Installation and Upgrade Guide

SAP Enterprise Inventory and Service-Level Optimization 6.10 SP1

Revision 20160405

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Introduction

This document describes how to install and upgrade the SAP Enterprise Inventory and Service-Level Optimization (EIS) application. It includes information about the requirements for using EIS, instructions for installing the applications and database schemas, and specifications for configuring the data loader. It also provides information about testing, customizing, and maintaining EIS.

EIS installation workflow

The *EIS Installation and Upgrade Guide* is organized into chapters that follow the workflow of a typical installation of the EIS software. Each installation has two main parts: configuring the database and installing the schemas, and installing and configuring the application server. Before loading a data set from your supply chain, you will want to review the data loader configuration options. This guide also contains simple data loading tests that can be run to verify the installation, as well as how to configure individual EIS modules (DIM, SLO, PIM, and SIM).

After you install the software, you can customize the EIS's properties and settings, configure processors for specific tasks, and set up regular maintenance procedures. This guide also describes procedures for upgrading to a new version of EIS.

- Chapter 1: Requirements — describes the software and hardware requirements for installing and using the EIS applications.
- Chapter 2: Configuring the EIS database and installing the schemas — describes how to install and configure the MIPO database schemas (SOPS_MIPO and SOPS_DLASM) used to load and store supply chain data, as well as how to install and configure the Data Gateway and Data Store schemas.

- Chapter 3: Installing and configuring EIS for the SAP Web Application Server — describes how to install and configure an EIS instance on a Windows machine running SAP's NetWeaver.
- Chapter 4: Configuring the data loader — describes how to configure the data loader service and application code installed on the application server and database server.
- Chapter 5: Testing EIS — describes a series of short tests that ensure that all parts of your EIS system are functioning.
- Chapter 6: Customizing EIS — describes how to customize the EIS application by changing properties and configuration files.
- Chapter 7: Configuring EIS Processors — describes the functionality of the EIS processors and their specific configuration settings.
- Chapter 8: Maintaining EIS — describes how to perform administrative and cleanup tasks in EIS.
- Chapter 9: Configuring DIM —describes how to configure the DIM application.
- Chapter 10: Configuring SLO —describes how to configure the SLO application.
- Chapter 11: Configuring PIM —describes how to configure the PIM application.
- Chapter 12: Configuring SIM —describes how to configure the SIM application.
- Chapter 13: Upgrading EIS — describes how to backup and upgrade EIS from a previously installed version.
- Appendix: Alert Definitions — provides a reference to the EIS alerts, organized by alert type, and includes severity levels and detailed descriptions.

About this guide

Notation conventions

This section describes notation and formatting conventions used throughout EIS documentation. These conventions have been defined and are used to provide consistency and clarity as well as to aid visual recall of information.

Convention	Example
Any item that appears literally on the computer screen such as a text field label, a menu name, or a button label is printed in boldface. Information that should be entered exactly as shown is also printed in boldface.	• click **Settings** • click **LOGOUT** • Type **2** in the **Factor by** text box.
Keyboard keys are indicated by the text of the key face displayed in upper case and small caps. Key combinations include multiple keys. A plus sign connects names of keys that should be pressed simultaneously.	• ALT • SHIFT • CTRL+ALT+DELETE • SHIFT+S
Information you enter that is specific to your own environment, such as your user name or a specific unit cost, is designated by an italic variable name. Italic text is also used to indicate a new term or concept.	• Type *User Name* and press **ENTER**. • lead time, also called *total lead time*
This symbol indicates information that emphasizes or supplements important points of the main text.	
This symbol indicates a note of caution. Items that warrant a note of caution include warnings that could protect against a loss of data or other undesired behavior.	

Intended audience

This document is intended for members of the EIS implementation team, database administrators (DBAs) at customer sites, and customer Information Technology (IT) staff.

Your company's DBA is most qualified to install and configure the Oracle database instance and the EIS database schemas. After the database and EIS database schemas are successfully installed, the DBA should be responsible for the ongoing administration and performance of the Oracle database instance containing the EIS database schemas.

This documentation assumes the DBA has experience in the following areas:

- Installing Oracle
- Creating Oracle database instances
- Database backup and recovery
- Database performance tuning

A member of the EIS Implementation Team or a member of your company's IT staff is most qualified to perform the setup and administration of the application server, the Web server (optional), and the installation of EIS. Participants in the EIS installation process can include, but are not limited to the following:

- UNIX Administrator
- Network Administrator
- Windows Administrator / PC Support

In addition, a member of your company's IT staff should be familiar with administering application server software.

Chapter 1: Requirements

This chapter describes the software requirements for the client machines, application server, and database server in EIS. Listed are the software requirements for each that must be met to install and run the EIS applications.

EIS consists of three main components:

- Client PCs that access the EIS application server via Internet Explorer
- Application server running the EIS applications
- Relational database in which to load and store supply chain data

Your organization's supply chain data can be loaded into the EIS database by using the data loader software that is installed with EIS and the database instance. Figure 1 depicts the main components used by EIS.

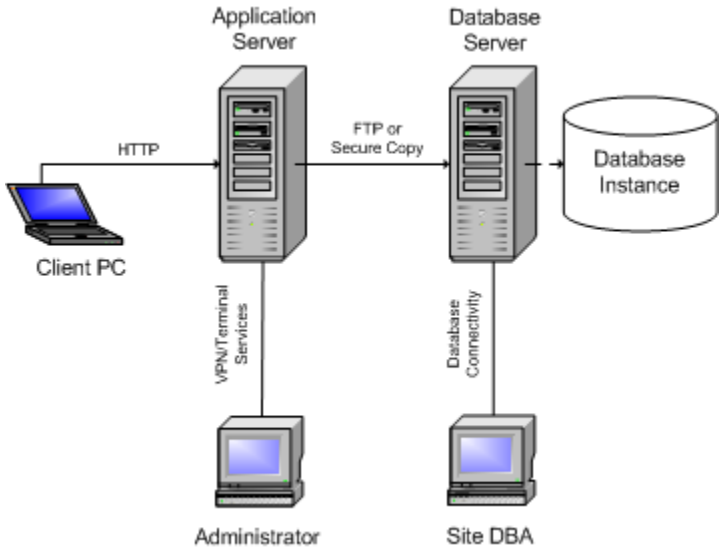


Figure 1: Components of EIS

Note: Differences in hardware and software can affect EIS optimization results. Specifically, different chip sets, Java Virtual Machine (JVM) versions, Java vendors, and order of operations have been observed to cause very minor differences in output results. Typically, you will not notice these differences. However, when batch sizes are used, an additional batch size for an order can be triggered, which is noticeable only on a period-by-period basis. The cumulative effect is that a batch size is shifted one period, which will not significantly impact average results per annum.

Note: Data integrity within the EIS design architecture relies on input data sets following the Unicode standard character set. The use of non-Unicode input data with EIS could lead to data loss issues on the back-end processes and might affect optimization results.

Hardware requirements

Hardware requirements for EIS depend on several factors, for example:

- existing infrastructure
- supply chain topology
- volume of data being loaded, stored, and extracted from the database

During the requirements analysis phase of the EIS product implementation, a formal capacity study will determine the minimum hardware requirements for your organization.

Third party software requirements

This section discusses third party client and server software required to run the EIS applications, including: client PC, application server, Java and database requirements and components, and other recommended or required third-party software products.

Database – Oracle Enterprise, Oracle Standard

- 10.2.0.4, 10.2.0.5
- 11.2.0.2, 11.2.0.3

App Server

- NetWeaver 7.2 (single stack), 7.3, 7.4
- OS: independent
- Java: NetWeaver-specific
- Oracle-JDBC: 1.4 or higher

Client – OS

- Windows XP, Latest Service Pack
- Windows Vista SP 1
- Windows 7

Client – JRE

- Oracle Java JRE 1.6.0_45 or higher
- Oracle Java JRE 1.7.0_35 or higher

Client – Browser

- Internet Explorer 7, 8, 9, 10 (compatibility-mode only)

- Resolution - 1024 x 768 or higher

Note: For Internet Explorer 7.0, it is recommended to add the EIS URL as a trusted application to ensure all functionality works properly. For more information, see "Setting the EIS URL as a Trusted site" on page 61.

Client – Spreadsheet

- Microsoft Excel 2007, 2010

Database software requirements

EIS requires that you run the Oracle software specified under the Application Server software requirements. For Oracle installation instructions, refer to the appropriate Oracle *Installation Guide* for your platform.

Note: EIS supports partitioned or non-partitioned tables. We recommends using partitioned tables to increase performance.

Note: If your database server is running the Solaris operating environment, it is recommended that volumes containing Oracle data files, temporary files, and redo logs are mounted using the **forcedirectio** option. Volumes containing the Oracle binaries should be mounted **without** using **forcedirectio**.

Chapter 2: Configuring the EIS database and installing the schemas

This chapter discusses requirements and basic instructions for configuring the Oracle database instance for EIS and installing the EIS database schemas used for loading and storing supply chain data.

Note: The database portion of the EIS installation must be performed by either a database administrator (DBA) or someone who has an advanced background working directly with Oracle database systems. Please refer to documentation supplied with the Oracle database for further information on specific Oracle functionality.

Oracle setup and requirements

This section describes the general requirements for the Oracle database instance that contains the EIS schemas, including recommendations for character sets, database sizing, tablespaces, rollback segments, redo logs, archiving, initialization parameters, system user privileges, TNS settings, environment variables, and performance tuning.

Character set

The Oracle database instance created for MIPO must be a AL32UTF instance:

```
CHARACTER SET AL32UTF8
NATIONAL CHARACTER SET AL16UTF16
```

In addition, set the NLS_LANG environment variable for the Oracle client, as follows:

```
NLS_LANG=american_america.AL32UTF
```

Database sizing

Database sizing estimates depend on your supply chain topology, how much data you plan to load/save, and other factors. Your initial database size requirements are determined through a formal capacity study performed during the requirements analysis phase of the MIPO product implementation.

Tablespaces

The table below lists the tablespaces used by the MIPO application. These tablespaces should be created using the following parameters:

- **locally-managed** tablespaces
- initial size of **1 GB**
- **autoextend** feature on
- extent size set to **autoallocate**

Tablespace name	Description
ADMIN_TS	Tablespace used during execution of scripts to delete marked supply chains and scenarios
DLASM_DATA	Data loading tablespace
DLASM_INDEX	Data loading index
MIPO_DATA	MIPO application data tablespace
MIPO_INDEX	MIPO application index
UNDOTBS1	Undo tablespace required for the automatic undo feature (see the section on rollback segments below)
TEMP (Temporary Tablespace)	Tablespace dedicated for standard operation temporary segments. Name of temporary tablespace must be TEMP; it should be locally-managed with contents=temporary
GATEWAY_DATA	Data Gateway tablespace
GATEWAY_INDEX	Data Gateway index

Tablespace name	Description
DATASTORE_DATA	Data Store tablespace
DATASTORE_INDEX	Data Store index

Note: The ADMIN_TS tablespace is used only when executing scripts to delete marked supply chains and scenarios. When you are not performing these operations, it can be taken offline and dropped.

Rollback segments

Instead of using rollback segments, we recommend using Oracle's automatic undo feature. This feature uses the UNDOTBS1 tablespace and is enabled by setting the UNDO_MANAGEMENT initialization parameter as described in "Initialization parameters" on page 21.

Redo logs

For the MIPO database, it is recommended you create a total of ten 1 GB redo log groups, with two log files each.

Archiving

Due to the potential large data volume being processed by the Oracle database, it is recommended that database archiving be turned **off** for the database instance used with the MIPO application. If your company policies and procedures require that archiving is turned on, the Oracle DBA at your site is responsible for sizing and disk space maintenance of the archive area.

Initialization parameters

The table below lists example Oracle initialization settings for the MIPO database.

Increasing the values of the parameters listed below increases the memory usage of the database instance. If necessary, you can modify additional Oracle initialization parameters based on your company's guidelines for creating database instances. In addition, you are responsible for tuning database performance as the amount of resources used by the EIS system increases.

Initialization parameter	Recommended value
db_block_size	8192
db_file_multiblock_read_count	16
DEFERRED_SEGMENT_CREATION	FALSE **Note:** Only applicable to Oracle 11g environments.

Initialization parameter	Recommended value
event	38043 trace name context forever, level 1 **Note:** the equivalent is *_optimizer_mjc_enabled* = false.
job_queue_processes	4
_like_with_bind_as_equality	TRUE
log_buffer	2097152
memory_target	For Oracle 11g, set to two-thirds of the physical RAM installed on the server.
NLS_LENGTH_SEMANTICS	CHAR
open_cursors	500
_optim_peek_user_binds	FALSE
_optimizer_mjc_enabled	FALSE
optimizer_index_caching	100
optimizer_index_cost_adj	5
optimizer_mode	CHOOSE
pga_aggregate_target	800 MB
parallel_max_servers	16
plsql_optimize_level	3 **Note:** Only applicable to Oracle 11g environments.
processes	300 **Note:** It is recommended that a value of 150 or greater be used for this parameter.
query_rewrite_enabled	TRUE
sga_target	For Oracle 10g, set to half of the physical RAM installed on the server. For Oracle 11g, see memory_target.
star_transformation_enabled	TRUE
session_cached_cursors	0
timed_statistics	TRUE

Initialization parameter	Recommended value
undo_management	AUTO
undo_retention	10800
utl_file_dir	/tmp (or another directory)

SYSTEM user role and privileges

The Oracle user SYSTEM is used during the installation of the EIS schemas. Ensure that SYSTEM is granted the DBA role and the following privileges:

```
GRANT EXECUTE ON SYS.DBMS_LOCK TO SYSTEM WITH GRANT OPTION;
GRANT SELECT ON SYS.V_$PARAMETER TO SYSTEM WITH GRANT OPTION;
GRANT SELECT ANY TABLE TO SYSTEM WITH ADMIN OPTION;
GRANT SELECT ON SYS.V_$TIMER TO SYSTEM WITH GRANT OPTION;
```

TNS settings

Ensure that the **tnsnames.ora** file contains an entry that refers to the database instance that will contain the EIS database schemas. For example:

```
smartops_db.your_domain.com =
  (DESCRIPTION =
   (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP)(HOST = 10.9.8.07)(PORT = 1521))
    )
    (CONNECT_DATA =
      (SERVICE_NAME = smartops_db.your_domain.com)
    )
  )
```

In this example, *smartops_db* represents the name of the database instance, *your_domain* represents the domain name of the server, and the value for the HOST setting represents the IP address of the database server. Refer to your Oracle documentation for more information about modifying the **tnsnames.ora** file.

Oracle environment variables

If you will be installing the EIS database schemas from a UNIX machine, verify that the Oracle environment variables listed in the table below are specified for the UNIX user performing the EIS schema installation.

Environment variable	Example setting	Description
ORACLE_HOME	$ORACLE_BASE/product/11.2.0	Oracle product installation directory.
ORACLE_SID	Automatically set and confirmed during database creation	Oracle server database instance identifier.
PATH	$ORACLE_HOME/bin;/usr/bin; /etc;/usr/ccs/bin;/usr/openwin/bin	Shell's search path for executables. Verify that $ORACLE_HOME/bin is included in the PATH variable.

Installing the MIPO database schemas

This section describes how to install the MIPO database schemas (SOPS_MIPO and SOPS_DLASM) from a Windows or UNIX machine connected to the Oracle database server.

Note: On the installation media, the MIPO schemas are located under the INTERNAL directory.

Prerequisites:

Gather the following information in preparation for the schema installation process:

- Name of the database instance created for the MIPO schemas
- Full path name of the directory containing the schema installation files (e.g., `/temp/mipo and /temp/dloader`)
- Password for the user SYSTEM

Installing the MIPO database schemas on UNIX

Step 1: Create the data loader user (dlasm)

Use your standard operating system procedures to create a UNIX user account named **dlasm** on the database server. This user ID is used when data sets are transferred from the application server to the

database server via SSH. In addition, the user **dlasm** is the owner of directories on the database server used to store and process loadsets.

Use your standard operating system procedures to add the **dlasm** user to the same operating system group as the Oracle software owner (the UNIX user ID used during Oracle installation). This ensures that the user ID can read and write to database and data loading directories as needed.

Step 2: Create directories and directory objects for loadset processing

The MIPO data loading software requires that you create operating system directories and corresponding Oracle directory objects on the database server. A directory object maps a name within Oracle to a directory name on the file system. The following directories support Oracle external tables that are used by the data loader:

- /dloader — root working directory for the data loader application after loadsets are transferred to the database server
- /bad — interim storage area for invalid data files
- /dat — area where loadsets are processed
- /log — contains log entries written during load set processing
- /reverse — area where **.dat** files from exported scenarios (reverse loadsets) are processed

Note: The system will create the /dat directory during loadset processing. You do not need to create a /dat directory.

To create operating system directories and directory objects for the MIPO data loader:

1. Log into the database server as **root** and create the **dloader** OS directory as a subdirectory of `$ORACLE_BASE/admin/$ORACLE_SID` and grant operating system permissions as shown in the example below:

   ```
   # mkdir $ORACLE_BASE/admin/$ORACLE_SID/dloader
   # cd $ORACLE_BASE/admin/$ORACLE_SID
   # chmod -R 770 dloader
   ```

2. Create the **bad, log** and **reverse** subdirectories under the **/dloader** subdirectory and grant operating system permissions as shown in the example below:

   ```
   # cd dloader
   # mkdir bad log reverse
   # chmod 770 bad log reverse
   # chown -R dlasm:group_name
   ```

   In the last command example above, *group_name* represents the name of the UNIX group to which the user **dlasm** and the Oracle software owner both belong.

3. Execute the following commands in SQL*Plus to create the directory objects named **dloader_bad_dir**, **dloader_data_dir**, **dloader_log_dir,** and **dloader_reverse_dir**, and map them to the OS directories.

```
CREATE OR REPLACE DIRECTORY DLOADER_BAD_DIR AS '/ORACLE_BASE/admin/
DB_NAME/dloader/bad';

CREATE OR REPLACE DIRECTORY DLOADER_DATA_DIR AS '/ORACLE_BASE/admin/
DB_NAME/dloader/dat';

CREATE OR REPLACE DIRECTORY DLOADER_LOG_DIR AS '/ORACLE_BASE/admin/
DB_NAME/dloader/log';

CREATE OR REPLACE DIRECTORY DLOADER_REVERSE_DIR AS '/ORACLE_BASE/
admin/DB_NAME/dloader/reverse';
```

   In this example, *ORACLE_BASE* represents the full path name of the Oracle installation directory (the value of the $ORACLE_BASE variable) and *DB_NAME* represents the name of the database instance (the value of the $ORACLE_SID variable).

   Note: Directory objects can be created by a DBA or any user with the CREATE ANY DIRECTORY privilege. The directory location specified by the directory object should be on the database server where the MIPO database is running.

4. Grant the Oracle software owner and the user dlasm permissions for the Oracle directory objects by granting read/write access to the SOPS_MIPO and SOPS_DLASM schema owners. Alternatively, within the database instance, which should contain only MIPO-related schemas, you can grant read and write access for the bad, data, log, and reverse directory objects to PUBLIC, as in the following examples:

```
GRANT READ, WRITE ON DIRECTORY DLOADER_BAD_DIR TO "PUBLIC";
GRANT READ, WRITE ON DIRECTORY DLOADER_DATA_DIR TO "PUBLIC";
GRANT READ, WRITE ON DIRECTORY DLOADER_LOG_DIR TO "PUBLIC";
GRANT READ, WRITE ON DIRECTORY DLOADER_REVERSE_DIR TO "PUBLIC";
```

Step 3: Copy the schema installation files to a UNIX machine

The MIPO database schema installation files are located on the EIS MIPO installation media. Follow the instructions appropriate to the operating system (Windows or UNIX) from which you will be installing these files.

- Log in to the machine containing the database instance and create a new directory to contain the copied files.

- Copy and uncompress the files from the /INTERNAL<version>/Database and the /DataLoader<version>/Database directories on the EIS installation media into the new directory.

Note: <version> represents the release number for the software application.

The installation creates two directories, **DataLoader<version>\Database\Install** and **INTERNAL<version>\Database\Install**, which contain the following subdirectories:

compile	Scripts for compilation
indexes	Scripts to install database table indexes
plsql	Scripts and binary files to install PL/SQL objects
sequences	Scripts to install database sequences
static	Scripts to import static data into the database schemas
tables	Scripts to install database tables, primary keys and foreign keys
users	Script to create the SOPS_MIPO and SOPS_DLASM schema owners
views	Scripts to install views

Step 4: Edit configuration settings in the MIPO install SQL script - Optional

To edit the MIPO **install.sql** script:

1. Log in to the machine where the Oracle database instance is located.
2. Navigate the EIS installation files to find the INTERNAL*<version>*\Database directory.
3. Use a text editing tool to open the **install.sql** script you copied onto the EIS database server. You can update the configuration settings for the following:
   - Name and password of the MIPO schema you are creating
   - Name of the data loading schema to be created later (steps 6 & 7)
   - Tablespace names

Note: During installation, EIS automatically detects whether or not the partitioning feature has been implemented on the database server. You can override this by changing the partitioning preference from **Default** to **No**.

4. Save your changes and close the text editor.

Step 5: Install the MIPO database schema (SOPS_MIPO)

To install the database schemas:

1. From the INTERNAL<*version*>\Database directory, log into SQL*Plus as the system user.
2. Execute the **install.sql** script.

   Installation of the database schema begins and can take several minutes to complete.

   - The schema owner SOPS_MIPO is created.
   - The SOPS_MIPO schema is created.
   - Static data is imported into the schema.

   A message indicates that the PL/SQL procedure and installation was successfully completed.
3. Verify that no errors occurred during the installation or static data import process by checking the **.log** files created in the **\Database** directory after you exit SQL*Plus. If the log files contain unknown errors, contact SAP support.

   Note: Errors can be generated when the installation script attempts to drop tables, sequences, indexes, or views that do not exist. It is safe to ignore these errors.

Step 6: Edit configuration settings in the Data Loader install SQL script - Optional

To optionally edit the Data Loader **install.sql** script:

1. Navigate the EIS installation files to find the DataLoader<*version*>\Database directory.
2. Use a text editor to open the **install.sql** script. You can update the configuration settings for the following:

   - Name and password for the data loading schema
   - Name of the MIPO schema (created in steps 4 and 5)
   - Tablespace names
   - Data loader directory objects (**note:** edit only if necessary)

Step 7: Install the Data Loader schema (SOPS_DLASM)

To install the database schemas:

1. From the DataLoader<*version*>\Database directory, log into SQL*Plus as the system user.
2. Execute the **install.sql** script.

   Installation of the database schema begins and can take several minutes to complete.

- The data loader schema owner SOPS_DLASM is created.
- The SOPS_DLASM schema is created.

A message indicates that the PL/SQL procedure and installation was successfully completed.

3. Verify that no errors occurred during the installation process by checking the **.log** files created in the **\Database** directory after you exit SQL*Plus. If the log files contain unknown errors, contact SAP support.

Note: Errors can be generated when the installation script attempts to drop tables, sequences, indexes, or views that do not exist. It is safe to ignore these errors.

Installing the MIPO database schemas on Windows

Step 1: Create the data loader user (dlasm)

Use your standard operating system procedures to create a Windows user account named **dlasm** on the database server. This user ID is used when data sets are transferred from the application server to the database server via SSH. In addition, the user **dlasm** is the owner of directories on the database server used to store and process loadsets.

Use your standard operating system procedures to add the **dlasm** user to the same operating system group as the Oracle software owner (the user ID used during Oracle installation). This ensures that the user ID can read and write to database and data loading directories as needed.

Step 2: Create directories and directory objects for loadset processing

1. The MIPO data loading software requires that you create operating system directories and corresponding Oracle directory objects on the database server. A directory object maps a name within Oracle to a directory name on the file system. The following directories support Oracle external tables that are used by the data loader:
   - /dloader — root working directory for the data loader application after loadsets are transferred to the database server
   - /bad — interim storage area for invalid data files
   - /dat — area where loadsets are processed
   - /log — contains log entries written during load set processing

- /reverse — area where **.dat** files from exported scenarios (reverse loadsets) are processed

Note: The system will create the /dat directory during loadset processing. You do not need to create a /dat directory.

Use the standard Windows procedure for creating directories to create these directories.

2. Execute the following commands in SQL*Plus to create the directory objects named **dloader_bad_dir**, **dloader_data_dir**, **dloader_log_dir,** and **dloader_reverse_dir**, and map them to the OS directories.

```
CREATE OR REPLACE DIRECTORY DLOADER_BAD_DIR AS '/ORACLE_BASE/admin/
DB_NAME/dloader/bad';


CREATE OR REPLACE DIRECTORY DLOADER_DATA_DIR AS '/ORACLE_BASE/admin/
DB_NAME/dloader/dat';

CREATE OR REPLACE DIRECTORY DLOADER_LOG_DIR AS '/ORACLE_BASE/admin/
DB_NAME/dloader/log';

CREATE OR REPLACE DIRECTORY DLOADER_REVERSE_DIR AS '/ORACLE_BASE/
admin/DB_NAME/dloader/reverse';
```

In this example, *ORACLE_BASE* represents the full path name of the Oracle installation directory (the value of the $ORACLE_BASE variable) and *DB_NAME* represents the name of the database instance (the value of the $ORACLE_SID variable).

Note: Directory objects can be created by a DBA or any user with the CREATE ANY DIRECTORY privilege. The directory location specified by the directory object should be on the database server where the MIPO database is running.

3. Grant the Oracle software owner and the user **dlasm** permissions for the Oracle directory objects by granting read/write access to the SOPS_MIPO and SOPS_DLASM schema owners. Alternatively, within the database instance, which should contain only MIPO-related schemas, you can grant read and write access for the **bad**, **data**, **log**, and **reverse** directory objects to PUBLIC, as in the following examples:

```
GRANT READ, WRITE ON DIRECTORY DLOADER_BAD_DIR TO "PUBLIC";
GRANT READ, WRITE ON DIRECTORY DLOADER_DATA_DIR TO "PUBLIC";
GRANT READ, WRITE ON DIRECTORY DLOADER_LOG_DIR TO "PUBLIC";
GRANT READ, WRITE ON DIRECTORY DLOADER_REVERSE_DIR TO "PUBLIC";
```

Step 3: Copy the schema installation files

The MIPO database schema installation files are located on the EIS MIPO installation media. Follow the instructions:

Copy all files from the \INTERNAL<version>\Database and the \DataLoader<version>\Database directories on the EIS installation media to the C:\temp directory on a Windows machine that is connected to the database server.

Note: <version> represents the release number for the software application

The installation creates two directories, **DataLoader<version>\Database\Install** and **INTERNAL<version>\Database\Install**, which contain the following subdirectories:

compile	Scripts for compilation
indexes	Scripts to install database table indexes
plsql	Scripts and binary files to install PL/SQL objects
sequences	Scripts to install database sequences
static	Scripts to import static data into the database schemas
tables	Scripts to install database tables, primary keys and foreign keys
users	Script to create the SOPS_MIPO and SOPS_DLASM schema owners
views	Scripts to install views

Step 4: Edit configuration settings in the MIPO install SQL script - Optional

To edit the MIPO **install.sql** script:

1. Log in to the machine where the Oracle database instance is located.
2. Navigate the EIS installation files to find the INTERNAL<*version*>\Database directory.
3. Use a text editing tool to open the **install.sql** script you copied onto the EIS database server. You can update the configuration settings for the following:
   - Name and password of the MIPO schema you are creating
   - Name of the data loading schema to be created later (steps 6 & 7)
   - Tablespace names

Note: During installation, EIS automatically detects whether or not the partitioning feature has been implemented on the database server. You can override this by changing the partitioning preference from **Default** to **No**.

4. Save your changes and close the text editor.

Step 5: Install the MIPO database schema (SOPS_MIPO)

To install the database schemas:

1. From the INTERNAL<*version*>\Database directory, log into SQL*Plus as the system user.
2. Execute the **install.sql** script.

   Installation of the database schema begins and can take several minutes to complete.

   - The schema owner SOPS_MIPO is created.
   - The SOPS_MIPO schema is created.
   - Static data is imported into the schema.

   A message indicates that the PL/SQL procedure and installation was successfully completed.
3. Verify that no errors occurred during the installation or static data import process by checking the **.log** files created in the **\Database** directory after you exit SQL*Plus. If the log files contain unknown errors, contact SAP support.

   Note: Errors can be generated when the installation script attempts to drop tables, sequences, indexes, or views that do not exist. It is safe to ignore these errors.

Step 6: Edit configuration settings in the Data Loader install SQL script - Optional

To optionally edit the Data Loader **install.sql** script:

1. Navigate the EIS installation files to find the DataLoader<*version*>\Database directory.
2. Use a text editor to open the **install.sql** script. You can update the configuration settings for the following:

   - Name and password for the data loading schema
   - Name of the MIPO schema (created in steps 4 and 5)
   - Tablespace names
   - Data loader directory objects (**note:** edit only if necessary)

Step 7: Install the Data Loader schema (SOPS_DLASM)

To install the database schemas:

1. From the DataLoader<*version*>\Database directory, log into SQL*Plus as the system user.

2. Execute the **install.sql** script.

   Installation of the database schema begins and can take several minutes to complete.

   - The data loader schema owner SOPS_DLASM is created.
   - The SOPS_DLASM schema is created.

   A message indicates that the PL/SQL procedure and installation was successfully completed.

3. Verify that no errors occurred during the installation process by checking the **.log** files created in the **\Database** directory after you exit SQL*Plus. If the log files contain unknown errors, contact SAP support.

   Note: Errors can be generated when the installation script attempts to drop tables, sequences, indexes, or views that do not exist. It is safe to ignore these errors.

Installing the Data Gateway schema

The Data Gateway consists of an Oracle database schema that should be installed in the EIS database instance. This section describes how to install the Data Gateway schema (SOPS_GATEWAY) from a Windows or UNIX machine connected to the Oracle database server.

Note: The MIPO database schema must be installed on the database server prior to installing the Data Gateway schema.

Step 1: Copy Installation files to database server

Copy the database installation folder containing the Data Gateway schema installation files from the EIS installation media to the MIPO database server. These files are located under the `\DataGateway<version>\Database` directory (where `<version>` represents the release number for the software application). Make sure you maintain the directory structure under the `\Database` directory.

Step 2: Update the Installation SQL script- Optional

Use a text editing tool to open the **install.sql** script you copied onto the EIS database server. You will see the following configuration settings:

```
DEFINE GATEWAY_SCHEMA='SOPS_GATEWAY'
DEFINE GATEWAY_PASSWORD='SOPS_GATEWAY'
DEFINE MIPO_SCHEMA='SOPS_MIPO'
DEFINE GATEWAY_DATA_TS='GATEWAY_DATA'
DEFINE GATEWAY_INDEX_TS='GATEWAY_INDEX'
DEFINE TEMP_TS='TEMP'
```

```
DEFINE PARTITIONED='DEFAULT' -- VALID VALUES ARE 'DEFAULT' 'YES' 'NO'
```

Edit any configuration settings to match your current MIPO settings and save your changes.

Step 3: Configure Statistics Gathering capability (optional Step)

The amount of time associated with the Gateway data loading process has been improved by changing the default configuration for the statistics gathering process. This change eliminates time-consuming full statistics gathering for each data set. If you wish to include full statistics gathering as part of the data loading process, you must edit the **pack_supply_ratio.sql** file to change the statistics gathering level configuration parameter from **S** (for Stale) to **F** (for Full). This file can be found in the `DataGateway<Revision#>/Database/install/plsql/package_spec/` directory.

Step 4: Run the Installation SQL script

Start the Command Prompt application and use the Change Directory command (cd) to access the database server and go to the `\DataGateway<version>\Database` folder.

Log on the SQL*Plus as system administrator with system ID (e.g., `system@sopsdmp4.smartops.com`) and password.

Run the Data Gateway Installation script by typing the following at the command prompt:

```
@install
```

The script will notify you when the Data Gateway schema is complete. For any error messages displayed during installation, see the **gateway_install.log** file for more information.

Exit SQL*Plus by typing exit at the command prompt.

Installing the Data Store Schema

The Data Store consists of an Oracle database schema that is installed as part of the MIPO database instance. This section describes how to install the Data Store schema (SOPS_DATASTORE) from a Windows or UNIX machine connected to the Oracle database server.

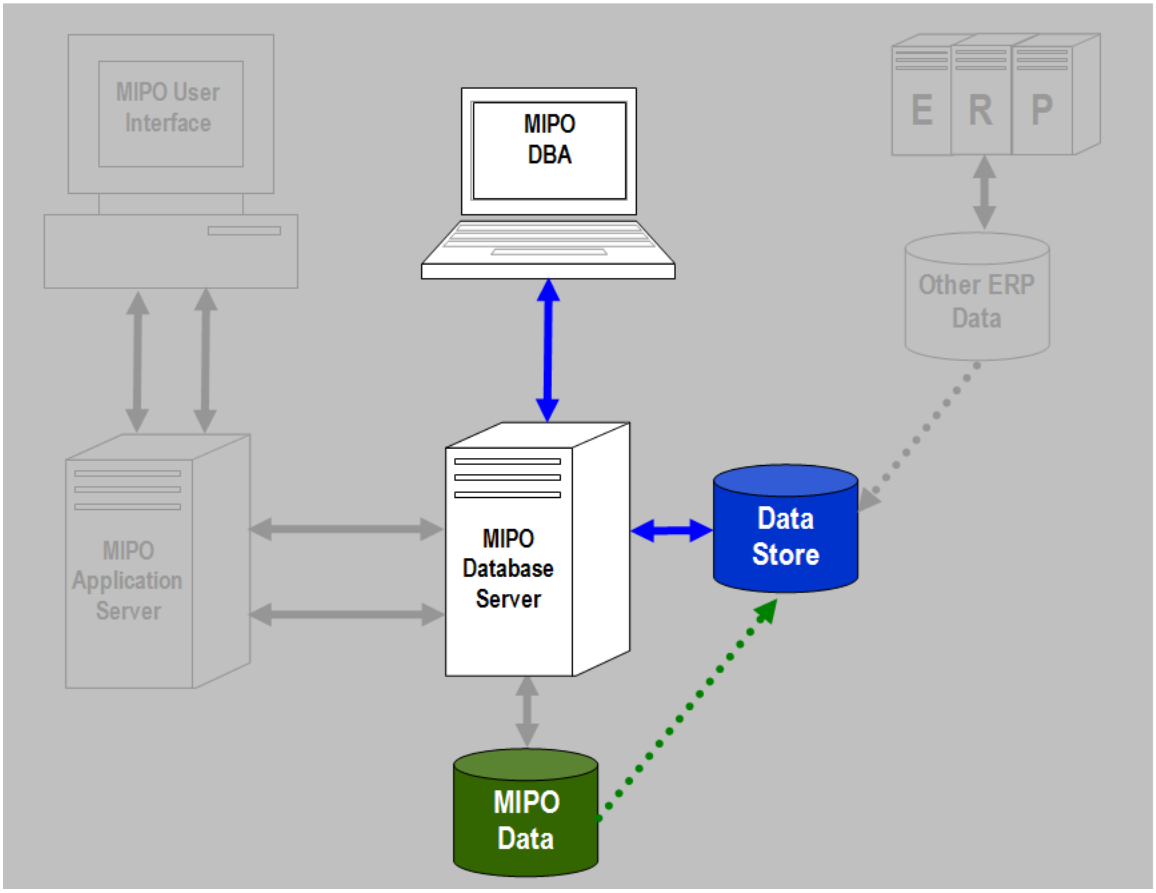


Figure 2-1 Installing Data Store schema schematic

Step 1: Copy Installation files to database server

Copy the Data Store schema installation files from the EIS installation media to the MIPO database server. These files are located under the `\DataStore<version>\Database` directory (where `<version>` represents the release number for the software application). Make sure you maintain the directory structure under the `\Database` directory.

Step 2: Update the Installation SQL script - Optional

Optionally, you can use a text editing tool to open the **install.sql** script you copied onto the EIS database server. You will see the following configuration settings:

```
DEFINE DATASTORE_SCHEMA='SOPS_DATASTORE'
DEFINE DATASTORE_PASSWORD='SOPS_DATASTORE'
DEFINE MIPO_SCHEMA='SOPS_MIPO'
DEFINE DATASTORE_DATA_TS='DATASTORE_DATA'
```

```
DEFINE DATASTORE_INDEX_TS='DATASTORE_INDEX'
DEFINE TEMP_TS='TEMP'
DEFINE PARTITIONED='DEFAULT'  -- VALID VALUES ARE 'DEFAULT' 'YES' 'NO'
```

Edit any configuration settings to match your current MIPO settings and save your changes.

Step 3: Run the Installation SQL script

Start the Command Prompt application and use the Change Directory command (cd) to access the database server and go to the location where you copied the installation files.

Log on the SQL*Plus as system administrator with system ID (e.g., `system@sopsdmp4.smartops.com`) and password.

Run the Data Store Installation script by typing the following at the command prompt:

```
@install
```

The script will notify you when the Data Store schema is complete. For any error messages displayed during installation, see the **datastore_install.log** file for more information.

Exit SQL*Plus by typing **exit** at the command prompt.

Chapter 3: Installing and configuring EIS for the SAP Web Application Server

This chapter provides instructions for installing EIS software on an SAP Web Application Server (NetWeaver) and deploying the SmartOps.sca file to NetWeaver.

Note: Some NetWeaver-specific features may not be available through the EIS user interface.

Note: NetWeaver installations are supported for MIPO 6.3 and above, along with NetWeaver CE 7.1 and future versions.

Installing EIS for SAP Web Application Server

This section provides instructions for installing the EIS application on a machine running SAP's Web Application Server.

Prerequisites:

Before configuring the application server, install the EIS database and dataloader schemas as described in "Chapter 2: Configuring the EIS database and installing the schemas" on page 19 of this guide.

We also recommend that all servers in a customer's environment support reverse DNS lookup.

When the EIS application uses the SAP Web Application Server mechanism for Secure Sockets Layer (SSL) configuration, we recommend using encryption at the network layer, by using the SSL protocol for HTTP connections. See your SAP NetWeaver documentation for more information on "Configuring Network and Transport Layer Security" (http://help.sap.com).

Step 1: Copy EIS installation files

1. Create a temporary directory on the SAP web application server to place the EIS installation files.
2. Copy the contents of the `\EISAPP<version>\netweaver` directory (where `<version>` represents the release number for the software application) from the EIS installation media to the temporary directory.

Step 2: Acquire and install EIS Licence

1. Acquire an EIS license from the SAP Marketplace.
2. Install the EIS license on NetWeaver. Refer to your SAP NetWeaver documentation for more information.

Step 3: Run EIS Installer application

1. Access the EIS installation media go to the `EISAPP<version>\netweaver` directory.
2. Execute the **install-smartops.cmd** script for Windows or the **install-smartops.sh** script for UNIX installations. A command prompt window opens.
3. Enter the full path name of the application server directory where the EIS application will be installed (e.g., `c:/MIPO-netweaver/smartops`).

Note: Windows users must use a forward slash (/) when entering this parameter.

4. Enter the name and password of the Oracle user created for the MIPO database schema (e.g., `SOPS_MIPO`).
5. Enter the name of the Oracle database instance created for the MIPO database schema, and the domain name if one configured as part of the schema (e.g., `SOPS_MIPO`).
6. You will be prompted to enter the domain name separately, but you can skip this step and leave the field blank.
7. Enter the IP address of the machine containing the Oracle database (e.g., `10.9.8.07`).
8. You will be prompted to enter the database port number. Enter the port number on which the database listener is configured (i.e., 1521).
9. Press **ENTER** to launch the installation. A message indicates that the EIS installation is complete.

Step 4: Configure JVM settings

1. Locate the **SAP AS Java - Config Tool**, for example:

   ```
   c:\usr\sap\J2E\JC00\j2ee\configtool\configtool.bat
   ```

   Double click **configtool.bat** to launch the tool.
2. Select the environment to configure by clicking the environment name listed in the directory tree displayed on the left side of the screen.
3. Click the **VM Environment** tab to access property data parameter settings.

   If desired, set the DebugMode parameter to **true** to enable Debug mode.

   If NetWeaver **is not running Oracle,** add `ojdbc14.jar` to the classpath. (Skip this if NetWeaver is running Oracle.)

   For example, add:
   ```
   C:\usr\sap\J2E\J00\j2ee\cluster\apps\smartops.com\SmartOpsApp\serv
   erlet_jsp\SmartOps\root\WEB-INF\lib\ojdbc14.jar
   ```
4. From the menu, click **View > Expert Mode**.
5. Click the **VM Parameters** tab to access the VM Parameters screen. You'll see a section called **VM Parameters** with a series of tabs labeled **Memory**, **System**, and **Additional**.
6. Use the section associated with the **Additional** tab to add file encoding (and verify that it is enabled):

   ```
   -Dfile.encoding=AL32UTF-8
   ```
7. Use the section associated with the **Memory** tab to configure memory settings.
8. Use the section associated with the **System** tab to create the smartops.home custom setting by clicking the **New** button, then filling out the parameter information using the **New Parameter** dialog box. Click **OK** when you are finished. For example:

   ```
   Name (without '-D') = smartops.home
   ```

```
Value (optional) = C:\SmartOps
Description (optional) = SmartOps Home Directory
```

You should see the **smartops.home** parameter listed under **Custom Parameters**. This parameter gets created by the EIS Installer application (see Step 2) when the EIS directory and associated files are placed on the application server.

9. Save your changes.
10. You will need to restart NetWeaver for the changes to take effect. Open the **SAP Management Console** (located under the **Program** menu).
11. From the directory tree, select your system name, then right-click with your mouse to view the context menu and select **Restart**. The **SAP System Restart** dialog box appears.
12. If you are restarting a production system with other applications, then select **Soft** and click **OK**. Otherwise you can select a Hard shutdown.

Deploying SmartOps.sca with JSPM.

Note: JSPM is not available for NetWeaver 7.4 and greater.

The Java Support Package Manager (JSPM) can be used to deploy the SmartOps.sca file. Perform the following steps to use this application:

1. Copy the **SmartOps.sca** file to the JSPM Inbox. For example:

   ```
   C:\usr\sap\trans\EPS\in
   ```

2. Run the **Go.bat** file, located in the JSPM directory, to start the JSPM application. For example:

   ```
   C:\usr\sap\C01\J00\j2ee\JSPM\go.bat
   ```

   You will see the **Log On** screen.

3. Enter your administrative J2EE user account name and password, then click **Log On**. You will see the **Select Package Type** screen.
4. Click the radio button associated with **New Software Components**, then click **Next**. You will see the **Specify Queue** screen.

Note: smartops.com/SmartOpsApp should be listed in the deployment queue under **Vender/Name**.

5. Click **Next**.
   You will see the **Check Queue** screen.
6. Click **Next**.
   You will see the **Deploy Queue** screen. A message will appear informing you that deployment has started. You can monitor the deployment process by checking the **Status** field of the deployment queue. When the **Status** changes to **Deployed**, you will see a message indicating that the deployment process is finished.
7. Click **Next**.
   You will see the **Completed** screen.
8. Click **Exit**.

The EIS application automatically starts after it is deployed.

Deploying SmartOps.sca with NetWeaver Developer Studio

The NetWeaver Developer Studio application can also be used to deploy the SmartOps.sca file.

Step 1: Configure NetWeaver Developer Studio

1. Start the **NetWeaver Developer Studio** application.
2. From the menu, select **Window > Show view > Other**.
3. From the **Show View** dialog box, click on the **Deploy View** folder to open it.

Note: If the **Deploy View** folder isn't listed, you will need to do the following:

   a. From the menu, select **Help > Software Updates > Find and Install**.
   b. From the **Password Required** dialog box, enter your User Name and Password.
   c. From the **Install/Update** dialog box, click the radio button associated with **Search for New Features to Install**, then click **Next >**.
   d. From the **Install** dialog box, click **New Remote Site**.
   e. From the **New Update Site** dialog box, type in a name and the following URL: `https://nwds.sap.com/swdc/downloads/updates/netweaver/nwds/ce/710`
   f. Click **OK**. The Install dialog box will now show the URL in the **Sites to include in search** section.
   g. Select the check box next to the URL, then click **Finish**. You will see the **Search Results** in the **Updates** dialog box, including a list of patches automatically selected via check boxes.

h. Click **Next** to install the selected patches. Once the installation is complete, return to the **Show View** dialog box (step 2) and open the **Deploy View** folder.

4. Select all of the views listed under the **Deploy View** folder, then click **OK**. You will see the tabs for the **Config View**, **Deploy View**, **Repository View**, and **Undeploy View** appear at the bottom of the **Netweaver Developer Studio** window. The tab for the **Deploy View Console** also appears at the top right part of the window.

Once you have the EIS application installed and configured, you can use the NetWeaver Developer studio to deploy and start the application, as well as undeploy and stop it.

Step 2: Deploy SmartOps.sca

1. From the **NetWeaver Developer Studio** window, click the **Deploy View** tab.
2. Add the **SmartOps.sca** file to the **External Deployable Archives** folder by right clicking on the folder, then choose **Add** from the menu to select the SCA file. The **SmartOps.sca** file now appears under the **External Deployable Archives** folder. Manifest information associated with the SCA file is displayed on the right panel.
3. Right click on the **SmartOps.sca** file, then choose **Deploy** from the menu. At the bottom right of the window, you will see the progress of the deployment.

Note: You can click the **Process** icon to show the **Progress** view, which allows you to cancel the deploy task if necessary.

You can use the NetWeaver Developer Studio to start the EIS application.

Deploying SmartOps.sca with SAP NetWeaver Telnet Administrator Tool

The NetWeaver Telnet Administrator Tool can also be used to deploy or undeploy the SmartOps.sca file..

Note: The SAP NetWeaver Telnet Administrator Tool can only be run from the NetWeaver server.

1. Log into the Netweaver server as an administrator.
2. Launch the SAP Telnet Administration Tool with the telnet command:

   ```
   telnet localhost 5NN08
   ```

   Replace *NN* with the instance number of your central instance of Netweaver. This instance

number can be seen from the directory where the J2EE engine is installed. As an example, under the directory `/usr/sap/<SID>/J01`, the instance number would be `01`.

3. When following displays, log in with the NetWeaver Administrator credentials:

```
telnet localhost 50108
   Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.

   ********************************************
   ********************************************
   ****###*******####*****#######**************
   **##****##****##**##****##****##*************
   ***##********##****##***##****##***********
   *****##******########***######***********
   ******##*****##****##***##*************
   **##****##**##******##**##*************
   ****###****##******##**##***********
   **********************************
   ********************************

   Telnet Administration
   SAP Java EE Application Server v7.40


User name: Administrator
Password:
```

4. To deploy the SmartOps.sca file, type this command:

   `deploy /<path>/SmartOps.sca on_deploy_error=stop workflow=normal`

   Substitute <path> with the full path to where your SmartOps.sca file is located.

   The deployment begins.

5. When deployment is complete, you will see a successful status for the two components **`smartops.com_EIS-APP`** and **`smartops.com_SmartOpsApp.`**

6. Verify the current status of the SmartOpsApp with the following command:

   `list_app | grep SmartOpsApp`

   The following should be returned:

```
smartops.com/SmartOpsApp                          STARTED     always
13746650
```

To undeploy:

1. Verify that the application has been stopped:

   ```
   stop_app smartops.com/SmartOpsApp
   ```

2. Use the undeploy command:

   ```
   undeploy name=SmartOpsApp vendor=smartops.com undeploy_error=stop
   ```

Manually Create a Database Connection Pool.

Note: Only applicable if the Netweaver database is Oracle.

1. If the EIS application is running, stop the application. (See "Stopping the EIS application with NetWeaver Developer Studio" on page 45.)
2. Log into the **SAP Netweaver Administrator** and click the **Configuration** tab.
3. Click **Infrastructure** in the sub menu, and then click **Application Resources.**
4. From the **Show** dropdown menu, select **JDBC Custom DataSources**.
5. Fill out the **Settings** tab as follows:
   - Application Name: SmartOpsPool
   - DataSource Name: SmartOpsPool
   - Driver Name: SYSTEM_DRIVER
   - SQL Engine: NATIVE SQL
   - Isolation Level: Default
   - JDBC Version: 1x (without XA support)
   - Driver Class Name: oracle.jdbc.OracleDriver
   - Database URL: jdbc:oracle:thin:@server:port:SID, where @server is the name or IP address of the server on which the EIS database is located, port is the port number for the Oracle database listener (default is 1521), SID is the database name/identifier
   - User Name: SOPS_MIPO (or the MIPO schema name)
   - Password: Your password for the SOPS_MIPO (or the MIPO schema password)
6. Click the **Connection Pooling** tab.

7. Change the **Initial Connections** value to 1 and the **Maximum Connections** value to 40.
8. Save the database settings.
9. On the Applications Resources: Overview screen, verify that the state of the database (SmartOpsPool) is green.
10. Start the EIS application. (See "Starting the EIS application with NetWeaver Developer Studio" on page 45.)

Copy Oracle ojdbc14.jar file.

Note: If Netweaver is running Oracle, skip this section.

If NetWeaver **is not running Oracle,** the `ojdbc14.jar` file must be placed on the application server in order for EIS to function properly.

Manually copy the `ojdbc14.jar` file from the ORACLE application library to the lib directory.

For example:
C:\usr\sap\J2E\J00\j2ee\cluster\apps\smartops.com\SmartOpsApp\serverlet_jsp\SmartOps\root\WEB-INF\lib\

Starting the EIS application with NetWeaver Developer Studio

1. From the **NetWeaver Developer Studio** window, click the **Repository** tab.
2. From the directory list of applications in the left panel, click the **SmartOpsApp(smartops.com)** folder to show the application sub folder.
3. Right click on the **EIS application** subfolder, then choose **Start** from the menu. The EIS application will start running on the NetWeaver application server.

Stopping the EIS application with NetWeaver Developer Studio

1. From the **NetWeaver Developer Studio** window, click the **Repository** tab.
2. From the directory list of applications in the left panel, click the **SmartOpsApp (smartops.com)** folder to show the application sub folder.
3. Right click on the **EIS application** subfolder, then choose **Stop** from the menu. The EIS application will stop running on the NetWeaver application server.

Undeploying the EIS application

1. Wile in **NetWeaver Developer Studio,** select **Windows–>Show Views–>Other –>Deploy View–>Undeploy View**.
2. Click the **Refresh** button to display the most recent list of deployed archives.
3. Open the **Undeploy View** tab.
4. Set the Undeployment Strategy to **If depending stop**.
5. Set the Error Strategy to **Stop when first error occurs**.
6. Select the EIS archive to undeploy, then click the + sign to add it to the list on the right-hand side of the screen.
7. Select the EIS archive from the list on the right-hand side of the window, then click the **Undeploy** button (this button has quick info text that says *Undeploy*).

Note: You can click the **Show Undeployment Status** button (this button has quick info text that says *Show undeployment status*) to check the status of the undeployment.

Chapter 4: Configuring the data loader

The EIS data loader bulk-loads your organization's supply chain data into the EIS database. The data loader is installed on both the application server and the database server as part of the full EIS installation described in the previous chapters of this guide. Before you can begin to load data, minor configuration is required to connect the application and database servers in your environment. This chapter provides instructions for configuring properties for the data loader.

Prerequisites:

Before completing the instructions in this chapter, you should:

- Verify connectivity in tnsnames.ora (see page 23).
- Create a data loader user (see page 24).
- Create Oracle directory objects and directories in which to archive successfully loaded and rejected datasets (see page 24).
- Install and configure the MIPO (SOPS_MIPO) schema (see page 27).
- Install and configure the dataloader (SOPS_DLASM) schema (see page 29).
- Install and configure the EIS application server software as described in Chapters 3 of this guide.

This chapter describes data loader configuration tasks, including:

- Configuring file transfer via SSH
- Setting the relevant Data Loader parameters
- Modifying the default load set translator configuration

Note: The EIS application does not support non-Unicode character sets.

Data Loader configuration tools

Configuring the data loader requires the use of two tools: the Manage Module Settings feature available through the EIS user interface, and the **smartops.properties** file.

You can access the Manage Module Settings feature by logging on to MIPO and clicking the **Settings** menu to select **Module Settings**.

Depending on your application server and platform, **smartops.properties** is installed in the following directory:

- SAP Application Server — \SmartOps\MIPO.

Note: When specifying path names to directories on Windows in the **smartops.properties** file, use a single forward slash (/) or two back slashes (\\) for the full path name to be interpreted correctly.

Configuring a file transfer mechanism

Data sets can be transferred from the application server to the database server by using SSH

Step 1: Set up SSH

Note: This step is only required if the application and database are located on separate servers and if the application server is UNIX-based. If the database and application are on the same server, skip to step 2.

UNIX Application Server:

SSH is a UNIX shell program for executing commands on a remote computer, providing secure encrypted communications between two untrusted hosts over an unsecure network. Setting up SSH involves generating keys and creating a known_hosts file. To set up SSH:

1. Log in to the application server as the MIPO user.

2. Connect to the database server as the dlasm user using the following command:

   ```
   ssh dlasm@database_server_name
   ```

3. Enter the dlasm password when prompted. Once connected to the database server, exit from the database server.
4. Ensure that a **known_hosts** file now exists in the **.ssh** directory for the MIPO user.
5. Generate the required keys from the command line using the following command:

   ```
   ssh-keygen -t rsa
   ```

   This generates the following files:

   ```
   ~/.ssh/id_rsa
   ```

   ```
   ~/.ssh/id_rsa.pub
   ```

   Note: When using a passphrase, you must specify the passphrase in the Remote File Manager module in Step 2.

6. Copy the `id_rsa.pub` file to the database server and name it `smartops_key.pub` using the following command:

   ```
   scp id_rsa.pub dlasm@database_server_name:.ssh/smartops_key.pub
   ```

7. Connect to the database server as the dlasm user using the following command again:

   ```
   ssh dlasm@database_server_name
   ```

8. Navigate to the **.ssh** directory for the dlasm user and append the contents of the **smartops_key.pub** to **authorized_keys** using the following command:

   ```
   cat smartops_keys.pub >> authorized_keys
   ```

9. Once the file has been appended, exit from the database server.
10. Now test the seamless connectivity from the application server to the database server from the MIPO user's **.ssh** directory by using the following command:

    ```
    ssh dlasm@database_server_name
    ```

    Note: If you specified a passphrase in the Remote File Manager module in Step 2, you will need to enter the passphrase when testing the connection.

11. If you connect to the database server without having to enter a password, SSH is now configured properly. If you do not, please contact SAP Support for help.

Windows Application Server:

A SSH client is not needed on a Windows-based application server as the Java JVM handles the SSH session.

Step 2: Set the SSH settings for MIPO

To set the SSH settings for the MIPO application, perform the following steps:

1. Access the Manage Module Settings screen by logging on to MIPO and clicking **Settings > Module Settings**. Select the Remote File Manager module from the dropdown list.
2. For the setting labeled **Import Server - Basic Configuration - Protocol Provider**, verify that the setting value is **SSH**. If not, click the dropdown list value to select **SSH**. Fill out all of the subsequent settings for **Import Server - SSH Configuration**.

Note: For Windows application servers, enter the explicit path for all parameter settings involving specific directory/file locations.

3. For the setting labeled **Export Server - Basic Configuration - Protocol Provider**, verify that the setting value is **SSH**. If not, click the dropdown list value to select **SSH**. Fill out all of the subsequent settings for **Export Server - SSH Configuration**.
4. Click **OK** when your configuration is complete.

Step 3: Set environment variables on database server

In order for the Data Gateway to properly communicate with the database server, you need to set the following environment variables:

```
ORACLE_HOME=<Oracle product installation directory>
LD_LIBRARY_PATH=$ORACLE_HOME/lib
NLS_LANG=american_america.AL32UTF8
```

For Windows servers:

Use the **Environment Variables** dialog box, found under the **Advanced** tab in **System Properties** (right click the My Computer icon on desktop and select **Properties**).

For Unix servers:

Set up a proxy SQL Loader file. First, create a Gateway directory on the database server. Then use a text editor to create the proxy script file. Name the file and place it on the database server. We recommend naming this configuration file **sqlldr-proxy** and placing it in the home directory of the dlasm user.

See example below:

```
#!/bin/bash
ORACLE_HOME=/u01/app/oracle/product/10.2.0
LD_LIBRARY_PATH=$ORACLE_HOME/lib
NLS_LANG=american_america.AL32UTF8
export ORACLE_HOME LD_LIBRARY_PATH NLS_LANG
${ORACLE_HOME}/bin/sqlldr $*
```

```
exit $?
```

Application and Database located on same server

If the application and database are located on the same server, SSH is not required. However, you should set the Remote File Manager to use local:

1. Access the Manage Module Settings screen by logging on to MIPO and clicking **Settings > Module Settings**. Select the **Remote File Manager module** from the dropdown list.
2. For the setting labeled **Import Server - Basic Configuration - Protocol Provider**, click the dropdown list value to select **Local**.
3. For the setting labeled **Export Server - Basic Configuration - Protocol Provider**, click the dropdown list value to select **Local**.
4. Click **OK** when your configuration is complete.

Data Loader parameter settings

The **Manage Module Settings** feature, available through the EIS Portal interface, contains parameters for configuring the data loader application code that is installed on the database server. These parameters let you specify the file-transfer protocol between servers, the user IDs of schema and directory owners, and path names to the archiving and processing directories.

Configuring the Data Loader

The Data Loader module contains the configuration settings used by the Data Loader to transfer data into the MIPO database schema. You can access this module by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Data Loader** from the dropdown list.
4. Scroll through the configuration list and fill out the appropriate Data Loader parameters.
5. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

Certain parameters, as indicated, require you to stop and restart the application server for your changes to take effect. Clients connected to the EIS system must stop and restart the EIS application for the changes to take effect.

A list of the parameters and their functions is provided below.

Parameter	Definition	Notes
Archive Directory	Identifies the name of the archive directory on the application server relative to the DataLoader directory.	Requires application server restart.
Automatically Rename Existing Scenario	Identifies whether to automatically rename existing scenario by appending the time-date stamp.	Does not require application server restart.
Data Loader Translated Format	Defines the Data Loader translated format.	Requires application server restart.
Entity File Extensions	Defines the file extension of the Data Loader data files.	Requires application server restart.
External Drop Directory	Identifies the name of the Oracle directory where the load set is processed.	Requires application server restart.
Listener Directory	Identifies the name of the Listener directory on the application server for load sets.	Requires application server restart.
Load Set Check Interval	Defines the sleep duration, in seconds, for the Data Loader service before checking the DataLoader directory for load sets.	Requires application server restart.
Reject Directory	Identifies the name of the reject directory on the application server relative to the DataLoader directory.	Requires application server restart.
SGLT Translated Format	Defines the SGLT translated format.	Requires application server restart.
Save Archived Load Sets	Identifies whether to save successful load sets on the application server.	Does not require application server restart.
Save Rejected Load Sets	Identifies whether to save rejected load sets on the application server.	Does not require application server restart.

Table 4-1 Data Loader module setting definitions

Configuring the Remote File Manager

The Remote File Manager module lets you to configure specific parameters for the data loader to execute commands on the database server through SSH. You can access this module by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Remote File Manager** from the dropdown list.
4. Scroll through the configuration list and fill out the appropriate Remote File Manager parameters.
5. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

Changes made to the Remote File Manager settings do not require a restart of the EIS application for the changes to take effect.

A list of the parameters and their functions is provided below.

Parameter	Definition	Notes
Import Server - Basic Configuration - Protocol Provider	Provider to handle connection protocol for the Import Server. Possible Values: Local, SSH.	Does not require application server restart.
Import Server - Basic Configuration - Default Remote Directory	Default directory to use for relative paths on the Import Server.	Does not require application server restart.
Import Server - SSH Configuration - Server Name	Remote SSH server to connect to for Import Server.	Does not require application server restart.
Import Server - SSH Configuration - Server Port	SSH Server port to use for Import Server. The default SSH port is 22.	Does not require application server restart.
Import Server - SSH Configuration - Username	Remote user name on SSH server for Import Server.	Does not require application server restart.
Import Server - SSH Configuration - Password	Remote password to use for authenticating to Import Server using SSH. This password is not required if an identify file is used.	Does not require application server restart.

Table 4-2 Remote File Manager module setting definitions

Parameter	Definition	Notes
Import Server - SSH Configuration - Identity File	SSH identity file to use for authenticating to the Import Server. The default value is ~/.ssh/id_rsa. ~ gets expanded to the home directory of the user running this server.	Does not require application server restart.
Import Server - SSH Configuration - Passphrase for Identity File	Passphrase for SSH identity file for authenticating to the Import Server. It is not required if you are using password to connect or if the identity file does not have a passphrase.	Does not require application server restart.
Import Server - SSH Configuration - Known Hosts File	Known hosts file that contains the signature for Import Server. The default value is ~/.ssh/known_hosts. ~ gets expanded to the home directory of the user running this server.	Does not require application server restart.
Import Server - FTP Configuration - Server Name	Remote FTP server to connect to for Import Server.	Does not require application server restart.
Import Server - FTP Configuration - Server Port	FTP Server port to use for Import Server. The default FTP port is 21.	Does not require application server restart.
Import Server - FTP Configuration - Username	Remote FTP server to connect to for Import Server.	Does not require application server restart.
Import Server - FTP Configuration - Password	Remote password to use for authenticating to Import Server using FTP.	Does not require application server restart.
Import Server - FTP Configuration - Transfer mode	FTP Transfer mode to Import Server. Possible Values: Passive, Active.	Does not require application server restart.
Export Server - Basic Configuration - Protocol Provider	Provider to handle connection protocol for the Export Server. Possible Values: Local, SSH, FTP.	Does not require application server restart.
Export Server - Basic Configuration - Default Remote Directory	Default directory to use for relative paths on the Export Server.	Does not require application server restart.

Table 4-2 Remote File Manager module setting definitions

Parameter	Definition	Notes
Export Server - SSH Configuration - Server Name	Name of the remote SSH server used with Export Server connectivity.	Does not require application server restart.
Export Server - SSH Configuration - Server Port	SSH Server port used with Export Server connectivity - the default SSH port is 22.	Does not require application server restart.
Export Server - SSH Configuration - Username	Administrative account user name for remote SSH server used with Export Server connectivity.	Does not require application server restart.
Export Server - SSH Configuration - Password	Administrative account password for remote SSH server used for authenticating to Export Server using SSH - this password is not required if an identify file is used.	Does not require application server restart.
Export Server - SSH Configuration - Identity File	SSH identity file to use for authenticating to the Export Server. The default value is ~/.ssh/id_rsa. ~ gets expanded to the home directory of the user running this server.	Does not require application server restart.
Export Server - SSH Configuration - Passphrase for Identity File	Passphrase for SSH identity file for authenticating to the Export Server. It is not required if you are using password to connect or if the identity file does not have a passphrase.	Does not require application server restart.
Export Server - SSH Configuration - Known Hosts File	Known hosts file that contains the signature for Export Server. The default value is ~/.ssh/known_hosts. ~ gets expanded to the home directory of the user running this server.	Does not require application server restart.
Export Server - FTP Configuration - Server Name	Name of the remote FTP server used with Export Server connectivity.	Does not require application server restart.
Export Server - FTP Configuration - Server Port	FTP Server port to use for Export Server. The default FTP port is 21.	Does not require application server restart.

Table 4-2 Remote File Manager module setting definitions

Parameter	Definition	Notes
Export Server - FTP Configuration - Username	Administrative account user name for remote FTP server used with Export Server connectivity.	Does not require application server restart.
Export Server - FTP Configuration - Password	Administrative account password for remote FTP server used with Export Server connectivity.	Does not require application server restart.
Export Server - FTP Configuration - Transfer Mode - Active/Passive	FTP Transfer mode to Export Server. Possible Values: Passive, Active.	Does not require application server restart.
Gateway Server - Basic Configuration - Protocol Provider	Provider to handle connection protocol for the Gateway Server. Possible Values: Local, SSH.	Does not require application server restart.
Gateway Server - Basic Configuration - Default Remote Directory	Default directory to use for relative paths on the Gateway Server.	Does not require application server restart.
Gateway Server - SSH Configuration - Server Name	Name of the remote SSH server used with Gateway Server connectivity.	Does not require application server restart.
Gateway Server - SSH Configuration - Server Port	SSH Server port used with Gateway Server connectivity - the default SSH port is 22.	Does not require application server restart.
Gateway Server - SSH Configuration - Username	Administrative account user name for remote SSH server used with Gateway Server connectivity.	Does not require application server restart.
Gateway Server - SSH Configuration - Password	Administrative account password for remote SSH server used for authenticating to Gateway Server using SSH - this password is not required if an identify file is used.	Does not require application server restart.
Gateway Server - SSH Configuration - Identity File	SSH identity file to use for authenticating to the Gateway Server. The default value is ~/.ssh/id_rsa. ~ gets expanded to the home directory of the user running this server.	Does not require application server restart.

Table 4-2 Remote File Manager module setting definitions

Parameter	Definition	Notes
Gateway Server - SSH Configuration - Passphrase for Identity File.	Passphrase for SSH identity file for authenticating to the Gateway Server. It is not required if you are using password to connect or if the identity file does not have a passphrase.	Does not require application server restart.
Gateway Server - SSH Configuration - Known Hosts File	Known hosts file that contains the signature for Gateway Server. The default value is ~/.ssh/known_hosts. ~ gets expanded to the home directory of the user running this server.	Does not require application server restart.

Table 4-2 Remote File Manager module setting definitions

Configuring the Processor Manager connectivity

The Processor Manager module lets you to configure specific parameters for the Data Gateway server for connectivity with the database server. You can access this module by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Processor Management** from the dropdown list.
4. Scroll through the configuration list and fill out the appropriate Processor Management parameters.
5. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

Certain parameters, as indicated, require you to stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart the EIS application for the changes to take effect.

A list of the Data Gateway parameters and their functions is provided below.

Parameter	Definition	Notes
Gateway Data Loader - Continue Load set Check Interval	The check interval in minutes between continuing execution of the Gateway Data Loader Processor while a load set is being processed in Gateway.	Requires application server restart.

Table 4-3 Processor Management module setting definitions

Parameter	Definition	Notes
Gateway Data Loader - Gateway Database	Where the Gateway database resides for the Gateway Data Loading Processor.	Requires application server restart.
Gateway Data Loader - Gateway Schema - Password	The gateway schema password for the Gateway Data Loading Processor.	Requires application server restart.
Gateway Data Loader - Gateway Schema - User name	The Gateway schema user name for the Gateway Data Loading Processor.	Requires application server restart.
Gateway Data Loader - Maximum Load set Check Intervals	The maximum number of checks to continue execution of the Gateway Data Loading Processor of a load set before it is canceled.	Requires application server restart.
Gateway Data Loader - SQL*Loader Application	Gateway Data Loader SQL*Loader Application used for populating the staging tables prior to calling Gateway.	Requires application server restart.

Table 4-3 Processor Management module setting definitions

Restart MIPO server

You must restart the MIPO application server in order for your configuration changes to take effect.

Chapter 5: Testing the EIS application

The instructions in this section describe how to test the EIS application and database server installation and data loader configuration. It includes instructions for performing the following tasks:

- Installing the SAP EIS Gateway Loading Tool (SGLT)
- Validating and generating the example data set
- Importing the example data set and viewing the network

SGLT installation

This section describes the procedure for downloading and installing the SAP EIS Gateway Loading Tool (SGLT) and prerequisites for using the SGLT with the Data Gateway.

Prerequisites

The SGLT can be used to create data sets on any client PC that meets the MIPO client software requirements:

- Microsoft Excel 2007 or later must be installed on your client PC.

- Microsoft .NET Framework Version 2.0 must be installed on your client PC. For Windows XP-based client PCs, the .NET Framework may be included with the operating system. This can be verified through **Add and Remove Programs** under the Windows Control Panel. For earlier versions of Windows, you must download and install the Microsoft .NET Framework Version 2.0 Redistributable Package from the Microsoft Download Center.
- You must have Windows Administrator privileges to install the SGLT on your PC.

When you install the SGLT, the authentication certificate will be installed on your PC. The first time you open the SGLT or Example Gateway Data Set workbook, you will be prompted to enable macros and select a checkbox. Thereafter, you can open the SGLT and example supply chain workbooks in Excel without encountering dialog boxes asking you to enable macros.

Installing the SGLT

The SGLT utility and Data Gateway example spreadsheet are included as part of the Data Loading Tool installation. To install the Data Loading Tool, do the following:

1. Log on to the MIPO application with your user account.
2. Click **Data Set > Import Data Set** to open the **Import Data Set** window.
3. Click **Download** in the row containing the **setup.exe** file.

   The **File Download** dialog opens.
4. Run the file download utility.

   The InstallShield Wizard opens.
5. Select the correct language and run the InstallShield Wizard.

   The **Certificate Import Wizard** opens.
6. Run the Certificate Import Wizard.

   You will see that the InstallShield Wizard has completed the installation.
7. Click **Finish**.

You can now access the SGLT template and example files through the Windows Start menu (**Programs > SAP EIS SGLT**).

Uninstalling the SGLT

To remove the SGLT application from your PC, do the following:

1. Click **Start > Control Panel** to open the **Control Panel** window.
2. Click Uninstall a Program to open the **Add/Remove Programs** window.
3. Select **SAP EIS Gateway Loading Tool for MIPO <version>** from the list of currently installed programs.

4. Click **Uninstall**. The **Add/Remove Programs** confirmation dialog opens.
5. Click **Yes**. The uninstallation status dialog opens, then automatically closes when the uninstallation process is complete.

Setting the EIS URL as a Trusted site

To properly view Export windows, Pop Ups and other features in the application, users must add the EIS URL to the list of Trusted Sites in Internet Explorer, as follows:

1. Open Internet Explorer and enter the EIS portal URL (`http://server:port/`, where *`server`* is the name of the application server provided during the installation and *`port`* is the assigned port number).
2. Select the entire EIS URL as it appears in the **Address** bar and copy it to the clipboard (using CTRL+C or **Edit > Copy**).
3. Select **Tools > Internet Options**. The Internet Options dialog opens.
4. Select the **Security** tab. In the **Select a Web Content Zone to specify its security settings** panel, select the **Trusted Sites** icon.
5. Click the **Sites** button. The Trusted Sites dialog opens.
6. In the **Add this Web site to the Zone** text field, enter or paste the EIS application URL and click the **Add** button.
7. Click **OK** to exit the Trusted Sites dialog, and **OK** again to exit the dialog.

Importing the example data set and testing the application

To import the example supply chain:

1. Ensure that the EIS application is running on the application server and that you can connect to the database server.
2. On a Windows PC, start Internet Explorer and enter the following text in the **Address** field:

   `http://app_server_name:port_number/`

   In this example, *`app_server_name`* represents the name of the machine on which the EIS application server is running and *`port_number`* represent the port number on which the application server is listening.

3. The EIS Portal window opens to show the pre-login page. Click the **Login** button, then sign in to the application using the default **User Name** and **Password** (e.g., **smartops**/**smartops**), and select MIPO from the dropdown list of portal options.

Note: The **User Name** you enter in the **Sign In** window must match the **User Name** specified in the **Loadset Settings** worksheet of the SGLT. The example supply chain uses the default **User Name**.

4. Click **Data Set > Import Data Set** to open the **Import Data Set** window.

   Note that the **Supply Chain** and **Scenario Selectors** on the left do not contain the name of the example supply chain or base scenario.

5. Enter the full path and file name of the **.zip** file you want to import in the **File Name** field or click **Browse...** to open the **Choose file** window.
6. Navigate to the directory containing the **.zip** file that you want to import, select it, and click **Open**.
7. Click **OK**. The file you selected is imported into the MIPO application. This process can take several minutes to complete.
8. Click **Alerts > View Alerts** to monitor messages regarding the status of the data set being processed.
9. Click **REFRESH** to update the window contents.
10. When you see the message `Loading of a data set is complete`, log out of the EIS application and sign in again to enable your privileges to view the supply chain you imported.
11. The **Supply Chain Selector** is refreshed and includes the name of the supply chain contained in the SGLT.
12. The **Scenario Selector** is refreshed to include the name `Base Scenario`. In MIPO, a **base scenario** is a protected (read-only) scenario, that contains real-world supply chain data. You can now create **user scenarios** that can be edited and optimized to reflect the changes you want to apply to a supply chain.
13. Click **Edit > View Network** to open the **Network** window.

Note: Viewing networks in MIPO requires Java plug-in. If a compatible version of the plug-in is not currently installed on your machine, you are prompted to download it from Sun's Web site when you select **Edit > View Network** for the first time. A firewall or other network security can prevent you from downloading the plug-in. Also, you must have Windows Administrator privileges to install it after it is downloaded.

Verify that you see the supply chain network diagram and associated tools.

14. Click **Reports > Output Reports > Inventory Summary** to open the **Inventory Summary Reports** window.

    a. Click **Refresh.**

    b. Click **Show Charts**.

    Verify that you see separate window open displaying a bar graph representation of the Inventory Summary Report.

15. Click **Data Set > Export Data Set** to open the **Export Data Set** window.

    a. Use the **Period Selectors** to choose a start and end period for the test**.**

    b. Click **OK**.

    c. Click **Refresh**.

    d. Click the link associated with the test export file.

    Verify that the test **.zip** file was created and opens correctly.

5. For more information about viewing supply chain networks, select Online Help from the **Help** menu

Entering data using SGLT

MIPO builds a supply chain's topology and relevant static and time varying data using the information you enter in the SAP EIS Gateway Loading Tool (SGLT). The SGLT generates flat files that the Gateway Data Loader software then loads and stores in the Gateway database, making it available to import into the MIPO application.

This section discusses:

- Notes about unsupported characters in the SGLT
- Definitions of the entries contained in the SGLT
- How entries in the SGLT relate to the example data contained in an **Gateway Example Supply Chain (.xls or .xlsm)** workbook
- Entering and saving your supply chain data in the SGLT

Important notes about entering data in the SGLT

Note: When entering data into the SGLT, the following characters are not supported. Using any of these causes validation to fail:

- & (ampersand)
- \ (backslash)
- ‘ (single quote)
- “ (double quote)
- > < (right and left angle brackets)
- | (pipe)
- leading blank spaces in an entry
- two or more consecutive blank spaces in an entry

Note: When you copy data from other worksheets, the hidden contents of cells (for example, hyperlinks, formatting and comments) are copied. To copy and paste only the cells’ values, click **Edit > Paste Special**, select the **Values** radio button and click **OK**.

Note: Text cells in the SGLT possess the **General** format. As a result, Excel may change the value you enter in certain situations. For example, if you enter the number `0345` for a location name, Excel changes the entry to `345`. To enter a leading zero, you must preceded it with an apostrophe, as in `‘0345`.

Note: The SGLT can be used on a computer set to any locale. Dates and numbers can be entered in the specified locale and the generated loadset will be written in US English, which is the format required by MIPO.

Using SGLT

The SGLT consists of a spreadsheet application to be used to create work files for specific data set inputs. These work files, when completed, can be processed by the Data Gateway to be imported into the MIPO application. The SGLT includes separate spreadsheet applications for use with Excel 32-bit and Excel 64-bit.

The Data Gateway includes an example spreadsheet: **Gateway Example Model (.xls or .xlsm)**. This example spreadsheet contains data that can be used to test your Data Gateway installation.

Saving the SGLT as a work file

1. Open the SGLT though the Windows Start button by selecting **Programs > SAP EIS SGLT> SAP EIS Gateway Loading Tool (SGLT)**.
2. Use the **Save As** feature to save the worksheet in a work directory.

Note: Do not modify the SGLT worksheets in any way (e.g., change column order or rename worksheet tabs). Any worksheet changes will adversely affect Data Gateway processing, producing invalid results.

Main Menu

The **Main Menu** worksheet of the SGLT contains hypertext links, a summary of contents, and general instructions and tips for entering your supply chain data into each worksheet.

The **Main Menu** worksheet contains a button labeled **Clear All Data** in the upper right-hand corner. Click **Clear All Data** when you want to ensure that the SGLT does not contain any residual data.

Entering Data Gateway input data

1. Click any of the links in the **Worksheet** column on the **Main Menu** worksheet. The associated worksheet is displayed.
2. Fill out the data specified by the selected worksheet.
3. If desired, click **Validate Sheet** to ensure that the information you entered on this worksheet is valid. The SGLT Validate Tab dialog box appears. Click **Start**.
   - If the information on this worksheet is valid, the validation status will display that the validation resulted in zero errors and warnings. Click **Close** to close dialog box.
   - If the information on this worksheet contains an error or warning, the validation status will display how many errors and warnings were found and the SGLT displays the **Validate and Generate** tab with detailed information. Click **Close** to close dialog box and correct the errors or warnings.
4. When finished, either click on another worksheet tab or return to the Main Menu.
5. Repeat Steps 1-4 to complete all worksheets designed for Data Gateway input.
6. Click **File > Save** to save your changes to the workbook.

Once you have finished completing the SGLT worksheets, you can validate and generate a data set, as described at the end of this chapter.

See the sections below for details about each worksheet.

Loadset Settings

A supply chain includes all stages of a product's development, from procurement of raw materials, through assembly and warehouse storage and distribution centers, and finally to retail stores and into the hands of customers.

The **Loadset Settings** worksheet of the SGLT includes fields where you can define **Loadset Settings**, **Period Settings**, and **Units of Measure**. The values you specify for the parameters listed in the **Loadset Settings** worksheet serve as the "master data" for the supply chain you are creating.

The **Loadset Settings** worksheet lets you define values for the following entries**.**

Entry	Description
Supply Chain Name	Name of a new or existing supply chain
Supply Chain Description	Optional description of the supply chain
Product Module	Name of the EIS module associated with the scenario data set.
User Name	User Name that must be used to sign in to the EIS application before importing the data set.
Initial Inventory Position Specified?	You can choose whether or not you want to specify an Initial Inventory Position by selecting **Yes** or **No** from the drop-down menu. If you select **Yes**, you are required to enter a value for **On Hand** for each stocking point. Entering a value for **Planned Receipts** is optional. If you do not enter a value for **Planned Receipts**, zero (0) is assumed for each supply path for each period in the data horizon. If you select **No**, you are not required to enter a value for **On Hand** for each stocking point or for **Planned Receipts** for each supply path.
Master BOM Name	The name of the primary manufacturing bill of materials (BOM) for the supply chain.
Service Level Type	A metric that refers to the probability that demand is met from stock. A desired service level can be determined and used as a driver for inventory levels. EIS uses two service level types to calculate optimal inventory levels: *Non-stockout probability* indicates the number of customer orders that you plan to service in full as a proportion of the total number of orders received. If you select *Fill rate* your service level will be calculated as a ratio of the total number of units to be delivered divided by units ordered over a given period. The fill rate is also known as the customer service ratio.
Period Length (Base Time Unit)	Unit of time (for example, weeks, months, or quarters) in which time varying data is provided. For example, if forecast data is provided in weekly time buckets, the base time unit is a week.

Table 5-4 Loadset settings data

Entry	Description
Data Horizon (# of time periods of inputs)	The number of periods of data available for optimization (computation).
Analysis Horizon (# of time periods to calculate outputs)	The number of periods beyond the base period (in other words, in the future) for which accurate results are desired.
Base Period	The latest recognized date in the database when historical data transitions to forecast data. The current planning period is determined by the start period for the latest available forecast (defines what "future" is in MIPO) and the latest period for which sales data is available, if it is later than the available forecast (defines what is "historical" in MIPO).
Historical Horizon	The total number of periods of historical data available for creating a timeline in MIPO. The initial value of the historical data horizon grows with time as more data becomes available for use in historical calculations. The historical horizon must be greater than or equal to zero and less than 1,096.
Stop Criteria	Parameter used by MIPO to identify the location in the MIPO process to stop processing the load set.

Table 5-4 Loadset settings data

Scenario Settings

The **Scenario Settings** worksheet of the SGLT includes fields for you to enter additional configuration parameters and values for the data set.

Scenario Settings data includes the entries in Table 5-5.

Entry	Description
Setting Name	Name of the configuration parameter to be used by the scenario data set.
Setting Value	Value associated with the configuration parameter.

Table 5-5 Scenario Settings

Entering scenario setting data for your supply chain

1. Click the **Scenario Settings** link in the **Worksheet** column on the **Main Menu** worksheet. The **Scenario Settings** worksheet is displayed.
2. Select the first empty cell under the **Setting Name** column and enter the name of a scenario configuration parameter.
3. Enter a **Setting Value** for the scenario configuration parameter.
4. Repeat Steps 2-3 for each scenario configuration parameter in your data set.

5. Click **File > Save** to save your changes to the workbook.
6. Click **Menu** to return to the **Main Menu** worksheet.

Processor Settings

The **Processor Settings** worksheet of the SGLT includes fields for you to enter information about processors that you want to execute for this load set. *Processors* are pieces of software code that can perform calculations, modify specific data, or perform other functions such as rounding or generating flat files.

Processors can be created and executed for various phases in MIPO. Table 5-6 lists each processor, the processing phases, and describes the state that the load set is in when a processor is invoked.

Processor	Phase	Description
DemandErrorCleanup	Preloading	Before loading the data for the Demand Error Processor, this processor is run to truncate the historical sales and demand forecast tables so that only new data will be populated there.
DemandIntelligenceErrorProcessor	Preprocessing	Part of the Demand Intelligence Module (DIM), this processor determines and populates per period demand standard deviation by item-location-period at all customer facing stocking points (including those that contain insufficient demand data or no data at all) for periods in the MIPO data horizon.
DemandIntelligenceExportProcessor	Preprocessing	Part of the Demand Intelligence Module (DIM), this processor transfers the demand outputs from the DIM scenario to a selected MIPO scenario.
DemandIntelligenceImportProcessor	Report Generation	Part of the Demand Intelligence Module (DIM), this processor creates a DIM scenario data set based on a selected MIPO scenario.
DemandNodeCreationProcessor	Preprocessing	Determines and populates additional demand nodes to the supply chain to ensure the network topology satisfies MIPO validation criteria. This processor identifies stocking points having both internal and external demand, along with single stocking points that have multiple customer demand streams.

Processor	Phase	Description
GenerateReports	Report Generation	MIPO loadsets can be configured to automatically generate all or a subset of published reports for a given loadset. The system generates report files and saves them automatically to a directory specified in the Manage Module Setting feature's Published Reports module.
LeadTimeCleanup	Preloading	Before loading the data for the Lead Time Processor, this processor is run to truncate the Purchase Order tables so that only new data will be populated there.
LeadTimeProcessor	Preprocessing	Calculates the mean order processing lead time, the mean physical lead time, and the total lead time standard deviation for all supply paths with sufficient historical transactional data.
NewItemProcessor	Preprocessing	Maps the historical sales and demand forecast history and future forecasts from an existing stockkeeping unit (SKU) to a new SKU. This processor provides the ability for MIPO to perform inventory optimization calculations on any new component or finished good item introduced into the supply chain based on data associated with an existing, similar item.
NodeIdentificationProcessor	Preprocessing	Identifies demand nodes as non-stocking nodes and "marks" them for removal before MIPO optimization. It can also be used to identify any non-managed item and location within a supply chain.
ReviewInventoryTargetsProcessor	Report Generation	Calculates the data used by the Review Inventory Targets feature.
ScenarioAssociationProcessor	Preloading	Allows MIPO to automatically send out user notification of events and alerts for new scenarios to any assigned MIPO user, rather than just the scenario owner.

Processor	Phase	Description
ScenarioTransformationProcessor	Preprocessing	Part of the Service Level Optimization (SLO) module, this processor creates a SLO scenario data set based on a selected MIPO scenario.
ServiceLevelToCostProcessor	Report Generation	Calculates the data used by the Service Level to Cost Report feature.
SloOutputCopyProcessor	Preprocessing	Part of the Service Level Optimization (SLO) module, this processor transfers the service level outputs from the SLO scenario to a selected MIPO scenario.
SupplyLeadTimeProcessor	Preprocessing	Part of the Supply Intelligence Module (SIM), this processor calculates the mean order processing lead time, the mean physical lead time, and the total lead time standard deviation for all supply paths with sufficient historical transactional data. The processor then overwrites the values originally provided in the loadset with its newly calculated values. S
SupplyProcessor	Preprocessing	Calculates Schedule Attainment and Schedule Attainment Error.
UnitCostCalculator	Preprocessing	As a unit cost value is a required input for all Stocking Points in MIPO, the Unit Cost Calculator processor determines a more accurate cost of an item at a particular point in time within the supply chain network.

Table 5-6 EIS *processors*

Processor settings include the entries listed in Table 5-7.

Entry	Description
Processor Name	The name of the processor.
Setting Name	The specific setting parameter you wish to define.
Setting Value	The value to be associated with the setting parameter.

Table 5-7 Processor settings data

Entering processor settings for your supply chain

You must define the configuration parameters for each processor you intend to use when loading the data set. Each parameter must be entered as a separate row on the **Processor Settings** worksheet.

Refer to the *EIS Processors Spreadsheet* for more information on the configuration parameters, behaviors, and default values associated with each processor you intend to use. For example, certain processors only need two defined parameters: a sequence number associated with the processing phase and an activation setting. Other processors will require you to fill out several rows of the worksheet in order to be properly configured for the data set.

Business Alerts

The **Business Alerts** worksheet of the SGLT includes fields for you to enter information that defines validation rules to be used during MIPO's exception management process. When MIPO validates input or output data against these customer-specific business rules, it will generate an alert whenever it is determined that data exceeds the specified trigger value.

There are two steps for configuring business alerts in the SGLT. First you must determine the severity level for stopping the MIPO validation and optimization process. Use the **Scenario Settings** tab to set different severity levels for Input and Output validation (Business Alerts Input Stop Severity and Business Alerts Output Stop Severity). You have the following options:

- Use Default
- Disabled
- None
- Fatal Error
- Error
- Warning
- Informational

The second step is to configure the specific business alerts using the Business Alerts tab. Refer to the tables in Appendix B to provide the configuration settings needed to activate the business alerts feature

Business Alert settings include the entries listed in Table 5-7.

Entry	Description
Business Alert Name	The name of the Business Alert.
Instance Number	Used when running the same business alert multiple times to identify each instance.

Table 5-8 Business Alert settings data

Entry	Description
Business Alert Property	The parameter setting name associated with the Business Alert.
Business Alert Value	The configuration value asigned to the defined parameter setting.

Table 5-8 Business Alert settings data

Note: If you do not identify a comparison scenario when using one of the comparison Business Alerts, a fatal error alert will be generated and the loadset will fail. When this alert occurs, the user can either delete the failed scenario, fix the incoming data set, and resubmit, or, disable the output business alerts on the Manage Scenarios screen and proceed.

Items

The **Items** worksheet of the SGLT includes fields for you to enter information about the items (similar to stock keeping units (SKUs)) in your supply chain. An *item* is a uniquely identified, single product in inventory.

Item data includes the entries listed in Table 5-9.

Entry	Description
Item ID	Unique code that identifies item in supply chain.
Item Name	Name of the item.
Item Type	Type category associated with the item.
Item UOM	The unit of measure that applies to each item.
Product Family	Product category associated with the item.

Table 5-9 Items data

Locations

The **Locations** worksheet of the SGLT includes fields for you to enter information about the locations in your supply chain. A *location* is any physical point in the supply chain at which inventory is stored. Factories, warehouses, distribution centers, and retail stores are all types of locations.

Location data includes the entries in Table 5-10.

Entry	Description
Location ID	Unique code that identifies location in supply chain.
Location Name	Name of the location.
Location Type	Type category associated with the location.

Table 5-10 Locations data

Vendors

The **Vendors** worksheet of the SGLT includes fields for you to enter information about the vendors in your supply chain. The **Vendors** worksheet represents all of the vendor data, including locations.

Vendors data includes the entries in Table 5-11.

Entry	Description
Vendor Location ID	Unique value to identify a supplier location in the supply chain.
Vendor Location Name	Name of the supplier location associated with the load set.

Table 5-11 Vendor List data

Item attributes

The **Item Attribute** worksheet of the SGLT includes fields for you to enter attribute information associated with each item (similar to stock keeping units (SKUs)) in your supply chain. An *item* is a uniquely identified, single product in inventory.

Item attribute data includes the entries listed in Table 5-12.

Entry	Description
Item ID	Unique code that identifies item in supply chain.
Item Attribute Name	Characteristics of an item or set of items that are custom-defined for your supply chain. Examples include language and item type.
Item Attribute Value	Value associated with the item attribute.

Table 5-12 Item attribute data

Location attributes

The **Location Attribute** worksheet of the SGLT includes fields for you to enter information about the attributes associated with each location in your supply chain. A *location* is any physical point in the supply chain at which inventory is stored. Factories, warehouses, distribution centers, and retail stores are all types of locations.

Location attribute data includes the entries in Table 5-13.

Entry	Description
Location ID	Unique code that identifies location in supply chain.
Location Attribute Name	Characteristics of a location or locations that are custom-defined for your supply chain. Examples include geographical district, location type (warehouse, factory, retail store).
Location Attribute Value	Value associated with the specific location attribute.

Table 5-13 Location attributes data

Node attributes

The **Node Attribute** worksheet of the SGLT includes fields for you to enter attribute information associated with each item-location node. in your supply chain.

Node attribute data includes the entries listed in Table 5-14.

Entry	Description
Item ID	Unique code that identifies an item in supply chain.
Location ID	Unique code that identifies location in supply chain
Node Attribute Name	Characteristics of node or set of nodes that are custom-defined for your supply chain. Examples include language and item type.
Node Attribute Value	Value associated with the node attribute.

Table 5-14 Item attribute data

Forecast

The **Forecast** worksheet of the SGLT includes fields for you to enter information about the historical and future forecast data in your supply chain. A *forecast* is an estimate of how much inventory will be needed in the supply chain during a particular time period. The SGLT lets you add both historical and future forecast data so it can be included in the data set for optimization calculations.

Forecast data includes the entries in Table 5-15.

Entry	Description
Item ID	Unique code that identifies item in supply chain.
Location ID	Unique code that identifies location in supply chain.
Ship To Location ID	Identifies customer-facing destination of item.
Revision Date	The date on which the forecast data for the specific item has been updated for the associated period.
Period Date	The starting date for the period associated with the forecast data for the specific item.
Forecast Value	The forecast data related to the period for the specific item.

Table 5-15 Forecast data

Sales

The **Sales** worksheet of the SGLT includes fields for you to enter information about the historical sales data in your supply chain. *Sales* data reflects how much inventory was actually used in the supply chain during a particular time period.

Sales data includes the entries in Table 5-16.

Entry	Description
Item ID	Unique code that identifies item in supply chain.
Location ID	Unique code that identifies location in supply chain.
Ship To Location ID	Identifies customer-facing destination of item.
Period Date	The starting date for the period associated with the historical sales data for the specific item.
Sales Value	The historical sales data related to the period for the specific item.

Table 5-16 Sales data

Demand

The **Demand** worksheet of the SGLT includes fields for you to enter external demand information from your supply chain. *Demand* data reflects how much inventory was expected to be used in the supply chain during a particular time period.

Demand data includes the entries in Table 5-17.

Entry	Description
Item ID	Unique code that identifies item in supply chain.
Location ID	Unique code that identifies location in supply chain.
Ship To Location ID	Identifies customer-facing destination of item.
Period Date	The starting date for the period associated with the historical sales data for the specific item.
Forecast	The forecast data related to the period for the specific item.
Forecast Error	The forecast error data related to the period for the specific item.

Table 5-17 Demand data

Demand Stream Static

The **Demand Stream Static** worksheet of the SGLT includes fields for you to enter non-time varying information for each demand stream in your supply chain.

Demand stream static data includes the entries in Table 5-17.

Entry	Description
Item ID	Unique code that identifies item in supply chain.
Location ID	Unique code that identifies location in supply chain.
Ship To Location ID	Identifies customer-facing destination of item.
Demand Interval	Allows you to define a demand interval value as an alternative to the DIM's average demand interval calculation.
Recency Factor	Optional static input that specifies the recency factor for the demand stream. The recency factor allows recent data to have greater weight in the forecast bias and forecast error CV calculations. The value must be greater than zero and less than or equal to one.

Table 5-18 Demand Stream Static data

Bill of Material

The **Bill of Material** worksheet of the SGLT includes fields for you to enter information about the manufacturing bill of material (BOM) at location nodes in the supply chain. A *manufacturing BOM* is a many-to-one relationship between multiple incoming items and a single outgoing item at a process or

manufacturing node in a supply chain. It determines the quantity of each incoming item required to produce one unit of each outgoing item, when each is represented in their base unit of measure.

BOM data includes the entries in Table 5-19.

Entry	Description
Location ID	Unique code that identifies the production location of the manufacturing BOM.
Base Item ID	Unique code that identifies the finished good of the manufacturing BOM.
Component ID	Unique code that identifies the raw material of the manufacturing BOM.
From Date	The start date of when this BOM information is active.
To Date	The end date of when this BOM information is active.
Quantity	The amount of the component item needed to produce the base item.

Table 5-19 Bill of Material data

Sourcing

The **Sourcing** worksheet of the SGLT includes fields for you to enter information about the source items in your supply chain. *Sourcing* data lists the original site where each item is located, along with its destination site, for a particular time period. It also includes amounts for specific items and the mode used to transfer source items to their destinations.

Sourcing data includes the entries in Table 5-20.

Entry	Description
Item ID	Unique code that identifies source item in supply chain.
From Location ID	Unique code that identifies the supply chain site where the source item comes from.
To Location ID	Unique code that identifies the supply chain site where the source item goes to.
From Date	The start date of when this sourcing information is active.
To Date	The end date of when this sourcing information is active.
Quota	The source item amount needed during the sourcing period.
Duration	The length of time needed to move item from the source location to the destination location (e.g., physical lead time).
Mode Name	Identifies how the item is transferred between the **From Location** and the **To Location**.

Table 5-20 Sourcing data

Entry	Description
Mode Utilization	Provides details on how the mode is used to transfer the source item.

Table 5-20 Sourcing data

Item Location - Static

The **Item Location Static** worksheet of the SGLT includes fields for you to enter information about static stocking point information in your supply chain. A *stocking point* is a node which represents an item-location pair. Each stocking point node may have upstream nodes, downstream nodes, or both, and each stocking point node is connected to its upstream and downstream nodes by paths. The **Item Location Static** worksheet represents all of the supply chain node data that does not change over time.

Static stocking point data includes the entries in Table 5-21.

Entry	Description
Item ID	Unique code that identifies item in supply chain.
Location ID	Unique code that identifies location of the stocking point node in supply chain.
Stocking Point Type	Identifies a stocking point as either a stocking node, non-stocking node, or non-managed node. (**Note:** These values may also be entered as StockingNode, NonStockingNode, and NonManagedNode.)
Holding Cost Pct.	Cost associated with holding inventory at a stocking location. It is defined for each item-location combination per annum, but does not vary over time.
Inventory Unit Cost	Represents the monetary value of one unit of inventory (expressed in the specified unit of measure) for a given item at a given stocking location. This cost may include partial processing (for example, assembly or painting) cost on the raw material or components.
Unit Purchase Cost	Also referred to as unit in cost, the inbound acquisition cost or transfer price for each item-location.
Unit Transfer Price	Price at which a stocking point sells a unit of a product to its downstream stocking point (its customer).
PBR	Periods Between Review - Defines the frequency at which inventory position is reviewed and replenishment decisions are made for an item at a location. PBR is specified in number of periods.

Table 5-21 Static item location data

Entry	Description
PSLR	Periods Since Last Review - For a given item at a given location, the number of periods since placing a replenishment order or determining (based on inventory) to not place an order. PSLR can be less than or equal to the periods between review (PBR) for that item-location pair. Example: Assume a given item-location pair has a period length of one week and the PBR is 4. If a replenishment order was placed 2 weeks ago, the PSLR is 2.
Service Level	A metric that refers to the probability that demand is met from stock and is the minimum acceptable service level that a company feels they must achieve.
Max Ship Life	The maximum number of periods an item can remain at a given node before it becomes unusable. You can specify that Maximum Ship Life is unconstrained by entering a value of -1.
Coverage Duration	The number of periods over which Weeks of Stock should be averaged to determine the Average Safety Stock Coverage. Weeks of Stock is the number of periods of forward expected demand that can be met by the current inventory.
Schedule Attainment	The ratio between the expected attained production and the scheduled production.
Schedule Attainment CV	The coefficient of variation of the schedule attainment. For example, if the schedule attainment is 0.9 and the coefficient of variation is 0.5, then actual production can expect to be 90% +/- 45% of the scheduled production.
Storage Capacity	Specifies the maximum storage capacity for each item-location.
On Hand Inventory	All inventory that is physically available to fill demand, which is all types of stock except pipeline. Specifically, on hand inventory includes cycle, safety, merchandising, and prebuild (if applicable) stock.
Unused On Hand Inventory	Unusable On Hand inventory is the portion of On Hand inventory that should not be considered when calculating inventory targets as it cannot be used to satisfy demand.
Pooling Factor	A heuristic adjustment made to the safety stock computation based on the perceived correlation of demand across downstream stocking points.
Processing Cost	Per unit cost of manufacturing and assembly for each item-location.
Transportation Cost	Cost of moving an item from an upstream node to an immediate downstream node for a given inventory stocking location.
Order Admin Cost	Per unit cost of administering an order for each item-location.
Handling Cost	Cost of material movements within the warehouse, which may include unloading costs, breakdown costs, labor costs, and machinery costs.

Table 5-21 Static item location data

Entry	Description
Other Cost	Miscellaneous expenses, including taxes and insurance, related to keeping inventory.
Min Service Level	An optional field used by the EIS Service Level Optimization (SLO) module to define the lower limit on the individual target fill rate at the associated customer-facing stocking point.
Max Service Level	An optional field used by the EIS Service Level Optimization (SLO) module to define the upper limit on the individual target fill rate at the associated customer-facing stocking point.
Lost Sales Pct	An optional field used by the EIS Service Level Optimization (SLO) module to define the acceptable lost sales percentage to be applied at the minimum service level at the associated customer-facing stocking point.
Inventory Allocation Policy	Sets policy used for calculating TIP; either Priority or Divide.

Table 5-21 Static item location data

Item Location - Time Varying

The **Item Location Time Varying** worksheet of the SGLT includes fields for you to enter information about time varying stocking point information in your supply chain. A *stocking point* is a node which represents an item-location pair. Each stocking point node may have upstream nodes, downstream nodes, or both, and each stocking point node is connected to its upstream and downstream nodes by paths. The **Item Location Time Varying** worksheet represents all of the supply chain node data that changes over time.

Time varying item location data includes the entries in Table 5-22.

Entry	Description
Item ID	Unique code that identifies item in supply chain.
Location ID	Unique code that identifies location of the stocking point node in supply chain.
Period Date	The starting date for the period associated with the path data for the specific item.
Min Required Stock	The minimum inventory kept at a retail or customer facing location. It may be used for showroom or demonstration purposes, but is typically included in inventory available to meet demand. Note: Values entered for minimum required stock must be greater than or equal to zero (0).

Table 5-22 Time varying item location data

Default Path - Static

The **Default Path Static** worksheet of the SGLT includes fields for you to enter information about the supply paths in your supply chain and their attributes. A *path* is a connection between two stocking point nodes in a supply chain. A path represents the physical movement of materials in a supply chain.

Use the **Default Path Static** worksheet to enter path data that does not change over time for each supply chain item in your data set. This path data relates only to destination locations for the item and does not take into account source locations. Use the **Override Path Static** worksheet to define specific source locations for the paths in your supply chain.

Static default path data includes the entries in Table 5-23.

Entry	Description
Item ID	Unique code that identifies item in supply chain associated with a specific path.
To Location ID	Unique code that identifies the supply chain site at the path ending point for the item.
Physical Lead Time	Time that it takes from when the upstream (supplier) location begins to fill that order until it is received in the downstream location. Physical lead time may also be defined as the time during which physical goods are being modified (assembled, transported) and actual material costs are being incurred. This may include manufacturing time, transportation time and material handling (warehousing) time.
Processing Lead Time	Elapsed time from when the order is placed on an upstream location until that location begins to fill that order. This can include order receipt time, processing time, and queuing time.
Lead Time Error	Statistical measure of uncertainty regarding the magnitude of expected lead time in a given period.
Period Between Shipments	The frequency at which shipments are made for a path, independent of PBR. PBS is specified in number of periods.
Frozen Window	Lets you define the number of periods for which variability in incoming demand to a stocking point or process point should not be considered.
Service Time	The number of periods between the time an order is placed and the time it must be shipped before a stockout is considered to have occurred.
Yield	The remaining portion of the process's output after yield loss.
Minimum Batch Size (units)	The minimum amount needed, measured by quantity, before an initial order can be produced.
Minimum Batch Size (periods)	The minimum amount needed, measured by periods of coverage, before an initial order can be produced.

Table 5-23 Default Path Static data

Entry	Description
Batch Size	The order quantity that is agreed-upon between the upstream and downstream nodes. The downstream node's order quantities must be an integer multiple of the batch size.
Reliability	The probability that an order delivery will be completed within the total lead time (cycle time).

Table 5-23 Default Path Static data

Default Path - Time Varying

The **Default Path Time Varying** worksheet of the SGLT includes fields for you to enter information about the supply paths in your supply chain and their attributes. A *path* is a connection between two stocking point nodes in a supply chain. A path represents the physical movement of materials in a supply chain.

Use the **Default Path Time Varying** worksheet to enter path data that that changes over time for each supply chain item in your data set. This path data relates only to destination locations for the item and does not take into account source locations. Use the **Override Path Time Varying** worksheet to define specific source locations for the paths in your supply chain.

Time varying default path data includes the entries in Table 5-24.

Entry	Description
Item ID	Unique code that identifies item in supply chain associated with a specific path.
To Location ID	Unique code that identifies the supply chain site at the path ending point for the item.
Period Date	The starting date for the period associated with the path data for the specific item.
Planned Receipts	The shipment quantities on a path for a given period, that are expected at the end node in that period, assuming deterministic lead times and service times in response to planned orders.
Max Process Capacity	The maximum quantity of each item that can be ordered or produced in each time period for each supply path. **Note:** Unconstrained capacity, or infinite capacity, describes a supply path for which a capacity constraint does not exist. You can specify unconstrained capacity, or infinite capacity, by entering a value of negative one (-1).

Table 5-24 Default path time varying data

Entry	Description
Min Process Quantity	The minimum quantity of each item that must be produced in each time period (typically due to a manufacturer's desire to avoid labor schedule or shift reductions, cutbacks, layoffs, etc.) for each supply path. **Note:** Values entered for minimum process quantity must be less than or equal to those entered for maximum process capacity.

Table 5-24 Default path time varying data

Override Path - Static

The **Override Path Static** worksheet of the SGLT includes fields for you to enter information about the supply paths in your supply chain and their attributes. A *path* is a connection between two stocking point nodes in a supply chain. A path represents the physical movement of materials in a supply chain.

Use the **Override Path Static** worksheet to enter path data that does not change over time for each supply chain item in your data set. This path data relates to specific source and destination locations for the item. Use the **Default Path Static** worksheet to define default path data for your supply chain, not dependent on the source location.

You can also use this worksheet to define path information between customer-facing stocking points and customer nodes, specifically Frozen Window, Service Level, and Service Time.

Static override path data includes the entries in Table 5-25.

Entry	Description
Item ID	Unique code that identifies item in supply chain associated with a specific path.
From Location ID	Unique code that identifies the supply chain site at the path starting point for the item.
To Location ID	Unique code that identifies the supply chain site at the path ending point for the item.
Mode Name	Identifies the mode used to transfer the associated item from the source location to the destination location.
Physical Lead Time	Time that it takes from when the upstream (supplier) location begins to fill that order until it is received in the downstream location. Physical lead time may also be defined as the time during which physical goods are being modified (assembled, transported) and actual material costs are being incurred. This may include manufacturing time, transportation time and material handling (warehousing) time.

Table 5-25 Static Override Path data

Entry	Description
Processing Lead Time	Elapsed time from when the order is placed on an upstream location until that location begins to fill that order. This can include order receipt time, processing time, and queuing time.
Lead Time Error	Statistical measure of uncertainty regarding the magnitude of expected lead time in a given period.
Period Between Shipments	The frequency at which shipments are made for a path, independent of PBR. PBS is specified in number of periods.
Frozen Window	Lets you define the number of periods for which variability in incoming demand to a stocking point or process point should not be considered.
Service Time	The number of periods between the time an order is placed and the time it must be shipped before a stockout is considered to have occurred.
Service Level	A percentage value referring to the probability that demand for the associated item is met from stock.
Min Service Level	An optional field used by the EIS Service Level Optimization (SLO) module to define the lower limit on the individual target fill rate at the associated customer-facing stocking point.
Max Service Level	An optional field used by the EIS Service Level Optimization (SLO) module to define the upper limit on the individual target fill rate at the associated customer-facing stocking point.
Lost Sales Pct	An optional field used by the EIS Service Level Optimization (SLO) module to define the acceptable lost sales percentage to be applied at the minimum service level at the associated customer-facing stocking point.
Loss Free Service Level	An optional field used by the EIS Service Level Optimization (SLO) module to define a demand stream specific input for loss free service level.
Unit Transfer Price	The price at which a stocking point sells a unit of a product to its downstream stocking point (its customer).
Yield	The remaining portion of the process's output after yield loss.
Minimum Batch Size (units)	The minimum amount needed, measured by quantity, before an initial order can be produced.
Minimum Batch Size (periods)	The minimum amount needed, measured by periods of coverage, before an initial order can be produced.
Batch Size	The order quantity that is agreed-upon between the upstream and downstream nodes. The downstream node's order quantities must be an integer multiple of the batch size.

Table 5-25 Static Override Path data

Entry	Description
Reliability	The probability that an order delivery will be completed within the total lead time (cycle time).

Table 5-25 Static Override Path data

Override Path - Time Varying

The **Override Path Time Varying** worksheet of the SGLT includes fields for you to enter information about the supply paths in your supply chain and their attributes. A *path* is a connection between two stocking point nodes in a supply chain. A path represents the physical movement of materials in a supply chain.

Use the **Override Path Time Varying** worksheet to enter path data that changes over time for each supply chain item in your data set. This path data relates to specific source and destination locations for the item. Use the **Default Path Time Varying** worksheet to define default path data for your supply chain not dependent on the source location.

Time varying override path data includes the entries in Table 5-26.

Entry	Description
Item ID	Unique code that identifies item in supply chain associated with a specific path.
From Location ID	Unique code that identifies the supply chain site at the path starting point for the item.
To Location ID	Unique code that identifies the supply chain site at the path ending point for the item.
Mode Name	Identifies the mode used to transfer the associated item from the source location to the destination location.
Period Date	The starting date for the period associated with the path data for the specific item.
Planned Receipts	The shipment quantities on a path for a given period, that are expected at the end node in that period, assuming deterministic lead times and service times in response to planned orders.
Max Process Capacity	The maximum quantity of each item that can be ordered or produced in each time period for each supply path. **Note:** Unconstrained capacity, or infinite capacity, describes a supply path for which a capacity constraint does not exist. You can specify unconstrained capacity, or infinite capacity, by entering a value of negative one (-1).

Table 5-26 Time varying override path data

Entry	Description
Min Process Quantity	The minimum quantity of each item that must be produced in each time period (typically due to a manufacturer's desire to avoid labor schedule or shift reductions, cutbacks, layoffs, etc.) for each supply path. **Note:** Values entered for minimum process quantity must be less than or equal to those entered for maximum process capacity.

Table 5-26 Time varying override path data

New Item

The **New Item** worksheet of the SGLT includes fields for you to enter information related to the New Item processor. This processor lets you use sales and forecast data from an existing item to any comparable new item being introduced to your supply chain. The **New Item** worksheet represents all of the data needed by the New Item processor.

Note: You must invoke the New Item processor through the **Processors** tab.

New Item data includes the entries in Table 5-27.

Entry	Description
Item Name	Identifies the new item name in the supply chain.
Item Location	Identifies the new location name in the supply chain.
Superceded Item ID	Identifies the original item name in the supply chain.
Superceded Location ID	Identifies the original location name in the supply chain.
Conversion Factor	Value represents conversion of new item quantity compared to superseded item.
Historical Sales Transfer Date	Historical sales period date to start transfer.
Historical Forecast Transfer Date	Demand forecast period to start transfer.
Transfer Future Forecast	Indicates whether the data transfer should be used for future forecast.

Table 5-27 New Item data

Purchase Order

The **Purchase Order** worksheet of the SGLT includes fields for you to enter information about the Purchase Order in your supply chain. The Purchase Order worksheet represents all of the Purchase Order data related to each item in your supply chain.

Purchase Order data includes the entries in Table 5-28.

Entry	Description
Purchase Order Number	Number associated with the purchase order.
Creation Date	Date when the purchase order was created.
Shipment ID	Identifies the shipment associated with the purchase order.
Item ID	Unique value to identify an item in the supply chain.
Source Location ID	Unique value to identify the source location of a specific path item in the supply chain.
Destination Location ID	Unique value to identify the destination location of a specific path item in the supply chain.
Submission Date	Date when the purchase order was submitted for approval.
Receipt Date	Date when the items associated with the purchase order were received.
Order Quantity	The number of items associated with the purchase order.
UOM	The unit of measure associated with the purchase order item.
Mode	Identifies the mode used to transfer the associated item from the source location to the destination location.

Table 5-28 Purchase Order data

Historical Production

The **Historical Production** worksheet of the SGLT includes fields for you to enter information about the historical production in your supply chain. The **Historical Production** worksheet represents data for stocking points linking forecast quantities to the actual qualities used for each production time period.

Historical Production data includes the entries in Table 5-29.

Entry	Description
Item ID	Unique value to identify an item in the supply chain.
Location ID	Unique value to identify a location in the supply chain.
Period Date	The starting date for the period associated with the forecast data for the specific item.
Planned Production	Amount forecasted for production for the time period.

Table 5-29 Historical Production data

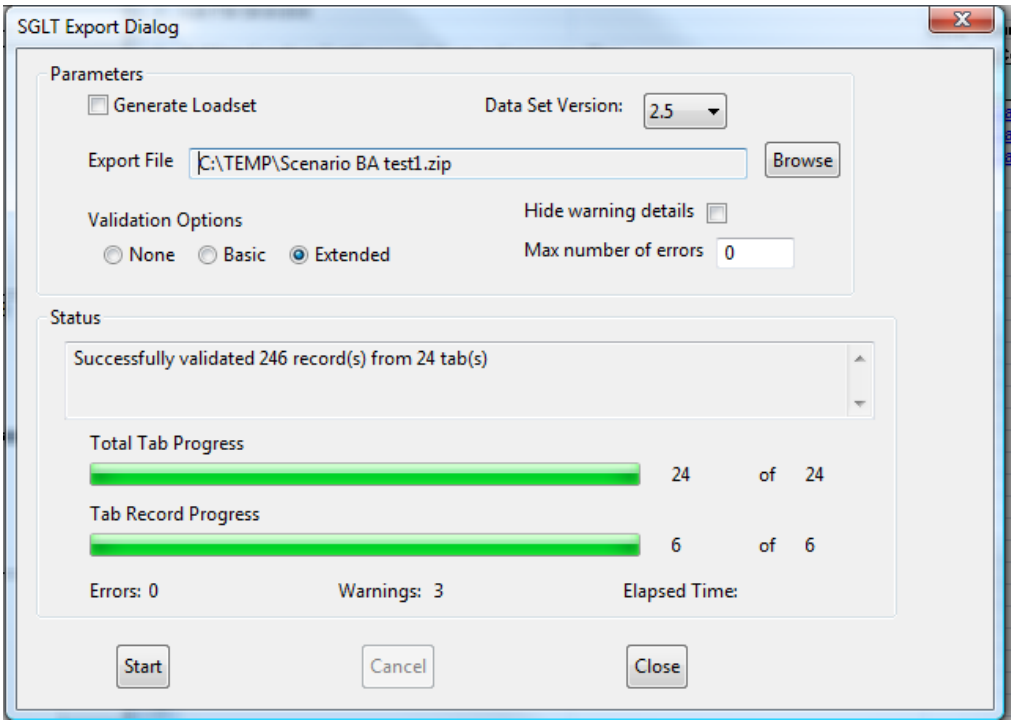
Entry	Description
Actual Production	Amount used for production for the time period.

Table 5-29 Historical Production data

Validating and generating a data set

To create a **.zip** file containing the valid data for a new supply chain or user scenario:

1. Click the **Validate & Generate** worksheet tab.
2. Click **Go**. The SGLT Export dialog box opens



3. Click the **Generate Loadset** check box to enable or disable generating a **.zip** file after validation.
4. Use the **Browse** button to change the directory location for the generated **.zip** file.
5. If you want to hide Warning Details, which are informational warnings, click the **Hide Warning Details** check box. When Warning Details are hidden, information is not displayed in the **Validate & Generate** worksheet when a warning is encountered. Note that you cannot hide details about Errors, which are more serious.
6. Validation Options defaults to **Extended**; choose a different option by clicking the corresponding radio button.

7. If desired, specify the maximum number of errors that can be generated before processing of the load set is stopped in the **Max Number of Errors** field.
8. Click **Start**. The bar graphs indicate the amount of progress taken place in the validation process. When the process is finished, click **Close**.
9. Any warnings or errors generated during the validation process will appear on the worksheet, with links to the source data (Figure 5-1).

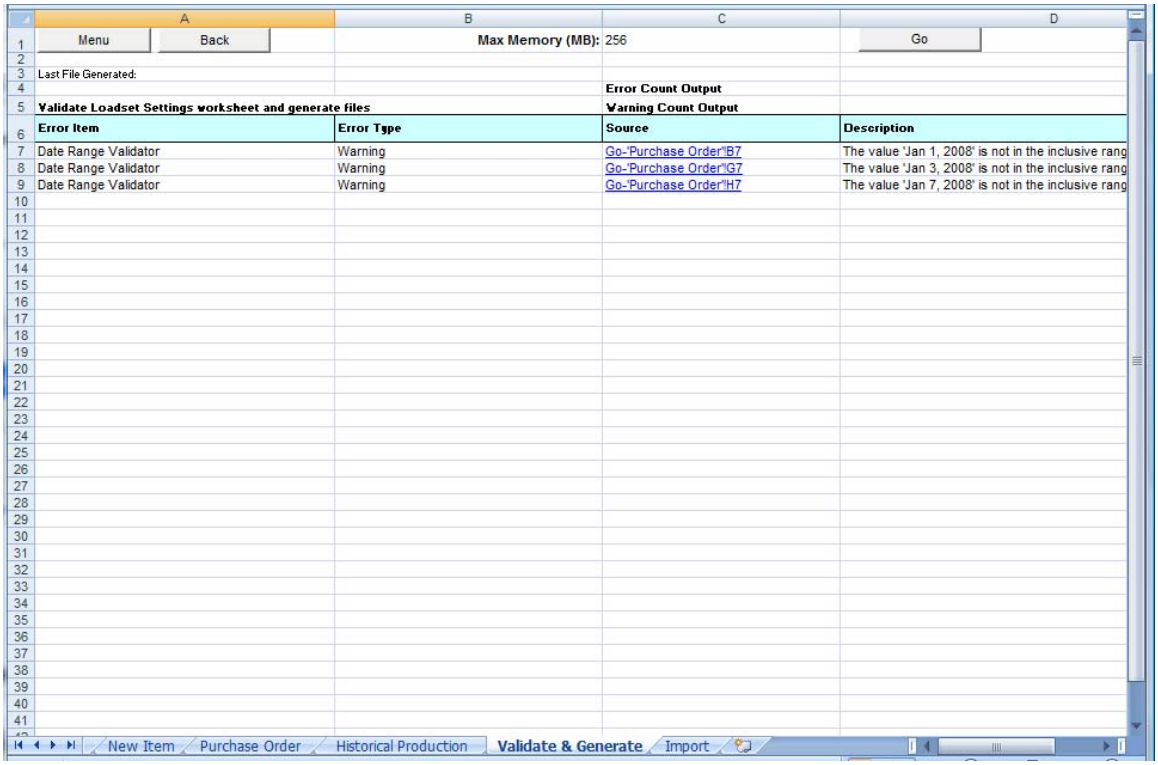


Figure 5-1 Validate and Generate worksheet

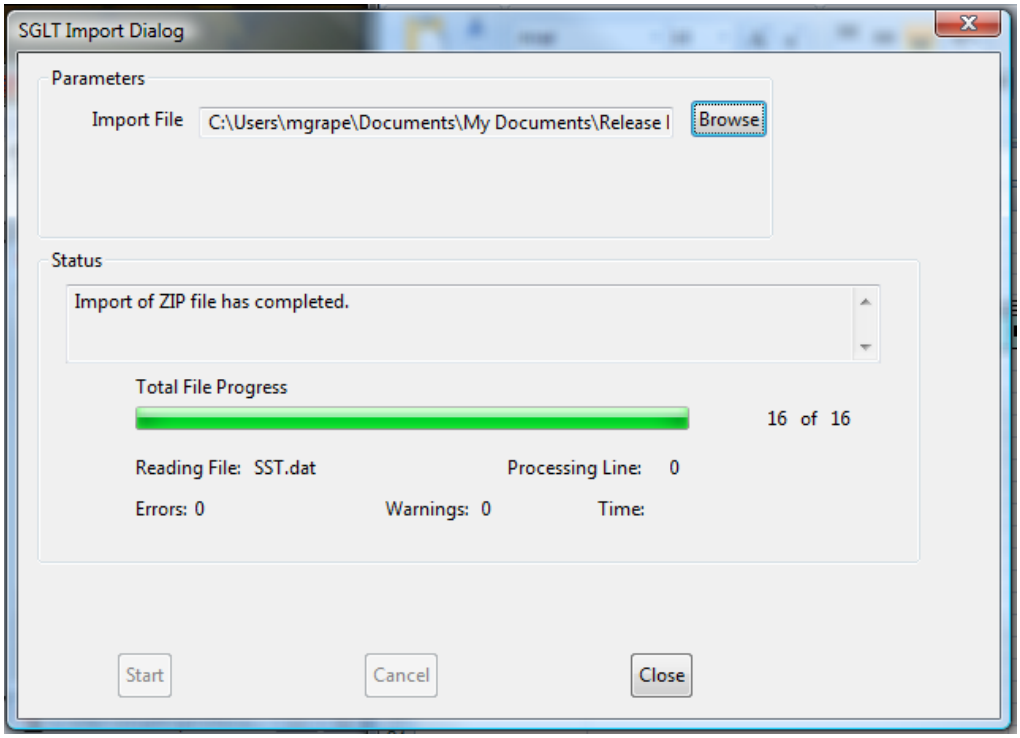
10. If you are generating a loadset, you must fix any errors detected by the validation process before the data set can be optimized by MIPO or DIM. See the *EIS Online Help* for more information on importing a data set into MIPO or DIM.

Importing a data set into SGLT

The **Import** worksheet of the SGLT allows you to migrate existing **.zip** files created in a previous version of the tool into a newer version of the SGLT. During the migration process, the **.zip** file is unzipped and the contents of the data files are copied into the new tool. The **Import** worksheet lists the individual data files that were migrated and displays additional information if a problem is encountered.

This chapter describes how to migrate a data set created in a previous version of the SGLT to the latest tool.

1. Click the **Import** worksheet tab.
2. Click **Import Dataset**. The SGLT Import dialog box opens



3. Use the **Browse** button to set the directory location for the **.zip** file.
4. Click **Start**. The bar graphs indicate the amount of progress taken place in the migration process. When the process is finished, click **Close**.
5. Any warnings or errors generated during the validation process will appear on the worksheet, with links to the source data.

Chapter 6: Configuring EIS Processors

The EIS application design provides standard processors for generating reports. The following processors are available in EIS:

- Demand Node Creation processor
- Economic Order Quantity (EOQ) processor
- Lead Time processor
- New Item processor
- Node Identification processor
- Scenario Association processor
- Supply processor
- Unit Cost Calculator processor

For more information on these processors, see the *EIS Processor Spreadsheet.*

Chapter 7: Customizing EIS

This section describes how to configure and customize EIS to better fit your organization's needs. By modifying files installed with the EIS application, you can customize the appearance of the user interface and certain aspects of the EIS application's functionality.

This chapter contains the following sections:

- Changing user account security settings
- Changing internationalization settings
- Changing account password settings in **secure.smartops.properties**
- Changing settings in **smartops.properties**
- Changing EIS interface properties
- Changing data editing settings
- Changing report settings
- Setting an environment label
- Changing export settings
- Changing published reports settings
- Changing customer support settings
- Changing scenario settings

- Changing the Supply Chain Id in the SST.DAT file
- Transferring MIPO scenario data to the Data Store
- Configuring Business Alert settings

Note: For security reasons, we recommend protecting the location of the EIS **.properties** configuration files from access on the Operating System level.

Changing user account security settings

The EIS user account administration feature includes several password strength configuration settings. The User Settings module lets you define the default security parameters associated with EIS user accounts.

For security purposes, if a user signed in to the EIS application does not use the application for a specified period of time, he or she is automatically logged out. You can specify the amount of time that users can remain inactive before being automatically logged out.

You can specify the time between checks for expired authentication tokens.

You can also specify the number of times a user can attempt to sign in before being locked out of the application.

In compliance with security best practices, EIS user passwords can be configured to expire after a period of time. When a password expires, the user will be prompted to select a new password when logging in to the EIS application. The system can also be configured to prevent passwords from being reused.

Note: For security reasons, we recommend that the password for the default user be changed once installation and configuration has been completed.

The EIS application's password security functionality has three components:

- Configurable password security settings in the User Settings module
- A user privilege that allows a given user to enable or disable password security for themselves and any other user
- A password security checkbox, visible only to users with the privilege described above, that enables or disables password security requirements for a single user on a case-by-case basis

You can access the User Settings module by doing the following:

1. Log on to the EIS application.

2. Select **Module Settings** under the **Settings** menu.
3. Select **User Settings** from the dropdown list.
4. Scroll through the configuration list and fill out the appropriate account security setting parameters.
5. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

A list of user account security parameters is provided below.

Parameter	Definition	Notes
Account Lockout Threshold	Number of consecutive login failures which will cause the user account to be locked. Set to zero to disable lockout.Defaults to zero (0).	Does not require application server restart.
Initial Password Reset	Indicates whether a user must reset their password upon first login. Defaults to No.	Does not require application server restart.
Password Expiration	Number of days before a user password expires. Set to zero to disable password expiration. Defaults to zero (0).	Does not require application server restart.
Password History	Number of previous passwords to track. Set to zero to disable password history. Defaults to zero (0).	Does not require application server restart.
Security Audit	Indicates whether alerts are generated for login and logout. Defaults to No.	Does not require application server restart.
User Session Timeout (Seconds)	Number of seconds before a user session is terminated due to inactivity. Defaults to 3.600.	Does not require application server restart.
Minimum Password Length	Minimum character length of a user password. Defaults to five (5).	Does not require application server restart.
Minimum Upper Case Letters	Minimum number of English upper case letters that must be used a user password. Defaults to zero (0).	Does not require application server restart.

Table 7-30 User account security settings

Parameter	Definition	Notes
Minimum Lower Case Letters	Minimum number of English lower case letters that must be used a user password. Defaults to zero (0).	Does not require application server restart.
Minimum Numerals	Minimum number of Westernized Arabic numerals that must be used a user password. Defaults to zero (0).	Does not require application server restart.
Minimum Special Characters	Minimum number of non-Alphanumeric (special characters) that must be used a user password. Defaults to zero (0).	Does not require application server restart.

Table 7-30 User account security settings

Assigning Password Security Enable/Disable privileges

Any user can be assigned the privilege of enabling or disabling the EIS application's password security requirements for themselves and others. Note that this privilege does not activate the password security settings defined in the User Settings module. The privilege merely allows one user to view and manipulate the EIS application's password security functionality for themselves and other users. For example, if User A has this privilege (along with privileges to create and modify user settings), then User A can activate password security settings for Users B, C and D, as described below.

Password security privileges are assigned in the EIS application via the **Settings > User Settings** screen, **User Privileges** tab, **User Settings** module, **Enable/disable password security for any user** checkbox.

Enabling password security for individual users

When users with the privilege described above create or modify another user's account, they will see a **Password Security Enabled** checkbox in the EIS interface (this checkbox will only appear in the interface for users with password security privileges assigned). Select this checkbox to enable the password security provisions set in the User Settings module for a given user. When the **Password Security Enabled** checkbox is selected, the new or modified user will be subject to password security requirements outlined in the User Setting module.

Changing Internationalization settings

The EIS portal interface lets a user select the language, time zone, time format, date format, and decimal notation in which EIS data is displayed. The User Settings module lets you define the default security parameters associated with EIS user accounts. You can access this module by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **User Settings** from the dropdown list.
4. Scroll through the configuration list and fill out the appropriate Internationalization parameters.
5. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

A list of the parameters and their functions is provided below.

Parameter	Definition	Notes
Default Date Format	Date format that is initially selected when a new user is created. Defaults to MM/DD/YYYY.	Does not require application server restart.
Default Decimal Notation	Decimal format that is initially selected when a new user is created. Defaults to 1,234.56.	Does not require application server restart.
Default Language	Language that is initially selected when a new user is created. Defaults to English.	Does not require application server restart.
Default Time Format	Time format that is initially selected when a new user is created. Defaults to HH:MM AM/PM Z.	Does not require application server restart.

Table 7-31 Internationalization settings

Changing settings in secure.smartops.properties

The **secure.smartops.properties** file contains parameters that allow you to configure user account password functionality in the EIS application. After you make any modifications to this file, the parameter settings are encrypted by the EIS application as a security measure. Depending on your platform, the **secure.smartops.properties** file is installed on the application server in the following directory:

- SAP Application Server:

  `\SmartOps\MIPO`

The following secure parameters are available:

- Database user password

Use a text editor to set the password parameters for the database server and email server accounts, and save your changes. The EIS application's password encryption feature will automatically encrypt your password settings the next time the EIS application server is started. An example of the **secure.smartops.properties** file is given below:

```
#All the comments in this file will be lost, once, the application
   server starts up.
# Uncomment and supply the database password(user.password) for the
   user specified in smartops.properties.
user.password=@Oracle Password@
user.password.encrypted=
```

Changing settings in smartops.properties

The **smartops.properties** file contains parameters that allow you to configure some functionality in the EIS application. Depending on your platform, the smartops.properties file is installed on the application server in the following directory:

- SAP Application Server:

  `\SmartOps\MIPO`

Notes: The **smartops.properties** file can be viewed through the EIS portal by going to the **Module Settings** screen and clicking the **smartops.properties** link in the top right corner.

The EIS application includes functionality that creates a backup copy of the current **smartops.properties** file each time the application server is restarted.

Configuring EIS safe directories

The `smartops.safe.directories` parameter can be used to define a list of valid directories considered safe by the EIS application for security purposes. This parameter can be found under the Environment section of the file.

Please note that you must define each path explicit when using the `smartops.safe.directories` setting as the security validation does not accept wildcard characters.

Changing EIS interface properties

You can customize the behavior and appearance of the EIS user interface by modifying settings in different properties files. For example, you can change the label associated with a graphical element or field, or suppress the appearance of an entity or field that is not used in your organization's supply chain.

Note: In order to save changes to the user interface configuration files, you must have access to the appropriate application server directory containing the original files. The application server must be restarted for your changes to take effect.

The following sections provide an overview of the settings you are most likely to modify. It is strongly recommended that you create a copy of the Property file before you modify it.

Configuring language localization for User Interface

The EIS Solution Suite includes the ability to display Spanish and German text throughout the EIS portal. To set the EIS application to display Spanish or German text, you need to include the following parameter at the end of the Java Options environment variable setting:

`-Duser.language=es` (Spanish)

`-Duser.language=de` (German)

For example:

```
export JAVA_OPTS="-Xms128m -Xmx1296m -Djava.awt.headless=true
    -Duser.language=es"
```

Specifying the number of entities displayed in a selector

In the EIS user interface selectors, the maximum number of entities (supply chains, scenarios, items, nodes, locations, etc.) that can be displayed is `20`, by default. To limit or increase the number of entities displayed in selectors, open the **SelectorResources.properties** file, and change the following setting:

```
page.default.size = 20
```

Save and close the text file. Stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart IE for the changes to take effect.

Changing the network view

In MIPO, you can view a graphical representation of a supply chain network and the information associated with each entity in the **Network** window. You can also edit the information and view the effects your changes have on the entire supply chain network. You can customize how supply chains are displayed in the **Network** window by modifying the **NetworkConfigResources.properties** file.

Limiting the number of paths displayed

In the **Network** window, the maximum number of paths that can be displayed when viewing the entire network is limited to 1500 incoming and outgoing paths. To further limit the number of paths displayed in the network view, open the **NetworkConfigResources.properties** file, and change the following setting:

```
PathCutoff = 1500
```

Save and close the text file. Stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart IE for the changes to take effect.

Specifying the number of characters to display

You can specify the number of characters to display on the text labels for the nodes and other entities in the **Network** window. Open the **NetworkConfigResources.properties** file, and change the following setting:

```
MaxLabelSize.network = 20
```

You can also specify the number of characters to display in the data fields below the main **Network** window. Open the **NetworkConfigResources.properties** file, and change the following setting:

```
MaxLabelSize.fields = 27
```

Save and close the text file. Stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart IE for the changes to take effect.

Using custom icons in network diagrams

You can customize the icons used to represent nodes in the network view. To do so, open the **NetworkConfigResources.properties** file, and change the following settings according to the parameters documented in the file:

```
### Default value for node image
DefaultNodeImage=/SmartOps/G3/images/icon-warehouse.gif
NodeImageAttribute=baz
### Comma separated list of all node image keys
### A node first looks for the key nodeType.nodeAttrValue then nodeType
###  Node types are PROCESS POINT, CUSTOMER NODE, VENDOR NODE and
   STOCKING POINT
###  Plus each of those with .GROUPED added
NodeImages=PROCESS POINT,CUSTOMER NODE,VENDOR NODE,STOCKING POINT
```

```
### For each key above, add .icon and provide the image path
###  replacing spaces with _
PROCESS_POINT.icon=/SmartOps/G3/images/icon-factory.gif
VENDOR_NODE.icon=/SmartOps/G3/images/icon-retailer.gif
CUSTOMER_NODE.icon=/SmartOps/G3/images/icon-retailer.gif
STOCKING_POINT.icon=/SmartOps/G3/images/icon-warehouse.gif
```

Save and close the text file. Stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart IE for the changes to take effect.

Specifying line style and color

You can customize the default color and style of the lines used to represent paths in the **Network** window. This can be useful for differentiating among transportation types, for example. To do so, open the **NetworkConfigResources.properties** file, and change the following settings according to the parameters documented in the file:

```
### Path color and line type configuration options
### Colors are a comma separated list of R,G,B values (0-255)
### Line types are one of
### LINE_DASH_DOT
### LINE_DASH_DOUBLE_DOT
### LINE_DASHED
### LINE_DOUBLE_DASHED
### LINE_LINE_TRIPLE_DOT
### LINE_LONG_DASH
### LINE_NORMAL

### Default values for path color and line type
DefaultPathColor = 75,75,75
DefaultPathLine = LINE_NORMAL

### Customize path color and line types by path attribute
### using the example below and replacing with your own path
### attributes and values
PathLineAttribute = TRANSPORTATION SPEED
PathColorAttribute = TRANSPORTATION TYPE
### Comma separated list of the possible values for each key are
listed here
PathLineValues = REGULAR, EXPEDITED, BUDGET
PathColorValues = GROUND, CARRIER
### Each value defines either the .color or .line property
REGULAR.line = LINE_NORMAL
EXPEDITED.line = LINE_DASH_DOT
BUDGET.line = LINE_DASHED
GROUND.color = 0,100,200
CARRIER.color = 200,100,0
```

Save and close the text file. Stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart IE for the changes to take effect.

Specifying the number of decimal places to display in network diagrams

You can specify the minimum and maximum number of decimal places to display for numerical data in the **Network** window. To do so, open the **NetworkConfigResources.properties** file, and change the `*.minFrac` and `*.maxFrac` settings, as desired. Save and close the text file. Stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart IE for the changes to take effect.

Changing the Import History display

You can view a history of data sets imported into MIPO in the **Import Data Set** window. You can also edit the amount of information that is displayed in the associated **Data History** list. This list defaults to 50 records.

You can change the default value by opening the **ImportConfigResources.properties** file and update the following setting:

```
history.results=50
```

Changing data editing settings

You can specify the minimum and maximum number of decimal places to display when viewing and editing data, and when creating nodes and paths. Also you can specify the number of rows to display. The windows that are affected by changing these settings can be accessed from the **Edit** menu in the **MIPO module** of the EIS application.

Changing number of decimal places to display for data editing

To change decimal precision for data editing, open the **DataManagementResources.properties** file, and change the `*.minFrac` and `*.maxFrac` settings, as desired. Save and close the text file. Stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart IE for the changes to take effect.

Changing number of rows to display for data editing

You can specify the rows to display for when viewing and editing data. The windows that are affected by changing these settings can be accessed from the **Edit** menu in the MIPO module. To change the number of rows, open the **DataManagementResources.properties** file, and change the `bulk.page.size = 10` setting as desired. Save and close the text file. Stop and restart for your changes to take effect. Clients connected to the EIS application must stop and restart IE for the changes to take effect.

Changing report settings

In MIPO, you can generate several different reports that display supply chain data in a table or chart format. You can change the following settings to customize the appearance of reports for your organization's supply chain.

Configuring automatic generation of published reports

You can configure MIPO to automatically generate all or a subset of published reports for a given loadset. The system generates report files and saves them automatically to a directory specified in the Manage Module Settings window under Published Reports. Once your **PSS.dat** file has been configured, auto-generation functionality will be available for all loadsets where a **PSS.dat** file is included. You can determine whether and how this feature is used by following the configuration instructions in this section.

To configure automatic generation of published reports:

1. In a text editor, open the **PSS.dat** file for each loadset where you want to configure automatic report generation.
2. In **PSS.dat**, search for the following parameter, which determines whether report auto-generation is turned on:

   ```
   ADD||GenerateReports|Is Active|true
   ```

3. To disable automatic generation for all published reports, set this parameter to **`false`**.
4. By default, all available published reports are listed in the Report Generation section of **PSS.dat**, as shown below. Remove the entire line containing the name of any report you do not want to auto-generate from this section.

   ```
   ADD||GenerateReports|ReportName|DataLoadError
   ADD||GenerateReports|ReportName|ItemMaster
   ADD||GenerateReports|ReportName|LocationMaster
   ADD||GenerateReports|ReportName|SKUInputTimeVarying
   ADD||GenerateReports|ReportName|StockingPointOutput
   ADD||GenerateReports|ReportName|SKUInputOutputStatic
   ADD||GenerateReports|ReportName|SupplyChainCostDetails
   ADD||GenerateReports|ReportName|AggregatedTIP
   ```

5. Save and close the **PSS.dat** file.
6. Update and close the **.zip** archive and drop the loadset according to your normal workflow.

Exporting and formatting reports

You can customize the number of pages that can be exported, and other settings for displaying reports in MIPO by modifying the following settings in the **ReportConfigResources.properties** file:

```
max.pages.export=10
max.characters.row=40
max.characters.column=20
min.items.chart=1
min.columns.chart=1
max.columns.chart=255
max.items.page=20
max.items.page.excel=2000
```

Note: Increasing the value of the `max.items.page.excel` parameter above the default setting can cause an `Out of Memory` error. Consider the limits of your environment when modifying this parameter.

Save and close the text file. Stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart IE for the changes to take effect.

Specifying the number of decimal places to display in reports

You can specify the minimum and maximum number of decimal places to display for numerical data in reports. To do so, open the **ReportsResources.properties** file, and change the `*.minFrac` and `*.maxFrac` settings, as desired. Save and close the text file. Stop and restart the application server for your changes to take effect. Clients connected to the MIPO system must stop and restart the EIS application for the changes to take effect.

Enabling and disabling automatic loading of reports

You can set reports to load automatically or on command. By default, when you select a report in the **Reports** menu, you must select the **Refresh** button to generate the report.

You can set a report to load on command only by changing the report's `.auto` setting to `False` in the **ReportConfigResources.properties** file. With the `.auto` setting disabled, a **Refresh** button will appear in the report window; users must click on this button to generate the report. For example, if you want the Inventory Components Report to refresh manually, the entry in the **ReportConfigResources.properties** file would be:

```
ExtractionReport.auto=False
```

The auto fields of the reports are listed in the **ReportConfigResources.properties** file, as shown in the table below.

Report name	Auto field name
Forecast Demand Report	ForcastDemand.auto
Stocking Point Static Inputs Report	SPoint_StaticInput.auto

Report name	Auto field name
Stocking Point Time Varying Inputs Report (Single Node)	SPoint_Input1Node.auto
Stocking Point Time Varying Inputs Report (Single Period)	SPoint_Input1Period.auto
Stocking Point Time Varying Inputs Report (Single Property)	SPoint_Input1Property.auto
Supply Path Static Inputs Report	SPath_StaticInput.auto
Supply Path Time Varying Inputs report (Single Path)	SPath_TV_1Path.auto
Supply Path Time Varying Inputs report (Single Period)	SPath_TV_1Period.auto
Supply Path Time Varying Inputs report (Single Property)	SPath_TV_1Property.auto
Master Summary Report	MasterSummary.auto
Inventory Summary Report	InventorySummary.auto
Inventory Summary by Attribute Report	InventorySummaryAttribute.auto
Inventory Detail by Item Report	AggInv_bySKU.auto
Inventory Detail by Location Report	AggInv_byLocation.auto
Inventory Detail by Attribute Report	AggInv_byAttribute.auto
Stocking Point Static Outputs Report	SPoint_StaticOutput.auto
Stocking Point Time Varying Outputs Report (Single Node)	SPoint_Output1Node.auto
Stocking Point Time Varying Outputs Report (Single Period)	SPoint_Output1Period.auto
Stocking Point Time Varying Outputs Report (Single Property)	SPoint_Output1Property.auto
Replenishment Report	Replenishment.auto
Inventory Components Report	ExtractionReport.auto

Modifying the STAGE attribute

The STAGE attribute is a node attribute used to group stocking points into different levels in a supply chain in MIPO. It is the default method of displaying inventory quantities in the Master Summary and

Inventory Summary output reports. The number and names of stages in a supply chain are specific to your supply chain. The number of stages and their names are defined by your organization and must be created using the MIPO interface or uploaded from a **.zip** file, and are then assigned to each node as appropriate.

For example, the stages in a supply chain could resemble the following:

- Suppliers
- Manufacturing
- Assembly
- Dealers

For the Master Summary and Inventory Summary reports results to be meaningful and accurate, each stocking point in your supply chain must be assigned a STAGE attribute value. If a stocking point is not assigned a STAGE attribute value, the results for the Master Summary and Inventory Summary reports contain a column called "Unassigned." The sum of relevant data for stocking points not associated with a STAGE is displayed under this heading.

Sorting STAGES

STAGE attribute values in MIPO are sorted alphabetically. To guarantee that stages are sorted according to the order that they occur in the supply chain, you must enter STAGE attribute values as names preceded by a two-digit number value. For example, for the following stages to be sorted according to the order they occur in a supply chain, they must be named as follows:

- 01 - Suppliers
- 02 - Manufacturing
- 03 - Assembly
- 04 - Dealers

Note: A zero must precede a one-digit number for the stages to be ordered correctly. For example, if you use the numbers 1, 2, 10, 11, and 21 preceding the names of stages, they would be returned as 1, 10, 11, 2, and 2.

Using a Node Attribute other than STAGE

You can group stocking point inventories in the Master Summary and Inventory Summary reports using a node attribute other than the STAGE attribute. To do so, you must change the value of the following setting in the **ReportConfigResources.properties** file:

```
report.STAGE_ATTRIBUTE_NAME=STAGE
```

For example, if you wanted to group stocking points according to the node attribute "COUNTRY" the entry in the **ReportConfigResources.properties** file would be:

```
report.STAGE_ATTRIBUTE_NAME=COUNTRY
```

Note: The value of the `report.STAGE_ATTRIBUTE_NAME` setting is case-sensitive. An attribute named "COUNTRY" is a different attribute than one named "Country". Ensure that you name and assign attributes consistently.

In addition, you would need to create attribute values similar to the following, and assign them to each stocking point appropriately. Note that it's not necessary to ensure that the names coincide with an particular order in the physical supply chain:

- United States
- Canada
- Mexico
- France
- Germany
- Brazil

Setting an environment label

You can use the **Manage Module Settings** feature, located under the **Settings** menu, to access the Customer Support Settings module and define an environment label to differentiate between multiple EIS environments.

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Customer Support Settings** from the dropdown list.
4. Locate the **Environment Identification** field and enter the specified label.
5. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

Changing export settings

MIPO users can export optimized data sets to the application server via the **Data Set > Export Data Set** menu in the MIPO user interface. These files can then be imported into other applications, either manually or through an automated process.

You can use the **Manage Module Settings** feature, located under the **Settings** menu, to access the Export Data Set module and define your export configuration settings.

Modifying the destination directory of exported data sets

You can specify the destination directory on the application server that contains exported data set **.zip** files by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Export Data Set** from the dropdown list.
4. Locate the **Export Data Set Target Directory** field and enter the specified destination directory.
5. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

After you have made the desired changes, you must stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart that application for the changes to take effect.

Changing published report settings

MIPO users can generate published reports to the application server via the **Reports** menu in the MIPO user interface. These reports can then be imported into other applications, either manually or through an automated process.

For published reports, you can customize the following settings:

- Dstination directory that contains the exported files on the application server
- File formatting
- Header (column) names in the exported file
- Name of the exported file
- File extension of the exported file
- Name of the file displayed in the Published Reports window

You can use the **Manage Module Settings** feature, located under the **Settings** menu, to access the Published Reports module and define your published reports configuration settings.

Modifying the destination directory of published reports

You can specify the destination directory that contains published reports on the application server by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Published Reports** from the dropdown list.

4. Locate the **Publisher Target Directory** field and enter the specified destination directory.
5. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

After you have made the desired changes, you must stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart that application for the changes to take effect.

Modifying file formatting

You can modify the formatting of published reports by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Published Reports** from the dropdown list.
4. Locate the **Report Format: Date Format** field and enter your changes, if necessary.
5. Locate the **Report Format: Decimal Precision** field and enter your changes, if necessary.
6. Locate the **Report Format: Field Separator** field and enter your changes, if necessary.
7. Locate the **Report Format: MDF File Extension** field and enter your changes, if necessary.
8. Locate the **Report Format: Suffix Format** field and enter your changes, if necessary.
9. Locate the **Report Format: Suffix in GMT** field and enter your changes, if necessary.
10. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

After you have made the desired changes, you must stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart that application for the changes to take effect.

Modifying file extensions

By default, the file extensions for Interface files and MDFs are **.txt** and **.csv**, respectively. You can change these extensions by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Published Reports** from the dropdown list.
4. Locate the **Report Format: MDF File Extension** field and enter a new file extension, if necessary.

5. Locate the **Report Format: OBI File Extension** field and enter a new file extension, if necessary.
6. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

After you have made the desired changes, you must stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart that application for the changes to take effect.

Modifying exported file names

The names of the exported files are configurable. You can change them by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Published Reports** from the dropdown list.
4. Locate the **File Name:** field for your specific report and enter a new file name.
5. Repeat step 5 to rename the file name of any other published reports.
6. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

Note: Changing a file name in the **Manage Module Settings** window only modifies the name of the exported file on the application server.

If you change a file name in the **Manage Module Settings** window, you can modify the corresponding name in the **PublishTextResources.properties** file so the modified file name is also displayed in the **Published Reports** window.

After you have made the desired changes, you must stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart that application for the changes to take effect.

Modifying column header names in exported files

You can change the column header names displayed in exported **Published Reports** by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Published Reports** from the dropdown list.
4. Locate the **Header Name:** field for your specific report and enter a new column header name.

5. Repeat step 4 to rename the column header name of any other published reports.
6. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

After you have made the desired changes, you must stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart that application for the changes to take effect.

Modifying file names displayed in the user interface

You can change the name of the file displayed in the **Published Reports** window by modifying settings in the **PublishTextResources.properties** file, for example:

```
label.ItemMaster=Items - Master Data
```

Note: Changing a file name in the **PublishTextResources.properties** file only modifies the name of the file displayed in the **Published Reports** window in the user interface.

If you change a file name in the **PublishTestResources.properties** file, you can modify the corresponding name in the **PublisherModule.properties** file so the exported file on the application server uses the same file name that is displayed in the user interface.

After you have made the desired changes to the **PublishTextResources.properties** file, save and close it. Stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart that application for the changes to take effect.

Changing scenario settings

Scenario settings are parameters that alter the way MIPO interprets data inputs and computes outputs. Two database tables in MIPO control scenario settings:

- SETTING_DEFINITION: Describes **application-wide settings** and default allowable values for scenarios.
- SCENARIO_SETTING: Describes an **individual scenario's settings**.

New scenarios can either be based on an existing scenario or created from scratch. If the scenario is created from scratch, it uses the default values from the SETTING_DEFINITION table. New scenarios based on existing scenarios inherit the existing settings in the SCENARIO_SETTINGS table. For both types of new scenario, users and software entities such as the data loader can then change scenario settings freely.

The parameters in these tables are identical. For each scenario, the SCENARIO_SETTINGS table is populated with values for all fields, even if the scenario will use the application-wide defaults. The

parameters in the SETTING_DEFINITION and SCENARIO_SETTINGS tables are described below:

Parameter	Definition, defaults and constraints
ANALYSIS_HORIZON	The analysis horizon is the number of periods beyond the start/base period (in other words, in the future) for which accurate results are desired. It is the amount of future data required to be reliable. MIPO computes this data and checks its reliability based on the characteristics and amount of input data. The analysis horizon cannot exceed the value for DATA_HORIZON. Possible values: positive (non-zero) numbers Default value: should be set by customer support depending on data requirements and characteristics.
INITIAL_IP_DATA_SOURCE	Determines whether the ideal values for initializing the system should be **inferred** from past inventories and scheduled receipts across all sticking points and supply paths during the first period of computation, or if these values should be provided by the **user**. Possible values: INFERRED and USER Default value: should be set by customer support depending on data requirements and characteristics.
OUTPUT_STOCKING_POINTS_ONLY	When this parameter is set to TRUE, the algorithms will output values for stocking points, but not for supply paths. For most installations, supply path values are negligible and can be ignored, allowing faster calculation times. Possible values: TRUE and FALSE Default value: TRUE (should not be changed without analysis and consultation).
DATA_HORIZON	The number of periods of data available for optimization (computation) in MIPO. Possible values: Positive (non-zero) numbers Default value: should be set by customer support depending on data requirements and characteristics.

Table 7-32: SETTING_DEFINITION and SCENARIO_SETTING parameters

Parameter	Definition, defaults and constraints
HISTORICAL_DATA_HORIZON	The amount of historical data available for creating a timeline in MIPO. The initial value of the historical data horizon grows with time as more data becomes available for use in historical calculations. Possible values: Non-negative numbers (zero or greater) Default value: should be set by customer support depending on data requirements and characteristics.
LEAD_TIME_ERROR_MULTIPLIER	The weight given to standard deviation of lead time during computation. Possible values: Non-negative number (zero or greater) Default value: 1 (should not be changed without consulting SAP Support).
SERVICE_LEVEL_TIME	Sets the service level time (out of stock or fill rate) used as input. Possible values: OUT_OF_STOCK and FILLRATE Default value: Determined on a per-client basis by customer support.
COMPUTATION_TYPE	Should not be changed. Default value: DEFAULT
BUSINESS_ALERTS_ON_INPUTS	Severity of Business Alert which will stop MIPO processing. Possible values: FATAL ERROR, ERROR, WARNING, INFORMATIONAL, NONE, DISABLED Note: DISABLED skips that Business Alert step altogether. Default value: ERROR.
BUSINESS_ALERTS_ON_OUTPUTS	Severity of Business Alert which will stop MIPO processing. Possible values: FATAL ERROR, ERROR, WARNING, INFORMATIONAL, NONE, DISABLED Note: DISABLED skips that Business Alert step altogether. Default value: ERROR.

Table 7-32: SETTING_DEFINITION and SCENARIO_SETTING parameters

Changing scenario settings for a single data set

The **SSD.dat** file can be used to override default scenario settings by passing values for a specific data set. An example of the **SSD.dat** file is given below:

```
SSD||SETTING_NAME|SETTING_VALUE
ADD||BUSINESS_ALERTS_ON_INPUTS|ERROR
ADD||BUSINESS_ALERTS_ON_OUTPUTS|ERROR
END_OF_SET|||
```

Set a Supply Chain ID in the SST.DAT file

You can set an optional user-defined supply chain ID in the SST.DAT file to link data in the flat file to data stored in persistent tables.

This loadset setting is processed in the Data Gateway. However, the setting is not editable through MIPO or the SGLT. If a Supply Chain ID is not provided in SST. DAT file, the field is left null and data loading occurs as normal. The data in the file is not linked to the persistent tables.

To set a supply chain ID for a loadset:

1. Identify the loadset for which you want to set the supply chain ID.
2. Locate the file named **sst.dat** and open it in a text editor.
3. Identify the header field named SST_SUPPLY_CHAIN_ID and its corresponding data field.
4. Modify the value as desired.
5. Save and close the **.dat** file.

Update and close the **.zip** file.

Loading Persisted Forecast and Sales Data from Flat Files

You can create flat files that will load forecast and sales data into the EIS persistent tables once the flat files are placed into the Data Loader listener directory.

The STG_PERSISTENT_FORECAST table can be updated from data in the flat file PERSISTFORE.dat. The columns in the PERSISTFORE.dat file are the same as in the STG_PERSISTENT_FORECAST table, but the name are preceded by PERSISTFORE.

For example:

```
PERSISTFORE||PERSISTFORE_ID|PERSISTFORE_LOCATION_ID|PERSISTFORE_SHIP_TO|PERSISTF
ORE_REVISION_DATE|PERSISTFORE_PERIOD_DATE|PERSISTFORE_FORECAST_VALUE|PERSISTFORE
_SUPPLY_CHAIN_ID
```

The STG_PERSISTENT_SALES table can be updated from data in the flat file PERSISTSAL.dat The columns in the PERSISTSAL.dat file are the same as in the STG_PERSISTENT_SALES table, but the name are preceded by PERSISTSAL.

For example:

```
PERSISTSAL||PERSISTSAL_ITEM_ID|PERSISTSAL_LOCATION_ID|PERSISTSAL_SHIP_TO|PERSISTSAL_PERIOD_DATE|PERSISTSAL_SALES_VALUE|PERSISTSAL_SUPPLY_CHAIN_ID
```

Note: All of the fields are required in the .dat file, except the SHIP_TO field. Specially, the supply chain ID that must be a integer greater than or equal to zero.

Defining Gateway Connector library path

You can use the Manage Module Settings feature, located under the Settings menu, to define the library path used by the Gateway Connector when the external Java process is invoked through the EIS portal, via the Manage Data Gateway screen.

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Gateway Connector** from the dropdown list.
4. Locate the **Connector Application Library Path** field and enter the library path.
5. When you are finished with your configuration, click **OK**. If you decide not to implement the changes you made, click **Cancel**.

Note: For customers using the Gateway Connector as part of their unattended ETL process, this setting can be left blank as the library path is defined in the **runSAPConnector** script.

Transferring MIPO scenario data to Data Store

Note: The Data Store Management feature is a user privilege in the Portal. You can only transfer EIS scenarios into the Data Store if you have privileges to do so.

Perform the following steps to transfer a EIS scenario into the Data Store:

1. If necessary, click **Portal > Data Store** to open the Data Store module.
2. Click **Data Set > Manage Data Store** to open the **Manage Data Store** window.

3. Use the **Product Module Selector** to select the EIS application associated with the scenario.
4. Use the product-specific data set selector (e.g., **Supply Chain** or **Model**) to select the data set associated with the scenario.
5. Use the **Scenario Selector** to select the scenario you wish to transfer.
6. Click **Transfer**. The data associated with the scenario you selected is written into the Data Store.

Note: Once a scenario has been transferred to the Data Store, you cannot transfer the same scenario again. Instead, you must delete the existing scenario from the Data Store before transferring the same EIS scenario.

Using the Auto Transfer Feature to Transfer to Data Store

The Auto Transfer feature allows EIS modules to automatically copy scenario data to the Data Store after the data set has been optimized or computed. The following EIS modules can use this feature:

- MIPO
- DIM
- SLO

This feature requires the following configurations:

1. A global setting to activate the feature
2. A scenario-specific setting to identify when the feature should be implemented
3. Scenario-specific settings identifying which data types should be transferred.

Global setting activation

The global setting **Allow Data Store Transfer** activates the Auto Transfer feature; it defaults to **Enabled**. This setting can be changed in the application by selecting **Settings**, then the **Module Settings**, then **Data Store** settings.

Scenario setting activation

The Scenario Settings screen provides access to a setting called **Auto Transferable** that defaults to **No**. Changing this setting to **Yes** ensures that each scenario data set gets automatically transferred to the Data Store. This setting can be changed using the **Scenario Settings** screen, under Data Store settings.

Scenario-specific parameter configurations

Auto Transfer settings can also be configured globally through the **Scenario Settings** screen (**Settings > Scenario Settings> Data Store**); the Auto Transfer parameters are included with the corresponding modules.

The following data transfer options are available:

- Transfer Demand Processor Output data
- Transfer Forecast data
- Transfer Process point data (not available for DIM)
- Transfer Sales data
- Transfer Stocking point data
- Transfer Supply path data (not available for DIM)

You also have the option to edit a data set's **ssd.dat** file to include these configuration parameters, or to override the global parameter settings defined under the **Scenario Settings** screen.

These settings can also be entered through the Scenario Settings tab in the SGLT, if you are using the SGLT.

A list of the parameter names and their associated values is provided below.

Parameter Setting Name	Setting Values
DATA_STORE_AUTO_TRANSFERABLE	YES, NO
DEMAND_PROCESSOR_TRANSFER	YES, NO
FORECAST_TRANSFER	YES, NO
PROCESS_POINT_TRANSFER	YES, NO
SALES_TRANSFER	YES, NO
STOCKING_POINT_TRANSFER	ALL, INPUTS, OUTPUTS
SUPPLY_PATH_TRANSFER	ALL, INPUTS, NO

Table 7-33 Data Store Scenario setting definitions

Business Alert settings

The Business Alerts feature lets you define validation rules to be used during MIPO's exception management process. When MIPO validates input or output data against these customer-specific

business rule, it will generate an alert whenever it is determined that data exceeds the specified trigger value.

There are three parts of the Business Alerts feature that you can configure:

- What severity level must be reached before MIPO stops the validation and optimization process.
- How many individual alerts must be generated before MIPO can consolidate the information into a summary alert
- The settings for specific business alerts

Note: See the *EIS Online Help* for detailed information on setting global parameters for Business Alerts.

Changing settings in BusinessAlertsModule.properties

Using the EIS Manage Module Setting feature, you can set a threshold limit for how many individual alerts must be generated before MIPO can consolidate the information into a summary alert.

You can change the consolidation threshold by doing the following:

1. Log on to the EIS application.
2. Select **Module Settings** under the **Settings** menu.
3. Select **Business Alerts** from the dropdown list.
4. Locate the **Consolidation Threshold** field and enter a new value.
5. When you are finished with your configuration, click **OK**.

If you decide not to implement the changes you made, click **Cancel**.

After you have made the desired changes, you must stop and restart the application server for your changes to take effect. Clients connected to the EIS application must stop and restart that application for the changes to take effect.

Changing settings in BAS.DAT

The **BAS.DAT** file lets you configure the business alerts for a specific data set to be used instead of the global parameters. The configuration settings for each individual alert and associated examples from the **BAS.DAT** file are given in the sections below.

Note: If you do not identify a comparison scenario when using one of the comparison Business Alerts, a fatal error alert will be generated and the loadset will fail. When this alert occurs, the user can either delete the failed scenario, fix the incoming data set, and resubmit, or, disable the output business alerts on the Manage Scenarios screen and proceed.

Business Alert: Demand CV

This business alert is generated when the demand CV has exceeded the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
DEMAND_CV	Is Active	**true** or **false**
DEMAND_CV	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
DEMAND_CV	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-34 Demand CV business alert

An example of the **BAS.DAT** file is given below:

```
ADD||DEMAND_CV|active|false
ADD||DEMAND_CV|severity|ERROR
ADD||DEMAND_CV|params|pct
ADD||DEMAND_CV|pct|1.0
```

Business Alert: Demand Mean comparison

This business alert is generated when the forecast demand mean between scenarios has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
DEMAND_MEAN_ COMPARISON	Is Active	**true** or **false**
DEMAND_MEAN_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
DEMAND_MEAN_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-35 Demand Mean comparison business alert

An example of the **BAS.DAT** file is given below:

```
ADD||DEMAND_MEAN_COMPARISON|active|false
ADD||DEMAND_MEAN_COMPARISON|severity|ERROR
ADD||DEMAND_MEAN_COMPARISON|params|pct
ADD||DEMAND_MEAN_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||DEMAND_MEAN_COMPARISON|comparison_scenario_name|Example Supply
   Chain
```

Business Alert: Demand Standard Deviation comparison

This business alert is generated when the forecast demand standard deviation between scenarios has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
DEMAND_STD_ COMPARISON	Is Active	**true** or **false**
DEMAND_STD_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**

Table 7-36 Demand Standard Deviation comparison business alert

Business Alert Name	Business Alert Property	Business Alert Value
DEMAND_STD_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-36 Demand Standard Deviation comparison business alert

An example of the **BAS.DAT** file is given below:

```
ADD||DEMAND_STD_COMPARISON|active|false
ADD||DEMAND_STD_COMPARISON|severity|ERROR
ADD||DEMAND_STD_COMPARISON|params|pct
ADD||DEMAND_STD_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||DEMAND_STD_COMPARISON|comparison_scenario_name|Example Supply
    Chain
```

Business Alert: Implied Service Level comparison (SPT)

This business alert is generated when the implied service level between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
ISL_SPT_ COMPARISON	Is Active	**true** or **false**
ISL_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
ISL_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-37 Implied Service Level comparison (SPT) business alert

An example of the **BAS.DAT** file is given below:

```
ADD||ISL_SPT_COMPARISON|active|false
ADD||ISL_SPT_COMPARISON|severity|ERROR
ADD||ISL_SPT_COMPARISON|params|pct
ADD||ISL_SPT_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||ISL_SPT_COMPARISON|comparison_scenario_name|Example Supply Chain
```

Business Alert: Lead time CV (PRF)

This business alert is generated when the lead time CV from the Process Resource Forecast table has exceeded the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_CV_PRF	Is Active	**true** or **false**
LT_CV_PRF	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_CV_PRF	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-38 Lead Time CV (PRF) business alert

An example of the **BAS.DAT** file is given below:

```
ADD||LT_CV_PRF|active|false
ADD||LT_CV_PRF|severity|ERROR
ADD||LT_CV_PRF|params|pct
ADD||LT_CV_PRF|pct|1.0
```

Business Alert: Lead time CV (SPF)

This business alert is generated when the lead time CV from the Supply Path Forecast table has exceeded the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_CV_SPF	Is Active	**true** or **false**
LT_CV_SPF	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**

Table 7-39 Lead time CV (SPF) business alert

Business Alert Name	Business Alert Property	Business Alert Value
LT_CV_SPF	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-39 Lead time CV (SPF) business alert

An example of the **BAS.DAT** file is given below:

```
ADD||LT_CV_SPF|active|false
ADD||LT_CV_SPF|severity|ERROR
ADD||LT_CV_SPF|params|pct
ADD||LT_CV_SPF|pct|1.0
```

Business Alert: Lead Time Mean comparison (PRF)

This business alert is generated when the lead time mean between scenarios from the Process Resource Forecast table has exceeded the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_MEAN_PRF_ COMPARISON	Is Active	**true** or **false**
LT_MEAN_PRF_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_MEAN_PRF_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-40 Lead Time Mean comparison (PRF) business alert

An example of the **BAS.DAT** file is given below:

```
ADD||LT_MEAN_PRF_COMPARISON|active|false
ADD||LT_MEAN_PRF_COMPARISON|severity|ERROR
ADD||LT_MEAN_PRF_COMPARISON|params|pct
ADD||LT_MEAN_PRF_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||LT_MEAN_PRF_COMPARISON|comparison_scenario_name|Example Supply
    Chain
```

Business Alert: Lead Time Mean comparison (SPF)

This business alert is generated when the lead time mean between scenarios from the Supply Path Forecast table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_MEAN_SPF_ COMPARISON	Is Active	**true** or **false**
LT_MEAN_SPF_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_MEAN_SPF_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-41 Lead Time Mean comparison (SPF) business alert

An example of the **BAS.DAT** file is given below:

```
ADD||LT_MEAN_SPF_COMPARISON|active|false
ADD||LT_MEAN_SPF_COMPARISON|severity|ERROR
ADD||LT_MEAN_SPF_COMPARISON|params|pct
ADD||LT_MEAN_SPF_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||LT_MEAN_SPF_COMPARISON|comparison_scenario_name|Example Supply
   Chain
```

Business Alert: Lead Time Standard Deviation comparison (PRF)

This business alert is generated when the lead time standard deviation between scenarios from the Process Resource Forecast table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_STD_PRF_ COMPARISON	Is Active	**true** or **false**

Table 7-42 Lead Time Standard Deviation comparison (PRF) business alert

Business Alert Name	Business Alert Property	Business Alert Value
LT_STD_PRF_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_STD_PRF_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-42 Lead Time Standard Deviation comparison (PRF) business alert

An example of the **BAS.DAT** file is given below:

```
ADD||LT_STD_PRF_COMPARISON|active|false
ADD||LT_STD_PRF_COMPARISON|severity|ERROR
ADD||LT_STD_PRF_COMPARISON|params|pct
ADD||LT_STD_PRF_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||LT_STD_PRF_COMPARISON|comparison_scenario_name|Example Supply
    Chain
```

Business Alert: Lead Time Standard Deviation comparison (SPF)

This business alert is generated when the lead time standard deviation between scenarios from the Supply Path Forecast table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_STD_SPF_ COMPARISON	Is Active	**true** or **false**
LT_STD_SPF_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_STD_SPF_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-43 Lead Time Standard Deviation comparison (SPF) business alert

An example of the **BAS.DAT** file is given below:

```
ADD||LT_STD_SPF_COMPARISON|active|false
ADD||LT_STD_SPF_COMPARISON|severity|ERROR
```

```
ADD||LT_STD_SPF_COMPARISON|params|pct
ADD||LT_STD_SPF_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||LT_STD_SPF_COMPARISON|comparison_scenario_name|Example Supply
   Chain
```

Business Alert: On hand safety stock in periods comparison (SPT)

This business alert is generated when the on hand safety stock between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
OHSP_SPT_ COMPARISON	Is Active	**true** or **false**
OHSP_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
OHSP_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-44 On hand stock comparison (SPT) business alert

An example of the **BAS.DAT** file is given below:

```
ADD||OHSP_SPT_COMPARISON|active|false
ADD||OHSP_SPT_COMPARISON|severity|ERROR
ADD||OHSP_SPT_COMPARISON|params|pct
ADD||OHSP_SPT_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||OHSP_SPT_COMPARISON|comparison_scenario_name|Example Supply Chain
```

Business Alert: On hand stock comparison (SPT)

This business alert is generated when the on hand stock between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
OHS_SPT_ COMPARISON	Is Active	**true** or **false**
OHS_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
OHS_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-45 On hand stock comparison (SPT) business alert

An example of the **BAS.DAT** file is given below:

```
ADD||OHS_SPT_COMPARISON|active|false
ADD||OHS_SPT_COMPARISON|severity|ERROR
ADD||OHS_SPT_COMPARISON|params|pct
ADD||OHS_SPT_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||OHS_SPT_COMPARISON|comparison_scenario_name|Example Supply Chain
```

Business Alert: Supply ratio comparison (SPF)

This business alert is generated when the supply ratio between scenarios from the Supply Path Forecast table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
RATIO_SPF_ COMPARISON	Is Active	**true** or **false**
RATIO_SPF_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
RATIO_SPF_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-46 Supply ratio comparison (SPF) business alert

An example of the **BAS.DAT** file is given below:

```
ADD||RATIO_SPF_COMPARISON|active|false
ADD||RATIO_SPF_COMPARISON|severity|ERROR
ADD||RATIO_SPF_COMPARISON|params|pct
ADD||RATIO_SPF_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||RATIO_SPF_COMPARISON|comparison_scenario_name|Example Supply
   Chain
```

Business Alert: Safety Stock in periods comparison

This business alert is generated when the safety stock in periods between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
SSP_SPT_ COMPARISON	Is Active	**true** or **false**
SSP_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**

Table 7-47 Safety stock in periods comparison business alert

Business Alert Name	Business Alert Property	Business Alert Value
SSP_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-47 Safety stock in periods comparison business alert

An example of the **BAS.DAT** file is given below:

```
ADD||SSP_SPT_COMPARISON|active|false
ADD||SSP_SPT_COMPARISON|severity|ERROR
ADD||SSP_SPT_COMPARISON|params|pct
ADD||SSP_SPT_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||SSP_SPT_COMPARISON|comparison_scenario_name|Example Supply Chain
```

Business Alert: Safety Stock comparison

This business alert is generated when the safety stock between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
SS_SPT_ COMPARISON	Is Active	**true** or **false**
SS_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
SS_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-48 Safety stock in periods comparison business alert

An example of the **BAS.DAT** file is given below:

```
ADD||SS_SPT_COMPARISON|active|false
ADD||SS_SPT_COMPARISON|severity|ERROR
ADD||SS_SPT_COMPARISON|params|pct
ADD||SS_SPT_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||SS_SPT_COMPARISON|comparison_scenario_name|Example Supply Chain
```

Business Alert: TIP comparison

This business alert is generated when the TIP between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
TIP_SPT_ COMPARISON	Is Active	**true** or **false**
TIP_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
TIP_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 7-49 Safety stock comparison business alert

An example of the **BAS.DAT** file is given below:

```
ADD||TIP_SPT_COMPARISON|active|false
ADD||TIP_SPT_COMPARISON|severity|ERROR
ADD||TIP_SPT_COMPARISON|params|pct
ADD||TIP_SPT_COMPARISON|pct|1.0
```

By default, MIPO compares the data set being loaded to the parent scenario. You can specify a specific scenario you wish to use for comparison by editing the **BAS.DAT** file. An example of the text code to add to **BAS.DAT** is given below:

```
ADD||TIP_SPT_COMPARISON|comparison_scenario_name|Example Supply Chain
```

Chapter 8: Maintaining EIS

This section provides instructions for maintaining your EIS application. It describes how to:

- Delete EIS log files
- Delete published reports
- Delete archived and rejected data sets
- Database backup
- Delete supply chains and scenarios
- View logs and alerts
- Encrypt updated database administration account passwords

Deleting EIS log files

It is recommended that you delete EIS log files from the application server machine every week. Application log files can consume about 2 MB of disk space per day of use.

The EIS application has an automatic log file deletion feature that can be configured through the Customer Service module on the **Manage Module Settings** screen. Use this feature to set the length of time between deleting log files. The default is set for every 15 days.

Deleting published reports

EIS users can export published reports (also called flat files, model data files, and interface files) to the application server via the user interface. You should periodically delete outdated and unused files and subdirectories from the export directory on the application server.

When a published report is exported, a subdirectory using either the **Supply Chain Name** or the **Scenario Name** is automatically created to contain the exported file. The destination directory that contains the exported files on the application server is specified by the **Publisher Target Directory** field in the Published Reports module of the Manage Module Settings feature.

To delete interface files and published report files from your EIS application server, navigate to the `/publications` directory under the EIS home directory in your installation and follow standard procedures for your OS to delete files based on your corporate IT policy.

Deleting archived and rejected data sets

Archived and rejected data sets can be deleted from the database server on a nightly to weekly basis. Depending on the size of your data sets, these files can consume a considerable amount of disk space.

Note: Use the **Manage Module Setting** feature to disable the saving of archived and rejected data sets. From the main menu, click **Settings > Module Settings**. The associated configuration parameters can be found by selecting **Data Loader** from the module dropdown list.

To delete archived and rejected data sets stored on the database server

1. Log in to the database server as **root** or the **dlasm** user.
2. From a UNIX command prompt, navigate to the directory specified by the `smartops.dataloader.application.archive_directory` and `smartops.dataloader.application.rejected_directory` parameters in the **smartops.properties** file (for example, `$ORACLE_BASE/admin/$ORACLE_SID /dloader/oracle_archive`).
3. Enter the following command:

   ```
   # find archive rejected -ctime 2 -type f | xargs rm; rmdir archive/*
   rejected/* >/dev/null
   ```

   You can modify this command to keep files a greater or fewer number of days by modifying the flag for the `-ctime` argument.

   Note: You can schedule this command to run automatically on a regular basis using **cron**.

In addition, you can compress and tar the archived and rejected directories by entering the following command in the Bourne shell:

```
# for d in archive/*[0-9] rejected/*[0-9]; do tar cf $d.tar $d && rm -rf $d; gzip
$d.tar; done
```

You can also schedule this command to be run automatically on a regular basis using **cron**.

Backing up and restoring database schemas

It is recommended that you to back up the EIS database schemas, based on your IT policy on database backups. The following database schemas should be included in your routine backup procedure:

- MIPO
- Data Loader (DLASM)
- Data Store (if licensed for the application)
- Data Gateway (if licensed for the application)

Please note that the application server must be turned off prior to running a backup procedure of the database schemas.

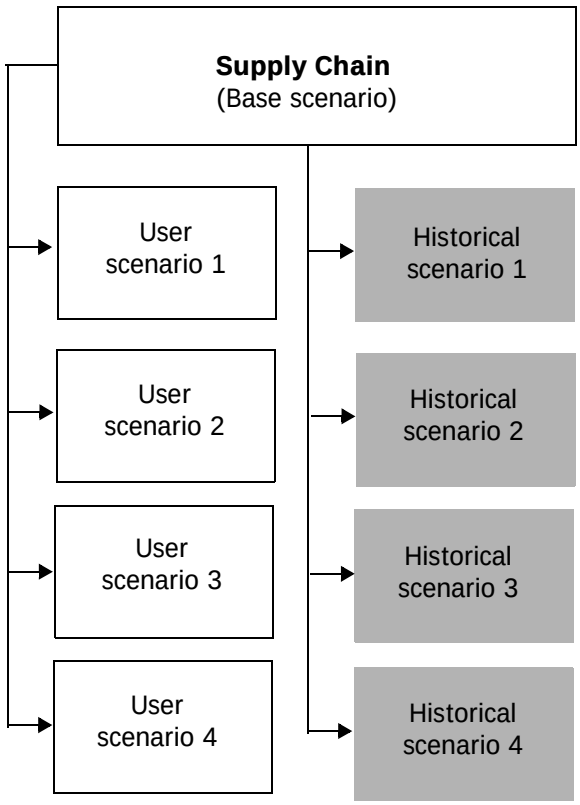
In event of database failure, you'll restore the database from the last backup. Use the restore procedure defined by your IT policy to restore the database schemas.

Deleting supply chains and scenarios

You can create and analyze multiple supply chains in MIPO. Each supply chain is associated with a base scenario that is protected (read-only) and any number of user scenarios. The *base scenario* contains live data, based upon which a client executes their actual supply chain. A *user scenario* contains "what-if" or edited data, which can be used to test hypotheses or validate input parameters. A user scenario can be created based upon an existing base scenario (its "parent") or independent of any other scenario.

A base scenario can change over time. For example, a user scenario can be upgraded to the base scenario. When a base scenario is modified, it is first archived before changes are applied to it. The archived base scenario is referred to as a *historical scenario.* A historical scenario remains associated with its supply chain even after it has been replaced by a different base scenario.

You can envision base, user, and historical scenarios associated with a supply chain as follows:



Deleting supply chains and scenarios in MIPO involves two main tasks:

- Marking the supply chain or scenario for deletion, which prevents it from being displayed or referenced in the MIPO interface
- Deleting the supply chain or scenario from the database, which permanently removes it and all references to it from the database

Note: Deletion of data from the MIPO database instance should be done by an on-site database administrator (DBA) or IT professional familiar with issues related to the permanent removal of large amounts of data.

Marking supply chains and scenarios for deletion

Users who have appropriate **Scenario Access Control** privileges have access to a "Delete" command for supply chains and scenarios in the **Analyze** menu in MIPO. "Deleting" a supply chain or scenario in this manner merely hides them in the interface; the actual data is not removed from the database.

Note: The ability to delete supply chains (base scenarios), historical scenarios, and user scenarios are user privileges in MIPO. If you are not authorized to delete supply chains and scenarios, the **TASKS > Delete** menu items are disabled.

Mark for deletion through the MIPO user interface

To mark a scenario for deletion through the MIPO user interface:

1. Log on to the MIPO module through the EIS portal.
2. Use the **Supply Chain Selector** to select the supply chain containing the base, historical, or user scenario you want to delete.
3. If you want to delete a user scenario, use the **Scenario Selector** to select it.
4. Click **Analyze > Manage Scenarios** to open the **Manage Scenarios** window.
5. Choose one of the following deletion options:
   - If you have selected a base scenario, click **TASKS > Delete Supply Chain** or **TASKS > Delete Historical Scenario**.
   - If you have selected a user scenario, click **TASKS > Delete Scenario**.
6. A confirmation dialog opens and prompts you to confirm the deletion.

   Note: Processes invoked when you delete a supply chain or scenario can take some time to execute. During this time, you can continue using the EIS application. To determine the status of a scenario-related process, click **Analyze > Manage Scenarios** to open the **Manage Scenarios** window. Then click **REFRESH** to view the **Scenario Status**.
7. Click **OK** to delete the supply chain or scenario. The **Manage Scenarios** window is reloaded and it displays a status message indicating that the supply chain or scenario has been deleted.
8. Alternatively, you can delete multiple supply chains, user scenarios, and historical scenarios at one time by using the **Delete Scenarios** screen available under the **Analyze** menu. Access to this screen is a privileged feature.

Mark for deletion through SQL script

Database administrators can mark scenario data for deletion by running a SQL script called **mark_for_delete.sql**. The script can be configured to run as part of an automated maintenance process or it can be run manually at any time.

To use the mark for delete script, you must configure the parameter settings associated with the scenario names. To edit the sql script:

1. Copy the `Database\utilities` directory from the EIS installation media to the server where the SQL*Plus application runs. Navigate to the **mark_for_delete.sql** file in this directory
2. Using a text editor, open the **mark_for_delete.sql** script. You can edit the following settings in the script:
   - DELETE_SCENARIO_STR_1: The name of the scenario to flag; this parameter can also include the % wildcard to mark multiple scenarios for deletion.
   - DELETE_SCENARIO_STR_2: The name of the scenario to flag; this parameter can also include the % wildcard to mark multiple scenarios for deletion.
   - DELETE_DAYS: Only scenarios older than the number of days specified will be flagged for deletion.
   - DELETE_DATASTORE: Set to 1 to flag the corresponding MIPO scenario data in the Data Store; set to 0 to leave Data Store scenarios alone.
   - DELETE_GATEWAY: Set to 1 to flag the corresponding MIPO scenario data in the Data Gateway; set to 0 to leave Data Gateway scenarios alone.

Note: It is not necessary to use both STR variables. When deleting single scenarios only, it is recommended to set STR_2 to a string that doesn't match anything (e.g., FISH).

Example 1:

To flag a scenario named 'Test Exercise 1' and any scenario with the word 'Example' in it regardless of how old AND flag the corresponding scenario data in the Data Gateway and Data Store:

```
Set DELETE_SCENARIO_STR_1 ='Test Exercise 1'
Set DELETE_SCENARIO_STR_2 ='%Example%'
Set DELETE_DAYS='0'
Set DELETE_DATASTORE='1'
Set DELETE_GATEWAY='1'
```

Example 2:

To flag all scenarios with the words 'New Product' that are at least 14 days old from MIPO only:

```
Set DELETE_SCENARIO_STR_1='%New Product%'
Set DELETE_SCENARIO_STR_2='FISH'
Set DELETE_DAYS='14'
Set DELETE_DATASTORE='0'
Set DELETE_DATAGATEWAY='0'
```

Example 3:

To flag all scenarios older than 30 days from MIPO, Data Store and Data Gateway:

```
Set DELETE_SCENARIO_STR_1='%'
Set DELETE_SCENARIO_STR_2='FISH'
Set DELETE_DAYS='30'
Set DELETE_DATASTORE='1'
Set DELETE_GATEWAY='1'
```

To run the script:

1. Log on with SQL*Plus as the MIPO schema owner (e.g. sops_mipo).
2. Execute the script **mark_for_delete.sql**.

Note: You must run the **mipo_pruning.sql** script for each schema to permanently remove data flagged for deletion by the **mark_for_delete.sql** script.

Removing scenario data from EIS schemas

Removing scenario data marked for deletion requires running a SQL script that performs specific pruning functionality on the EIS database. This pruning script can be configured to run as part of an automated maintenance process on the database server.

Alternatively, an on-site DBA can manually execute the pruning script at any time in order to remove EIS data marked for deletion.

Note: The EIS application server must be shut down when pruning data from the database. See your specific application server section for instructions on how to stop the EIS application from running on the application server.

Deleting a scenario from the Data Store

Note: The Data Store Management feature is a user privilege in the Portal. You can only delete scenarios from the Data Store if you have privileges to do so.

Perform the following steps to delete a scenario from the Data Store:

1. If necessary, click **Portal > Data Store** to open the Data Store module.
2. Click **Data Set > Manage Data Store** to open the **Manage Data Store** window.
3. Use the **Product Module Selector** to select the EIS application associated with the scenario.
4. Under the **Data Store Scenarios Available for Deletion** heading, click the checkbox associated with the scenario you wish to remove from the Data Store.
5. Click **Delete**. The selected scenario is removed from the Data Store.

Deleting Gateway data

The Manage Data Gateway window lets you delete one or more data sets no longer being used.

Perform the following steps to delete a data set:

1. From the **Manage Data Gateway** window, look in the **Data Gateway Queue History** table to see the list of available data sets.
2. Select the check box corresponding to each data set you wish to delete.
3. Click **DELETE**.

The Data Gateway deletes all selected data sets from the Data Gateway schema.

When the procedure is complete the selected data sets are removed from the **Data Gateway Queue History** table.

Configuring EIS pruning

The basic EIS pruning process is as follows:

Step #1 – The EIS application MUST be shut down.

Step #2 – The pruning process must be executed.

Step #3 – The results of the pruning process must be evaluated. If the pruning process completes without error, the EIS application can be restarted. If the pruning process completes with an error, the EIS application should NOT be restarted and SAP Support should be contacted to help address the underlying problem.

mipo_pruning.sql configuration variables

To edit the MIPO pruning script:

1. Copy the `Database\utilities` directory from the EIS installation media onto the machine from which SQL*Plus will be run. Navigate to the **mipo_pruning.sql** file in this directory
2. Use a text editor to open the **mipo_pruning.sql** script. You can update the configuration settings for the following:

a. Logging destination: **S** for screen or **F** for file

The recommended value, set by default, is '**S**' for screen. This will spool the results of the pruning process to the screen; should an error occur.

If you change this setting to '**F**', note that the process will write the output to the **/tmp** directory. Note also that UTL_FILE_DIR will have to be set to **/tmp** in the MIPO INIT.ORA file for the appropriate instance.

b. Prune unused global data: **N** for No or **Y** for Yes

The default value is '**N**.' Set to '**Y**' to be able to prune unused global data (items, locations, attributes & values) that aren't in any existing scenario.

gateway_pruning.sql configuration variables

To edit the Data Gateway pruning script:

1. Copy the `Database\utilities` directory from the EIS installation media onto the machine from which SQL*Plus will be run. Navigate to the **gateway_pruning.sql** file in this directory
2. Use a text editor to open the **gateway_pruning.sql** script. You can update the configuration settings for the following:

a. Logging destination: **S** for screen or **F** for file

The recommended value, set by default, is '**S**' for screen. This will spool the results of the pruning process to the screen; should an error occur.

If you change this setting to '**F**', note that the process will write the output to the **/tmp** directory. Note also that UTL_FILE_DIR will have to be set to **/tmp** in the MIPO INIT.ORA file for the appropriate instance.

b. Prune unused global data: **N** for No or **Y** for Yes

The default value is '**N**.' Set to '**Y**' to be able to prune unused global data (items, locations, attributes & values) that aren't in any existing scenario.

datastore_pruning.sql configuration variables

To edit the Data Store pruning script:

1. Copy the **Database\utilities** directory from the EIS installation media onto the machine from which SQL*Plus will be run. Navigate to the **datastore_pruning.sql** file in this directory
2. Use a text editor to open the **datastore_pruning.sql** script. You can update the configuration settings for the following:

a. Logging destination: **S** for screen or **F** for file

The recommended value, set by default, is '**S**' for screen. This will spool the results of the pruning process to the screen; should an error occur.

If you change this setting to '**F**', note that the process will write the output to the **/tmp** directory. Note also that UTL_FILE_DIR will have to be set to **/tmp** in the MIPO INIT.ORA file for the appropriate instance.

b. Prune unused global data: **N** for No or **Y** for Yes

The default value is '**N**.' Set to '**Y**' to be able to prune unused global data (items, locations, attributes & values) that aren't in any existing scenario.

Step 1: Shut down EIS

Before the pruning process can begin, the EIS application must be shut down. This is important as the pruning process alters the state of the database in order to run in a timely manner. Any scripting to automate this shutdown must be completed by the customer. The command to shut down the EIS application will vary by application server platform.

Step 2a: Run the pruning process (MIPO)

Once the EIS application has been shut down, the pruning process can be invoked manually:

1. Log into SQL*Plus as the MIPO schema owner (e.g., `sops_mipo`).
2. Execute the **mipo_pruning.sql** script.

   Pruning of the database schema begins and can take several minutes to complete.
3. Verify that no errors occurred during the pruning by checking on screen or in the files located in the **log** directory. If the log files contain unknown errors, contact SAP Support.

Note: If the pruning process fails, the information provided in the pruning failure messages can be reviewed for additional instructions.

The pruning process can also be automated via a script. A sample shell script built on a Solaris server appears below:

```
PATH=$PATH/etc:/usr/sbin:/usr/ucb:$HOME/bin:/usr/bin/X11:/sbin:.:/usr/
   local/bin
export PATH
ORACLE_BASE=/u01/app/oracle9;export ORACLE_BASE
```

```
ORACLE_HOME=/u01/app/oracle9/product/9.2.0;export ORACLE_HOME
PATH=$PATH:$ORACLE_HOME/bin;export PATH
sqlplus sops_mipo/sops_mipo@sopsdb @mipo_pruning.sql
if [ $? -eq 0 ]
then
  echo "Pruning successful – restart MIPO"
else
  echo "Pruning failed – contact SAP SUPPORT"
fi
```

The following items should be noted:

- This script will need to be modified to match your database server environment. The syntax may vary by operating system, local settings, and EIS implementation settings.
- All text in **bold** needs to be altered to match the applicable information for the underlying database server, MIPO schema and/or instance, and mipo_pruning.sql script (see below for more information).
- The "**if/then/else**" section will need to be modified to execute the appropriate commands required by the customer.
- A common command in the "**then**" section, indicating that pruning has completed successfully without error, is the automated restart of the EIS application.
- If the EIS application and database are running on two different servers, the automated restarting of the EIS application from the database server may be more difficult. If this is something that can not easily be done, a common workaround is to install the Oracle client on the application server and simply script all actions on the application server.
- A common command in the "**else**" section is the generation of an e-mail/alert to the appropriate personnel who should contact SAP Support. Please note that the EIS application should NOT be restarted until the pruning error is resolved. If the EIS application is restarted before error resolution, the outputs of the pruning process will be required – see the section above for more information on configuring the destination of pruning log messages.

If there are any questions around this script which can be used to invoke automated pruning, contact SAP Support.

Step 2b: Run the pruning process (Data Gateway)

Once the EIS application has been shut down the pruning process can be invoked manually:

1. Log into SQL*Plus as the Data Gateway schema owner (e.g., `sops_gateway`).
2. Execute the **gateway_pruning.sql** script.

   Pruning of the database schema begins and can take several minutes to complete.

3. Verify that no errors occurred during the pruning by checking on screen or in the files located in the **log** directory. If the log files contain unknown errors, contact SAP support.

Note: If the pruning process fails, the information provided in the pruning failure messages can be reviewed for additional instructions.

The pruning process can also be automated via a script. A sample shell script built on a Solaris server appears below:

```
PATH=$PATH/etc:/usr/sbin:/usr/ucb:$HOME/bin:/usr/bin/X11:/sbin:.:/usr/
    local/bin
export PATH
ORACLE_BASE=/u01/app/oracle9;export ORACLE_BASE
ORACLE_HOME=/u01/app/oracle9/product/9.2.0;export ORACLE_HOME
PATH=$PATH:$ORACLE_HOME/bin;export PATH
sqlplus sops_gateway/sops_gateway@sopsdb @gateway_pruning.sql
if [ $? -eq 0 ]
then
  echo "Pruning successful – restart MIPO"
else
  echo "Pruning failed – contact SAP Support"
fi
```

The following items should be noted:

- This script will need to be modified to match your database server environment. The syntax may vary by operating system, local settings, and EIS implementation settings.
- All text in **bold** needs to be altered to match the applicable information for the underlying database server, Data Gateway schema and/or instance, and gateway_pruning.sql script (see below for more information).
- The "**if/then/else**" section will need to be modified to execute the appropriate commands required by the customer.
- A common command in the "**then**" section, indicating that pruning has completed successfully without error, is the automated restart of the EIS application.
- If the EIS application and database are running on two different servers, the automated restarting of the EIS application from the database server may be more difficult. If this is something that can not easily be done, a common workaround is to install the Oracle client on the application server and simply script all actions on the application server.
- A common command in the "**else**" section is the generation of an e-mail/alert to the appropriate personnel who should contact SAP Support. Please note that the EIS application should NOT be restarted until the pruning error is resolved. If the EIS application is restarted before error resolution, the outputs of the pruning process will be required –

see the section above for more information on configuring the destination of pruning log messages.

If there are any questions around this script which can be used to invoke automated pruning, contact SAP Support.

Step 2c: Run the pruning process (Data Store)

Once the EIS application has been shut down the pruning process can be invoked manually:

1. Log into SQL*Plus as the Data Store schema owner (e.g., s`ops_datastore`).
2. Execute the **datastore_pruning.sql** script.

   Pruning of the database schema begins and can take several minutes to complete.
3. Verify that no errors occurred during the pruning by checking on screen or in the files located in the **log** directory. If the log files contain unknown errors, contact SAP Support.

Note: If the pruning process fails, the information provided in the pruning failure messages can be reviewed for additional instructions.

The pruning process can also be automated via a script. A sample shell script built on a Solaris server appears below:

```
PATH=$PATH/etc:/usr/sbin:/usr/ucb:$HOME/bin:/usr/bin/X11:/sbin:.:/usr/
    local/bin
export PATH
ORACLE_BASE=/u01/app/oracle9;export ORACLE_BASE
ORACLE_HOME=/u01/app/oracle9/product/9.2.0;export ORACLE_HOME
PATH=$PATH:$ORACLE_HOME/bin;export PATH
sqlplus sops_datastore/sops_datastore@sopsdb @datastore_pruning.sql
if [ $? -eq 0 ]
then
  echo "Pruning successful – restart MIPO"
else
  echo "Pruning failed – contact SAP Support"
fi
```

The following items should be noted:

- This script will need to be modified to match your database server environment. The syntax may vary by operating system, local settings, and EIS implementation settings.
- All text in **bold** needs to be altered to match the applicable information for the underlying database server, Data Store schema and/or instance, and datastore_pruning.sql script (see below for more information).

- The "**if/then/else**" section will need to be modified to execute the appropriate commands required by the customer.
- A common command in the "**then**" section, indicating that pruning has completed successfully without error, is the automated restart of the EIS application.
- If the EIS application and database are running on two different servers, the automated restarting of the EIS application from the database server may be more difficult. If this is something that can not easily be done, a common workaround is to install the Oracle client on the application server and simply script all actions on the application server.
- A common command in the "**else**" section is the generation of an e-mail/alert to the appropriate personnel who should contact SAP Support. Please note that the EIS application should NOT be restarted until the pruning error is resolved. If the EIS application is restarted before error resolution, the outputs of the pruning process will be required – see the section above for more information on configuring the destination of pruning log messages.

If there are any questions around this script which can be used to invoke automated pruning, contact SAP Support.

Step 3: Restart EIS

If the EIS application was not configured to automatically restart in the previous step (i.e., customized scripting in the "then" section of the automated shell script), then the EIS application must be restarted at this time. Note that the EIS application should NOT be restarted unless pruning has completed without error.

Viewing logs and alerts

The EIS Portal allows you to view log files and alerts associated with various EIS modules. For SAP NetWeaver application users, EIS informational and exception alerts can be viewed through the NetWeaver Administrator web application.

Viewing EIS application server log files

The **Application Server Logs** screen displays hyperlinks to log files stored on the EIS application server. Use this screen to download and view application server logs in a text editor on your local machine.

Along with logging application errors and events, the application server log tracks all module setting changes, including the original value and the changed value, along with which user account made the changes and a timestamp.

The application server log also includes user management activities, such as:

- User account creation

- User account deletion
- User account log-on time
- User account log-off time
- User account password change
- User account User Settings change
- User account Locking
- User account UnLocking

To view application server logs:

1. Select **Settings > Application Server Logs.** The **Application Server Logs** screen will appear, showing a list of links to the most recent log files available on the EIS application server.
2. Click on the log file you want to view and open it in a text editor of your choice.

Note: We recommend deleting application server log files on a weekly basis.

Note: For NetWeaver CE users, application server log files can also be accessed through the SAP System Administrator.

Viewing EIS processor log files

The **Processor Logs** screen displays hyperlinks to log files stored on the EIS application server. Use this screen to download and view processor logs in a text editor on your local machine.

To view processor logs:

1. Select **Settings > Processor Logs.** The **Processor Logs** screen will appear, showing a list of links to the most recent log files available on the EIS application server.
2. Click on the log file you want to view and open it in a text editor of your choice.

Viewing EIS application alerts

The **Alerts** window allows you to view and manage alerts generated by EIS modules. You can limit which alerts you view and manage by filtering them based on their Source, Class, Severity, Data Context, Status, Date, or any combination thereof. After you have filtered the alerts that you want to view, you can sort alerts displayed in the Alerts window.

See the EIS Online Help for detailed information on viewing and managing EIS application alerts.

Viewing EIS informational alerts in NetWeaver Administrator

The NetWeaver Administrator web application can be used to view and monitor EIS informational alerts through its Log Viewer feature.

To view informational alerts:

1. Select **Netweaver Administrator > Availability and Performance Management > Resource Monitoring.** The **Resource Monitoring** screen will appear.
2. Click **Log View**. You will see the **Log Viewer: Overview** screen.
3. Click the **<Select View>** dropdown list to select **SAP Logs (Java)**. You will see a table displaying SAP Log information, including severity level, date and time, the specific log message, category, and location of the log file.
4. To display log information specific to EIS informational alerts, you can filter the SAP Log table by typing **SmartOps** in the field at the top of the **Category** column. You can also type **com.smartops** in the field at the top of the **Location** column.
5. Click any log record to see details for the selected log under **Log Record Details**.

Viewing EIS exception alerts in NetWeaver Administrator

The NetWeaver Administrator web application can be used to view and monitor EIS exception alerts through its Log Viewer feature.

To view exception alerts:

1. Select **Netweaver Administrator > Availability and Performance Management > Resource Monitoring.** The **Resource Monitoring** screen will appear.
2. Click **Log View**. You will see the **Log Viewer: Overview** screen.
3. Click the **<Select View>** dropdown list to select **Default Trace (Java)**. You will see a table displaying default trace information, including severity level, date and time, the specific trace message, category, and location of the trace file.
4. To display trace information specific to EIS exception alerts, you can filter the Default Trace table by typing **SmartOps** in the field at the top of the **Category** column. You can also type **com.smartops** in the field at the top of the **Location** column.
5. Click any trace record to see details for the selected trace under **Trace Record Details**.

Encrypting an updated database password

A parameter option is available for the EIS Installer application to generate an encrypted password. Use this option when changing the EIS Oracle administration account password in order to generate an encryption string of the new password. The new encryption string replaces the previous encrypted password used by the application server for connectivity with the Oracle database server.

The script used and steps for updating the password entry are dependent on the application server.

Chapter 9: Configuring DIM

his chapter describes the installation process and specific configuration items related to the Demand Intelligence Module.

DIM Overview

The Demand Intelligence Module includes the Demand Intelligence Error processor, which runs during the preprocessing phase of MIPO optimization. This process requires RFS (historical and future forecasts) and TDD (historical sales) data in order to run correctly.

The Demand Intelligence Error processor determines and populates per period demand standard deviation by item-location-period at all customer facing stocking points (including those that contain insufficient demand data or no data at all) for periods in the MIPO data horizon.

DIM also includes the Demand Error Cleanup processor, which runs during the preloading phase of MIPO optimization. This processor cleans up the historical sales and historical and future forecasts that exist from a previous run for the current scenario only. This guarantees that the data used for the latest calculation will not be mixed with older data for the scenario.

DIM installation takes place during the MIPO installation process.

DIM configuration

After you have successfully installed MIPO, you can set up DIM and its associated processors.

Activating and deactivating the Demand Intelligence Error processor

You can specify whether or not the Demand Intelligence Error processor is invoked for a particular loadset by changing a setting in the processor settings file, commonly named **PSS.dat**, which is contained in the loadset itself. By default, both processors are activated for each loadset that includes the **PSS.dat** file.

Note: The processor settings file for your organization can be named something other than **PSS.dat**. A processor settings file will always contain the text "`PSS`" in the first field of the header line.

1. Identify and unzip the loadset where you want to change processor settings.
2. Locate the **PSS.dat** file and open it in a text editor.
3. In **PSS.dat**, find or add the set of parameters below:

```
ADD||DemandErrorCleanup|Processing Phase|Preloading
ADD||DemandErrorCleanup|Execution Order|1
ADD||DemandErrorCleanup|Is Active|true
ADD||DemandErrorIntelligenceProcessor|Is Active|true
ADD||DemandIntelligenceErrorProcessor|Processing Phase|Preprocessing
ADD||DemandIntelligenceErrorProcessor|Execution Order|2
```

4. To deactivate the Demand Intelligence Error processor, change the `|DemandIntelligenceErrorProcessor|Is Active|` setting above to **`false`**.
5. Likewise, to deactivate the Demand Error Cleanup processor, change the `|DemandErrorCleanup|Is Active|` setting above to **`false`**.
6. Save and close the **.dat** file.
7. Update and close the **.zip** archive.

Changing processor default parameter settings

The Demand Intelligence module, found in the **Manage Module Settings** feature, contains the Demand Intelligence Error processor's default parameter settings. There are two ways to change these default settings: globally, for all loadsets, via the Manage Module Settings feature; or locally, for

individual loadsets, via **PSS.dat** files. Changes in the **PSS.dat** file override the settings in the Demand Intelligence module.

Note: The following processors are dependent on data generated by the Demand Node Creation processor: Demand Intelligence Error processor, Unit Cost Calculator, and New Item Processor. See the Processors Dependencies section in the *EIS Processors Spreadsheet* for information on the proper execution order when invoking these processors.

To configure Demand Intelligence Error processor properties on a per-loadset basis (in **PSS.dat**):

1. Identify and unzip the loadset where you want to change processor settings.
2. Locate the **PSS.dat** file and open it in a text editor. If **PSS.dat** has already been configured for the Demand Intelligence processor, the file will resemble the following:

```
PSS||PSS_PROCESSOR_NAME|PSS_PROPERTY|PSS_VALUE
ADD||DemandErrorCleanup|Processing Phase|Preloading
ADD||DemandErrorCleanup|Execution Order|1
ADD||DemandErrorCleanup|Is Active|true
ADD||DemandIntelligenceErrorProcessor|Is Active|true
ADD||DemandIntelligenceErrorProcessor|Processing Phase|Preprocessing
ADD||DemandIntelligenceErrorProcessor|Execution Order|2
ADD||DemandIntelligenceErrorProcessor|Demand_STD_CV_Computation|MAD
ADD||DemandIntelligenceErrorProcessor|Demand_STD_Historical_Data_Horizon|20
ADD||DemandIntelligenceErrorProcessor|Demand_STD_Raw_Data_Log|true
ADD||DemandIntelligenceErrorProcessor|Demand_STD_BiasAdjustment|AdjustAll
ADD||DemandIntelligenceErrorProcessor|Demand_STD_Exclude_Outliers|true
ADD||DemandIntelligenceErrorProcessor|Demand_STD_Outlier_Multiplier|3
ADD||DemandIntelligenceErrorProcessor|Demand_STD_Default_Demand_CV|1
ADD||DemandIntelligenceErrorProcessor|Demand_STD_CV_Cap|3
ADD||DemandIntelligenceErrorProcessor|Demand_STD_APE_Cap|2.4
ADD||DemandIntelligenceErrorProcessor|Demand_STD_APE_Default|0.8
END_OF_SET||||
```

   The Demand Intelligence Error processor parameters, their possible values, and explanations of their behavior are listed below.
3. In **PSS.dat**, add or modify the properties associated with the Demand Intelligence Error processor and the Demand Cleanup processor. The parameters, their possible values, and explanations of their behavior are listed below.
4. Save and close the **.dat** file.
5. Update and close the **.zip** archive.

Assigning automatic DIM Import processor settings

The DIM workflow design allows for specified data updates to MIPO to first be processed by DIM in order to compute DIM scenario outputs. The DIM Import processor can be invoked during the data loading process to automatically create a DIM scenario from MIPO data and generate demand outputs. This processor can be configured in the **PSS.DAT** file for the data set.To configure DIM Import processor properties on a per-loadset basis (in **PSS.DAT**):

1. Identify and unzip the loadset where you want to change processor settings.
2. Locate the **PSS.dat** file and open it in a text editor. If **PSS.dat** has already been configured for the DIM Import processor, the file will resemble the following:

```
PSS||PSS_PROCESSOR_NAME|PSS_PROPERTY|PSS_VALUE
ADD||DemandIntelligenceImportProcessor|Is Active|true
ADD||DemandIntelligenceImportProcessor|Processing Phase|Report Generation
ADD||DemandIntelligenceImportProcessor|Execution Order|1
ADD||DemandIntelligenceImportProcessor|IMPORT_TRANSITION|TRUE
ADD||DemandIntelligenceImportProcessor|TargetScenarioName|YourDIMModelName
ADD||DemandIntelligenceImportProcessor|TargetScenarioDescription|YourDIMModelDescription
END_OF_SET||||
```

3. In **PSS.dat**, add or modify the properties associated with the DIM Import processor.
4. Save and close the **PSS.DAT** file.
5. Update and close the **.zip** archive.

Note: These settings can be entered through the **Processor Settings** tab in the SGLT.

Assigning automatic DIM Export processor settings

The DIM workflow design allows for specified data updates to MIPO to automatically include DIM scenario outputs as the demand inputs for MIPO optimization. The DIM Export processor can be invoked during the data loading process to automatically copy this data. This processor can be configured in the **PSS.DAT** file for the data set.To configure DIM Export processor properties on a per-loadset basis (in **PSS.DAT**):

1. Identify and unzip the loadset where you want to change processor settings.
2. Locate the **PSS.dat** file and open it in a text editor. If **PSS.dat** has already been configured for the DIM Export processor, the file will resemble the following:

```
PSS||PSS_PROCESSOR_NAME|PSS_PROPERTY|PSS_VALUE
ADD||DemandIntelligenceExportProcessor|Is Active|true
ADD||DemandIntelligenceExportProcessor|Processing Phase|Preprocessing
ADD||DemandIntelligenceExportProcessor|Execution Order|2
END_OF_SET||||
```

3. In **PSS.dat**, add or modify the properties associated with the DIM Export processor.
4. Save and close the **PSS.DAT** file.
5. Update and close the **.zip** archive.

Note: These settings can be entered through the **Processor Settings** tab in the SGLT.

Assigning automatic MIPO scenario access settings

To configure a DIM scenario to automatically inherit the MIPO scenario access settings (in **PSS.DAT**):

1. Identify and unzip the loadset where you want to change processor settings.
2. Locate the **PSS.dat** file and open it in a text editor. If **PSS.dat** has already been configured for DIM, the file will resemble the following:

```
PSS||PSS_PROCESSOR_NAME|PSS_PROPERTY|PSS_VALUE
ADD||DemandIntelligenceErrorProcessor|Processing Phase|Preprocessing
ADD||DemandIntelligenceErrorProcessor|Execution Order|3
ADD||DemandIntelligenceErrorProcessor|Is Active|True
ADD||DemandIntelligenceErrorProcessor|InheritScenarioUserAccess|True
ADD||ScenarioAssociationProcessor|Processing Phase|Preloading
ADD||ScenarioAssociationProcessor|Execution Order|1
ADD||ScenarioAssociationProcessor|Is Active|true
ADD||ScenarioAssociationProcessor|User|<InsertUserNameHere>
END_OF_SET||||
```

3. In **PSS.dat**, add the property `InheritScenarioUserAccess` and set it to **`True`**.
4. Add the **Scenario Association Processor** properties, setting the **User property** to the name of the user assigned to the MIPO scenario.
5. Save and close the **PSS.DAT** file.
6. Update and close the **.zip** archive.

Note: These settings can be entered through the **Processor Settings** tab in the SGLT.

Transferring DIM scenario data to Data Store

The Demand Intelligence Module can automatically transfer scenario data to the Data Store module after the data set has been computed by DIM.

See the *EIS Online Help* for more information on the Auto Transfer feature.

Chapter 10: Configuring SLO

This chapter describes the procedure for configuring the Service Level Optimization (SLO) application.

Transferring SLO scenario data to Data Store

The Service Level Optimization module can automatically transfer scenario data to the Data Store module after the data set has been optimized by SLO.

See the *EIS Online Help* for more information on the Auto Transfer feature.

SLO data set configuration

The SLO workflow design allows for weekly data updates to MIPO to include SLO scenario outputs as the service level inputs for MIPO optimization. The SLO Output Copy processor can be invoked during the data loading process to automatically copy this data. This processor can be configured in the PSS.DAT file for the data set

The SLO scenario can also be configured to automatically inherit the scenario access information associated with its source MIPO scenario.

Note: The processor settings file for your organization can be named something other than **PSS.dat**. A processor settings file will always contain the text "PSS" in the first field of the header line.

Assigning SLO Copy Output processor settings

To configure SLO Output Copy processor properties on a per-loadset basis (in **PSS.DAT**):

1. Identify and unzip the loadset where you want to change processor settings.
2. Locate the PSS.dat file and open it in a text editor. If **PSS.dat** has already been configured for the SLO Output Copy processor, the file will resemble the following:

```
PSS||PSS_PROCESSOR_NAME|PSS_PROPERTY|PSS_VALUE
ADD||SloOutputCopyProcessor|Is Active|true
ADD||SloOutputCopyProcessor|Processing Phase|Preprocessing
ADD||SloOutputCopyProcessor|Execution Order|1
ADD||SloOutputCopyProcessor|SourceScenarioName|EnterSLOSupplyChainName Here
END_OF_SET||||
```

3. In **PSS.dat**, add or modify the properties associated with the SLO Output Copy processor.
4. Save and close the **PSS.DAT** file.
5. Update and close the .zip archive.

Notes: These settings can be entered through the **Processor Settings** tab in the SGLT.

Assigning automatic MIPO scenario access settings

To configure a SLO scenario to automatically inherit the MIPO scenario access settings (in **PSS.DAT**):

1. Identify and unzip the loadset where you want to change processor settings.
2. Locate the **PSS.dat** file and open it in a text editor. If **PSS.dat** has already been configured for SLO, the file will resemble the following:

```
PSS||PSS_PROCESSOR_NAME|PSS_PROPERTY|PSS_VALUE
ADD||ScenarioTransformationProcessor|Is Active|True
```

```
ADD||ScenarioTransformationProcessor|Processing Phase|Preprocessing
ADD||ScenarioTransformationProcessor|Execution Order|1
ADD||ScenarioTransformationProcessor|TargetScenarioName|5Items-SLO
ADD||ScenarioTransformationProcessor|TargetScenarioModuleName|SLO
ADD||ScenarioTransformationProcessor|ImportTransition|True
ADD||ScenarioTransformationProcessor|InheritScenarioUserAccess|True
ADD||ScenarioAssociationProcessor|Processing Phase|Preloading
ADD||ScenarioAssociationProcessor|Execution Order|1
ADD||ScenarioAssociationProcessor|Is Active|true
ADD||ScenarioAssociationProcessor|User|<InsertUserNameHere>
END_OF_SET||||
```

3. In **PSS.dat**, add the property `InheritScenarioUserAccess` and set it to `True`.
4. Add the Scenario Association Processor properties, setting the User property to the name of the user assigned to the MIPO scenario.
5. Save and close the **PSS.DAT** file.
6. Update and close the .zip archive.

Note: These settings can be entered through the **Processor Settings** tab in the SGLT.

Reviewing SLO processor logs

The SLO module generates processor logs to aid in troubleshooting support-related issues. The following logs are available:

- SLO Output Copy Processor log

To review SLO processor logs:

1. Select **Settings > Processor Logs**. The Processor Logs screen will appear, showing a list of links to the most recent log files available on the EIS application server.
2. Click on the log file you want to view. If you are prompted to select an application with which to open the file, choose a text editor such as TextPad or NotePad.

An example of the SLO Output Copy Processor log is shown below:

```
  Start of Log @ Fri Aug 19 09:26:54 EDT 2011
SloOutputCopyProcessor for scenario "SLO-Hybrids"----------------------
-----------
Inserted scenario_transform_history record
The following supply paths were optimized in SLO:
```

```
  Updated supply path n2_nw10_Customer; set desired_service_level from
0.95 to 0.998 for supply path key 1114
  Updated supply path n2_nw34_Customer; set desired_service_level from
0.95 to 0.9698078202764007 for supply path key 1116
  Updated supply path n1_nw10_Customer; set desired_service_level from
0.85 to 0.99775 for supply path key 1112
  Updated supply path n1_nw34_Customer; set desired_service_level from
0.85 to 0.9801424681888146 for supply path key 1113
SLO scenario key = 1010
SLO scenario data handle key = 1019
SLO scenario output data handle key = 1020
Updating MIPO scenario MIPO - SLO Test SGLT
MIPO scenario key = 1009
MIPO scenario data handle key = 1018
Successfully updated 4 out of 4 stocking points at Fri Aug 19 09:26:56
EDT 2011.
This is 100% of the stocking points from the MIPO scenario.
Log ends @ Fri Aug 19 09:26:56 EDT 2011
-----------------
```

Chapter 11: Configuring PIM

This chapter describes specific configuration items related to the Production Intelligence Module.

PIM Overview

The Production Intelligence Module manipulates historical production data, including planned and actual production. It calculates the percentage (schedule attainment percentage) and coefficient of variation (schedule attainment CV) for the amount by which actual production quantities differ from the quantities that were scheduled to be produced. This analysis is performed for all plant "out-bin" stocking points. For stocking points with insufficient data, the average of all other items at that plant is used. If the value for the schedule attainment percentage is negative, overproduction has occurred and the data are ignored by PIM. The following sections describe how to adjust the processor configuration.

PIM installation takes place during the MIPO installation process.

PIM configuration

After you have successfully installed MIPO, you can set up PIM and its associated processors.

Activating and deactivating PIM

You can specify whether the Production Intelligence Module is invoked for a particular loadset by changing settings in the processor settings file, commonly named PSS.dat, contained in the loadset itself. By default, PIM is activated for each loadset that includes a PSS.dat file.

Note: The processor settings file for your organization can be named something other than **PSS.dat**. A processor settings file will, however, always contain the text "`PSS`" in the first field of the header line.

To deactivate or activate PIM:

1. Identify the loadset for which you want to deactivate or activate one or both processors and unzip it.
2. Locate the file named PSS.dat and open it in a text editor. Its contents resemble the following:

   ```
   PSS||PSS_PROCESSOR_NAME|PSS_PROPERTY|PSS_VALUE
   ADD||ProductionIntelligenceProcessor|Is Active|true
   ADD||ProductionIntelligenceProcessor|Processing Phase|Preprocessing
   ADD||ProductionIntelligenceProcessor|Execution Order|2
   END_OF_SET||||
   ```

3. To deactivate PIM, modify the line below, as follows:

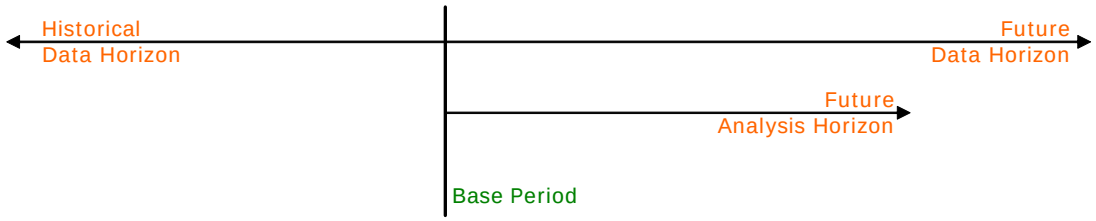
   ```
   ADD||ProductionIntelligenceProcessor|Is Active|false
   ```

4. Save and close the .dat file.
5. Update and close the .zip file.

Note: To re-activate PIM, change the `Is Active` value to **`true`**.

Setting the historical data horizon

The *historical data horizon* is the number of periods preceding the base period that contain historical forecast data to be preprocessed. The *base period* is latest recognized date in the database when historical data transitions to forecast data.



You can specify the number of periods in the historical data horizon for a particular loadset by changing a setting in the scenario settings file within the loadset itself.

To set the historical data horizon for a loadset:

1. Identify the loadset for which you want to change the historical data horizon.
2. Locate the file named **sst.dat** and open it in a text editor.
3. Identify the header field named SST_HISTORICAL_HRZN and its corresponding data field that contains a numerical value.
4. Modify the value as desired.
5. Save and close the **.dat** file.
6. Update and close the **.zip** file.

Caution: The historical data horizon must be set to a non-zero value when processors are being invoked. If not, the processors will fail.

Chapter 12: Configuring SIM

This chapter describes the configuration items related to the Supply Intelligence Module.

SIM Overview

The Supply Intelligence Module includes the Supply Lead Time processor, which runs during the preprocessing phase of MIPO optimization. This process requires purchase order (POF) data in order to run correctly.

The Supply Lead Time processor calculates the mean order processing lead time, the mean physical lead time, and the total lead time standard deviation for all supply paths with sufficient historical transactional data. The processor then overwrites the values originally provided in the loadset with its newly calculated values.

SIM also includes the Lead Time Cleanup processor, which runs during the preloading phase of MIPO optimization. This processor truncates the purchase order tables (Purchase Order and Purchase Order Fulfillment) before the next run of the Supply Intelligence processor. This guarantees that the data used for the latest calculation will not be mixed with older data for the scenario.

SIM installation takes place during the MIPO installation process.

SIM Configuration

After you have successful installed MIPO, you can set up SIM and its associated processors.

Note: The EIS Processor Logs feature can be used to troubleshoot any SIM processor-related issues.

Activating and deactivating the processor

1. Identify and unzip the loadset where you want to change processor settings
2. Locate the PSS.dat file and open it in a text editor.
3. In PSS.dat, find or add one of the sets of parameters below:

   ```
   ADD||LeadTimeCleanup|Processing Phase|Preloading
   ADD||LeadTimeCleanup|Execution Order|1
   ADD||LeadTimeCleanup|Is Active|true
   ADD||SupplyLeadTimeProcessor|Is Active|true
   ADD||SupplyLeadTimeProcessor|Processing Phase|Preprocessing
   ADD||SupplyLeadTimeProcessor|Execution Order|2
   ```

   By default, processors are active (set to true). To deactivate the Supply Lead Time processor, change the |SupplyLeadTimeProcessor|Is Active| setting above to false. Likewise, to deactivate the Lead Time Cleanup processor, set |LeadTimeCleanup|Is Active| to false.
4. Save and close the **.dat** file.
5. Update and close the **.zip** archive.

Changing processor default parameter settings

The Supply Lead Time processor's default parameter settings are coded in the processor itself. You can override hard-coded values for individual loadsets by configuring a PSS.dat file with Supply Lead Time processor properties as described below. This process changes processor parameters only for the individual loadsets in which the modified PSS.dat file is included.

To configure parameters for the Supply Lead Time processor in PSS.dat:

1. Identify and unzip the loadset where you want to change processor settings.
2. Locate the PSS.dat file and open it in a text editor. If PSS.dat has already been configured for the Lead Time processor, the file will resemble the following:

   ```
   PSS||PSS_PROCESSOR_NAME|PSS_PROPERTY|PSS_VALUE
   ADD||LeadTimeCleanup|Processing Phase|Preloading
   ```

```
ADD||LeadTimeCleanup|Execution Order|1
ADD||LeadTimeCleanup|Is Active|true
ADD||SupplyLeadTimeProcessor|Is Active|true
ADD||SupplyLeadTimeProcessor|Processing Phase|Preprocessing
ADD||SupplyLeadTimeProcessor|Execution Order|2
ADD||SupplyLeadTimeProcessor|Lead_Time_Historical_Data_Horizon|52
ADD||SupplyLeadTimeProcessor|Lead_Time_Order_Processing_Mean_Cap|5
ADD||SupplyLeadTimeProcessor|Lead_Time_Physical_Mean_Cap|5
ADD||SupplyLeadTimeProcessor|Lead_Time_Outlier_Multiplier|3
ADD||SupplyLeadTimeProcessor|Lead_Time_Exclude_Outliers|True
ADD||SupplyLeadTimeProcessor|Lead_Time_CV_Cap|3
ADD||SupplyLeadTimeProcessor|Lead_Time_Min_Data_Point_Count|5
ADD||SupplyLeadTimeProcessor|Supply_Lead_Time_Raw_Data_Log|True
ADD||SupplyLeadTimeProcessor|Lead_Time_Log_Details|True
END_OF_SET||||
```

3. In PSS.dat, add or modify the properties associated with the Supply Lead Time processor. The parameters, their possible values, and explanations of their behavior are listed below.
4. Save and close the .dat file.
5. Update and close the .zip archive and drop the loadset according to your normal workflow.

Chapter 13: Upgrading EIS

This chapter provides instructions for upgrading the EIS database and application software Prerequisites for using the current version of the EIS are described in "Chapter 1: Requirements" on page 15 of this guide.

Note: If you are upgrading from a version earlier than 6.10 to a version later than 6.10, you must first upgrade to 6.10 and then apply the later version.

Upgrading the EIS database schema

You can upgrade the EIS database schema directly on the database server or from a Windows machine that has connectivity to the database.

Note: The database portion of the EIS upgrade must be performed by either a database administrator (DBA) or someone who has an advanced background working directly with Oracle database systems. Please refer to documentation supplied with the Oracle database for further information on specific Oracle functionality.

Prerequisite: Grant schema privileges

Before beginning to upgrade the database schema on Windows or UNIX, you may need to assign the required schema privileges. Log into database as user **sysdba** and run the following statements:

```
SQL>grant select on sys.v_$parameter to sops_mipo;
SQL>grant select on sys.v_$timer to system with grant option;
```

Upgrading the EIS schema from Windows or UNIX

You can upgrade the EIS database schema from a Windows or UNIX machine that has connectivity to the database. Upgrading the database schema includes the following main tasks:

- Copying the schema upgrade files from the EIS installation media
- Upgrading the EIS database schema
- Reinstalling the data loader schema

The following sections describe each of these tasks in detail.

Step 1: Copy the schema upgrade files.

UNIX:

- Log in to the machine containing the database instance and create a new directory to contain the copied EIS files.
- Copy and uncompress the files from the **/INTERNAL<version>/Database** and **/DataLoader<version>/Database** directories on the EIS installation media to the new directory.

Windows:

- Copy the files from the **\INTERNAL<version>\Database** and **\DataLoader<version>\Database** directories on the EIS installation media to a directory on your local machine.

Step 2: Upgrade the database schema

1. Shut down the application server machine using your standard procedures and ensure that no machines can connect to the database server during the upgrade process.
2. Use Oracle EXPORT or a different utility to create a backup of the Oracle database instance containing the EIS database schema.
3. Navigate to the `INTERNAL<version>\Database` directory and log in to SQL*Plus as schema owner SOPS_MIPO (the default password is sops_mipo).
4. Execute the upgrade script:

   ```
   SQL> @upgrade.sql
   ```

   Installation of the database schema begins and can take several minutes to complete. A message will indicate that upgrade is complete.
5. During the upgrade process, log files are created in the `\Database` directory. Check all log files to verify that no errors occurred during the upgrade. If you find errors in the log files, contact your EIS Project Manager.

   Note: Errors can be generated when the upgrade script attempts to drop tables, sequences, indexes, or views that do not exist. It is safe to ignore these errors.
6. After the upgrade is complete, start SQL*Plus, log in to the database instance as the schema owner SOPS_MIPO (the default password is sops_mipo) and execute the following SQL command:

   ```
   SQL> select object_name, object_type from user_objects where
   status='INVALID';
   ```

   If this query returns no rows, then the database schema upgrade was completed successfully. If invalid objects are found, contact your EIS Project Manager.

Step 3: Reinstall the EIS data loader schema

After upgrading the EIS database schema used to store supply chain data, reinstall the schema used by the data loader, as follows:

1. Navigate to the `DataLoader<version>\Database` directory and log into SQL*Plus as the system user.
2. Execute the **install.sql** script.

   Installation of the database schema begins and can take several minutes to complete.

   - The schema owner SOPS_DLASM is created.
   - The SOPS_DLASM schema is created.
   - Static data is imported into the schema.

A message indicates that the PL/SQL procedure and installation was successfully completed.

3. Verify that no errors occurred during the installation or static data import process by checking the files located in the `\Database` directory. If the log files contain unknown errors, contact SAP Support.

Note: Errors can be generated when the installation script attempts to drop tables, sequences, indexes, or views that do not exist. It is safe to ignore these errors.

Upgrading the Data Gateway database schema

You can upgrade the Data Gateway database schema directly on the database server or from a Windows machine that has connectivity to the database. The following sections provide instructions for each option.

Prerequisite: Grant schema privilege

Before beginning to upgrade the database schema on Windows or UNIX, you may need to assign the required schema privilege. Log into database as user **system** and run the following statement:

```
SQL>grant select any dictionary to sops_gateway
```

Upgrading the Data Gateway schema

Upgrading the database schema includes the following tasks:

- Copying the schema upgrade files from the Data Gateway installation media
- Upgrading the Data Gateway database schema

The following sections describe each of these tasks in detail.

Step 1: Copy the schema upgrade files.

Copy the Data Gateway schema upgrade files from the EIS installation media to the EIS database server. These files are located under the `\DataGateway<version>\Database` directory (where `<version>` represents the release number for the software application).

Step 2: Upgrade the database schema

1. Shut down the application server machine using your standard procedures and ensure that no machines can connect to the database server during the upgrade process.
2. Use Oracle EXPORT or a different utility to create a backup of the Oracle database instance containing the Data Gateway schema.

3. Log into SQL*Plus as the system user.
4. Execute the upgrade script

   ```
   SQL> @upgrade.sql
   ```

   Installation of the database schema begins and can take several minutes to complete. A message will indicate that upgrade is complete.
5. During the upgrade process, log files are created in the `\Database` directory. Check all log files to verify that no errors occurred during the upgrade. If you find errors in the log files, contact your EIS Project Manager.

Note: Errors can be generated when the upgrade script attempts to drop tables, sequences, indexes, or views that do not exist. It is safe to ignore these errors.

6. After the upgrade is complete, start SQL*Plus, log in to the database instance as the schema owner sops_gateway (the default password is sops_gateway) and execute the following SQL command:

   ```
   SQL> select object_name, object_type from user_objects where
       status='INVALID';
   ```

   If this query returns no rows, then the database schema upgrade was completed successfully. If invalid objects are found, contact your EIS Project Manager .

Upgrading the Data Store database schema

You can upgrade the Data Store database schema directly on the database server or from a Windows machine that has connectivity to the database. The following sections provide instructions for each option.

Prerequisite: Grant schema privilege

Before beginning to upgrade the database schema on Windows or UNIX, you may need to assign the required schema privilege. Log into database as user **system** and run the following statement:

```
SQL>grant select any dictionary to sops_datastore
```

Upgrading the Data Store schema

Upgrading the database schema includes the following tasks:

- Copying the schema upgrade files from the Data Store installation media
- Upgrading the Data Store database schema

The following sections describe each of these tasks in detail.

Step 1: Copy the schema upgrade files.

Copy the Data Store schema upgrade files from the EIS installation media to the EIS database server. These files are located under the `\DataStore<version>\Database` directory (where `<version>` represents the release number for the software application).

Step 2: Upgrade the database schema

1. Shut down the application server machine using your standard procedures and ensure that no machines can connect to the database server during the upgrade process.
2. Use Oracle EXPORT or a different utility to create a backup of the Oracle database instance containing the Data Store schema.
3. Log into SQL*Plus as the system user.
4. Execute the upgrade script

   ```
   SQL> @upgrade.sql
   ```

   Installation of the database schema begins and can take several minutes to complete. A message will indicate that upgrade is complete.
5. During the upgrade process, log files are created in the `\Database` directory. Check all log files to verify that no errors occurred during the upgrade. If you find errors in the log files, contact your EIS Project Manager.

   Note: Errors can be generated when the upgrade script attempts to drop tables, sequences, indexes, or views that do not exist. It is safe to ignore these errors.
6. After the upgrade is complete, start SQL*Plus, log in to the database instance as the schema owner sops_datastore (the default password is sops_datastore) and execute the following SQL command:

   ```
   SQL> select object_name, object_type from user_objects where
      status='INVALID';
   ```

   If this query returns no rows, then the database schema upgrade was completed successfully. If invalid objects are found, contact your EIS Project Manager.

Upgrading the EIS Application

To upgrade the application, you must reinstall the EIS application. See "Chapter 3: Installing and configuring EIS for the SAP Web Application Server" on page 37 for more information.

Verifying the upgrade

To ensure that EIS was upgraded successfully:

1. Ensure that the Oracle database instance containing the MIPO schema is running.
2. Start the application server by using the instructions in this guide.
3. Start Internet Explorer on a client PC and entering the following text in the **Address** field:

   `http://app_server_name:50000/SmartOps`

   In this example, *app_server_name* represents the name of the machine on which the application server is running and 50000 represents the port number for your NetWeaver installation.
4. The **EIS Portal** window opens in full-screen mode.
5. Sign in to MIPO with your user name and password.

Appendices

Appendix A: Business Alerts

This section contains details on the parameters used to define business alerts configuration settings for an SGLT data set.

Business Alert: Demand CV

This business alert is generated when the forecast demand CV (coefficient of variation) between scenarios has changed more than the specified criteria, as defined by a percentage..

Business Alert Name	Business Alert Property	Business Alert Value
DEMAND_CV	Is Active	**true** or **false**
DEMAND_CV	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
DEMAND_CV	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 14-1 Demand CV business alert

Business Alert: Demand CV Comparison

This business alert is generated when the demand CV has exceeded the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
DEMAND_CV_ COMPARISON	Is Active	**true** or **false**
DEMAND_CV_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
DEMAND_CV_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)
DEMAND_CV_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-2 Demand CV Comparison business alert

Business Alert: Demand Mean comparison

This business alert is generated when the forecast demand mean between scenarios has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
DEMAND_MEAN_ COMPARISON	Is Active	**true** or **false**
DEMAND_MEAN_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
DEMAND_MEAN_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 14-3 Demand Mean comparison business alert

Business Alert Name	Business Alert Property	Business Alert Value
DEMAND_MEAN_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-3 Demand Mean comparison business alert

Business Alert: Demand Standard Deviation comparison

This business alert is generated when the forecast demand standard deviation between scenarios has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
DEMAND_STD_ COMPARISON	Is Active	**true** or **false**
DEMAND_STD_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
DEMAND_STD_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)
DEMAND_STD_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-4 Demand Standard Deviation comparison business alert

Business Alert: Implied Service Level comparison (SPT)

This business alert is generated when the implied service level between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
ISL_SPT_ COMPARISON	Is Active	**true** or **false**
ISL_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
ISL_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)
ISL_SPT_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-5 Implied Service Level comparison (SPT) business alert

Business Alert: Implied Demand

This business alert is generated when the the ratio of safety stock to implied demand or safety stock to implied demand error has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
IMPLIED_DEMAND	Is Active	**true** or **false**
IMPLIED_DEMAND	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
IMPLIED_DEMAND	pct	Any non-negative percentage value (e.g., 0.15 for 15% or 1.2 for 120%)

Table 14-6 Implied Demand business alert

Business Alert: Lead time CV (PRF)

This business alert is generated when the lead time CV from the Process Resource Forecast table has exceeded the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_CV_PRF	Is Active	**true** or **false**
LT_CV_PRF	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_CV_PRF	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 14-7 Lead Time CV (PRF) business alert

Business Alert: Lead time CV (SPF)

This business alert is generated when the lead time CV from the Supply Path Forecast table has exceeded the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_CV_SPF	Is Active	**true** or **false**
LT_CV_SPF	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_CV_SPF	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 14-8 Lead time CV (SPF) business alert

Business Alert: Lead Time Mean comparison (PRF)

This business alert is generated when the lead time mean between scenarios form the Process Resource Forecast table exceeds the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_MEAN_PRF_ COMPARISON	Is Active	**true** or **false**
LT_MEAN_PRF_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_MEAN_PRF_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)
LT_MEAN_PRF_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-9 Lead Time Mean comparison (PRF) business alert

Business Alert: Lead Time Mean comparison (SPF)

This business alert is generated when the lead time mean between scenarios from the Supply Path Forecast table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_MEAN_SPF_ COMPARISON	Is Active	**true** or **false**
LT_MEAN_SPF_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_MEAN_SPF_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 14-10 Lead Time Mean comparison (SPF) business alert

Business Alert Name	Business Alert Property	Business Alert Value
LT_MEAN_SPF_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-10 Lead Time Mean comparison (SPF) business alert

Business Alert: Lead Time Standard Deviation comparison (PRF)

This business alert is generated when the lead time standard deviation between scenarios from the Process Resource Forecast table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_STD_PRF_ COMPARISON	Is Active	**true** or **false**
LT_STD_PRF_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_STD_PRF_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)
LT_STD_PRF_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-11 Lead Time Standard Deviation comparison (PRF) business alert

Business Alert: Lead Time Standard Deviation comparison (SPF)

This business alert is generated when the lead time standard deviation between scenarios from the Supply Path Forecast table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
LT_STD_SPF_ COMPARISON	Is Active	**true** or **false**
LT_STD_SPF_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
LT_STD_SPF_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)
LT_STD_SPF_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-12 Lead Time Standard Deviation comparison (SPF) business alert

Business Alert: On hand stock in periods comparison (SPT)

This business alert is generated when the on-hand stock in periods value between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
OHSP_SPT_ COMPARISON	Is Active	**true** or **false**
OHSP_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
OHSP_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 14-13 On hand stock in periods comparison (SPT) business alert

Business Alert Name	Business Alert Property	Business Alert Value
OHSP_SPT_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-13 On hand stock in periods comparison (SPT) business alert

Business Alert: On hand stock comparison (SPT)

This business alert is generated when the on-hand stock between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
OHS_SPT_ COMPARISON	Is Active	**true** or **false**
OHS_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
OHS_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)
OHS_SPT_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-14 On hand stock comparison (SPT) business alert

Business Alert: Supply ratio comparison (SPF)

This business alert is generated when the supply ratio between scenarios from the Supply Path Forecast table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
RATIO_SPF_ COMPARISON	Is Active	**true** or **false**
RATIO_SPF_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
RATIO_SPF_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)
RATIO_SPF_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-15 Supply ratio comparison (SPF) business alert

Business Alert: Safety stock in periods comparison (SPT)

This business alert is generated when the safety stock in periods value between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
SSP_SPT_ COMPARISON	Is Active	**true** or **false**
SSP_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
SSP_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)

Table 14-16 Safety stock in periods comparison (SPT) business alert

Business Alert Name	Business Alert Property	Business Alert Value
SSP_SPT_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-16 Safety stock in periods comparison (SPT) business alert

Business Alert: Safety stock comparison (SPT)

This business alert is generated when the safety stock between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
SSP_SPT_ COMPARISON	Is Active	**true** or **false**
SSP_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
SSP_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)
SSP_SPT_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-17 Safety stock comparison (SPT) business alert

Business Alert: TIP comparison (SPT)

This business alert is generated when the TIP between scenarios from the Stocking Point TIP table has changed more than the specified criteria, as defined by a percentage.

Business Alert Name	Business Alert Property	Business Alert Value
TIP_SPT_ COMPARISON	Is Active	**true** or **false**
TIP_SPT_ COMPARISON	Severity	**FATAL ERROR**, **ERROR**, **WARNING**, or **INFORMATIONAL**
TIP_SPT_ COMPARISON	pct	Any percentage value between 0 and 1.0 (e.g., 0.15 for 15%)
TIP_SPT_ COMPARISON	comparison_scenario_name	Scenario name to be used for comparison (e.g., **Example Supply Chain)** Note: If not specified, parent supply chain will be used.

Table 14-18 TIP comparison (SPT) business alert

Appendix B: Reject message definitions

This section contains details on the message definitions related to the reject ID codes to be used as a reference when reviewing reject log data. Warning messages warn of an issue but do not halt data loading, Error messages halt data loading.

Reject ID	Package Name	Message	Classifi-cation
113	PACK_STOCKING _POINT	LOCATION is null.	Warning
114	PACK_STOCKING _POINT	Item name is null.	Warning
115	PACK_STOCKING _POINT	Location name is not found in the PLANNING_LOCATION table.	Warning
116	PACK_STOCKING _POINT	SKU_CODE is not found in the PLANNING_SKU table.	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
117	PACK_STOCKING_POINT	STOCKING_POINT_TYPE_CODE is not found in the STOCKING_POINT_TYPE table.	Warning
118	PACK_LOCATION_ATTRIBUTE	LOCATION_NAME is null.	Warning
119	PACK_LOCATION_ATTRIBUTE	LOCATION_NAME is not found in the PLANNING_LOCATION table.	Warning
120	PACK_LOCATION_ATTRIBUTE	LOCATION_ATTRIBUTE_NAME is not found in the ATTRIBUTE table.	Warning
121	PACK_LOCATION_ATTRIBUTE	LOCATION_ATTRIBUTE_VALUE is not found in the ATTRIBUTE_VALUE table.	Warning
122	PACK_NODE_ATTRIBUTE	NODE_NAME is null.	Warning
123	PACK_NODE_ATTRIBUTE	NODE_ATTRIBUTE_NAME is null.	Warning
124	PACK_NODE_ATTRIBUTE	NODE_ATTRIBUTE_NAME is not found in the ATTRIBUTE table.	Warning
136	PACK_LOCATION	Location name is null.	Warning
164	PACK_ITEM_ATTRIBUTE	ITEM_NAME is null.	Warning
165	PACK_ITEM_ATTRIBUTE	ITEM_ATTRIBUTE_NAME is null.	Warning
168	PACK_ITEM_ATTRIBUTE	ITEM_ATTRIBUTE_NAME is not found in the ATTRIBUTE table.	Warning
322	PACK_ITEM	UOM is null.	Warning
323	PACK_ITEM	UOM is not found in the UNIT_OF_MEASURE table.	Warning
432	PACK_SUPERSESSION_ITEM	OLD_ITEM_NAME is null.	Warning
433	PACK_SUPERSESSION_ITEM	NEW_ITEM_NAME is null.	Warning
434	PACK_SUPERSESSION_ITEM	EFFECTIVE_DATE is null.	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
435	PACK_SUPERSESSION_ITEM	CONVERSION_FACTOR is null.	Warning
481	PACK_PO_FULFILLMENT	PO_NUMBER is null.	Warning
482	PACK_PO_FULFILLMENT	CREATION_DATE is null.	Warning
483	PACK_PO_FULFILLMENT	SHIPMENT_ID is null.	Warning
484	PACK_PO_FULFILLMENT	FULFILLMENT_SKU_CODE is null.	Warning
485	PACK_PO_FULFILLMENT	SKU_CODE is not found in the PLANNING_SKU table.	Warning
486	PACK_PO_FULFILLMENT	DEST_LOCATION_NAME is null.	Warning
487	PACK_PO_FULFILLMENT	DEST_LOCATION_NAME is not found in the PLANNING_LOCATION table.	Warning
488	PACK_PO_FULFILLMENT	SRC_LOCATION_NAME is not found in the PLANNING_LOCATION table.	Warning
489	PACK_PO_FULFILLMENT	SUBMISSION_DATE is null.	Warning
490	PACK_PO_FULFILLMENT	RECEIPT_DATE is null.	Warning
491	PACK_PO_FULFILLMENT	ORDER_QUANTITY is null.	Warning
492	PACK_PO_FULFILLMENT	ORDER_QUANTITY is < 0.	Warning
493	PACK_PO_FULFILLMENT	UOM is null.	Warning
494	PACK_PO_FULFILLMENT	UOM is not found in the UNIT_OF_MEASURE table.	Warning
495	PACK_PO_FULFILLMENT	CREATION_DATE must be <= FULFILLMENT_SUBMISSION_DATE.	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
496	PACK_PO_ FULFILLMENT	SUBMISSION_DATE must be <= FULFILLMENT_RECEIPT_DATE.	Warning
599	PACK_HISTORICAL_ SALES	Sales is null.	Warning
600	PACK_HISTORICAL_ SALES	Item_name is null.	Warning
601	PACK_HISTORICAL_ SALES	Location name is null.	Warning
602	PACK_HISTORICAL_ SALES	SKU_CODE is not found in the PLANNING_SKU table.	Warning
603	PACK_HISTORICAL_ SALES	LOCATION_NAME is not found in the PLANNING_LOCATION table.	Warning
604	PACK_HISTORICAL _PRODUCTION	Item_name is null.	Warning
605	PACK_HISTORICAL _PRODUCTION	Location name is null.	Warning
606	PACK_HISTORICAL _PRODUCTION	SKU_CODE is not found in the PLANNING_SKU table.	Warning
607	PACK_HISTORICAL _PRODUCTION	LOCATION_NAME is not found in the PLANNING_LOCATION table.	Warning
608	PACK_HISTORICAL _PRODUCTION	Period Date not found in PLANNING_PERIOD table.	Warning
610	PACK_HISTORICAL_ SALES	SHIP_TO is not found in the PLANNING_LOCATION table.	Warning
611	PACK_HISTORICAL_ SALES	Period Date not found in PLANNING_PERIOD table.	Warning
700	PACK_DEMAND_ FORECAST	Item_name is null.	Warning
701	PACK_DEMAND_ FORECAST	Location name is null.	Warning
702	PACK_DEMAND_ FORECAST	SKU_CODE is not found in the PLANNING_SKU table.	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
703	PACK_DEMAND_ FORECAST	LOCATION_NAME is not found in the PLANNING_LOCATION table.	Warning
704	PACK_DEMAND_ FORECAST	REVISION_PERIOD_DATE is null.	Warning
705	PACK_DEMAND_ FORECAST	FORECAST_PERIOD_DATE is null.	Warning
706	PACK_DEMAND_ FORECAST	DEMAND_FORECAST is null.	Warning
707	PACK_DEMAND_ FORECAST	SHIP_TO is not found in the PLANNING_LOCATION table.	Warning
710	PACK_EXTERNAL_ DEMAND_FORECAST	Supply_path_name is null.	Warning
711	PACK_EXTERNAL_ DEMAND_FORECAST	Period_date is null.	Warning
712	PACK_EXTERNAL_ DEMAND_FORECAST	Demand_mean is null.	Warning
713	PACK_EXTERNAL _DEMAND_FORECAST	Demand_error is null.	Warning
714	PACK_EXTERNAL _DEMAND_FORECAST	SUPPLY_PATH_NAME is not found in the SUPPLY_PATH table.	Warning
720	PACK_PROCESS_BOM	BOM_name is null.	Warning
721	PACK_PROCESS_BOM	Base Item name is null.	Warning
722	PACK_PROCESS_BOM	Component Item is null.	Warning
723	PACK_PROCESS_BOM	BOM quantity is null or 0.	Warning
724	PACK_PROCESS_BOM	Base Item is not found in the PLANNING_SKU table.	Warning
725	PACK_PROCESS_BOM	Component Item is not found in the PLANNING_SKU table.	Warning
726	PACK_PROCESS_BOM	Component Item and Base Item cannot be the same.	Warning
750	PACK_SUPPLY_PATH	Source_Node_Name is null.	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
751	PACK_SUPPLY_PATH	Destination_Node_Name is null.	Warning
752	PACK_SUPPLY_PATH	Source_Node_Name is not found in the NETWORK_NODE table.	Warning
753	PACK_SUPPLY_PATH	Destination_Node_Name is not found in the NETWORK_NODE table.	Warning
760	PACK_SUPPLY_RATIO	Period_date is null.	Warning
761	PACK_SUPPLY_RATIO	Supply_path_name is not found in the MIPO SUPPLY_PATH table.	Warning
770	PACK_SUPPLY_PATH_TV	Period_date is null.	Warning
771	PACK_SUPPLY_PATH_TV	Order_quantity is null.	Warning
772	PACK_SUPPLY_PATH_TV	Supply_path_name is not found in the MIPO SUPPLY_PATH table.	Warning
780	PACK_SUPPLY_PATH_ATTRIBUTE	Supply_path_name is null.	Warning
781	PACK_SUPPLY_PATH_ATTRIBUTE	Supply_path_attribute_name is null.	Warning
782	PACK_SUPPLY_PATH_ATTRIBUTE	Supply_path_attribute_value is null.	Warning
783	PACK_SUPPLY_PATH_ATTRIBUTE	Supply_path_attribute_name not found in the ATTRIBUTE table.	Warning
790	PACK_PROCESS_POINT	Location_name is null.	Warning
791	PACK_PROCESS_POINT	Process_BOM is null.	Warning
792	PACK_PROCESS_POINT	Location_name not found in the PLANNING_LOCATION table.	Warning
793	PACK_PROCESS_POINT	Process_BOM not found in the BILL_OF_MATERIAL table.	Warning
800	PACK_SKU_PACKAGE	Packaged_item not found in the PLANNING_SKU table.	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
801	PACK_SKU_PACKAGE	Finished_item not found in the PLANNING_SKU table.	Warning
820	PACK_SKU_PACKAGE	Superceded Item not found in MIPO planning_sku table.	Warning
821	PACK_SKU_PACKAGE	New Item Name not found in MIPO planning_sku table.	Warning
822	PACK_SKU_PACKAGE	Superceded Location Name not found in MIPO planning_location table.	Warning
823	PACK_SKU_PACKAGE	New Location Name not found in MIPO planning_location table.	Warning
1018	PACK_STOCKING _POINT_TV	Stocking Point name is null.	Warning
2000	PACK_CREATE _TOPOLOGY	STG_FORECAST_DATE IS OUTSIDE THE DATA HORIZON.	Warning
2001	PACK_CREATE _TOPOLOGY	STG_FORECAST ITEM_ID IS NOT IN THE STG_ITEM TABLE.	Warning
2002	PACK_CREATE _TOPOLOGY	STG_FORECAST LOCATION_ID IS NOT IN THE STG_LOCATION TABLE.	Warning
2003	PACK_CREATE _TOPOLOGY	STG_FORECAST SHIP TO IS NOT NULL BUT IS NOT IN THE STG_LOCATION TABLE.	Warning
2010	PACK_CREATE _TOPOLOGY	STG_SOURCING_DATES ARE OUTSIDE THE DATA HORIZON.	Warning
2011	PACK_CREATE _TOPOLOGY	STG_SOURCING ITEM_ID IS NOT IN THE STG_ITEM TABLE.	Warning
2012	PACK_CREATE _TOPOLOGY	STG_SOURCING FROM_LOCATION_ID IS NOT IN THE STG_LOCATION TABLE.	Warning
2013	PACK_CREATE _TOPOLOGY	STG_SOURCING TO_LOCATION_ID IS NOT IN THE STG_LOCATION TABLE.	Warning
2020	PACK_CREATE _TOPOLOGY	STG_BOM BASE_ITEM_ID IS NOT IN THE STG_ITEM TABLE.	Warning
2021	PACK_CREATE _TOPOLOGY	STG_BOM COMP_ITEM_ID IS NOT IN THE STG_ITEM TABLE.	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2022	PACK_CREATE _TOPOLOGY	STG_BOM LOCATION_ID IS NOT IN THE STG_LOCATION TABLE.	Warning
2023	PACK_CREATE_ TOPOLOGY	STG_BOM FROM_DATE OR TO_DATE IS NOT VALID.	Warning
2024	PACK_CREATE_ TOPOLOGY	STG_BOM TO_DATE IS LESS THAN FROM_DATE.	Warning
2030	PACK_CREATE_ TOPOLOGY	STG ITEM ID IS NULL	Warning
2031	PACK_CREATE_ TOPOLOGY	STG ITEM NAME IS NULL	Warning
2035	PACK_CREATE_ TOPOLOGY	STG ITEM ATTRIBUTE ID IS NULL	Warning
2036	PACK_CREATE_ TOPOLOGY	STG ITEM ATTRIBUTE ID IS NOT IN STG_ITEM_LIST	Warning
2037	PACK_CREATE_ TOPOLOGY	STG ITEM ATTRIBUTE NAME IS NULL	Warning
2038	PACK_CREATE_ TOPOLOGY	STG ITEM ATTRIBUTE VALUE IS NULL	Warning
2040	PACK_CREATE_ TOPOLOGY	STG LOCATION ID IS NULL	Warning
2041	PACK_CREATE_ TOPOLOGY	STG LOCATION NAME IS NULL	Warning
2045	PACK_CREATE_ TOPOLOGY	STG LOCATION ATTRIBUTE ID IS NULL	Warning
2046	PACK_CREATE_ TOPOLOGY	STG LOCATION ATTRIBUTE ID IS NOT IN STG_LOCATION_LIST	Warning
2047	PACK_CREATE_ TOPOLOGY	STG LOCATION ATTRIBUTE NAME IS NULL	Warning
2048	PACK_CREATE_ TOPOLOGY	STG LOCATION ATTRIBUTE VALUE IS NULL	Warning
2050	PACK_CREATE_ TOPOLOGY	STG SALES ITEM_ID IS NULL	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2051	PACK_CREATE_ TOPOLOGY	STG SALES ITEM_ID IS NOT IN STG_ITEM_LIST	Warning
2052	PACK_CREATE_ TOPOLOGY	STG SALES LOCATION_ID IS NULL	Warning
2053	PACK_CREATE_ TOPOLOGY	STG SALES LOCATION_ID IS NOT IN STG_LOCATION_LIST	Warning
2054	PACK_CREATE_ TOPOLOGY	STG SALES SHIP_TO IS NOT IN STG_LOCATION_LIST	Warning
2055	PACK_AUGMENT_ DATA	STG SALES PERIOD_DATE IS NOT IN PLANNING_PERIOD	Warning
2060	PACK_CREATE_ TOPOLOGY	STG_HISTORICAL_PRODUCTION ITEM_ID IS NULL	Warning
2061	PACK_CREATE_ TOPOLOGY	STG_HISTORICAL_PRODUCTION ITEM_ID IS NOT IN STG_ITEM_LIST	Warning
2062	PACK_CREATE_ TOPOLOGY	STG_HISTORICAL_PRODUCTION LOCATION_ID IS NULL	Warning
2063	PACK_CREATE_ TOPOLOGY	STG_HISTORICAL_PRODUCTION LOCATION_ID IS NOT IN STG_LOCATION_LIST	Warning
2070	PACK_CREATE_ TOPOLOGY	STG_PURCHASE_ORDER ITEM_ID IS NULL	Warning
2071	PACK_CREATE_ TOPOLOGY	STG_PURCHASE_ORDER ITEM_ID IS NOT IN STG_ITEM_LIST	Warning
2072	PACK_CREATE_ TOPOLOGY	STG_PURCHASE_ORDER SOURCE_LOCATION_ID IS NULL	Warning
2073	PACK_CREATE_ TOPOLOGY	STG_PURCHASE_ORDER SOURCE_LOCATION_ID IS NOT IN STG_LOCATION_LIST	Warning
2074	PACK_CREATE_ TOPOLOGY	STG_PURCHASE_ORDER DESTINATION_LOCATION_ID IS NULL	Warning
2075	PACK_CREATE_ TOPOLOGY	STG_PURCHASE_ORDER DESTINATION_LOCATION_ID IS NOT IN STG_LOCATION_LIST	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2080	PACK_CREATE_ TOPOLOGY	STG NODE ATTRIBUTE NAME IS NULL	Warning
2081	PACK_CREATE_ TOPOLOGY	STG NODE ATTRIBUTE VALUE IS NULL	Warning
2200	PACK_PATTERN	Item_name not found in MIPO planning_sku table.	Warning
2201	PACK_PATTERN	Pattern_name not found in MIPO pattern table.	Warning
2205	PACK_LINE	Plant_name not found in MIPO location table.	Warning
2210	PACK_LINE_ITEM_ INPUT	Line_name not found in MIPO line table.	Warning
2211	PACK_LINE_ITEM_ INPUT	Item_name not found in MIPO planning_sku table.	Warning
2215	PACK_LINE_ ATTRIBUTE_MAP	Line_name not found in MIPO line table.	Warning
2220	PACK_LINE_ITEM_ ATTRIBUTE_MAP	Line Item combination not found in MIPO line_sku_input table.	Warning
2222	PACK_LINE_ITEM_ ATTRIBUTE	Line Item combination not found in MIPO line_sku_input table.	Warning
2225	PACK_ITEM_DEMAND	Plant item combo did not have a corresponding sku_input_key in MIPO.	Warning
2230	PACK_CHANGEOVER_ MATRIX	Line_name not found in MIPO line table.	Warning
2231	PACK_CHANGEOVER_ MATRIX	Source item_name not found in MIPO planning_sku table.	Warning
2232	PACK_CHANGEOVER_ MATRIX	Target item_name not found in MIPO planning_sku table.	Warning
2235	PACK_PRODUCTION _CONSTRAINTS	Source_line_name did not have a corresponding line_name in MIPO line table.	Warning
2236	PACK_PRODUCTION _CONSTRAINTS	Target_line_name did not have a corresponding line_name in MIPO line table.	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2237	PACK_PRODUCTION _CONSTRAINTS	Source_item_name was not null and did not have a corresponding value in MIPO planning_sku table.	Warning
2238	PACK_PRODUCTION _CONSTRAINTS	Target_item_name was not null and did not have a corresponding value in MIPO planning_sku table.	Warning
2239	PACK_PRODUCTION _CONSTRAINTS	Target_item_name was null but source_item_name was not null.	Warning
2240	PACK_PRODUCTION _CONSTRAINTS	Source_item_name was null but target_item_name was not null.	Warning
2245	PACK_PLANT_ITEM _ATTRIBUTE	Plant not found in MIPO plant table.	Warning
2246	PACK_PLANT_ITEM _ATTRIBUTE	Item not found in MIPO planning_sku table.	Warning
2250	PACK_AUGMENT_ DATA	ALERT_NAME IS NULL	Warning
2251	PACK_AUGMENT_ DATA	ALERT_INSTANCE_NUMBER IS NULL	Warning
2252	PACK_AUGMENT_ DATA	SETTING_NAME IS NULL	Warning
2253	PACK_AUGMENT_ DATA	SETTING_NAME NOT IN ERROR, INFORMATIONAL,WARNING, FATAL FOR SETTING_NAME SEVERITY	Warning
2256	PACK_BUSINESS_ ALERTS	ALERT_NAME IS NULL OR NOT IN THE LIST FROM TABLE MIPO_BUSINESS_ALERTS_RULE	Warning
2257	PACK_BUSINESS_ ALERTS	ALERT_INSTANCE_NUMBER IS NULL	Warning
2258	PACK_BUISNESS_ ALERTS	SETTING_NAME IS NULL	Warning
2259	PACK_BUISNESS_ ALERTS	SETTING_VALUE NOT IN ERROR, INFORMATIONAL,WARNING, FATAL FOR SETTING_NAME SEVERITY	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2260	PACK_BUISNESS_ ALERTS	COMPARE_SCENARIO_NAME NOT VALID	Warning
2270	PACK_AUGMENT_ DATA	ship_to_location_id is null	Warning
2271	PACK_AUGMENT_ DATA	demand_interval must be a positive integer	Warning
2280	pack_demand_stream_ input	planning_sku_key is null	Warning
2281	pack_demand_stream_ input	planning_location_key is null	Warning
2282	pack_demand_stream_ input	ship_to_location_key is null	Warning
2300	PACK_STG_TABLE _VALIDATION	STG_FORECAST FORECAST_VALUE IS NULL.	Error
2301	PACK_STG_TABLE _VALIDATION	STG_FORECAST FORECAST_VALUE IS NEGATIVE.	Error
2302	PACK_STG_TABLE _VALIDATION	STG_PERSISTENT_FORECAST FORECAST_VALUE IS NULL.	Error
2303	PACK_STG_TABLE _VALIDATION	STG_PERSISTENT_FORECAST FORECAST_VALUE IS NEGATIVE.	Error
2304	PACK_STG_TABLE _VALIDATION	STG_EXTERNAL_DEMAND DEMAND_VALUE IS NULL OR NEGATIVE.	Error
2305	PACK_STG_TABLE _VALIDATION	STG_EXTERNAL_DEMAND DEMAND_ERROR_VALUE IS NULL OR NEGATIVE.	Error
2306	PACK_STG_TABLE _VALIDATION	STG_DEMAND_STREAM_INPUT DEMAND_INTERVAL IS NEGATIVE.	Error
2307	PACK_STG_TABLE _VALIDATION	STG_DEMAND_STREAM_INPUT DEMAND_INTERVAL IS GREATER THAN HISTORICAL HORIZON.	Error
2308	PACK_STG_TABLE _VALIDATION	STG_BOM QUANTITY LESS THAN OR EQUAL TO 0.	Error

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2309	PACK_STG_TABLE _VALIDATION	STG_SOURCING FROM_LOCATION_ID IS CUSTOMER.	Error
2310	PACK_STG_TABLE _VALIDATION	STG_SOURCING TO_LOCATION_ID IS CUSTOMER.	Error
2311	PACK_STG_TABLE _VALIDATION	STG_SOURCING MODE_UTILIZATION IS NEGATIVE.	Error
2312	PACK_STG_TABLE _VALIDATION	STG_SOURCING DURATION IS NEGATIVE.	Error
2313	PACK_STG_TABLE _VALIDATION	STG_SOURCING SOURCING_QUOTA IS NEGATIVE.	Error
2314	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC SERVICE_LEVEL MUST BE BETWEEN (.50,.9999).	Error
2315	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC MIN_SERVICE_LEVEL MUST BE BETWEEN (.50,.9999).	Error
2316	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC MAX_SERVICE_LEVEL MUST BE BETWEEN (.50,.9999).	Error
2317	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC MAX_SERVICE_LEVEL MUST BE GE MIN_SERVICE_LEVEL	Error
2318	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC STOCKING_POINT_TYPE MUST BE one of (StockingNode, NonManagedNode, NonStockingNode)	Error
2319	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC HOLDING_COST_PCT MUST BE GREATER THAN 0	Error
2320	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC INVENTORY_UNIT_COST MUST BE GREATER THAN 0	Error
2321	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC INVENTORY_UNIT_COST MUST BE LE UNIT_TRANSFER_PRICE	Error

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2322	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC UNIT_PURCHASE_COST MUST BE LE INVENTORY_UNIT_COST	Error
2323	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC PBR MUST BE AN INTEGER > 0	Error
2324	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC PSLR MUST BE NULL OR AN INTEGER GE 0	Error
2325	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC PSLR MUST BE < PBR	Error
2326	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC MAX_SHIP_LIFE MUST BE NULL OR A NUMBER > 0 OR -1 (INFINITY)	Error
2327	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC STORAGE_CAPACITY MUST BE NULL OR A NUMBER > 0 OR -1 (INFINITY)	Error
2328	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC LOST_SALES_PERCENTAGE MUST BE NULL OR A NUMBER GE 0	Error
2329	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_TV MIN_REQUIRED_STOCK CANNOT BE A NEGATIVE NUMBER OR NULL	Error
2330	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC PHYSICAL_LEAD_TIME CANNOT BE A NEGATIVE NUMBER	Error
2331	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC PROCESSING_LEAD_TIME CANNOT BE A NEGATIVE NUMBER	Error
2332	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC LEAD_TIME_ERROR CANNOT BE A NEGATIVE NUMBER	Error
2333	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC SERVICE_TIME CANNOT BE A NEGATIVE NUMBER	Error
2334	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC YIELD CANNOT BE A NEGATIVE NUMBER	Error

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2335	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC BATCH_SIZE CANNOT BE A NEGATIVE NUMBER	Error
2336	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC RELIABILITY MUST BE A NUMBER BETWEEN 0 AND 1	Error
2337	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC MINIMUM_BATCH_SIZE CANNOT BE A NEGATIVE NUMBER	Error
2338	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC FROZEN_WINDOW CANNOT BE A NEGATIVE NUMBER	Error
2339	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC MIN_BATCH_SIZE_IN_PERIODS CANNOT BE A NEGATIVE NUMBER	Error
2340	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_STATIC AT LEAST ONE OF THE NUMERIC COLUMNS MUST BE NON-NULL	Error
2341	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_TV PLANNED_RECEIPTS CANNOT BE A NEGATIVE NUMBER	Error
2342	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_TV MIN_PROCESS_QUANTITY CANNOT BE A NEGATIVE NUMBER	Error
2343	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_TV MAX_PROCESS_CAPACITY MUST BE NULL OR A NUMBER GE 0 OR -1 (INFINITY)	Error
2344	PACK_STG_TABLE _VALIDATION	STG_DEFAULT_PATH_TV AT LEAST ONE OF THE NUMERIC COLUMNS MUST BE NON-NULL	Error
2345	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC PHYSICAL_LEAD_TIME CANNOT BE A NEGATIVE NUMBER	Error

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2346	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC PROCESSING_LEAD_TIME CANNOT BE A NEGATIVE NUMBER	Error
2347	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC LEAD_TIME_ERROR CANNOT BE A NEGATIVE NUMBER	Error
2348	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC SERVICE_TIME CANNOT BE A NEGATIVE NUMBER	Error
2349	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC YIELD CANNOT BE A NEGATIVE NUMBER	Error
2350	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC BATCH_SIZE CANNOT BE A NEGATIVE NUMBER	Error
2351	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC RELIABILITY MUST BE A NUMBER BETWEEN 0 AND 1	Error
2352	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC MINIMUM_BATCH_SIZE CANNOT BE A NEGATIVE NUMBER	Error
2353	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC FROZEN_WINDOW CANNOT BE A NEGATIVE NUMBER	Error
2354	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC MIN_BATCH_SIZE_IN_PERIODS CANNOT BE A NEGATIVE NUMBER	Error
2355	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC SERVICE_LEVEL MUST BE BETWEEN (.50,.9999)	Error
2356	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC MIN_SERVICE_LEVEL MUST BE BETWEEN (.50,.9999)	Error
2357	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC MAX_SERVICE_LEVEL MUST BE BETWEEN (.50,.9999)	Error

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2358	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC MAX_SERVICE_LEVEL MUST BE GE MIN_SERVICE_LEVEL	Error
2359	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC LOST_SALES_PERCENTAGE MUST BE A NUMBER BETWEEN 0 AND 1	Error
2360	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC LOSS_FREE_SERVICE_LEVEL MUST BE A NUMBER BETWEEN 0 AND 1	Error
2361	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_STATIC AT LEAST ONE OF THE NUMERIC COLUMNS MUST BE NON-NULL	Error
2362	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_TV PLANNED_RECEIPTS CANNOT BE A NEGATIVE NUMBER	Error
2363	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_TV MIN_PROCESS_QUANTITY CANNOT BE A NEGATIVE NUMBER	Error
2364	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_TV MAX_PROCESS_CAPACITY MUST BE NULL OR A NUMBER GE 0 OR -1 (INFINITY)	Error
2365	PACK_STG_TABLE _VALIDATION	STG_OVERRIDE_PATH_TV AT LEAST ONE OF THE NUMERIC COLUMNS MUST BE NON-NULL	Error
2366	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_STATIC INV_ALLOC_POLICY must be Divide or Priority	Error
2367	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC HOLDING_COST_PCT MUST BE GREATER THAN 0	Error
2368	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC INVENTORY_UNIT_COST MUST BE GREATER THAN 0	Error

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2369	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC INVENTORY_UNIT_COST MUST BE LE UNIT_TRANSFER_PRICE	Error
2370	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC PBR MUST BE AN INTEGER > 0	Error
2371	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC PSLR MUST BE NULL OR AN INTEGER GE 0	Error
2372	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC PSLR MUST BE < PBR	Error
2373	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC SERVICE_LEVEL MUST BE BETWEEN (.50,.9999).	Error
2374	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC MAX_SHIP_LIFE MUST BE NULL OR A NUMBER > 0 OR -1 (INFINITY)	Error
2375	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC UNIT_PURCHASE_COST MUST BE LE INVENTORY_UNIT_COST	Error
2376	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC STOCKING_POINT_TYPE MUST BE one of (StockingNode, NonManagedNode, NonStockingNode)	Error
2377	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC MIN_SERVICE_LEVEL MUST BE BETWEEN (.50,.9999).	Error
2378	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC MAX_SERVICE_LEVEL MUST BE BETWEEN (.50,.9999).	Error
2379	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC MAX_SERVICE_LEVEL MUST BE GE MIN_SERVICE_LEVEL	Error
2380	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC LOST_SALES_PERCENTAGE MUST BE NULL OR A NUMBER GE 0	Error

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2381	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC STORAGE_CAPACITY MUST BE NULL OR A NUMBER > 0 OR -1 (INFINITY)	Error
2382	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC INV_ALLOC_POLICY must be Divide or Priority	Error
2383	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC PROCESSING_LEAD_TIME CANNOT BE A NEGATIVE NUMBER	Error
2384	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC LEAD_TIME_ERROR CANNOT BE A NEGATIVE NUMBER	Error
2385	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC SERVICE_TIME CANNOT BE A NEGATIVE NUMBER	Error
2386	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC YIELD CANNOT BE A NEGATIVE NUMBER	Error
2387	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC BATCH_SIZE CANNOT BE A NEGATIVE NUMBER	Error
2388	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC RELIABILITY MUST BE A NUMBER BETWEEN 0 AND 1	Error
2389	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC MINIMUM_BATCH_SIZE CANNOT BE A NEGATIVE NUMBER	Error
2390	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC FROZEN_WINDOW CANNOT BE A NEGATIVE NUMBER	Error
2391	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_STATIC MIN_BATCH_SIZE_IN_PERIODS CANNOT BE A NEGATIVE NUMBER	Error

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2392	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_TV PLANNED_RECEIPTS CANNOT BE A NEGATIVE NUMBER	Error
2393	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_TV MIN_PROCESS_QUANTITY CANNOT BE A NEGATIVE NUMBER	Error
2394	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_TV MAX_PROCESS_CAPACITY MUST BE NULL OR A NUMBER GE 0 OR -1 (INFINITY)	Error
2395	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_TV AT LEAST ONE OF THE NUMERIC COLUMNS MUST BE NON-NULL	Error
2396	PACK_STG_TABLE _VALIDATION	STG_ITEM_LOCATION_PATH_TV MIN_REQUIRED_STOCK CANNOT BE A NEGATIVE NUMBER	Error
2397	PACK_STG_TABLE _VALIDATION	STG_NEW_ITEM_MAP CONVERSION FACTOR MUST GREATER THAN 0	Error
2398	PACK_STG_TABLE _VALIDATION	STG_HISTORICAL_PRODUCTION PLANNED_PRODUCTION CANNOT BE A NEGATIVE NUMBER	Error
2399	PACK_STG_TABLE _VALIDATION	STG_HISTORICAL_PRODUCTION ACTUAL_PRODUCTION CANNOT BE A NEGATIVE NUMBER	Error
2400	PACK_STG_TABLE _VALIDATION	STG_HISTORICAL_PRODUCTION AT LEAST ONE OF THE NUMERIC COLUMNS MUST BE NON-NULL	Error
2401	PACK_STG_TABLE _VALIDATION	STG_PURCHASE_ORDER CREATION_DATE MUST BE LE SUBMISSION_DATE	Warning
2402	PACK_STG_TABLE _VALIDATION	STG_PURCHASE_ORDER SUBMISSION_DATE MUST BE LE RECEIPT_DATE	Warning
2403	PACK_STG_TABLE _VALIDATION	STG_PURCHASE_ORDER ORDER QUANTITY MUST GREATER THAN 0	Warning

Table 14-19 Reject message definitions

Reject ID	Package Name	Message	Classification
2404	PACK_STG_TABLE _VALIDATION	STG_ITEM_LIST ITEM_ID SHOULD NOT CONTAIN THE | CHARACTER	Error
2405	PACK_STG_TABLE _VALIDATION	STG_LOCATION_LIST LOCATION_ID SHOULD NOT CONTAIN THE | CHARACTER	Error
2410	PACK_AUGMENT _DATA	SUPPLY_PATH PERIOD_BETWEEN_SHIPMENTS SHOULD NOT BE LESS THAN 0	Warning
2411	PACK_AUGMENT _DATA	DATA SUPPLY_PATH - WARNING - PERIOD_BETWEEN_SHIPMENTS ON A SUPPLY PATH IS GREATER THAN BOTH INPUT PBR ON THE TARGET NODE OF THE SUPPLY PATH AND MIN_BATCH_SIZE_IN_PERIODS ON THE SUPPLY PATH	Warning
2412	PACK_STG_TABLE_ VALIDATION	STG_SOURCING - WARNING - THERE ARE DUPLICATE ROWS IN STG_SOURCING.	Warning
2415	PACK_STG_TABLE_ VALIDATION	STG_SALES SALES_VALUE IS NEGATIVE.	Error
2416	PACK_STG_TABLE_ VALIDATION	STG_PERSISTENT_SALES SALES_VALUE IS NEGATIVE.	Error
2420	PACK_STG_TABLE_ VALIDATION	STG_ITEM_LOCATION_PATH_STATIC SCHEDULE_ATTAINMENT_CV CANNOT BE A NEGATIVE NUMBER	Error
2421	PACK_STG_TABLE_ VALIDATION	STG_ITEM_LOCATION_STATIC SCHEDULE_ATTAINMENT_CV CANNOT BE A NEGATIVE NUMBER	Error
2422	PACK_STG_TABLE_ VALIDATION	STG_ITEM_LOCATION_PATH_STATIC SCHEDULE_ATTAINMENT MUST BE GREATER THAN 0	Error
2423	PACK_STG_TABLE_ VALIDATION	'STG_ITEM_LOCATION_STATIC SCHEDULE_ATTAINMENT MUST BE GREATER THAN 0	Error

Table 14-19 Reject message definitions