp File Reference

```
#include <stdair/basic/BasConst_General.hpp>
#include <sevmgr/basic/BasConst_SEVMGR_Service.hpp>
#include <sevmgr/basic/BasConst_EventQueueManager.hpp>
```

#### Namespaces

- namespace [SEVMGR](#)

## Functions

- const [EventQueueID\\_T](#) SEVMGR::DEFAULT\_EVENT\_QUEUE\_ID ("EQ01")

## 11.16 sevmgr/basic/BasConst\_EventQueueManager.hpp File Reference

```
#include <string>
#include <sevmgr/SEVMGR_Types.hpp>
```

## Namespaces

- namespace [SEVMGR](#)

## Variables

- const [EventQueueID\\_T](#) SEVMGR::DEFAULT\_EVENT\_QUEUE\_ID

## 11.17 sevmgr/basic/BasConst\_SEVMGR\_Service.hpp File Reference

```
#include <string>
```

## Namespaces

- namespace [SEVMGR](#)

## 11.18 sevmgr/basic/BasParserTypes.hpp File Reference

```
#include <string>
#include <boost/spirit/home/classic/core.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>
```

## Namespaces

- namespace [SEVMGR](#)

## Typedefs

- typedef char [SEVMGR::char\\_t](#)
- typedef boost::spirit::classic::file\_iterator< [char\\_t](#) > [SEVMGR::iterator\\_t](#)
- typedef boost::spirit::classic::scanner< [iterator\\_t](#) > [SEVMGR::scanner\\_t](#)
- typedef boost::spirit::classic::rule< [scanner\\_t](#) > [SEVMGR::rule\\_t](#)
- typedef boost::spirit::classic::int\_parser< unsigned int, 10, 1, 1 > [SEVMGR::int1\\_p\\_t](#)



- typedef boost::spirit::classic::uint\_parser< unsigned int, 10, 2, 2 > [SEVMGR::uint2\\_p\\_t](#)
- typedef boost::spirit::classic::uint\_parser< unsigned int, 10, 1, 2 > [SEVMGR::uint1\\_2\\_p\\_t](#)
- typedef boost::spirit::classic::uint\_parser< unsigned int, 10, 1, 3 > [SEVMGR::uint1\\_3\\_p\\_t](#)
- typedef boost::spirit::classic::uint\_parser< unsigned int, 10, 4, 4 > [SEVMGR::uint4\\_p\\_t](#)
- typedef boost::spirit::classic::uint\_parser< unsigned int, 10, 1, 4 > [SEVMGR::uint1\\_4\\_p\\_t](#)
- typedef boost::spirit::classic::chset< [char\\_t](#) > [SEVMGR::chset\\_t](#)
- typedef boost::spirit::classic::impl::loop\_traits< [chset\\_t](#), unsigned int, unsigned int >::type [SEVMGR::repeat\\_p\\_t](#)
- typedef boost::spirit::classic::bounded< [uint2\\_p\\_t](#), unsigned int > [SEVMGR::bounded2\\_p\\_t](#)
- typedef boost::spirit::classic::bounded< [uint1\\_2\\_p\\_t](#), unsigned int > [SEVMGR::bounded1\\_2\\_p\\_t](#)
- typedef boost::spirit::classic::bounded< [uint1\\_3\\_p\\_t](#), unsigned int > [SEVMGR::bounded1\\_3\\_p\\_t](#)
- typedef boost::spirit::classic::bounded< [uint4\\_p\\_t](#), unsigned int > [SEVMGR::bounded4\\_p\\_t](#)
- typedef boost::spirit::classic::bounded< [uint1\\_4\\_p\\_t](#), unsigned int > [SEVMGR::bounded1\\_4\\_p\\_t](#)

## 11.19 sevmgr/batches/sevmgr\_demo.cpp File Reference

```
#include <cassert>
#include <sstream>
#include <fstream>
#include <vector>
#include <list>
#include <string>
#include <boost/program_options.hpp>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/basic/ProgressStatusSet.hpp>
#include <stdair/bom/EventStruct.hpp>
#include <stdair/bom/BomDisplay.hpp>
#include <stdair/service/Logger.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/bom/BookingRequestTypes.hpp>
#include <sevmgr/SEVMGR_Service.hpp>
#include <sevmgr/config/sevmgr-paths.hpp>
```

### Functions

- const stdair::Filename\_T [K\\_SEVMGR\\_DEFAULT\\_LOG\\_FILENAME](#) ("sevmgr\_demo.log")
- int [readConfiguration](#) (int argc, char \*argv[], stdair::Filename\_T &ioLogFilename)
- int [main](#) (int argc, char \*argv[])

### Variables

- const int [K\\_SEVMGR\\_EARLY\\_RETURN\\_STATUS](#) = 99

### 11.19.1 Function Documentation

#### 11.19.1.1 `const stdair::Filename_T K_SEVMGR_DEFAULT_LOG_FILENAME ("sevmgr-demo.log")`

Default name and location for the log file.

Referenced by `readConfiguration()`.

#### 11.19.1.2 `int readConfiguration (int argc, char * argv[], stdair::Filename_T & ioLogFilename)`

Read and parse the command line options.

Definition at line 37 of file `sevmgr_demo.cpp`.

References `K_SEVMGR_DEFAULT_LOG_FILENAME()`, `K_SEVMGR_EARLY_RETURN_STATUS`, `PACKAGE_NAME`, `PACKAGE_VERSION`, and `PREFIXDIR`.

Referenced by `main()`.

#### 11.19.1.3 `int main (int argc, char * argv[])`

Definition at line 111 of file `sevmgr_demo.cpp`.

References `SEVMGR::SEVMGR_Service::buildSampleQueue()`, `SEVMGR::SEVMGR_Service::isQueueDone()`, `K_SEVMGR_EARLY_RETURN_STATUS`, `SEVMGR::SEVMGR_Service::popEvent()`, and `readConfiguration()`.

### 11.19.2 Variable Documentation

#### 11.19.2.1 `const int K_SEVMGR_EARLY_RETURN_STATUS = 99`

Early return status (so that it can be differentiated from an error).

Definition at line 32 of file `sevmgr_demo.cpp`.

Referenced by `main()`, and `readConfiguration()`.

## 11.20 sevmgr/bom/BomJSONExport.cpp File Reference

```
#include <cassert>
#include <ostream>
#include <stdair/STDAIR_Service.hpp>
#include <stdair/bom/EventStruct.hpp>
#include <sevmgr/bom/EventQueue.hpp>
#include <sevmgr/bom/BomJSONExport.hpp>
```

### Namespaces

- namespace `bpt`
- namespace `SEVMGR`

### Typedefs

- typedef char [bpt::ptree](#)

## 11.21 sevmgr/bom/BomJSONExport.hpp File Reference

```
#include <iosfwd>
#include <stdair/stdair_service_types.hpp>
#include <stdair/bom/EventTypes.hpp>
```

### Namespaces

- namespace [bpt](#)
- namespace [SEVMGR](#)

### Classes

- class [SEVMGR::BomJSONExport](#)  
*Utility class to export StdAir objects in a JSON format.*

### Typedefs

- typedef char [bpt::ptree](#)

## 11.22 sevmgr/bom/EventQueue.cpp File Reference

```
#include <cassert>
#include <stdair/stdair_exceptions.hpp>
#include <stdair/basic/BasConst_Event.hpp>
#include <stdair/bom/EventStruct.hpp>
#include <stdair/service/Logger.hpp>
#include <sevmgr/basic/BasConst_EventQueueManager.hpp>
#include <sevmgr/bom/EventQueue.hpp>
```

### Namespaces

- namespace [SEVMGR](#)

## 11.23 sevmgr/bom/EventQueue.hpp File Reference

```
#include <iosfwd>
#include <string>
#include <stdair/stdair_basic_types.hpp>
```

```
#include <stdair/stdair_date_time_types.hpp>
#include <stdair/basic/ProgressStatusSet.hpp>
#include <stdair/basic/EventType.hpp>
#include <stdair/bom/BomAbstract.hpp>
#include <stdair/bom/EventTypes.hpp>
#include <sevmgr/bom/EventQueueKey.hpp>
#include <sevmgr/bom/EventQueueTypes.hpp>
#include <sevmgr/SEVMGR_Types.hpp>
```

### Namespaces

- namespace [stdair](#)
- namespace [SEVMGR](#)

### Classes

- class [SEVMGR::EventQueue](#)  
*Class holding event structures.*

## 11.24 sevmgr/bom/EventQueueKey.cpp File Reference

```
#include <sstream>
#include <sevmgr/bom/EventQueueKey.hpp>
```

### Namespaces

- namespace [SEVMGR](#)

## 11.25 sevmgr/bom/EventQueueKey.hpp File Reference

```
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_event_types.hpp>
#include <stdair/bom/KeyAbstract.hpp>
#include <sevmgr/SEVMGR_Types.hpp>
```

### Namespaces

- namespace [SEVMGR](#)

### Classes

- struct [SEVMGR::EventQueueKey](#)

## 11.26 sevmgr/bom/EventQueueTypes.hpp File Reference

```
#include <map>
#include <list>
#include <stdair/bom/key_types.hpp>
```

### Namespaces

- namespace [SEVMGR](#)

### Typedefs

- typedef std::list< EventQueue \* > [SEVMGR::EventQueueList\\_T](#)
- typedef std::map< const stdair::MapKey\_T, EventQueue \* > [SEVMGR::EventQueueMap\\_T](#)

## 11.27 sevmgr/command/EventQueueManager.cpp File Reference

```
#include <cassert>
#include <boost/make_shared.hpp>
#include <stdair/basic/ProgressStatusSet.hpp>
#include <stdair/basic/EventType.hpp>
#include <stdair/basic/BasConst_Event.hpp>
#include <stdair/bom/BomManager.hpp>
#include <stdair/bom/EventStruct.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/bom/BreakPointStruct.hpp>
#include <stdair/service/Logger.hpp>
#include <stdair/STDAIR_Service.hpp>
#include <sevmgr/bom/EventQueue.hpp>
#include <sevmgr/command/EventQueueManager.hpp>
```

### Namespaces

- namespace [SEVMGR](#)

## 11.28 sevmgr/command/EventQueueManager.hpp File Reference

```
#include <stdair/stdair_basic_types.hpp>
#include <stdair/command/CmdAbstract.hpp>
#include <stdair/stdair_service_types.hpp>
#include <sevmgr/SEVMGR_Types.hpp>
```

## Namespaces

- namespace [stdair](#)
- namespace [SEVMGR](#)

## Classes

- class [SEVMGR::EventQueueManager](#)  
*Utility class for Demand and DemandStream objects.*

## 11.29 sevmgr/config/sevmgr-paths.hpp.in File Reference

### Defines

- #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@"

### 11.29.1 Define Documentation

#### 11.29.1.1 #define PACKAGE "@PACKAGE@"

Definition at line 4 of file sevmgr-paths.hpp.in.

#### 11.29.1.2 #define PACKAGE\_NAME "@PACKAGE\_NAME@"

Definition at line 5 of file sevmgr-paths.hpp.in.

Referenced by `readConfiguration()`.

#### 11.29.1.3 #define PACKAGE\_VERSION "@PACKAGE\_VERSION@"

Definition at line 6 of file sevmgr-paths.hpp.in.

Referenced by `readConfiguration()`.

**11.29.1.4 #define PREFIXDIR "@prefix@"**

Definition at line 7 of file sevmgr-paths.hpp.in.

Referenced by readConfiguration().

**11.29.1.5 #define EXEC\_PREFIX "@exec\_prefix@"**

Definition at line 8 of file sevmgr-paths.hpp.in.

**11.29.1.6 #define BINDIR "@bindir@"**

Definition at line 9 of file sevmgr-paths.hpp.in.

**11.29.1.7 #define LIBDIR "@libdir@"**

Definition at line 10 of file sevmgr-paths.hpp.in.

**11.29.1.8 #define LIBEXECDIR "@libexecdir@"**

Definition at line 11 of file sevmgr-paths.hpp.in.

**11.29.1.9 #define SBINDIR "@sbindir@"**

Definition at line 12 of file sevmgr-paths.hpp.in.

**11.29.1.10 #define SYSCONFDIR "@sysconfdir@"**

Definition at line 13 of file sevmgr-paths.hpp.in.

**11.29.1.11 #define INCLUDEDIR "@includedir@"**

Definition at line 14 of file sevmgr-paths.hpp.in.

**11.29.1.12 #define DATAROOTDIR "@datarootdir@"**

Definition at line 15 of file sevmgr-paths.hpp.in.

**11.29.1.13 #define DATADIR "@datadir@"**

Definition at line 16 of file sevmgr-paths.hpp.in.

**11.29.1.14 #define DOCDIR "@docdir@"**

Definition at line 17 of file sevmgr-paths.hpp.in.

**11.29.1.15 #define MANDIR "@mandir@"**

Definition at line 18 of file sevmgr-paths.hpp.in.

**11.29.1.16 #define INFODIR "@infodir@"**

Definition at line 19 of file sevmgr-paths.hpp.in.

**11.29.1.17 #define HTMLDIR "@htmldir@"**

Definition at line 20 of file sevmgr-paths.hpp.in.

**11.29.1.18 #define PDFDIR "@pdfdir@"**

Definition at line 21 of file sevmgr-paths.hpp.in.

**11.29.1.19 #define STDAIR\_SAMPLE\_DIR "@sampledir@"**

Definition at line 22 of file sevmgr-paths.hpp.in.

**11.30 sevmgr/factory/FacSEVMGRServiceContext.cpp File Reference**

```
#include <cassert>
#include <stdair/service/FacSupervisor.hpp>
#include <sevmgr/factory/FacSEVMGRServiceContext.hpp>
#include <sevmgr/service/SEVMGR_ServiceContext.hpp>
```

**Namespaces**

- namespace [SEVMGR](#)

**11.31 sevmgr/factory/FacSEVMGRServiceContext.hpp File Reference**

```
#include <stdair/service/FacServiceAbstract.hpp>
#include <sevmgr/SEVMGR_Types.hpp>
```

**Namespaces**

- namespace [SEVMGR](#)

**Classes**

- class [SEVMGR::FacSEVMGRServiceContext](#)

**11.32 sevmgr/python/pysevmgr.cpp File Reference**

```
#include <cassert>
#include <stdexcept>
#include <fstream>
#include <sstream>
#include <string>
#include <list>
#include <vector>
```



```
#include <boost/python.hpp>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_exceptions.hpp>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/basic/BasLogParams.hpp>
#include <stdair/basic/BasDBParams.hpp>
#include <sevmgr/SEVMGR_Service.hpp>
```

### Namespaces

- namespace [SEVMGR](#)

### Classes

- struct [SEVMGR::PYEventQueueManager](#)

### Functions

- [BOOST\\_PYTHON\\_MODULE](#) (libpysevmgr)

#### 11.32.1 Function Documentation

##### 11.32.1.1 BOOST\_PYTHON\_MODULE (libpysevmgr)

Definition at line 152 of file pysevmgr.cpp.

References [SEVMGR::PYEventQueueManager::init\(\)](#), [and](#) [SEVMGR::PYEventQueueManager::sevmgr\(\)](#).

### 11.33 sevmgr/service/SEVMGR\_Service.cpp File Reference

```
#include <cassert>
#include <sstream>
#include <boost/make_shared.hpp>
#include <stdair/basic/BasChronometer.hpp>
#include <stdair/basic/BasConst_General.hpp>
#include <stdair/basic/JSonCommand.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <stdair/bom/BomDisplay.hpp>
#include <stdair/bom/EventStruct.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/bom/BomJSONImport.hpp>
#include <stdair/service/Logger.hpp>
```

```
#include <stdair/STDAIR_Service.hpp>
#include <sevmgr/basic/BasConst_SEVMGR_Service.hpp>
#include <sevmgr/factory/FacSEVMGRServiceContext.hpp>
#include <sevmgr/command/EventQueueManager.hpp>
#include <sevmgr/service/SEVMGR_ServiceContext.hpp>
#include <sevmgr/SEVMGR_Service.hpp>
#include <sevmgr/bom/EventQueue.hpp>
#include <sevmgr/bom/BomJSONExport.hpp>
```

### Namespaces

- namespace [SEVMGR](#)

## 11.34 sevmgr/service/SEVMGR\_ServiceContext.cpp File Reference

```
#include <cassert>
#include <sstream>
#include <stdair/STDAIR_Service.hpp>
#include <stdair/basic/BasConst_General.hpp>
#include <stdair/factory/FacBom.hpp>
#include <sevmgr/basic/BasConst_EventQueueManager.hpp>
#include <sevmgr/bom/EventQueue.hpp>
#include <sevmgr/service/SEVMGR_ServiceContext.hpp>
```

### Namespaces

- namespace [SEVMGR](#)

## 11.35 sevmgr/service/SEVMGR\_ServiceContext.hpp File Reference

```
#include <string>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_service_types.hpp>
#include <stdair/service/ServiceAbstract.hpp>
#include <sevmgr/SEVMGR_Types.hpp>
```

### Namespaces

- namespace [stdair](#)
- namespace [SEVMGR](#)

### Classes

- class [SEVMGR::SEVMGR\\_ServiceContext](#)  
*Class holding the context of the Sevmgr services.*

## 11.36 sevmgr/SEVMGR\_Exceptions.hpp File Reference

```
#include <exception>
#include <stdair/stdair_exceptions.hpp>
```

### Namespaces

- namespace [SEVMGR](#)

### Classes

- class [SEVMGR::SEvMgrException](#)
- class [SEVMGR::EventQueueException](#)

## 11.37 sevmgr/SEVMGR\_Service.hpp File Reference

```
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_json.hpp>
#include <stdair/stdair_service_types.hpp>
#include <stdair/bom/EventTypes.hpp>
#include <stdair/bom/EventStruct.hpp>
```

### Namespaces

- namespace [stdair](#)
- namespace [SEVMGR](#)

### Classes

- class [SEVMGR::SEVMGR\\_Service](#)  
*class holding the services related to Travel Demand Generation.*

## 11.38 sevmgr/SEVMGR\_Types.hpp File Reference

```
#include <boost/shared_ptr.hpp>
#include <stdair/basic/ProgressStatusSet.hpp>
#include <stdair/basic/EventType.hpp>
#include <sevmgr/SEVMGR_Exceptions.hpp>
```

## Namespaces

- namespace [SEVMGR](#)

## Typedefs

- typedef boost::shared\_ptr< SEVMGR\_Service > [SEVMGR::SEVMGR\\_ServicePtr\\_T](#)
- typedef std::string [SEVMGR::EventQueueID\\_T](#)
- typedef std::map< stdair::EventType::EN\_EventType, stdair::ProgressStatus > [SEVMGR::ProgressStatusMap\\_T](#)

## 11.39 sevmgr/ui/cmdline/sevmgr.cpp File Reference

## 11.40 test/sevmgr/EventQueueManagementTestSuite.cpp File Reference

# 12 SEvMgr Page Documentation

## 12.1 People

### 12.1.1 Project Admins

- Gabrielle Sabatier <gsabatier@users.sourceforge.net> ([N](#))
- Denis Arnaud <denis\_arnaud@users.sourceforge.net> ([N](#))

### 12.1.2 Developers

- Anh Quan Nguyen <quannaus@users.sourceforge.net> ([N](#))
- Denis Arnaud <denis\_arnaud@users.sourceforge.net> ([N](#))

### 12.1.3 Retired Developers

- Mehdi Ayouni <mehdi.ayouni@gmail.com>
- Patrick Grandjean <pgrandjean@users.sourceforge.net> ([N](#))

### 12.1.4 Contributors

- Emmanuel Bastien <ebastien@users.sourceforge.net> ([N](#))

### 12.1.5 Distribution Maintainers

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

## Note:

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

## 12.2 Coding Rules

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

### 12.2.1 Default Naming Rules for Variables

Variables names follow Java naming conventions. Examples:

- `lNumberOfPassengers`
- `lSeatAvailability`

### 12.2.2 Default Naming Rules for Functions

Function names follow Java naming conventions. Example:

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

### 12.2.3 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`

### 12.2.4 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`

### 12.2.5 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.

## 12.3 Copyright and License

### 12.3.1 GNU LESSER GENERAL PUBLIC LICENSE

#### 12.3.1.1 Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.  
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies  
of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts  
as the successor of the GNU Library Public License, version 2, hence  
the version number 2.1.]

#### 12.3.2 Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages—typically libraries—of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

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.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

### 12.3.3 TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate

copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(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.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering



equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

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.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
- b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to

be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
- b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add

an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

**12.3.3.1 NO WARRANTY** 15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

### 12.3.3.2 END OF TERMS AND CONDITIONS

### 12.3.4 How to Apply These Terms to Your New Programs

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

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 Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

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

## 12.4 Documentation Rules

### 12.4.1 General Rules

All classes in SEvMgr 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 SEvMgr 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
};

```

### 12.4.2 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.
*
* -----
*
* SEvMgr - C++ Airline Inventory Management Library
*
* Copyright (C) 2009-2010 (\see authors file for a list of contributors)
*
* \see copyright file for license information
*
* -----
*/

```

### 12.4.3 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);
```

## 12.5 Main features

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

### 12.5.1 Booking management

- Booking and cancellation requests

### 12.5.2 Revenue Management notification

- Forecast and Optimisation notification requests

### 12.5.3 Setting simulation break-points

- Simulation break-points

### 12.5.4 Other features

- CSV input file parsing
- Memory handling

## 12.6 Make a Difference

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

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

- Start using SEvMgr
- Tell your friends about SEvMgr 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 SEvMgr discussion forums on SourceForge. If you know the answer to a question, help others to overcome their SEvMgr 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 SEvMgr to new platforms. If you manage to compile SEvMgr on a new platform, then tell us how you did it.
- Send us your code. If you have a good SEvMgr compatible code, which you can release under the LGPLv2.1, and you think it should be included in SEvMgr, then send it to us.
- Become an SEvMgr developer. Send us an e-mail and tell what you can do for SEvMgr.

## 12.7 Make a new release

### 12.7.1 Introduction

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

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

### 12.7.2 Initialisation

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

```
cd ~
mkdir -p dev/sim
cd ~/dev/sim
git clone git://sevmgr.git.sourceforge.net/gitroot/sevmgr/sevmgr sevmgrgit
cd sevmgrgit
git checkout trunk
```

### 12.7.3 Branch creation

Create the branch, on your local clone, corresponding to the new release (say, 0.5.0):

```
cd ~/dev/sim/sevmgrgit
git checkout trunk
git checkout -b 0.5.0
```

Update the version in the various build system files, replacing 99.99.99 by the correct version number:

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

Update the version and add a change-log in the ChangeLog and in the RPM specification files:

```
vi ChangeLog
vi sevmgr.spec
```

### 12.7.4 Commit and publish the release branch

Commit the new release:

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

### 12.7.5 Update the change-log in the trunk as well

Update the change-log in the ChangeLog and RPM specification files:

```
cd ~/dev/sim/sevmgrgit
git checkout trunk
vi ChangeLog
vi sevmgr.spec
```

Commit the change-logs and publish the trunk (main development branch):

```
git commit -m "[Doc] Integrated the change-log of the release 0.5.0."
git push
```

### 12.7.6 Create distribution packages

Create the distribution packages using the following command:

```
cd ~/dev/sim/sevmgrgit
git checkout 0.5.0
rm -rf build && mkdir -p build
cd build
cmake -DCMAKE_INSTALL_PREFIX=/home/user/dev/deliveries/sevmgr-0.5.0 \
      -DWITH_STDAIR_PREFIX=/home/user/dev/deliveries/stdair-stable \
      -DCMAKE_BUILD_TYPE:STRING=Debug -DINSTALL_DOC:BOOL=ON ..
make check && make dist
```

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

### 12.7.7 Generation the RPM packages

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

```
cd ~/dev/sim/sevmgrgit
git checkout 0.5.0
rm -rf build && mkdir -p build
cd build
cmake -DCMAKE_INSTALL_PREFIX=/home/user/dev/deliveries/sevmgr-0.5.0 \
      -DWITH_STDAIR_PREFIX=/home/user/dev/deliveries/stdair-stable \
      -DCMAKE_BUILD_TYPE:STRING=Debug -DINSTALL_DOC:BOOL=ON ..
make dist
```

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

```
cp sevmgr.spec ~/dev/packages/SPECS \
  && cp sevmgr-0.5.0.tar.bz2 ~/dev/packages/SOURCES
cd ~/dev/packages/SPECS
rpmbuild -ba sevmgr.spec
rpmlint -i ../SPECS/sevmgr.spec ../SRPMS/sevmgr-0.5.0-1.fc15.src.rpm \
  ../RPMS/noarch/sevmgr-* ../RPMS/i686/sevmgr-*
```

### 12.7.8 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 [SEvMgr's Git repository](#).



### 12.7.9 Create the binary package, including the documentation

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

```
make package
```

The output binary package will be named, for instance, `sevmgr-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.

### 12.7.10 Upload the files to SourceForge

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

### 12.7.11 Upload the documentation to SourceForge

In order to update the Web site files, either:

- [synchronise them with rsync and SSH](#):

```
cd ~/dev/sim/sevmgrgit
git checkout 0.5.0
rsync -aiv doc/html/ doc/latex/refman.pdf joe,sevmgr@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](#).

### 12.7.12 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](#).

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

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

## 12.8 Installation

### 12.8.1 Table of Contents

- [Fedora/RedHat Linux distributions](#)
- [SEvMgr Requirements](#)
- [Basic Installation](#)
- [Compilers and Options](#)
- [Compiling For Multiple Architectures](#)
- [Installation Names](#)
- [Optional Features](#)
- [Particular systems](#)
- [Specifying the System Type](#)
- [Sharing Defaults](#)
- [Defining Variables](#)
- [‘cmake’ Invocation](#)

### 12.8.2 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 sevmgr-devel sevmgr-doc
```

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

### 12.8.3 SEvMgr Requirements

SEvMgr 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``)
- **SOCI** - 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 SEvMgr.

#### 12.8.4 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.

### 12.8.5 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.

### 12.8.6 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.

### 12.8.7 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.

### 12.8.8 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'`.

### 12.8.9 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
```

### 12.8.10 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'`.

### 12.8.11 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.

### 12.8.12 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
```

### 12.8.13 '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:

```
export LIBSUFFIX_4_CMAKE="-DLIB_SUFFIX=64"
export INSTALL_BASEDIR=/home/user/dev/deliveries
cmake -DCMAKE_INSTALL_PREFIX=${INSTALL_BASEDIR}/sevmgr-0.5.0 \
-DWITH_STDAIR_PREFIX=${INSTALL_BASEDIR}/stdair-stable \
-DWITH_AIRAC_PREFIX=${INSTALL_BASEDIR}/airrac-stable \
-DWITH_RMOL_PREFIX=${INSTALL_BASEDIR}/rmol-stable \
-DCMAKE_BUILD_TYPE:String=Debug -DINSTALL_DOC:BOOL=ON ${LIBSUFFIX_4_CMAKE} ..
-- 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: 0ee8dcc3e3dd1d1d442c4054fbfa4cacc1182e6a 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 Readline without specifying any version
-- Found Readline: /usr/include
-- Found Readline version: 6.2
-- 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-0.37
-- 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 'sevmgrlib' to CXX
-- Test 'InventoryTestSuite' to be built with 'InventoryTestSuite.cpp'
--
-- =====
-- -----
-- ---      Project Information      ---
-- -----
-- PROJECT_NAME ..... : sevmgr
-- PACKAGE_PRETTY_NAME ..... : SEvMgr
-- PACKAGE ..... : sevmgr
-- PACKAGE_NAME ..... : SEVMGR
-- PACKAGE_BRIEF ..... : C++ Simulation-Oriented Discrete Event Management Library
-- PACKAGE_VERSION ..... : 0.5.0
-- GENERIC_LIB_VERSION ..... : 0.5.0
-- GENERIC_LIB_SOVERSION ..... : 0.5
--
-- -----
-- ---      Build Configuration      ---
-- -----
-- Modules to build ..... : airrac;rmol;sevmgr
-- Libraries to build/install ..... : airraclib;rmolllib;sevmgrlib
-- Binaries to build/install ..... : airrac;rmol;sevmgr_parseInventory;sevmgr
-- Modules to test ..... : sevmgr
-- Binaries to test ..... : InventoryTestSuitetst
--
-- * Module ..... : sevmgr
--   + Layers to build ..... : .;basic;bom;factory;command;service
--   + Dependencies on other layers : airraclib;rmolllib
--   + Libraries to build/install . : sevmgrlib
--   + Executables to build/install : sevmgr_parseInventory;sevmgr
--   + Tests to perform ..... : InventoryTestSuitetst
--
-- BUILD_SHARED_LIBS ..... : ON

```

```

-- CMAKE_BUILD_TYPE ..... : Debug
-- * CMAKE_C_FLAGS ..... :
-- * CMAKE_CXX_FLAGS ..... : -Wall -Werror
-- * BUILD_FLAGS ..... :
-- * COMPILE_FLAGS ..... :
-- CMAKE_MODULE_PATH ..... : /home/dan/dev/sim/sevmgr/sevmgrgithub/config/
-- CMAKE_INSTALL_PREFIX ..... : /home/dan/dev/deliveries/sevmgr-0.5.0
--
-- * 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/dan/dev/deliveries/sevmgr-0.5.0/lib64
-- INSTALL_BIN_DIR ..... : /home/dan/dev/deliveries/sevmgr-0.5.0/bin
-- INSTALL_INCLUDE_DIR ..... : /home/dan/dev/deliveries/sevmgr-0.5.0/include
-- INSTALL_DATA_DIR ..... : /home/dan/dev/deliveries/sevmgr-0.5.0/share
-- INSTALL_SAMPLE_DIR ..... : /home/dan/dev/deliveries/sevmgr-0.5.0/share/sevmgr/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 ..... : 0.5.0
-- CPACK_PACKAGE_DESCRIPTION_FILE . : /home/dan/dev/sim/sevmgr/sevmgrgithub/README
-- CPACK_RESOURCE_FILE_LICENSE .... : /home/dan/dev/sim/sevmgr/sevmgrgithub/COPYING
-- CPACK_GENERATOR ..... : TBZ2
-- CPACK_DEBIAN_PACKAGE_DEPENDS ... :
-- CPACK_SOURCE_GENERATOR ..... : TBZ2;TGZ
-- CPACK_SOURCE_PACKAGE_FILE_NAME . : sevmgr-0.5.0
--
-- -----
-- --- 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;u
--   - Boost required libraries ... : optimized;/usr/lib64/libboost_regex-mt.so;debug;/usr/lib64/libboost_
--
-- * Readline:
--   - READLINE_VERSION ..... : 6.2
--   - READLINE_INCLUDE_DIR ..... : /usr/include
--   - READLINE_LIBRARY ..... : /usr/lib64/libreadline.so
--
-- * 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
--   - SOCIMYSQL_INCLUDE_DIR ..... : /usr/include/soci
--   - SOCI_LIBRARIES ..... : /usr/lib64/libsoci_core.so
--   - SOCIMYSQL_LIBRARIES ..... : /usr/lib64/libsoci_mysql.so
--
-- * StdAir:

```

```
-- - STDAIR_VERSION ..... : 0.38.0
-- - STDAIR_BINARY_DIRS ..... : /home/dan/dev/deliveries/stdair-0.38.0/bin
-- - STDAIR_EXECUTABLES ..... : stdair
-- - STDAIR_LIBRARY_DIRS ..... : /home/dan/dev/deliveries/stdair-0.38.0/lib64
-- - STDAIR_LIBRARIES ..... : stdairlib;stdairuiclib
-- - STDAIR_INCLUDE_DIRS ..... : /home/dan/dev/deliveries/stdair-0.38.0/include
-- - STDAIR_SAMPLE_DIR ..... : /home/dan/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/dan/dev/sim/sevmgr/sevmgrgithub/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_sevmgr
[ 0%] Built target hdr_cfg_airrac
[ 13%] Built target hdr_cfg_rmol
[ 98%] Built target sevmgrlib
[100%] Built target InventoryTestSuitetst
Scanning dependencies of target check_sevmgrtst
Test project /home/dan/dev/sim/sevmgr/sevmgrgithub/build/test/sevmgr
  Start 1: InventoryTestSuitetst
1/1 Test #1: InventoryTestSuitetst ..... Passed    0.08 sec

100% tests passed, 0 tests failed out of 1

Total Test time (real) =  0.35 sec
[100%] Built target check_sevmgrtst
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/sevmgrgit
rm -rf build && mkdir build
cd build
```

to remove everything.

## 12.9 Linking with SEvMgr

### 12.9.1 Table of Contents

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

### 12.9.2 Introduction

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

### 12.9.3 Dependencies

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

**12.9.3.1 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'`).

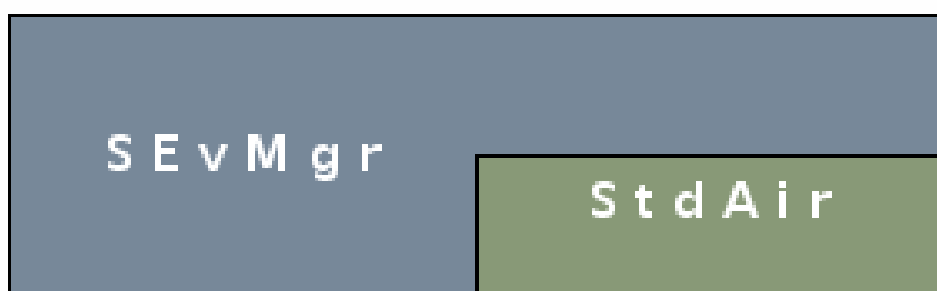


Figure 1: SEvMgr Dependencies

### 12.9.4 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 SEvMgr based program 'my\_prog.cpp', you should use the following command:

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

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

### 12.9.5 Using the sevmgr-config script

SEvMgr provides a shell script called 'sevmgr-config', which is installed by default in '\$prefix/bin' ('/usr/local/bin') directory. It can be used to simplify compilation and linking of SEvMgr 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++ `sevmgr-config --cflags` -o my_prog_opt my_prog.cpp `sevmgr-config --libs`
```

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

```
sevmgr-config --help
```

If the 'sevmgr-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
```

### 12.9.6 M4 macro for the GNU Autotools

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

- 'SEvMgr\_VERSION' (e.g., defined to 0.23.0)
- 'SEvMgr\_CFLAGS' (e.g., defined to '-I\${prefix}/include')
- 'SEvMgr\_LIBS' (e.g., defined to '-L\${prefix}/lib -lsevmgr')

### 12.9.7 Using SEvMgr with dynamic linking

When using static linking some of the library routines in SEvMgr 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 SEvMgr library file during your program execution. If you install the SEvMgr 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=<SEvMgr installation prefix>/lib:$LD_LIBRARY_PATH
```

## 12.10 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.

### 12.10.1 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'`.

### 12.10.2 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.

### 12.10.3 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.

## 12.11 Users Guide

### 12.11.1 Table of Contents

- [Introduction](#)

- [Get Started](#)
  - [Get the SEvMgr library](#)
  - [Build the SEvMgr project](#)
  - [Build and Run the Tests](#)
  - [Install the SEvMgr Project \(Binaries, Documentation\)](#)
- [Input file of SEvMgr Project](#)
- [The schedule BOM Tree](#)
  - [Build of the schedule BOM tree](#)
  - [Display of the schedule BOM tree](#)
- [Exploring the Predefined BOM Tree](#)
  - [Airline Network BOM Tree](#)
  - [Airline Schedule BOM Tree](#)
- [Extending the BOM Tree](#)
- [The travel solution calculation procedure](#)

### 12.11.2 Introduction

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

### 12.11.3 Get Started

#### 12.11.3.1 Get the SEvMgr library Clone locally the full [Git project](#):

```
cd ~
mkdir -p dev/sim
cd ~/dev/sim
git clone git://sevmgr.git.sourceforge.net/gitroot/sevmgr/sevmgr sevmgrgit
cd sevmgrgit
git checkout trunk
```

#### 12.11.3.2 Build the SEvMgr project Link with StdAir, create the distribution package (say, 0.5.0) and compile using the following commands:

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

**12.11.3.3 Build and Run the Tests** After building the SEvMgr project, the following commands run the tests:

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

As a result, you should obtain a similar report:

```
[ 0%] Built target hdr_cfg_sevmgr
[ 96%] Built target sevmgrlib
[100%] Built target AirlineScheduleTestSuitetst
Scanning dependencies of target check_sevmgrtst
Test project /home/dan/dev/sim/sevmgr/sevmgrgithub/build/test/sevmgr
  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_sevmgrtst
Scanning dependencies of target check
[100%] Built target check
```

**12.11.3.4 Install the SEvMgr Project (Binaries, Documentation)** After the step [Build the SEvMgr project](#), to install the library and its header files, type:

```
cd ~/dev/sim/sevmgrgit
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/sevmgr-0.5.0
```

To generate the SEvMgr project documentation, the commands are:

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

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

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

## 12.11.4 Input file of SEvMgr Project

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

Each line, beyond the header, represents a schedule entry, i.e., the specification of a given flight-period (see SEVMGR: :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.

### 12.11.5 The schedule BOM Tree

The schedule-related Business Object Model (BOM) tree is a structure allowing to store all the `SEVMGR::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 SEvMgr 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.

**12.11.5.1 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 [SEVMGR::SEVMGR\\_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 `SEVMGR::SEVMGR_Service::buildSampleBom()` method:

```
* Nothing is being done at that stage. The buildSampleBom() method may
```

or can be constructed using the schedule input file described above thanks to the `SEVMGR::SEVMGR_Service::parseAndLoad (const stdair::Filename_T&)` method:

### 12.11.5.2 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::sevmgr.cpp` program:

When the default BOM tree is used (`-b/-builtin` option of the main program [sevmgr.cpp](#)), the schedule BOM tree display (for now, corresponding to `schedule01.csv` parsed by `SEVMGR::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,  
SQ11 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 300, 300, 0, 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,  
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,  
SQ11 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 300, 300, 0, 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,  
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,  
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300, 9, 1.58896e-319, 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,

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,

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,

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,  
 SQ11 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 300, 300, 0, 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,

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,

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,

SQ11 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 1, 0, 0, 0, 0, 300, 0,

SQ11 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,

SQ11 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,

SQ11 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: SQ11, 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,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-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,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 1, 0, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 2, 0, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs, GrpBks (pdg), StfBkgs, WLBkgs,
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,
SQL1 2010-Jan-22, SIN-BKK 2010-Jan-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,
SQL1 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 1, 0, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 2, 0, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs, GrpBks (pdg), StfBkgs, WLBkgs,
SQL1 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,
SQL1 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,  
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,

\*\*\*\*\*  
\*\*\*\*\*

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,  
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,  
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,

\*\*\*\*\*  
\*\*\*\*\*

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,  
SQ11 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,  
SQ11 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,  
SQ11 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: SQ11, 2010-Jan-25  
\*\*\*\*\*

\*\*\*\*\*  
\*\*\*\*\*

Leg-Dates:

-----

Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity  
SQ11 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,  
SQ11 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 300, 300, 0, 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-25, SIN-BKK 2010-Jan-25, Y, 1, 0, 0, 0, 0, 300, 0,  
SQ11 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,  
SQ11 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,  
SQ11 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: SQ11, 2010-Jan-26

\*\*\*\*\*  
\*\*\*\*\*

Leg-Dates:

-----

Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity  
SQ11 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,  
SQ11 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,  
SQ11 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 1, 0, 0, 0, 0, 300, 0,  
SQ11 2010-Jan-26, SIN-BKK 2010-Jan-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,  
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,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, 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-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,
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,
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,
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, 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,
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,
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,
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,

```

```
SQL1 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,
SQL1 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: SQL1, 2010-Jan-31
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL1 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,
SQL1 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,
SQL1 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 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,
SQL1 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,
SQL1 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: SQL1, 2010-Feb-01
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL1 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,
SQL1 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,
SQL1 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 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,
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
SQ11 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,
SQ11 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,
SQ11 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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: SQ11, 2010-Feb-03
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQ11 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,
SQ11 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,
SQ11 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,  
SQ11 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,  
SQ11 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: SQ11, 2010-Feb-04

\*\*\*\*\*

\*\*\*\*\*

Leg-Dates:

-----

Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity  
SQ11 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:

-----

Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,  
SQ11 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 300, 300, 0, 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,  
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,  
SQ11 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 300, 300, 0, 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,  
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,  
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 300, 300, 0, 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-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,

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,  
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,  
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,  
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 300, 300, 0, 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-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,  
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,  
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 300, 300, 0, 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,
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,
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,
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,
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,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, 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-11, SIN-BKK 2010-Feb-11, Y, 1, 0, 0, 0, 0, 300, 0,

```



```
SQL1 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,
SQL1 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,
SQL1 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: SQL1, 2010-Feb-12
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL1 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,
SQL1 2010-Feb-12, SIN-BKK 2010-Feb-12, 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-12, SIN-BKK 2010-Feb-12, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-12, SIN-BKK 2010-Feb-12, 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,
SQL1 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,
SQL1 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: SQL1, 2010-Feb-13
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL1 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,
SQL1 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,
```

```
SQL1 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 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,
SQL1 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,
SQL1 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: SQL1, 2010-Feb-14
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL1 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,
SQL1 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,
SQL1 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 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,
SQL1 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,
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,
SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, 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-15, SIN-BKK 2010-Feb-15, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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: SQ11, 2010-Feb-16
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQ11 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,
SQ11 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,
SQ11 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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: SQ11, 2010-Feb-17
*****
*****
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,
SQ11 2010-Feb-17, SIN-BKK 2010-Feb-17, 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-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,  
 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,  
 SQ11 2010-Feb-18, SIN-BKK 2010-Feb-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-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,  
 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, 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,  
 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,  
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,  
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-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,  
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,  
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,

\*\*\*\*\*

\*\*\*\*\*

LegCabins:

-----

Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,  
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,  
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,  
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,  
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,  
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, 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-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,
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,
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,
*****
*****
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,
SQ11 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300, 9, 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,
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,
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,
*****
*****
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,
SQ11 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300, 9, 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-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,
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,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-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,
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,
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,
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:
-----
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,
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,
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,
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,
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,
*****
*****
```

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,  
\*\*\*\*\*  
\*\*\*\*\*

Subclasses:

-----

Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs, GrpBks (pdg), StfBkgs, WLBkgs,  
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:

-----

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,  
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200, 9, 2.63638e-319, 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,  
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,  
SQ12 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200, 9, 2.39291e-319, 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,  
SQ12 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,  
SQ12 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: SQ12, 2010-Jan-18  
\*\*\*\*\*  
\*\*\*\*\*

Leg-Dates:  
-----

Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity  
SQ12 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,  
SQ12 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,  
\*\*\*\*\*  
\*\*\*\*\*  
Buckets:  
-----

Flight, Leg, Cabin, Yield, AU/SI, SS, AV,  
\*\*\*\*\*  
\*\*\*\*\*  
SegmentCabins:  
-----

Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,  
SQ12 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 1, 0, 0, 0, 0, 200, 0,  
SQ12 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,  
SQ12 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,  
SQ12 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: SQ12, 2010-Jan-19  
\*\*\*\*\*  
\*\*\*\*\*

Leg-Dates:  
-----

Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity  
SQ12 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,  
SQ12 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,
SQ12 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
SQ12 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,
*****
*****
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,
SQ12 2010-Jan-20, SIN-HND 2010-Jan-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,
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,
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,
```

```
SQL2 2010-Jan-21, SIN-HND 2010-Jan-21, 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-21, SIN-HND 2010-Jan-21, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Jan-21, SIN-HND 2010-Jan-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,
SQL2 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,
SQL2 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: SQL2, 2010-Jan-22
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL2 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,
SQL2 2010-Jan-22, SIN-HND 2010-Jan-22, 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-22, SIN-HND 2010-Jan-22, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 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,
SQL2 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,
SQL2 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: SQL2, 2010-Jan-23
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL2 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,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-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-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,
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,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,
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,
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,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, 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-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,
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, CommSpace, AvPool, Avl, NAV,
SQ12 2010-Jan-26, SIN-HND 2010-Jan-26, 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-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,
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,  
SQ12 2010-Jan-27, SIN-HND 2010-Jan-27, 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-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,  
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,  
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, 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-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,  
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,  
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,  
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,  
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,  
\*\*\*\*\*  
\*\*\*\*\*  
SegmentCabins:  
-----

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,  
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,

\*\*\*\*\*  
\*\*\*\*\*  
FlightDate: SQ12, 2010-Jan-31  
\*\*\*\*\*  
\*\*\*\*\*

Leg-Dates:  
-----

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,

```
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 200, 200, 0, 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-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,
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:
-----
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,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 200, 200, 0, 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-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,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs, GrpBks (pdg), StfBkgs, WLBkgs,
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
```

```
SQL2 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,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,
SQL2 2010-Feb-02, SIN-HND 2010-Feb-02, 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-02, SIN-HND 2010-Feb-02, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 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,
SQL2 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,
SQL2 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: SQL2, 2010-Feb-03
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL2 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,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,
SQL2 2010-Feb-03, SIN-HND 2010-Feb-03, 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-03, SIN-HND 2010-Feb-03, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 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, GrpBks (pdg), StfBkgs, WLBkgs,
SQL2 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,
SQL2 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: SQL2, 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,
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,
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,
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, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, 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,
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,
*****
*****
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,  
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, 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-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,  
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,  
\*\*\*\*\*  
\*\*\*\*\*

LegCabins:

-----

Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,  
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, 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-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,  
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,  
\*\*\*\*\*  
\*\*\*\*\*

FlightDate: SQ12, 2010-Feb-08

\*\*\*\*\*  
\*\*\*\*\*

Leg-Dates:

-----

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,  
\*\*\*\*\*  
\*\*\*\*\*

LegCabins:

-----

Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,  
SQ12 2010-Feb-08, SIN-HND 2010-Feb-08, 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-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,  
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, 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,  
\*\*\*\*\*  
\*\*\*\*\*

LegCabins:

-----

Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,  
SQ12 2010-Feb-09, SIN-HND 2010-Feb-09, 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-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,  
SQ12 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0, 0, 0, 0, 0, 0,  
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, 07:40:00, 0, -05:00:00, 6300, 0,

\*\*\*\*\*

\*\*\*\*\*

LegCabins:

-----

Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,  
 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,

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:

-----

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,

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,

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:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,
SQ12 2010-Feb-12, SIN-HND 2010-Feb-12, 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-12, SIN-HND 2010-Feb-12, Y, 1, 0, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 2, 0, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs, GrpBks (pdg), StfBkgs, WLBkgs,
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,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,
SQ12 2010-Feb-13, SIN-HND 2010-Feb-13, 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-13, SIN-HND 2010-Feb-13, Y, 1, 0, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 2, 0, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs, GrpBks (pdg), StfBkgs, WLBkgs,
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,
*****
*****
```



FlightDate: SQ12, 2010-Feb-14

\*\*\*\*\*  
\*\*\*\*\*

Leg-Dates:

-----

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,

\*\*\*\*\*  
\*\*\*\*\*

LegCabins:

-----

Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,

SQ12 2010-Feb-14, SIN-HND 2010-Feb-14, 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-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,

SQ12 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0, 0, 0, 0, 0, 0,

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,

SQ12 2010-Feb-15, SIN-HND 2010-Feb-15, 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-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,

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,  
SQ12 2010-Feb-16, SIN-HND 2010-Feb-16, 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-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,  
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,  
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,  
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,
SQ12 2010-Feb-18, SIN-HND 2010-Feb-18, 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-18, SIN-HND 2010-Feb-18, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
SQ12 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: SQ12, 2010-Feb-19
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQ12 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,
SQ12 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,
SQ12 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group, CommSpace, AvPool, Avl, NAV,
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:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs, GrpBks (pdg), StfBkgs, WLBkgs,
SQL2 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,
SQL2 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: SQL2, 2010-Feb-21
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL2 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,
SQL2 2010-Feb-21, SIN-HND 2010-Feb-21, 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-21, SIN-HND 2010-Feb-21, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 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,
```

```
SQL2 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,
SQL2 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: SQL2, 2010-Feb-22
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL2 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,
SQL2 2010-Feb-22, SIN-HND 2010-Feb-22, 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-22, SIN-HND 2010-Feb-22, Y, 1, 0, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 2, 0, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs, GrpBks (pdg), StfBkgs, WLBkgs,
SQL2 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,
SQL2 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0, 0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-23
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity
SQL2 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,
SQL2 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,
SQL2 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 1, 0, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 2, 0, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
```

```
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs, GrpBks (pdg), StfBkgs, WLBkgs,
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,
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,
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,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, 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-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,  
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,  
SQ12 2010-Feb-26, SIN-HND 2010-Feb-26, 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-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,  
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  
SQ12 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,  
SQ12 2010-Feb-27, SIN-HND 2010-Feb-27, 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-27, SIN-HND 2010-Feb-27, Y, 1, 0, 0, 0, 0, 200, 0,

SQ12 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,  
SQ12 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, 0,  
SQ12 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, 0,

\*\*\*\*\*

\*\*\*\*\*

FlightDate: SQ12, 2010-Feb-28

\*\*\*\*\*

\*\*\*\*\*

Leg-Dates:

-----

Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset, Elapsed, Distance, Capacity  
SQ12 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,  
SQ12 2010-Feb-28, SIN-HND 2010-Feb-28, 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-28, SIN-HND 2010-Feb-28, Y, 1, 0, 0, 0, 0, 0, 200, 0,

SQ12 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 2, 0, 0, 0, 0, 0, 200, 0,

\*\*\*\*\*

\*\*\*\*\*

Subclasses:

-----

Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs, GrpBks (pdg), StfBkgs, WLBkgs,  
SQ12 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, 0,  
SQ12 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, 0,

\*\*\*\*\*



### 12.11.6 Exploring the Predefined BOM Tree

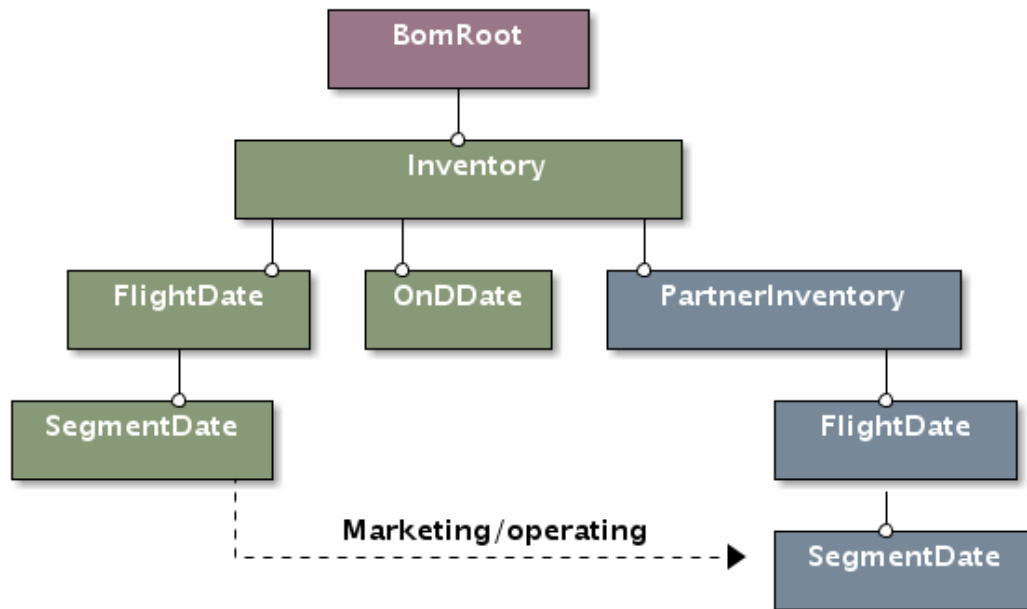


Figure 2: SEvMgr BOM tree

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

#### 12.11.6.1 Airline Network BOM Tree

- SEVMGR::ReachableUniverse
- SEVMGR::OriginDestinationSet
- SEVMGR::SegmentPathPeriod

#### 12.11.6.2 Airline Schedule BOM Tree

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

### 12.11.7 Extending the BOM Tree

#### 12.11.8 The travel solution calculation procedure

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

## 12.12 Supported Systems

### 12.12.1 Table of Contents

- [Introduction](#)
- [.1 SEvMgr 0.1.x.1](#)
  - [Linux Systems](#)
    - \* [Fedora Core 4 with ATLAS](#)
    - \* [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 SEvMgr External](#)
    - \* [SUSE Linux 10.0 with NetLib's BLAS and LAPACK](#)
    - \* [SUSE Linux 10.0 with MKL](#)
  - [Windows Systems](#)
    - \* [Microsoft Windows XP with Cygwin](#)
    - \* [Microsoft Windows XP with Cygwin and ATLAS](#)
    - \* [Microsoft Windows XP with Cygwin and ACML](#)
    - \* [Microsoft Windows XP with MinGW, MSYS and ACML](#)
    - \* [Microsoft Windows XP with MinGW, MSYS and SEvMgr External](#)
    - \* [Microsoft Windows XP with MS Visual C++ and Intel MKL](#)
  - [Unix Systems](#)
    - \* [SunOS 5.9 with SEvMgr External](#)
- [SEvMgr 3.9.1](#)
- [SEvMgr 3.9.0](#)
- [SEvMgr 3.8.1](#)

### 12.12.2 Introduction

This page is intended to provide a list of SEvMgr supported systems, i.e. the systems on which configuration, installation and testing process of the SEvMgr 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 SEvMgr library on a system not mentioned below, please let us know, so we could update this database.

## 12.13 SEvMgr Supported Systems (Previous Releases)

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

- **Compiler:** g++ (GCC) 4.0.2 20051125

- **SEvMgr release:** 0.1.0

- **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:** SEvMgr configured with:

```
% CXXFLAGS="-O3 -pipe -march=pentium4" ./configure
```

- **Date:** March 7, 2006

- **Tester:** Tony Ottosson

- **Platform:** AMD Sempron 3000+

- **Operating System:** Gentoo Linux 2006.0 (x86 arch)

- **Compiler(s):** g++ (GCC) 3.4.5

- **SEvMgr release:** 0.1.1

- **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
```

SEvMgr configured with:

```
% export CPPFLAGS="-I/usr/include/acml"
% ./configure --with-blas="-lblas"
```

- **Date:** March 31, 2006

- **Tester:** Adam Piatyszek (ediap)

- **Platform:** Intel Pentium M Centrino

- **Operating System:** Gentoo Linux 2006.0 (x86)

- **Compiler:** g++ (GCC) 3.4.5

- **SEvMgr release:** 0.1.1

- **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
```

SEvMgr configured with:

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

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)
- **Platform:** Intel Pentium M Centrino
- **Operating System:** Gentoo Linux 2006.0 (x86 arch)
- **Compiler:** g++ (GCC) 3.4.5
- **SEvMgr release:** 0.1.0
- **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:** SEvMgr 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)
- **Platform:** Intel Pentium M Centrino
- **Operating System:** Gentoo Linux 2006.0 (x86)
- **Compiler:** g++ (GCC) 3.4.5
- **SEvMgr release:** 0.1.1
- **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
```

SEvMgr configured with:

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

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)
- **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)
- **SEvMgr release:** 0.1.0
- **External Libraries:** BLAS, CBLAS, LAPACK and FFTW libraries from SEvMgr External 2.1.1 package
- **Tests Status:** All tests PASSED
- **Date:** March 7, 2006
- **Tester:** Erik G. Larsson
- **Platform:** Intel Pentium 4 CPU 3.20GHz (64-bit)
- **Operating System:** SUSE Linux 10.0 (x86\_64)
- **Compiler(s):** g++ (GCC) 4.0.2
- **SEvMgr release:** 0.1.0
- **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:** SEvMgr 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)

- **Platform:** Intel Pentium 4 CPU 3.20GHz (64-bit)
- **Operating System:** SUSE Linux 10.0 (x86\_64)
- **Compiler(s):** g++ (GCC) 4.0.2
- **SEvMgr release:** 0.1.0
- **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:** SEvMgr 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)
- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, Cygwin 1.5.19-4
- **Compiler(s):** g++ (GCC) 3.4.4 (cygming special)
- **SEvMgr release:** 0.1.1
- **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. SEvMgr configured with:

```
% ./configure
```

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)
- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, Cygwin 1.5.19-4
- **Compiler(s):** g++ (GCC) 3.4.4 (cygming special)
- **SEvMgr release:** 0.1.1
- **External Libraries:** Installed from Cygwin's repository:

```
- fftw-3.0.1-2  
- fftw-dev-3.0.1-1
```

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

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

- **Tests Status:** All tests PASSED
- **Comments:** Only st

### 12.13.1 SEvMgr 3.9.1

### 12.13.2 SEvMgr 3.9.0

### 12.13.3 SEvMgr 3.8.1

## 12.14 Tutorials

### 12.14.1 Table of Contents

- [Preparing the AirSched Project for Development](#)
- [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](#)

### 12.14.2 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.

### 12.14.3 Your first networkBuilde

**12.14.3.1 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 mentionned in `ug_procedure_bookingrequest` and `ug_procedure_travelsolution` parts):

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

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

**12.14.3.2 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.

#### 12.14.4 Network building with an input file

**12.14.4.1 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 :

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:

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:

**12.14.4.2 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 :

**12.14.4.3 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.

## 12.15 Command-Line Test to Demonstrate How To Use Sevmgr elements

```
*/
// //////////////////////////////////////
// Import section
// //////////////////////////////////////
// STL
#include <sstream>
```

```

#include <fstream>
#include <map>
#include <cmath>
// Boost Unit Test Framework (UTF)
#define BOOST_TEST_DYN_LINK
#define BOOST_TEST_MAIN
#define BOOST_TEST_MODULE EventQueueManagementTest
#include <boost/test/unit_test.hpp>
#include <boost/shared_ptr.hpp>
// StdAir
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_date_time_types.hpp>
#include <stdair/basic/BasLogParams.hpp>
#include <stdair/basic/BasDBParams.hpp>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/basic/ProgressStatusSet.hpp>
#include <stdair/bom/EventStruct.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/bom/BookingRequestTypes.hpp>
#include <stdair/service/Logger.hpp>
// SEvMgr
#include <sevmgr/SEVMGR_Service.hpp>
#include <sevmgr/config/sevmgr-paths.hpp>

namespace boost_utf = boost::unit_test;

// (Boost) Unit Test XML Report
std::ofstream utfReportStream ("EventQueueManagementTestSuite_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() {
    }
};

// Specific type definitions
typedef std::pair<stdair::Count_T, stdair::Count_T> NbOfEventsPair_T;
typedef std::map<const stdair::DemandStreamKeyStr_T,
                NbOfEventsPair_T> NbOfEventsByDemandStreamMap_T;

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

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

// Start the test suite
BOOST_AUTO_TEST_SUITE (master_test_suite)

BOOST_AUTO_TEST_CASE (sevmgr_simple_simulation_test) {

    // Output log File
    const stdair::Filename_T lLogFilename ("EventQueueManagementTestSuite.log");

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

```

```

// Initialise the Sevmgr service object
const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
SEVMGR::SEVMGR_Service sevmgrService (lLogParams);

const bool isQueueDone = sevmgrService.isQueueDone();
BOOST_REQUIRE_MESSAGE (isQueueDone == true,
    "The event queue should be empty at this step. No "
    "<< "insertion done.");

sevmgrService.buildSampleQueue ();

stdair::Count_T lNbOfEvents (sevmgrService.getQueueSize());

BOOST_REQUIRE_MESSAGE (sevmgrService.isQueueDone() == false,
    "The event queue should not be empty at this step. "
    "<< "Two insertions done.");

stdair::Count_T idx = 1;
while (sevmgrService.isQueueDone() == false) {

    // Pop the next event out of the event queue
    stdair::EventStruct lEventStruct;
    const stdair::ProgressStatusSet lPPS =
        sevmgrService.popEvent (lEventStruct);

    // DEBUG
    STDAIR_LOG_DEBUG ("Popped event "<< idx << ": ' "
        << lEventStruct.describe() << "'."");
    STDAIR_LOG_DEBUG ("Progress status: " << lPPS.describe());
    STDAIR_LOG_DEBUG ("Popped event: ' "
        << lEventStruct.describe() << "'."");

    // Iterate
    ++idx;
}

// Compensate for the last iteration
--idx;
// Compared the actual number of popped events with the expected one.
BOOST_REQUIRE_MESSAGE (idx == lNbOfEvents,
    "Actual number of requests in the queue: "
    "<< idx << ". Expected value: " << lNbOfEvents);

BOOST_REQUIRE_MESSAGE (sevmgrService.isQueueDone() == true,
    "The event queue should be empty at this step: "
    "the two events have been popped.");

STDAIR_LOG_DEBUG ("Re-added the events into the queue");

// Add again the four events into the queue thanks to
// sevmgrService.buildSampleQueue().
// Dates of the break points: 21-JAN-2010 and 14-MAY-2011.
// Dates of the booking requests: 22-JAN-2010 and 15-MAY-2011.
sevmgrService.buildSampleQueue ();

// Pop the next event out of the event queue
stdair::EventStruct lFirstEventStruct;
const stdair::ProgressStatusSet lFirstPS =
    sevmgrService.popEvent (lFirstEventStruct);

// Extract the corresponding date
const stdair::DateTime_T& lFirstEventDateTime =
    lFirstEventStruct.getEventTime ();
const stdair::Date_T& lFirstRequestDate =
    lFirstEventDateTime.date();

const stdair::Date_T lExpectedDate (2010, boost::gregorian::Jan, 21);

```

```

BOOST_REQUIRE_MESSAGE (lFirstRequestDate == lExpectedDate,
    "Date of the first event popped from the queue: "
    << lFirstRequestDate << ". Should be: "
    << lExpectedDate << " which is earlier in time.");

STDAIR_LOG_DEBUG ("Reset the queue");
sevmgrService.reset();

BOOST_REQUIRE_MESSAGE (sevmgrService.isQueueDone() == true,
    "The event queue has been reset: it should be empty "
    << "at this step.");

STDAIR_LOG_DEBUG ("Re-added the events into the queue one more time");

// Add again the four events into the queue thanks to
// sevmgrService.buildSampleQueue().
// Dates of the break points: 21-JAN-2010 and 14-MAY-2011.
// Dates of the booking requests: 22-JAN-2010 and 15-MAY-2011.
sevmgrService.buildSampleQueue ();

stdair::EventStruct lBreakPointStruct;
sevmgrService.run(lBreakPointStruct);
stdair::EventType::EN_EventType lBreakPointType =
    lBreakPointStruct.getEventType();

BOOST_REQUIRE_MESSAGE (lBreakPointType == stdair::EventType::BRK_PT,
    "The last event popped from the queue should be a "
    << "break point.");

sevmgrService.run(lBreakPointStruct);
lBreakPointType = lBreakPointStruct.getEventType();

BOOST_REQUIRE_MESSAGE (lBreakPointType == stdair::EventType::BRK_PT,
    "The last event popped from the queue should be a "
    << "break point.");

// Extract the corresponding date
const stdair::DateTime_T& lBPDateTime =
    lBreakPointStruct.getEventTime ();
const stdair::Date_T& lBPDate =
    lBPDateTime.date();

const stdair::Date_T lExpectedBPDate (2011, boost::gregorian::May, 14);
BOOST_REQUIRE_MESSAGE (lBPDate == lExpectedBPDate,
    "Date of the second break point popped from the queue: "
    << lBPDate << ". Should be: "
    << lExpectedBPDate << ".");

// DEBUG
STDAIR_LOG_DEBUG ("End of the simulation");

// Close the log file
logOutputFile.close();
}

// End the test suite
BOOST_AUTO_TEST_SUITE_END()

/*!
```