Sterling Commerce
An IBM Company

Selling and Fulfillment Foundation: Upgrade Guide

Release 9.0

Last updated in HF5

September 2010

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JSMin.java 2006-02-13; Updated 2007-08-20 with updates from jsmin.c (2007-05-22)

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jsmin.c 2003-04-21

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The ICE Software was modified slightly in order to fix a problem discovered by Sterling Commerce involving the RegistryKey class in the RegistryKey.java in the JNIRegistry.jar. The class was modified to comment out the finalize () method and rebuild of the JNIRegistry.jar file.

Source code for the bug fix completed by Sterling Commerce on January 8, 2003 is located at: installdir/jar/jniregistry/1_2/RegistryKey.java. Source code for all other components of the ICE Software is located at http://www.trustice.com/java/jnireg/index.shtml.

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A Custom JSP Reconciliation for New Functionalities in Release 9.0

B Migration Estimates

Preface

This manual explains how to upgrade to Selling and Fulfillment Foundation Release 9.0, from Sterling Supply Chain Applications, Release 7.3 (or later).

Intended Audience

This manual provides assistance to system administrators, database administrators, and implementation personnel when upgrading from Sterling Supply Chain Applications Release 7.3 (or later) to Selling and Fulfillment Foundation Release 9.0.

Structure

This document contains the following sections:

Chapter 1, "Performing Migration Assessment"

This chapter examines the differences between Selling and Fulfillment Foundation, Release 9.0 and Release 7.3, Release 7.5, Release 7.5 SP1, Release 7.7, Release 7.9, Release 7.11, Release 8.0, Release 8.2 and Release 8.5. These differences include changes in behavior, APIs, agents, user exits, events, and the database.

Chapter 2, "Upgrading to Release 9.0"

This chapter describes the sequence of procedures that you must follow to upgrade from Release 7.3 (or later) to Release 9.0.

Chapter 3, "Multischema Colony-By-Colony Upgrade"

This chapter provides instructions for performing a colony-by-colony upgrade from Release 8.5 to Release 9.0.

Chapter 4, "Product Changes in Business Intelligence"

This chapter discusses the changes in the Business Intelligence module for Distributed Order Management between Release 9.0 and Release 7.3 (and later).

Appendix A, "Custom JSP Reconciliation for New Functionalities in Release 9.0"

This appendix provides instructions for obtaining the list of JSPs that have been modified in the Selling and Fulfillment Foundation, Release 9.0.

Appendix B, "Migration Estimates"

This appendix provides migration estimates for the Selling and Fulfillment Foundation, Release 7.3 through Release 9.0.

Selling and Fulfillment Foundation Documentation

For more information about Selling and Fulfillment Foundation components, see the following manuals:

- *Selling and Fulfillment Foundation: Release Notes*
- *Selling and Fulfillment Foundation: Installation Guide*
- *Selling and Fulfillment Foundation: Upgrade Guide*
- *Selling and Fulfillment Foundation: Configuration Deployment Tool Guide*
- *Selling and Fulfillment Foundation: Performance Management Guide*
- *Selling and Fulfillment Foundation: High Availability Guide*
- *Selling and Fulfillment Foundation: System Management Guide*
- *Selling and Fulfillment Foundation: Localization Guide*
- *Selling and Fulfillment Foundation: Customization Basics Guide*

- *Selling and Fulfillment Foundation: Customizing APIs Guide*
- *Selling and Fulfillment Foundation: Customizing Console JSP Interface for End User Guide*
- *Selling and Fulfillment Foundation: Customizing the RCP Interface Guide*
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- *Selling and Fulfillment Foundation: Extending the Condition Builder Guide*
- *Selling and Fulfillment Foundation: Extending the Database Guide*
- *Selling and Fulfillment Foundation: Extending Transactions Guide*
- *Selling and Fulfillment Foundation: Using Sterling RCP Extensibility Tool Guide*
- *Selling and Fulfillment Foundation: Integration Guide*
- *Selling and Fulfillment Foundation: Product Concepts Guide*
- *Sterling Warehouse Management™ System: Concepts Guide*
- *Selling and Fulfillment Foundation: Application Platform Configuration Guide*
- *Sterling Distributed Order Management™: Configuration Guide*
- *Sterling Supply Collaboration: Configuration Guide*
- *Sterling Global Inventory Visibility™: Configuration Guide*
- *Catalog Management™: Configuration Guide*
- *Sterling Logistics Management: Configuration Guide*
- *Sterling Reverse Logistics™: Configuration Guide*
- *Sterling Warehouse Management System: Configuration Guide*
- *Selling and Fulfillment Foundation: Application Platform User Guide*

- *Sterling Distributed Order Management: User Guide*
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- *Selling and Fulfillment Foundation: Mobile Application User Guide*
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- *Selling and Fulfillment Foundation: Javadocs*
- *Sterling Selling and Fulfillment Suite™: Glossary*
- *Parcel Carrier: Adapter Guide*
- *Visual Modeler™: Application Guide*
- *Selling and Fulfillment Foundation: Multitenant Enterprise Guide*
- *Selling and Fulfillment Foundation: Password Policy Management Guide*
- *Selling and Fulfillment Foundation: Properties Guide*
- *Catalog Management: Concepts Guide*
- *Selling and Fulfillment Foundation: Pricing Concepts Guide*
- *Selling and Fulfillment Foundation: Setting Up Quotes*
- *Sterling Sensitive Data Capture Server, Release 1.0: Configuration Guide*
- *Sterling Sensitive Data Capture Server, Release 1.0: PA-DSS Implementation Guide*
- *Selling and Fulfillment Foundation: Secure Deployment Guide*
- *Business Center: Item Administration Guide*
- *Business Center: Pricing Administration Guide*
- *Business Center: Customization Guide*
- *Business Center: Localization Guide*

Conventions

The following conventions may be used in this manual:

Convention	Meaning
. . .	Ellipsis represents information that has been omitted.
< >	Angle brackets indicate user-supplied input.
`mono-spaced text`	Mono-spaced text indicates a file name, directory path, attribute name, or an inline code example or command.
/ or \	Slashes and backslashes are file separators for Windows, UNIX, and Linux operating systems. The file separator for the Windows operating system is "\" and the file separator for UNIX and Linux systems is "/". The UNIX convention is used unless otherwise mentioned.
<INSTALL_DIR>	User-supplied location of the Selling and Fulfillment Foundation installation directory. This is only applicable for Release 8.0 and later.
<INSTALL_DIR_OLD>	User-supplied location of the Selling and Fulfillment Foundation installation directory (for Release 8.0 and later). **Note:** This is applicable only for users upgrading from Release 8.0 and later.
<SSDCS_DIR>	User-supplied location of the Sterling Sensitive Data Capture Server installation directory. This is applicable for Selling and Fulfillment Foundation, Release 9.0 and later.
<YANTRA_HOME>	User-supplied location of the Sterling Supply Chain Applications installation directory. This is only applicable for Releases 7.7, 7.9, and 7.11.
<YANTRA_HOME_OLD>	User-supplied location of the Sterling Supply Chain Applications installation directory (for Releases 7.7, 7.9, or 7.11). **Note:** This is applicable only for users upgrading from Releases 7.7, 7.9, or 7.11.

Convention	Meaning
<YFS_HOME>	For Releases 7.3, 7.5, and 7.5 SP1, this is the user-supplied location of the Sterling Supply Chain Applications installation directory. For Releases 7.7, 7.9, and 7.11, this is the user-supplied location of the <YANTRA_HOME>/Runtime directory. For Release 8.0 and later, the <YANTRA_HOME>/Runtime directory is no longer used and has been substituted with the location <INSTALL_DIR>.
<YFS_HOME_OLD>	This is the <YANTRA_HOME>/Runtime directory for Releases 7.7, 7.9, or 7.11. **Note:** This is only applicable for users upgrading from Releases 7.7, 7.9, or 7.11.
<ANALYTICS_HOME>	User-supplied location of the Sterling Analytics installation directory. **Note:** This convention is used only in the *Selling and Fulfillment Foundation: Business Intelligence Guide*.
<COGNOS_HOME>	User-supplied location of the IBM Cognos 8 Business Intelligence installation directory. **Note:** This convention is used only in the *Selling and Fulfillment Foundation: Business Intelligence Guide*.
<MQ_JAVA_INSTALL_PATH>	User-supplied location of the IBM WebSphere® MQ Java components installation directory. **Note:** This convention is used only in the *Selling and Fulfillment Foundation: System Management and Administration Guide*.
<DB>	Refers to Oracle®, IBM DB2®, or Microsoft SQL Server® depending on the database server.
<DB_TYPE>	Depending on the database used, considers the value oracle, db2, or sqlserver.

Note: The Selling and Fulfillment Foundation documentation set uses the following conventions in the context of the product name:

- Yantra is used for Release 7.7 and earlier.

- Sterling Supply Chain Applications is used for Releases 7.9 and 7.11.
- Sterling Multi-Channel Fulfillment Solution is used for Releases 8.0 and 8.2.
- Selling and Fulfillment Foundation is used for Releases 8.5 and 9.0.

1

Performing Migration Assessment

This chapter explains the changes in Selling and Fulfillment Foundation between Release 9.0 and Release 7.3. This includes behavioral changes, as well as technical changes in APIs, agents, user exits, events, and the database.

Read this chapter to assess the requirements to migrate to Release 9.0, and then perform the upgrade process steps described in Chapter 2, "Upgrading to Release 9.0".

- If you are migrating from Release 7.3 (or later) to Release 9.0, Selling and Fulfillment Foundation provides a single-step upgrade. Internally, the upgrade process follows a multi-hop path as described in Table 1–1.
- If you are migrating from Release 7.3 or Release 7.3 SP1 to Release 9.0, perform all the migration tasks. The steps involved in migrating from Release 7.3 SP1 to 9.0 are the same as that for upgrading from Release 7.3 to 9.0.
- If you are migrating from Release 7.5 to Release 9.0, skip sections that explain the migration process between Release 7.3 and 7.5.
- If you are migrating from Release 7.5 SP1 to Release 9.0, skip the sections that explain the migration process between Release 7.3 and 7.5, and Release 7.5 and 7.5 SP1.
- If you are migrating from Release 7.7 to Release 9.0, skip the sections that explain the migration process between Release 7.3 and 7.5, Release 7.5 and 7.5 SP1, and Release 7.5 SP1 and 7.7.
- If you are migrating from Release 7.9 to Release 9.0, skip the sections that explain the migration process between Release 7.3 and

7.5, Release 7.5 and 7.5 SP1, Release 7.5 SP1 and 7.7, and Release 7.7 and 7.9.

- If you are migrating from Release 7.11 to Release 9.0, skip the sections that explain the migration process between Release 7.3 and 7.5, Release 7.5 and 7.5 SP1, Release 7.5 SP1 and 7.7, Release 7.7 and 7.9, and Release 7.9 to 7.11.
- If you are migrating from Release 8.0 to Release 9.0, skip the sections that explain the migration process between Release 7.3 and 7.5, Release 7.5 and 7.5 SP1, Release 7.5 SP1 and 7.7, Release 7.7 and 7.9, Release 7.9 and 7.11, and Release 7.11 and 8.0.
- If you are migrating from Release 8.2 to Release 9.0, skip the sections that explain the migration process between Release 7.3 and 7.5, Release 7.5 and 7.5 SP1, Release 7.5 SP1 and 7.7, Release 7.7 and 7.9, Release 7.9 and 7.11, Release 7.11 and 8.0, and Release 8.0 to 8.2.
- If you are migrating from Release 8.5 to Release 9.0, skip the sections that explain the migration process between Release 7.3 and 7.5, Release 7.5 and 7.5 SP1, Release 7.5 SP1 and 7.7, Release 7.7 and 7.9, Release 7.9 and 7.11, Release 7.11 and 8.0, Release 8.0 to 8.2, and Release 8.2 and 8.5.
- If you are migrating from Release 7.5 (or later), skip Chapter 4, "Product Changes in Business Intelligence".

Table 1–1 describes the upgrade paths followed by the system internally when upgrading from Release 7.3 (or later) to Release 9.0. If you are upgrading from Release 8.2 (or earlier) to Release 9.0, only single-schema mode is supported. If you are upgrading from Release 8.5 to Release 9.0, you can upgrade in single-schema or multischema mode.

Table 1–1 Upgrade Paths to Release 9.0

From Product Version	To Product Version	Path Followed
Single-schema Upgrade Mode		
Release 7.3	Release 9.0	7.3 > 7.5 > 7.5 SP1 > 7.7 > 7.9 > 7.11 > 8.0 > 8.2 > 8.5 > 9.0
Release 7.3 SP1	Release 9.0	7.3 SP1 > 7.5 > 7.5 SP1 > 7.7 > 7.9 > 7.11 > 8.0 > 8.2 > 8.5 > 9.0

Table 1–1 Upgrade Paths to Release 9.0

From Product Version	To Product Version	Path Followed
Release 7.5	Release 9.0	7.5 > 7.5 SP1 > 7.7 > 7.9 > 7.11 > 8.0 > 8.2 > 8.5 > 9.0
Release 7.5 SP1	Release 9.0	7.5 SP1 > 7.7 > 7.9 > 7.11 > 8.0 > 8.2 > 8.5 > 9.0
Release 7.7	Release 9.0	7.7 > 7.9 > 7.11 > 8.0 > 8.2 > 8.5 > 9.0
Release 7.9	Release 9.0	7.9 > 7.11 > 8.0 >8.2 > 8.5 > 9.0
Release 7.11	Release 9.0	7.11 > 8.0 > 8.2 > 8.5 > 9.0
Release 8.0	Release 9.0	8.0 > 8.2 > 8.5 > 9.0
Release 8.2	Release 9.0	8.2 > 8.5 > 9.0
Release 8.5	Release 9.0	8.5 > 9.0
Multischema Upgrade Mode		
Release 8.5	Release 9.0	8.5 > 9.0

1.1 System Requirements

Upgrading to Release 9.0 from Release 7.3, Release 7.5, Release 7.5 SP1, Release 7.7, Release 7.9, Release 7.11, Release 8.0, Release 8.2 or Release 8.5 requires ant-1.7.0 and ant-contrib as build tools. These tools have been available for upgrade purposes inside the migration folder in Selling and Fulfillment Foundation. For a complete list of system requirements, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

Note: Test migrations must be run on a "production-similar" machine to ensure that sufficient memory is available, and migration performance is not affected.

1.2 Important Behavior Changes

The following sections describe the various behavior changes and new functionalities between the different releases, which may in turn require manual intervention. This section should be reviewed carefully and verifications carried out as part of your premigration analysis prior to starting the migration process. It is important that the pertinent data, custom code, and configurations are modified, if necessary, to utilize the new functionalities.

You must review all the documented API changes and make the necessary changes to the calling custom screens or programs as required. For more information about APIs, refer to "API Output Template Differences" in the documentation CD, and then the `documentation/upgrade_home.html` file.

1.2.1 Database Updates During Migration

During the upgrade process, several tables and the data in them may be modified. This section provides information about the steps to be taken to locate the tables that have incurred changes.

You can perform the following types of database updates:

- Schema Migration
- Factory Setup Migration
- Custom Data Migration

1.2.1.1 Schema Migration

During schema migration, alter scripts are generated by comparing the entity XML files that were shipped with the previous release with the entity XML files available with the upgrade version. For more information about schema migration, refer to Section 2.10.2, "Tasks to be Performed Before History and Transaction Migration".

After running initupgrade, review the contents of the following directories (including subdirectories) and files for a list of tables that have been modified during schema migration:

If you are using Oracle, review the following directories (including subdirectories) and files:

- <INSTALL_DIR>/Migration/8.5/database/scripts/<oracle>/history
- <INSTALL_DIR>/Migration/8.5/database/scripts/<oracle>/transaction
- <INSTALL_DIR>/Migration/8.5/database/scripts/<oracle>/textsearch
- SQL queries in the "ORACLE_Query" nodes of <INSTALL_DIR>/Migration/8.5/transaction/DropColumnOverride.xml
- SQL queries in the "ORACLE_Query" nodes of <INSTALL_DIR>/Migration/8.5/history/DropColumnOverride.xml
- <INSTALL_DIR>/Migration/8.5/pre-migration-oracle.sql

If you are using DB2, review the following directories (including subdirectories) and files:

- <INSTALL_DIR>/Migration/8.5/database/scripts/<db2>/history
- <INSTALL_DIR>/Migration/8.5/database/scripts/<db2>/transaction
- <INSTALL_DIR>/Migration/8.5/database/scripts/<db2>/textsearch
- SQL queries in the "DB2_Query" nodes of <INSTALL_DIR>/Migration/8.5/transaction/DropColumnOverride.xml
- SQL queries in the "DB2_Query" nodes of <INSTALL_DIR>/Migration/8.5/history/DropColumnOverride.xml
- <INSTALL_DIR>/Migration/8.5/pre-migration-db2.sql

If you are using SQLServer, review the following directories (including subdirectories) and files:

- <INSTALL_DIR>/Migration/8.5/database/scripts/<sqlserver>/history

- <INSTALL_DIR>/Migration/8.5/database/scripts/<sqlserver>/transaction
- <INSTALL_DIR>/Migration/8.5/database/scripts/<sqlserver>/textsearch
- SQL queries in the "SQL_SERVER_Query" nodes of <INSTALL_DIR>/Migration/8.5/transaction/DropColumnOverride.xml
- SQL queries in the "SQL_SERVER_Query" nodes of <INSTALL_DIR>/Migration/8.5/history/DropColumnOverride.xml
- <INSTALL_DIR>/Migration/8.5/pre-migration-sqlserver.sql.

Note: If you are performing an upgrade in multischema mode, the directories listed above contain subdirectories that are defined by tabletype.

Note: These directories will not be created until after the initupgrade step is completed. For more information about initupgrade, refer to Section 2.10.2, "Tasks to be Performed Before History and Transaction Migration".

1.2.1.2 Factory Setup Migration

For a list of tables in which factory setup data is being changed, refer to the following directories:

- For tables with additional factory setup data:

  <INSTALL_DIR>/Migration/<version upgrading from>/database/FactorySetup/XMLs/added

- For tables with changed factory setup data:

  `<INSTALL_DIR>/Migration/<version upgrading from>/database/FactorySetup/XMLs/changed`

> **Note:** The name of each file in these directories corresponds to the name of the table that is being updated, for example, the `YCP_YFS_EVENT.xml` file corresponds to the YFS_EVENT table.
>
> To locate the files pertaining to Business Center in these directories, SBC is added automatically as a prefix to the file names, for example, SBC_YFS_MENU.xml.

1.2.1.3 Custom Data Migration

For a list of tables that have been changed during the custom data migration process using SQL updates, refer to the "Important Behavior Changes" section of the release that is relevant to your upgrade. This section provides you the following information:

- Changes that have taken place during the migration
- Locations of the SQL scripts that have been run or the tables affected

1.2.2 Behavior Changes Between Release 7.3 and Releases Prior to Release 7.3

In Release 7.3, the database framework was enhanced to handle nullable columns. For more information about Database Extensibility, refer to the *Selling and Fulfillment Foundation: Extending the Database Guide*.

Prior to Release 7.3, date fields that were specified as nullable in the `extensions.xml` file were allowed to have the default value " ". From Release 7.3 onwards, the value in the database will be set to Null when no default value was specified for the nullable column in the `extension.xml` file.

In the scenario, where the default value provided for the nullable date field in the `extension.xml` file is an empty space, which is not a valid date, an `Invalid Date Format` exception is thrown.

To resolve the exception, the default value should either be set to a valid date, or the `defaultValue` attribute should not be set in the

extensions.xml file for the nullable column, in which case, the field will be set to null in the database.

1.2.3 Behavior Changes Between Release 7.3 and Release 7.5

The following sections describe in detail, the various behavior changes and new functionalities in Release 7.5, which may require manual intervention. Before performing migration, it is recommended that this section be reviewed carefully, and verifications performed. It is important that pertinent data, custom code, and configurations are modified, if necessary, in order to be able to perform the new functionalities.

Some APIs have undergone structural changes with respect to input and output XMLs.

The changes and new functionalities in 7.5 can be broken down into these categories:

- Application Platform
- Distributed Order Management
- Global Inventory Visibility
- Warehouse Management

1.2.3.1 Application Platform

The changes and new functionalities in the Application Platform component of Release 7.5 pertain to:

- Documentation Folder
- Descriptors Folder
- Context-Sensitive Help EAR Deployment

Note: For the following sections the files are moved to a different folder structure. Refer to Section 1.2.8.4.1, "Directory Structure Changes" for information about the new folder structure.

1.2.3.1.1 Documentation Folder

The documentation folder structure has been modified to facilitate the merging of documents across PCAs and your custom entity XMLs. The <YANTRA_HOME>/Applications/Foundation/documentation/javadocs directory has been split into <YANTRA_HOME>/Applications/Foundation/documentation/api_javadocs and <YANTRA_HOME>/Applications/Foundation/documentation/core_javadocs.

How It Affects You

You must modify reference, if any, made to the files in this folder. For example, if you are referencing the XSD and DTD directories for your XSD or DTD usage, modify the links such that they point to the new location.

Migration Strategy

None.

1.2.3.1.2 Descriptors Folder

The Descriptors folder structure has been modified in Release 7.5 to facilitate the separation of the EAR, EJB, and WAR files of the application servers. In Release 7.5, the <YANTRA_HOME>/Applications/Foundation/descriptors directory contains <YANTRA_HOME>/Applications/Foundation/descriptors/weblogic and <YANTRA_HOME>/Applications/Foundation/descriptors/websphere. The earlier contents of the Descriptors directory have been dispersed under one of the application directories.

How It Affects You

You must modify the references, if any, made to the files in the Descriptors folder. For example, if you are referring to the <YANTRA_

HOME>/Applications/Foundation/descriptors/EAR/META-INF/ibm-application-bnd.xmi in your custom code, it must be modified to point to the new location in the <YANTRA_HOME>/Applications/Foundation/descriptors/websphere/EAR/META-INF directory.

Migration Strategy

None.

1.2.3.1.3 Context-Sensitive Help EAR Deployment

The creation of the EAR functionality has been modified to facilitate the separation of application and Context-Sensitive Help EAR files. Therefore, when you run the build file with the default target (create-ear) two EAR files are created: smcfs.ear and smcfsdocs.ear.

How It Affects You

In addition to deploying the smcfs.ear file, you also must also deploy the documentation EAR file as a separate archive in your application server.

Migration Strategy

None.

1.2.3.2 Distributed Order Management

The changes and new functionalities in the Distributed Order Management component in Release 7.5 pertain to:

- Forwarding
- Sourcing Templates
- Region Match Preference
- Ship Advice Number
- Customer-Level Scheduling Constraints
- Scheduling Behavior
- Repricing Quantity
- Nodes Allowing Procurement with Sourcing Disabled

1.2.3.2.1 Forwarding

As part of the new Forwarding functionality, the MERGE_NODE field has been added to the YFS_ORDER_LINE_SCHEDULE table. Because forwarding is supported only for the Sales Order and Other document classifications, a new field has been added to the YFS_DOCUMENT_PARAMS table.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes pertaining to the enhanced Forwarding functionality.

Automated Migration Processes

This section describes the automated migration process for the enhanced Forwarding functionality.

During migration, the following tasks occur:

- For existing records, the MERGE_NODE field in the YFS_ORDER_LINE table is copied to the MERGE_NODE field of the corresponding record in the YFS_ORDER_LINE_SCHEDULE table for existing records.
- The DOC_TYPE_CLASSIFICATION field is updated for the existing records in the YFS_DOCUMENT_PARAMS table, as specified in Table 1–2.

Table 1–2 YFS_DOCUMENT_PARAMS

If DOCUMENT_TYPE is...	DOC_TYPE_CLASSIFICATION is set to...
0001	SalesOrder
0003	ReturnOrder
0005	PurchaseOrder
0006	TransferOrder
None of the above	Other

Manual Migration Processes

None.

1.2.3.2.2 Sourcing Templates

In order to support the new sourcing enhancements, new fields have been populated in the YFS_SOURCING_RULE_DTL, YFS_SHIP_NODE, and YFS_CAN_SHIP_TO_NT tables.

Additionally, the CAN_SHIP_TO_DC and CAN_SHIP_TO_STORE attributes have been removed from the following APIs:

- createOrganizationHierarchy()
- modifyOrganizationHierarchy()

How It Affects You

You must analyze all the custom codes that utilize either the CAN_SHIP_TO_DC attribute or CAN_SHIP_TO_STORE attribute.

Migration Strategy

This section describes the automated and manual migration processes pertaining to the enhanced Sourcing Templates functionality.

Automated Migration Processes

During migration, the following processes occur:

- For existing records, the TEMPLATE_TYPE field in the YFS_SOURCING_RULE_DTL table is populated with the value "Specific_Node" if the FROM_NODE_KEY field in the record is populated.
- For existing records, the TEMPLATE_TYPE field in the YFS_SOURCING_RULE_DTL table is populated with the value "Distribution_Group" if the DISTRIBUTION_RULE_ID field in the record is populated.
- For records in the YFS_SHIP_NODE table that have the CAN_SHIP_TO_DC field set to "N" and the CAN_SHIP_TO_STORE field set to "Y", a new record is inserted into the YFS_NODE_CAN_SHIP_TO_NT table with the following:
  - NODE_CAN_SHIP_TO_NT_KEY = SHIPNODE_KEY
  - SHIP_NODE_KEY = SHIPNODE KEY
  - NODE_TYPE_ID = "STORE"

  - CREATEUSERID = "UPGRADE75"
  - MODIFYUSERID = "UPGRADE75"
  - CREATEPROGID = "UPGRADE75"
  - MODIFYPROGID = "UPGRADE75"
- For records in the YFS_SHIP_NODE table that have the CAN_SHIP_TO_DC field set to "Y" and the CAN_SHIP_TO_STORE field set to "N", a new record is inserted into the YFS_NODE_CAN_SHIP_TO_NT table with the following:
  - NODE_CAN_SHIP_TO_NT_KEY = SHIPNODE_KEY
  - SHIP_NODE_KEY = SHIPNODE KEY
  - NODE_TYPE_ID = "DC"
  - CREATEUSERID = "UPGRADE75"
  - MODIFYUSERID = "UPGRADE75"
  - CREATEPROGID = "UPGRADE75"
  - MODIFYPROGID = "UPGRADE75"
- For records in the YFS_SHIP_NODE table that have the CAN_SHIP_TO_DC field set to "N" and the CAN_SHIP_TO_STORE field set to "N", the CAN_SHIP_TO_ALL_NODES field is set to "N".

Manual Migration Processes

Because the CAN_SHIP_TO_DC and CAN_SHIP_TO_STORE attributes are removed from the createOrganizationHierarchy()API and the modifyOrganizationHierarchy() API, pass this in the <CanShipToNodeType> XML element. For more information, refer to the *Selling and Fulfillment Foundation: Javadocs*.

1.2.3.2.3 Region Match Preference

In Release 7.3, a leaf region could only be matched for use in various applications (pricing, sourcing, and so on) based on the zip code or country in the Ship-To address.

Region levels could be defined to create region hierarchies. These hierarchies provided the structure required to create a region schema. Zip code ranges were specified at the leaf region level, such as the state

level or the city level. These regions could be matched based on the zip code in the Ship-To address.

Additionally, a region could be defined as serving an entire country by selecting the Services Entire Country flag. These regions could be matched based on the country code in the Ship-To address.

Now, regions can be matched for use by the application based upon various address fields, depending on the country in which the region is located.

A country can match regions by using the following address fields:

- Country
- State
- City
- Zip Code
- Address Line 6

As part of this enhancement, the following changes have been made:

- Services Entire Country

  This flag is no longer used or displayed in the Applications Manager. Previously, this flag was used to identify a region as a country in the database, with no zip code information. The enhancement now performs the same service by allowing users to specify Country region levels.

  For existing regions that have this flag selected, the region name is updated to match the country code so that region matching by country can occur for each region name.

- Region Match Preferences

  For existing regions that have the Services Entire Country flag selected, a record is inserted into this table such that the existing functionality is maintained.

- Address Field Alias For Country Region Levels

  Region levels for regions that are specified as servicing entire countries are updated such that they map to the Country address field.

How It Affects You

Several steps are taken during the migration process to ensure that the existing functionality is maintained. However, this enhancement may require some manual configuration if your setup contains either of the following scenarios:

- Country Region Name does not match Country Code
- For existing regions with SERVICES_ENTIRE_COUNTRY="Y", region names are overwritten with the Country Code to support this enhancement. For example, if you have a region, Hong Kong, defined, and the country code is HK, the region name is updated to HK.
- Different Regions that Service Entire Country with the same Region Schema, Parent Region, and Country exist.
- If more than one region has been defined for a country where SERVICES_ENTIRE_COUNTRY="Y" with the same Region Schema, Parent Region, and Country, the migration validator throws an error. For more information about data migration, refer to Section 2.10, "Data Migration".
- Duplicate Regions with different Region Details for the same Country exist.

  If a region has been defined for a country where SERVICES_ENTIRE_COUNTRY="Y", and another region defined for the same country matched regions based on zip codes, the migration validator throws an error. For more information, refer to the Manual Migration Processes.

Migration Strategy

This section describes the automated and manual migration processes for the Region Match Preferences functionality.

Automated Migration Process

During migration, the following actions occurs:

- In the YFS_REGION table, REGION_NAME is populated with COUNTRY for existing records with SERVICES_ENTIRE_COUNTRY="Y".
- For existing records in the YFS_REGION table with SERVICES_ENTIRE_COUNTRY=Y, a record is inserted into the YFS_REGION_MATCH_PREF

table, where YFS_REGION_MATCH_PREF.COUNTRY=YFS_REGION.COUNTRY, and YFS_REGION_MATCH_PREF.ADDRESS_FIELD_ALIAS="COUNTRY".

- The ADDRESS_FIELD_ALIAS is populated with COUNTRY for the existing records in the YFS_REGION_LEVEL table that corresponds to any record in the YFS_REGION table with SERVICES_ENTIRE_COUNTRY="Y".

Manual Migration Processes

If you currently have any regions that service entire countries, with the region name not matching the country code, ensure that custom code matching by region name value, if any, is updated to match the country code value.

For more information about data migration, refer to Section 2.10, "Data Migration".

1.2.3.2.4 Ship Advice Number

To support the sequential generation of numeric ship advice numbers, two new records have been inserted into the YFS_RULES and YFS_BASE_RULES tables.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Ship Advice Number functionality.

Automated Migration Process

To support this enhancement, the following records have been added to the YFS_RULES and YFS_BASE_RULES tables:

- USE_NUMERIC_SHIP_ADVICE_NO, with the default value as "N", which can be maintained at the hub level.
- MAX_SHIP_ADVICE_NO_SEQ_LENGTH, with the default value as "9", which can be maintained at the hub level.

Manual Migration Process

None.

1.2.3.2.5 Customer-Level Scheduling Constraints

To support the enhancement related to customer scheduling in order to enable users to specify constraints at the customer level during scheduling, the YFS_ALLOCATION_RULE table has been changed.

In Release 7.3, the LINE_SHIP_SINGLE_NODE_FLAG attribute implied that the line was shipped completely. Similarly, the SHIP_SINGLE_NODE_FLAG attribute implied that the order was shipped completely.

In Release 7.5, this functionality has been separated into two additional flags, LINE_SHIP_COMPLETE_FLAG and SHIP_COMPLETE_FLAG. In order to maintain previous behavior, these new attributes are populated accordingly for rules that have either the LINE_SHIP_SINGLE_NODE_FLAG or the SHIP_SINGLE_NODE_FLAG set to "Y".

In addition, the SHIP_COMPLETE_FLAG attribute is removed from the YFS_ORDER_HEADER table.

How It Affects You

This affects you only if you are utilizing the SHIP_COMPLETE_FLAG column in the YFS_ORDER_HEADER table, and run the drops.sql script after running the migration. Refer to "Manual Migration Processes" for more information.

Migration Strategy

This section describes the automated and manual migration processes for the Customer-Level Scheduling Constraints functionality.

Automated Migration Process

To support this enhancement, the following flags are set to "Y" for the records in the YFS_ALLOCATION_RULE table, where SHIP_SINGLE_NODE_FLAG = "Y":

- SHIP_COMPLETE_FLAG
- LINE_SHIP_COMPLETE_FLAG
- LINE_SHIP_SINGLE_NODE_FLAG

Additionally, in the YFS_ALLOCATION_RULE table, the LINE_SHIP_COMPLETE_FLAG is set to "Y" for records where LINE_SHIP_SINGLE_NODE_FLAG = "Y".

Manual Migration Processes

To prevent the SHIP_COMPLETE_FLAG column from being re-created, after you run the drops.sql script, remove the yantra_73_75_dropped.xml file from the <YANTRA_HOME>/Applications/Foundation/Migration/7.3/database/modentities directory.

1.2.3.2.6 Scheduling Behavior

In Release 7.3, in a scenario where two lines were shipped together, with one line partially available and the second line completely available, no suggested options were returned during scheduling.

Now, in this scenario suggested options are returned.

Migration Strategy

None.

1.2.3.2.7 Repricing Quantity

In Release 7.3, the logic for calculating the unit price for an order line used the PricingQty attribute.

Now, the logic for calculating a unit price for an order line uses the RepricingQty attribute. Note that PricingQty still exists, and is equal to the RepricingQty. These values differ only when there is a cancellation or return of any quantity.

This enhancement enables the repricing of an order when pricing is affected by promotions or discounts on specific item quantities or combinations.

How It Affects You

This affects you only if you were previously using pricing within Selling and Fulfillment Foundation. For more information, refer to Manual Migration Process.

Migration Strategy

This section describes the automated and manual migration processes for the Repricing Quantity functionality.

Automated Migration Process

In the YFS_ORDER_LINE table, the value of the RepricingQty is set to the same value as the PricingQty for existing records.

Manual Migration Process

To ensure that RepricingQty and PricingQty always maintain the same value:

In the Applications Manager, edit all the existing modification and return reasons to ensure that the Re-Price Order With Reduced Quantity or the Re-Price Sales Order With Reduced Quantity check boxes are selected.

1.2.3.2.8 Nodes Allowing Procurement with Sourcing Disabled

In Release 7.3, if sourcing rules are not being used, and the node that belongs to an enterprise in the order allows procurement, the `scheduleOrder ()` API backorders the order when inventory is not available at the node.

How It Affects You

This affects you only if you have disabled the sourcing functionality in Selling and Fulfillment Foundation, and your setup contains nodes that are specified to allow procurement.

Migration Strategy

This section describes the automated and manual migration processes for the Nodes Allowing Procurement with Sourcing Disabled functionality.

Automated Migration Process

None.

Manual Migration Process

To maintain the existing functionality where orders in such cases are backordered, procurement should be disabled in all the nodes.

1.2.3.3 Global Inventory Visibility

The changes or new functionalities in Release 7.5 in the Global Inventory Visibility component pertain to:

- Item Attribute Inheritance
- Communicated Demand Flag
- Summarize and Maintain Total Supply and Demand
- Item Validation During Inventory Adjustment
- Supply Kept Externally Flag
- Inventory Availability Safety Factor
- Ship Node Tag Capture
- Inventory Audit Purge Agent
- Unused Columns Cleanup

1.2.3.3.1 Item Attribute Inheritance

To support the new functionalities around item attribute inheritance, some field values in the YFS_ITEM table are set to NULL if their values are equivalent to the default database values.

How It Affects You

If you are using DB2, you must make some manual changes to these columns. Refer to the "Manual Migration Process" for more information.

If you are using Oracle or Microsoft SQLServer, there is no effect. While these values are being updated to NULL, Selling and Fulfillment Foundation retains the existing default database values, and uses them during runtime if the value found in the database is NULL.

Migration Strategy

This section describes the automated and manual migration processes for the Item Attribute Inheritance functionality.

Automated Migration Processes

> **Note:** If you are using DB2, this change must be made manually. Refer to "Manual Migration Process" for more information.

The following fields (with the corresponding default values) in the YFS_ITEM table are run to update the database values to NULL:

- YFS_ITEM.ADVANCE_NOTIFICATION_TIME = 0
- YFS_ITEM.ASSUME_INFINITE_INVENTORY = 'N'
- YFS_ITEM.IS_FIFO_TRACKED = ' '
- YFS_ITEM.LEAD_TIME = 0
- YFS_ITEM.MIN_NOTIFICATION_TIME = 0
- YFS_ITEM.IS_DELIVERY_ALLOWED = 'N'
- YFS_ITEM.IS_PARCEL_SHIPPING_ALLOWED = 'Y'
- YFS_ITEM.IS_PICKUP_ALLOWED = 'N'
- YFS_ITEM.IS_SHIPPING_ALLOWED = 'N'
- YFS_ITEM.IS_RETURNABLE = 'N'
- YFS_ITEM.RETURN_WINDOW = '0'

Manual Migration Process

If you are using DB2, manually make the fields listed in "Automated Migration Process" as nullable, and change the default value of these columns to NULL.

1.2.3.3.2 Communicated Demand Flag

To support the enhancements in Release 7.5, a new flag has been added to determine whether demands of specific demand types are communicated to external systems.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for Communicated Demand Flag functionality.

Automated Migration Process

During migration, the COMMUNICATED_DEMAND field is populated with "N" in the YFS_INVENTORY_DEMAND_TYPE table for existing records.

Manual Migration Processes

None.

1.2.3.3.3 Summarize and Maintain Total Supply and Demand

To support hot SKU enhancements, a new flag, Summarize and Maintain Total Supply and Demand for Tag has been inserted into both the YFS_RULES and YFS_BASE_RULES tables. This flag indicates whether total supply and demand are being tracked for an inventory tag. If total supply and demand are being tracked, the hot SKU functionality is not utilized for the tag-controlled items.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Summarize and Maintain Total Supply and Demand functionality.

Automated Migration Process

To support this enhancement, the following record is added to both the YFS_RULES and YFS_BASE_RULES tables:

SUM_AND_MAINTAIN_TOTAL_SUPPLY_DEMAND_FOR_TAG, with the default value as "Y", which can be maintained at the hub level.

Manual Migration Process

None.

1.2.3.3.4 Item Validation During Inventory Adjustment

To support an item validation enhancement during a call to the adjustInventory () API, a new record is inserted into both the YFS_RULES and YFS_BASE_RULES tables.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Item Validation During Inventory Adjustment functionality.

Automated Migration Process

To support this enhancement, the following record is added to both the YFS_RULES and YFS_BASE_RULES tables:

- VALIDATE_ITEM_DURING_ADJUST_INVENTORY, with a default value of "N", which can be maintained at the inventory organization level.

Manual Migration Process

None.

1.2.3.3.5 Supply Kept Externally Flag

To support an enhancement that enables Selling and Fulfillment Foundation to get inventory availability for a node from an external system, a new column has been added to the YFS_ORGANIZATION table.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Supply Kept Externally Flag functionality.

Automated Migration Process

The SUPPLY_KEPT_EXTERNALLY column is added to the YFS_ORGANIZATION table, and populated with a value of "N" for existing records.

Manual Migration Process

None.

1.2.3.3.6 Inventory Availability Safety Factor

In Release 7.3, the future inventory availability percentage was provided to allow visibility to only a percentage of the future inventory availability.

Now, inventory availability safety factors have been introduced as an enhancement to replace the earlier functionality. Inventory availability safety factors enable you to specify the quantity or percentage to exclude from on-hand and future inventory availability for various reasons.

In addition, the Future Inventory Considerations branch available under the Global Inventory Visibility tree in the Applications Manager has been replaced with the Inventory Availability Safety Factor branch.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Inventory Availability Safety Factor functionality.

Automated Migration Processes

In Release 7.3, the future inventory availability percentage indicated the percentage to be included in inventory availability. Now, the inventory availability safety factor indicates the quantity or percentage to be excluded from inventory availability.

During migration, all the records in the YFS_FUTURE_INVENTORY_AVAIL table are inserted into the YFS_INV_AVAIL_SAFETY_FACTOR table. The SAFETY_FACTOR_PERCENTAGE value for these records is calculated as follows:

```
YFS_INV_AVAIL_SAFETY_FACTOR.SAFETY_FACTOR_PERCENTAGE = 100 -
YFS_FUTURE_INVENTORY_AVAIL.AVAILABILITY_PERCENTAGE
```

Manual Migration Processes

The YFS_FUTURE_INVENTORY_AVAIL table is no longer used, and can be removed by running the `drops.sql` script as indicated in Section 2.12.1, "Postmigration Selling and Fulfillment Foundation Preparation Tasks".

1.2.3.3.7 Ship Node Tag Capture

It is no longer mandatory for a ship node to capture tag information for tag-controlled items. Tag information can be captured for items either when performing a warehouse operation, or when receiving or shipping inventory. For more information, refer to Section 1.2.3.4.1, "Ship Node Tag Capture".

1.2.3.3.8 Inventory Audit Purge Agent

An enhancement has been made to the inventory audit purge transaction. To support this enhancement, the purge agent is now restricted to run in single-thread mode only.

How It Affects You

If you run this purge agent with multiple threads, you must modify your agent criteria runtime properties. For more information refer to the "Manual Migration Processes".

Migration Strategy

This section describes the automated and manual migration processes for the Inventory Audit Purge Agent functionality.

Automated Migration Processes

None.

Manual Migration Processes

Ensure that the Number of Threads for this purge agent is set to 1 in the Applications Manager. For more information about modifying agent criteria details, refer to the *Selling and Fulfillment Foundation: Application Platform Configuration Guide*.

1.2.3.3.9 Unused Columns Cleanup

In Release 7.5 the following unused columns have been removed:

- YFS_INVENTORY_SUPPLY.UNIT_COST
- YFS_INVENTORY_SUPPLY.CURRENCY
- YFS_INVENTORY_SUPPLY_ADDNL.UNIT_COST
- YFS_INVENTORY_SUPPLY_ADDNL.CURRENCY
- YFS_INVENTORY_SUPPLY_TEMP.CURRENCY

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Unused Columns Cleanup functionality.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.3.4 Warehouse Management

The changes or new functionalities in Release 7.5 in the Warehouse Management component pertain to:

- Ship Node Tag Capture
- Hazmat Compliance
- Receiving Unexpected Items in a Shipment
- Routing Attributes
- Partial Inventory Deposit
- Item Pick
- Item/Carrier Constraints
- Third-Party Billing for Return Shipments

- ConnectShip Integration
- Supply Kept Externally Flag
- Receiving Preferences Enhancement

1.2.3.4.1 Ship Node Tag Capture

It is not mandatory for a ship node to capture tag information for tag-controlled items. Tag information can be captured for items either when performing a warehouse operation, or when receiving or shipping inventory.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Ship Node Tag Capture functionality.

Automated Migration Process

During migration, the existing records are updated to default values for the newly added columns in the following tables:

- In the YFS_SHIP_NODE table, the columns, TAG_TRACKED_IN_INVENTORY and TAG_TRACKED_AT_RECEIPT are defaulted with the value "Y".
- In the YFS_INBOUND_COMPLIANCE table, the CAPTURE_TAG_WHILE_SHIPPING column is defaulted with the value "Y".

Manual Migration Processes

None.

1.2.3.4.2 Hazmat Compliance

As an enhancement, Selling and Fulfillment Foundation now provides the hazmat compliance feature that supports shipping of hazardous items from warehouses situated in the United States or North America, along with the shipping documents that provide information about the hazardous materials. The information printed is in accordance with compliance requirements published by the U.S. Department of Transportation.

How It Affects You

If you ship hazardous materials, you must update the item's hazardous class in the same order as that published by the U.S. Department of Transportation.

In previous versions, you had to manually specify that shipments or loads carry hazardous items. In Release 7.5, when you create shipments or loads that contain hazardous items, the system automatically specifies that the shipment or load is hazardous.

If you want to use a specific carrier service to ship hazardous material, set the CAN_SHIP_HAZMAT value to "Y" in the YFS_SCAC_AND_SERVICE table. By default, this value is set to "N".

Migration Strategy

This section describes the automated and manual migration processes for the Hazmat Compliance functionality.

Automated Migration Processes

During migration, all the items maintained in Selling and Fulfillment Foundation are marked as nonhazardous (IS_HAZMAT = "N").

Manual Migration Processes

If you ship hazardous materials, you must update the item's hazardous class in the same order as that published by the U.S. Department of Transportation.

1.2.3.4.3 Receiving Unexpected Items in a Shipment

As an enhancement, Selling and Fulfillment Foundation now allows you to suppress overage checks and receive items that do not exist in the shipment.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Receiving Unexpected Items in a Shipment enhancement.

Automated Migration Processes

During migration, the ALLOW_NEW_ITEM_RECEIPT field in the YFS_NODE_RECEIVING_PREF table and YFS_SHIPMENT table populate data for existing records.

Manual Migration Processes

None.

1.2.3.4.4 Routing Attributes

As an enhancement, Selling and Fulfillment Foundation now provides routing based on shipping attributes such as IS_HAZMAT, IS_FREEZER_REQUIRED, and so on.

How It Affects You

You can configure multiple carriers and services with different priorities for a given routing criteria.

Migration Strategy

This section describes the automated and manual migration processes for the Routing Attributes enhancement.

Automated Migration Processes

During migration, all the items maintained in Selling and Fulfillment Foundation marked as parcel shippable ' ' (blank) are now marked as parcel-shippable (IS_PARCEL_SHIPPING_ALLOWED = "Y").

The YFS_ROUTING_GUIDE_DETAIL table is now split into two tables, the YFS_ROUTING_GUIDE_DETAIL and YFS_ROUTING_GUIDE_DTL_CARRIER tables. The SCAC and carrier service information in the YFS_ROUTING_GUIDE_DETAIL records are migrated to the new entity YFS_ROUTING_GUIDE_DTL_CARRIER. During the migration process, the routing guide detail records that have the same logical keys are identified and merged into one record in the YFS_ROUTING_GUIDE_DETAIL table, and the corresponding records are created in the YFS_ROUTING_GUIDE_DTL_CARRIER table with different priorities.

Manual Migration Processes

None.

1.2.3.4.5 Partial Inventory Deposit

This enhancement enables a user to partially deposit inventory using the Mobile Application.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Partial Inventory Deposit functionality.

Automated Migration Processes

During migration, in the YFS_EXECUTION_EXCEPTION table, the ALLOW_PARTIAL_DEPOSIT field is defaulted with "N" for existing records.

Manual Migration Processes

None.

1.2.3.4.6 Item Pick

As an enhancement, Selling and Fulfillment Foundation now enables pick location assignment configuration for item picking, order picking, and batch picking. If item picking or order picking conditions are not met, batch picking tasks are created by default.

How It Affects You

None.

Prerequisites

Ensure that the item pick, order pick, and batch pick tasks are completed before migration.

Migration Strategy

This section describes the automated and manual migration processes for the Item Pick enhancement.

Automated Migration Processes

This section describes the automated migration processes for the Item Pick enhancement.

Pick Strategy

During migration, all the records from the YFS_PICK_STRATEGY table are fetched. Each of these pick strategy records are migrated as follows:

- All the records from the YFS_PLA_ITEM_CONDITION table corresponding to the YFS_PICK_STRATEGY record are fetched. Each of these records are replicated with ENTITY_NAME as, Item_Pick_Pla_Item_Condition, Order_Pick_Pla_Item_Condition, or Batch_Pick_Pla_Item_Condition.
- In the YFS_PLA_UOM_CONDITION table:
  - For each existing record that does not have a PLA_ITEM_CONDITION_KEY, a new record is created in the YFS_PLA_ITEM_CONDITION table with the corresponding entity name. The PLA_ITEM_CONDITION_KEY of the newly created record is copied to the corresponding YFS_PLA_UOM_CONDITION record.
  - For records that have a PLA_ITEM_CONDITION_KEY, all the records from the YFS_PLA_UOM_CONDITION table that correspond to the PLA_ITEM_CONDITION_KEY are fetched. Each of these records are replicated for the newly created YFS_PLA_ITEM_CONDITION record.
- In the YFS_PLA_CONDITION_ATTR table, all the records corresponding to the YFS_PLA_UOM_CONDITION record are fetched. These records are replicated with the PLA_UOM_CONDITION_KEY as the primary key of the newly created YFS_PLA_UOM_CONDITION record.
- In the YFS_PLA_ZONE_SET table, all the records corresponding to the YFS_PLA_UOM_CONDITION record are fetched. Each of these records are replicated with the PLA_UOM_CONDITION_KEY as the primary key of the newly created YFS_PLA_UOM_CONDITION record and the ENTITY_NAME as Item_Pick_Pla_Zone_Set, Order_Pick_Pla_Zone_Set, or Batch_Pick_Pla_Zone_Set.
- All the records from the YFS_PLA_ZONE_ATTR table and the YFS_PLA_UPGRADE_UOM table corresponding to the YFS_PLA_ZONE_SET record are fetched. Each of these records are replicated with the PLA_ZONE_SET_KEY as the primary key of the newly created YFS_PLA_ZONE_SET record.

- In the YFS_TASK_TYPE table, all the records with ACTIVITY_CODE = ItemPick is replaced with ACTIVITY_CODE = OrderPick, and the PRIMARY_TASK_REFERENCE field is defaulted to ShipmentNo.
- In the YFS_PLA_ACTIVITY_TASK_TYPE table, all the records corresponding to ACTIVITY = ItemPick are deleted. The user must manually create these records in the Applications Manager. All the records corresponding to ACTIVITY = OrderPick and BatchPick are modified to point to the corresponding records in the YFS_PLA_ZONE_SET table.

Retrieval Strategy

During migration, all records from the YFS_RETRIEVAL_STRATEGY table are fetched. Each of these retrieval strategy records are migrated as follows:

- All the records from the YFS_PLA_ITEM_CONDITION table corresponding to the YFS_RETRIEVAL_STRATEGY record are fetched. For each of these records, the ENTITY_NAME is defaulted with Retrieval_Pla_Item_Condition.
- In the YFS_PLA_UOM_CONDITION table, for each existing record that does not have a PLA_ITEM_CONDITION_KEY, a new record is created in the YFS_PLA_ITEM_CONDITION table with ENTITY_NAME = Retrieval_Pla_Item_Condition. The PLA_ITEM_CONDITION_KEY of the newly created records are copied into the corresponding YFS_PLA_UOM_CONDITION record.
- In the YFS_PLA_ZONE_SET table, all the records corresponding to the YFS_PLA_UOM_CONDITION record are fetched. For each of these records, the ENTITY_NAME is defaulted with Retrieval_Pla_Zone_Set.

Manual Migration Processes

None.

1.2.3.4.7 Item/Carrier Constraints

As an enhancement, Selling and Fulfillment Foundation now enables you to specify whether air shipping or hazmat shipping is allowed at the item level and the carrier level.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Item and Carrier Constraints functionality.

Automated Migration Processes

During migration, the IS_AIR and CAN_SHIP_HAZMAT fields are populated with the value N in the YFS_SCAC_AND_SERVICE table for all the existing records.

Manual Migration Processes

None.

1.2.3.4.8 Third-Party Billing for Return Shipments

To support an enhancement that allows Selling and Fulfillment Foundation to use third-party billing for return shipments, two new columns have been added to the YFS_SCAC_EX table.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Third-Party Billing functionality.

Automated Migration Processes

The IS_TPB_REQ_OUT_SHIP and IS_TPB_REQ_RET_SHIP columns are added to the YFS_SCAC_EX table. The value of the IS_TPB_REQ_OUT_SHIP column is set to "Y" for all the records that have values in the ACCOUNT1 and THIRD-PARTY-ORGANIZATION_KEY columns.

1.2.3.4.9 ConnectShip Integration

Selling and Fulfillment Foundation provides ConnectShip integration capabilities for shipment manifesting.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the ConnectShip Integration enhancement.

Automated Migration Processes

- To support ConnectShip integration, new factory setup data has been added in the following tables, which is automatically installed in your database:
  - YCS_Process_Control
  - YCS_PLD_Details
  - YCS_General_Codes
- The IS_SHIPMENT_LEVEL_INTG_REQD field that is present in the YCS_Carrier_Service table is moved to the YFS_SCAC_And_Service table.
- The following user exits are no longer feasible and are removed as part of ConnectShip integration:
  - YCScloseManifestExtCarrSysUserExit
  - YCSdeleteCartonExtCarrSysUserExit
  - YCSeodFileExtCarrSysUserExit
  - YCSshipCartonExtCarrSysUserExit
- A migrator, which removes user exit records from the YFS_USER_EXIT table and the YFS_USER_EXIT_IMPL table, is provided.

Manual Migration Processes

None.

1.2.3.4.10 Supply Kept Externally Flag

To support an enhancement that allows Selling and Fulfillment Foundation to get the availability for a node from an external system, a new column has been added to the YFS_ORGANIZATION table.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the Supply Kept Externally Flag functionality.

Automated Migration Processes

The SUPPLY_KEPT_EXTERNALLY column is added to the YFS_ ORGANIZATION table, and populated with a value of "N" for all the existing records.

Manual Migration Processes

None.

1.2.3.4.11 Receiving Preferences Enhancement

In the previous releases, child enterprises that inherited the configuration from a parent enterprise could modify the receiving preferences.

In Release 7.5, the receiving preferences have been disabled for child enterprises that inherit the configuration from a parent enterprise. Because of this enhancement, only the parent enterprise can modify the receiving preferences of the child enterprise.

How It Affects You

If you want to enable the receiving preferences for a child enterprise, override the inherited rules. A new record with Group_Name as WMS_ Receiving is created in the YFS_ORG_GROUP_OVERRIDE table. For more information about inherited rules, refer to the *Sterling Warehouse Management System: Configuration Guide*.

Migration Strategy

This section describes the automatic and manual migration processes for this functionality.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.4 Behavior Changes Between Release 7.5 and Release 7.5 SP1

The following sections describe in detail, the changes and new functionalities in 7.5 SP1, which may require manual intervention. Before performing migration, it is recommended that this section is reviewed carefully and verifications performed as part of your premigration analysis. It is important that pertinent data, custom code, and configurations are modified, if necessary, in order to be able to utilize the new functionalities.

Some APIs have undergone structural changes with respect to input and output XMLs.

1.2.4.1 Warehouse Management

The changes and new functionalities in the Warehouse Management component in Release 7.5 SP1 pertain to:

- Cycle Count Request Generation Algorithm Enhancement
- Activity Constraints Enhancement

1.2.4.1.1 Cycle Count Request Generation Algorithm Enhancement

In the previous releases, when the system generated count requests for cycle count programs, it did not count items without an inventory.

In this release, the algorithm ensures that the system reconsiders such items eligible for count as soon as inventory becomes available.

How It Affects You

Items that cannot be counted because of the absence of inventory become eligible for count as soon as inventory is available.

Migration Strategy

This section describes the automatic and manual migration processes for the Cycle Count functionality.

Automated Migration Processes

In Release 7.5 SP1, data is migrated into the YFS_ITEM_COUNT_STATE table for all the items that were put on count during the active count period at the time of the upgrade.

Manual Migration Processes

None.

1.2.4.1.2 Activity Constraints Enhancement

In the previous releases, a single SKU pallet was allowed to split during putaway.

In Release 7.5 SP1, this behavior has been modified such that, the system allows the splitting of a single SKU pallet only if the ALLOW_SPLIT_PALLET attribute in the YFS_ACTIVITY_CONSTRAINT table is set to Y.

How It Affects You

If the ALLOW_SPLIT_PALLET attribute is not set to Y, the entire pallet is moved to one location. This condition holds good even if there is a demand for only a part of the inventory available in the pallet.

To split a single SKU pallet, the SPLIT_PALLET flag in the YFS_ACTIVITY_CONSTRAINT table must be set to Y.

Migration Strategy

This section describes the automatic and manual migration processes for the Activity Constraints functionality.

Automated Migration Processes

In the YFS_ACTIVITY_CONSTRAINT table, set the SPLIT_PALLET flag to Y for all the existing records that satisfy the following conditions:

- INVENTORY_TYPE = SingleSku
- LPN_TYPE = Pallet
- SPLIT_PALLET is blank

Manual Migration Processes

None.

1.2.5 Behavior Changes Between Release 7.5 SP1 and Release 7.7

The following sections describe, in detail, the changes and new functionalities in Release 7.7, which may require manual intervention. Before performing migration, it is recommended that this section is reviewed carefully and verifications performed as part of your premigration analysis. It is important that pertinent data, custom code, and configurations are modified, if necessary, in order to be able to utilize the new functionalities.

Some APIs have undergone structural changes with respect to input and output XMLs.

The changes or new functionalities in Release 7.7 can be broken down into these categories:

- Application Platform
- Distributed Order Management

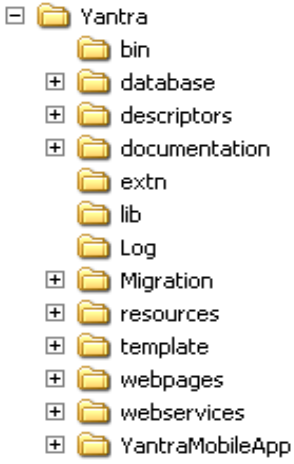
1.2.5.1 Application Platform

The changes and new functionalities in the Application Platform component in Release 7.7, pertain to Directory Structure Changes.

1.2.5.1.1 Directory Structure Changes

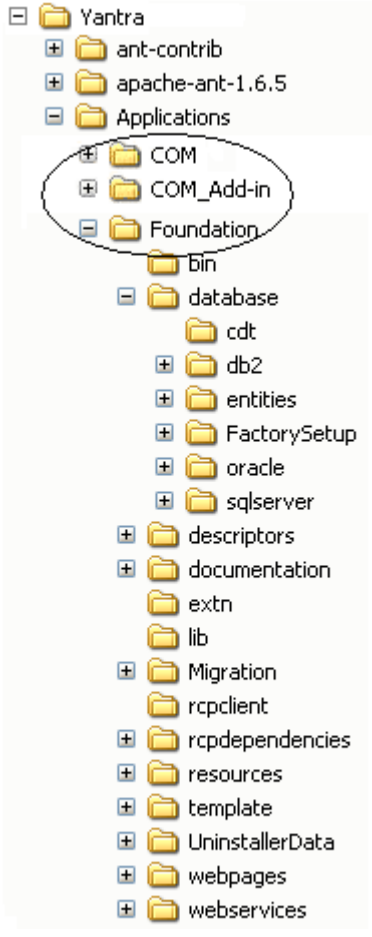
Prior to Release 7.7, the Sterling Supply Chain Applications installation directory had the following structure:

Figure 1–1 Directory Structure Prior to Release 7.7



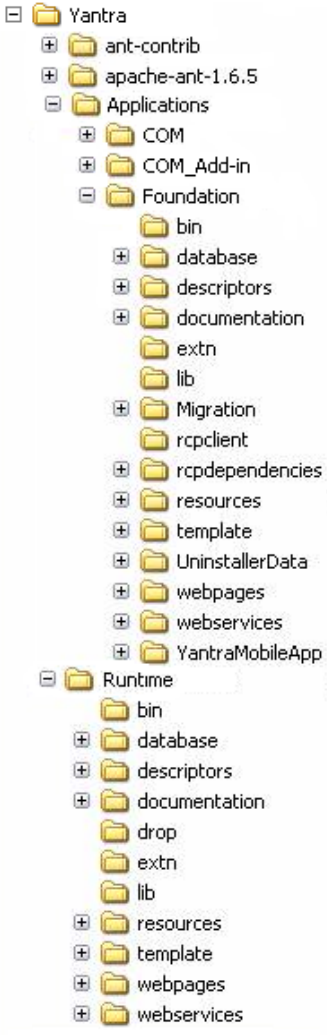
As of Release 7.7, the Sterling Supply Chain Applications Installation directory has the following structure:

Figure 1–2 Directory Structure in Release 7.7



During the installation process, you can generate the Runtime directory by running the `buildRT.xml` script. Refer to the *Selling and Fulfillment Foundation: Installation Guide* for more information about running the `buildRT.xml` script. After running this script, the directory's structure is as follows:

Figure 1–3 Generated Runtime Directory Structure in Release 7.7

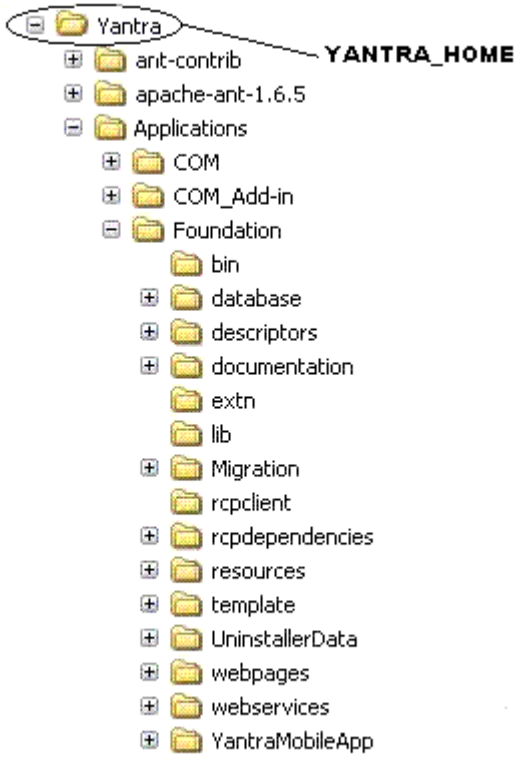


Note: The folder structure has changed in Release 8.0. Refer to Section 1.2.8.4.1, "Directory Structure Changes" to understand the folder structure Release 8.0.

How It Affects You

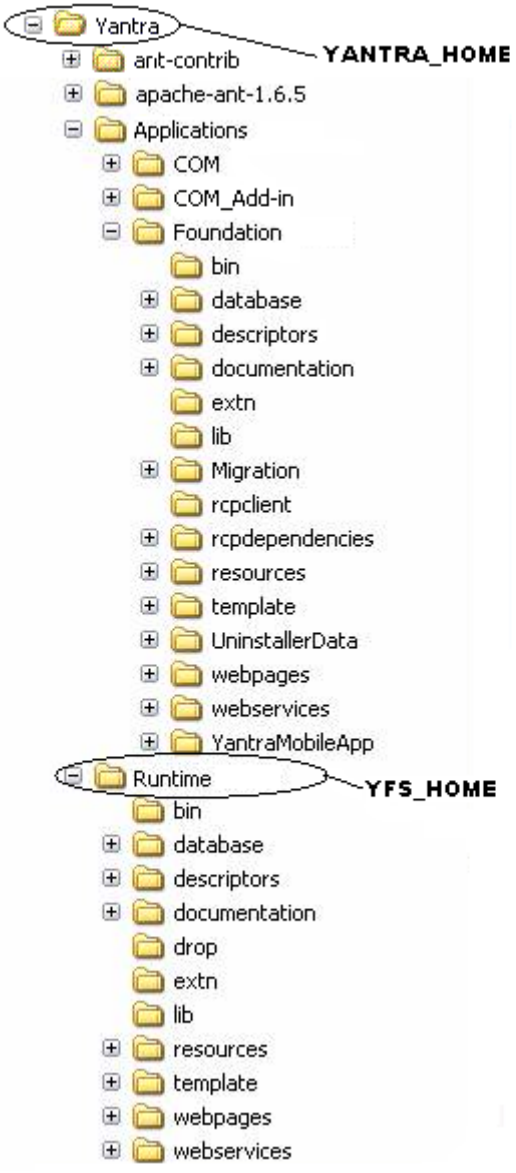
As a result of this directory structure change, you must create a YANTRA_HOME environment variable and set it to point to the root directory where Selling and Fulfillment Foundation and the associated PCAs are installed, as shown in Figure 1–4.

Figure 1–4 New YANTRA_HOME Environment Variable Setting



The YFS_HOME environment variable must now be set to point to the <YANTRA_HOME>/Runtime directory, as shown in Figure 1–5.

Figure 1–5 New YFS_HOME Environment Variable Setting



Application extensions must be made in the <YANTRA_HOME>/Applications/<specific_application_folder>/extn directory for the application you are extending.

You must then run the `buildRT.xml` script again to regenerate the Runtime folder to include the application extensions you made.

> **Note:** Never change any files in the generated <YANTRA_HOME>/Runtime folder.

Migration Strategy

None.

1.2.5.2 Distributed Order Management

The changes and new functionalities in the Distributed Order Management component in Release 7.7 pertain to:

- Multiple Ship-To IDs for Customers of the Type Consumer
- Ability to Raise Invoices Before a Shipment is Shipped

1.2.5.2.1 Multiple Ship-To IDs for Customers of the Type Consumer

In the previous releases, only customers of the type Business could define multiple ship-to IDs. A ship-to ID is defined as a customer representing a child node organization. The relationship between the parent customer and the child customer could be derived only by the relationship of the organizations.

In Release 7.7, the ability to define multiple ship-to IDs is supported for customers of the type Consumer. Because a customer of the type Consumer does not represent an organization, the relationship between the parent customer and child customer must be defined in the customer definition itself. In order to handle this, a new PARENT_CUSTOMER_KEY field has been added to the YFS_CUSTOMER table to indicate the parent customer for both Business and Consumer customers.

How It Affects You

None.

Migration Strategy

This section describes the automatic and manual migration processes for the multiple Ship-To IDs for Customers of the Type Consumer enhancement.

Automated Migration Processes

During migration, the following process occurs for the existing records of the customer type Business:

For existing customer records that are modeled as Ship-To IDs, the Parent_Customer_Key in the YFS_CUSTOMER table is set to the Customer_Key of the parent record in the YFS_CUSTOMER table.

Manual Migration Processes

None.

1.2.5.2.2 Ability to Raise Invoices Before a Shipment is Shipped

In Release 7.7, the ability to create an invoice before a shipment is shipped is supported.

How It Affects You

None.

Migration Strategy

This section describes the automatic and manual migration processes for the Ability to Raise Invoices Before a Shipment is Shipped functionality.

Automated Migration Processes

During migration, the following process occurs for the existing records of shipments:

For existing shipment records, the INVOICE_COMPLETE flag is set to Y if the shipment has invoices against it.

Manual Migration Processes

None.

1.2.6 Behavior Changes Between Release 7.7 and Release 7.9

The behavior changes in Release 7.9 can be broken down into the following categories:

- Application Platform
- Distributed Order Management
- Carrier Service
- Delivery and Service Scheduling
- Warehouse Management

1.2.6.1 Application Platform

The changes and new functionalities in the Application Platform component in Release 7.9 pertain to:

- Listener Enhancements
- Transaction Dependency
- Manage APIs
- API Interface Changes
- Productivity

1.2.6.1.1 Listener Enhancements

In the previous releases, you used the listeners to change the status of the parent order based on the child order's status. However, if the fulfillment of the child order was complex, more statuses were required for the parent order to indicate the overall order status. You could also configure only one listener per status.

In Release 7.9, an enhancement has been made to the listener types so that the individual listener drops into multiple statuses depending on the status of the child order.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The existing entries in the YFS_PIPELINE_LISTENER table have been updated to have the drop statuses of the corresponding transaction using the SQL statement in the `migrator_listener_drop_status.xml` file located in the `<INSTALL_DIR>/Migration/7.7/transaction/xmls` directory.

The existing entries in the YFS_TRANSACTION table have been updated for the listeners using the SQL statement in the `migrator_listener_drop_status.xml` file located in the `<INSTALL_DIR>/Migration/7.7/transaction/xmls` directory.

The existing custom listeners do not have the ON_STATUS_CHANGE event anymore. In order to use this event, new listeners must be created.

Manual Migration Processes

None.

1.2.6.1.2 Transaction Dependency

In Release 7.9, an enhancement has been made to allow the transactions to understand that an order line cannot be processed until certain conditions are met. These dependencies are configured based on certain constraints. For more information about the transaction dependencies, refer to the *Selling and Fulfillment Foundation: Product Concepts Guide*.

How It Affects You

If you have configured custom transactions, you can enable dependencies for them and apply rules and constraints to process such transactions. For more information about configuring transaction dependencies, refer to the *Sterling Distributed Order Management: Configuration Guide*.

You can also configure the completion for custom transactions. For more information about transaction completion, refer to the *Selling and Fulfillment Foundation: Application Platform Configuration Guide*.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The SUPPORTS_DEPENDENCY and SUPPORTED_DEPENDENCY_TYPE flags are migrated by `apply-fc-setup`.

Manual Migration Processes

None.

1.2.6.1.3 Manage APIs

In Release 7.9, manage APIs have been introduced in place of some create, modify, and delete APIs. For example, the actions performed by the createItem() API and the modifyItem() API can be performed by the manageItem() API. The create, modify, and delete APIs that have been replaced by the manage APIs have been deprecated as of Release 7.9. For a list of the deprecated APIs, refer to the *Selling and Fulfillment Foundation: Javadocs*.

How It Affects You

You must use the manage API and pass the correct operation or action instead of the create API and modify API. Refer to the *Selling and Fulfillment Foundation: Javadocs* for more information about the manage APIs.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

None.

Manual Migration Processes

Use the manage API counterpart in place of the create API, modify API, and delete API.

1.2.6.1.4 API Interface Changes

In Release 7.9, the following APIs have been included in the YSCApi interface, and no longer belong to the YCPApi interface:

- getDeviceList
- translateBarCode
- getSurroundingNodeList
- getLabelFormat
- getLabelPreferenceList
- getPrintDocumentList
- getPrinter
- manageLabelPreference
- printDocumentSet
- computeSAM
- createProductivity
- deleteProductivity
- getProductivityDetails
- getProductivityList
- getProductivityReferenceList
- getProductivitySummary
- getProductivityTypeList
- getUserTimeSheet
- modifyProductivity
- modifyProductivityType
- getQuestionHierarchyWithAnswerSet
- changeRegion
- createRegion
- getRegionDetails
- getRegionList

- getRegionUsageDetails
- acceptTasks
- cancelTask
- changeBatch
- changeTask
- createBatch
- createBatchForReferences
- createTask
- createUserTranConstraint
- deleteUserTranConstraint
- getActivityGroupList
- getActivityList
- getBatchDetails
- getBatchList
- getNextTask
- getTaskDetails
- getTaskList
- getTaskReferenceList
- getTaskSummary
- getTaskTypeDetails
- getTaskTypeList
- getUserConstraintDetails
- getUserConstraintList
- getUserTranConstraintDetails
- getUserTranConstraintList
- markTaskAvailability
- modifyUserTranConstraint

- registerBatchCompletion
- registerTaskCompletion
- registerTaskInProgress
- rejectTasks

How It Affects You

If a code that is similar to the following exists to call the getTaskTypeList API:

```
YCPApi oApi = YIFClientFactory.getInstance().getAPI();
oApi.getTaskTypeList();
```

Modify the code as:

```
YIFApi oApi = YIFClientFactory.getInstance().getAPI();
oApi.getTaskTypeList();
```

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.6.1.5 Productivity

In Release 7.9, an enhancement has been made to enable values for SAM definitions. By default, the values are enabled for those SAM definitions whose values are greater than zero. Hence, if the values are less than zero and you want them to be included, you must enable them manually by selecting the appropriate check boxes.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.6.2 Distributed Order Management

The changes and new functionalities in the Distributed Order Management component in Release 7.9 pertain to:

- Chain Order
- Bundles
- Receipt Processing Time for Forwarding
- Making Release Status to Terminal Status
- Backorder Line to Highest Priority Ship Node During Scheduling

1.2.6.2.1 Chain Order

In Release 7.9, an enhancement has been made to enable the creation of chain orders using the createOrder API and the changeOrder API. A service line (PS/DS) can also be chained using this new functionality. An abstract transaction, `INCLUDE_IN_CHAIN_ORDER`, has been provided to include a line in another order. Refer the *Selling and Fulfillment Foundation: Product Concepts Guide* for more information.

How It Affects You

If you want to use this feature, you must derive a transaction from `INCLUDE_IN_CHAIN_ORDER` and configure in the parent order's pipeline. The instance of the `INCLUDE_IN_CHAIN_ORDER` transaction must have the Chained Document Type set.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.6.2.2 Bundles

In Release 7.9, the concept of bundle is exposed. A bundle comprises of a parent bundle and one or more child lines. These child lines can be either products or services. The parent bundle line itself cannot be fulfilled. It is considered fulfilled only when all its components are fulfilled. Bundles are enhanced logical kits. An installation rule has been introduced, which allows you to use logical kits in 7.9. For more information about bundles, refer to the *Selling and Fulfillment Foundation: Product Concepts Guide*.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The `USE_LOGICAL_KITS` rule has been enabled (set to Y) by the SQL migrator.

Manual Migration Processes

None.

1.2.6.2.3 Receipt Processing Time for Forwarding

In Release 7.9, an attribute has been added to the ship node. It indicates the number of hours required to process forwarding at the drop location. Computation is the same as the receipt processing time, except for the number of hours indicated by the new attribute.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for the enhanced Receipt Processing Time for Forwarding functionality.

Automated Migration Processes

RCPT_PRCSSNG_TIME_FOR_FRWRDNG is set to RECEIPT_PROCESSING_TIME by the SQL migrator.

Manual Migration Processes

None.

1.2.6.2.4 Making Release Status to Terminal Status

In Release 7.9, the release status is allowed to be made a terminal status. Execution of the order after the release is handled by an external system. The release status then operates as a terminal status, which behaves similar to that of the shipped status on which you can perform terminal operations such as purging or closing the order.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes of the functionality.

Automated Migration Processes

This section describes the automated process of replacing the release status of an order to terminal status. For the system-provided document types, the YFS_Transaction_Pickup_Status factory setup data enables transaction Close Order, Deliver Order, and Purge Order to pick up the released status. For more information about custom document types, refer to Data Migration Custom Document Type.

Manual Migration Processes

None.

1.2.6.2.5 Backorder Line to Highest Priority Ship Node During Scheduling

When an order line that is to be backordered upon scheduling a new record is inserted for that line in the YFS_ORDER_LINE_SCHEDULE table with the highest priority ship node determined by the Application.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes.

Automated Migration Processes

The existing entries in the YFS_RULES table are updated using the SQL statements in the `migrator_rule.xml` file located in the `<INSTALL_DIR>/Migration/7.7/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.6.3 Classpath Changes

After running the migrator, add the `yscpbe.jar` and `yscpui.jar` files into your classpath to run an agent.

1.2.6.4 Interface Changes for few APIs

The following APIs have been moved from YCPApi to interface YSCApi:

- getDeviceList
- translateBarCode
- getSurroundingNodeList
- getLabelFormat
- getLabelPreferenceList
- getPrintDocumentList
- getPrinter
- manageLabelPreference
- printDocumentSet
- computeSAM
- createProductivity
- deleteProductivity

- getProductivityDetails
- getProductivityList
- getProductivityReferenceList
- getProductivitySummary
- getProductivityTypeList
- getUserTimeSheet
- modifyProductivity
- modifyProductivityType
- getQuestionHierarchyWithAnswerSet
- changeRegion
- createRegion
- getRegionDetails
- getRegionList
- getRegionUsageDetails
- acceptTasks
- cancelTask
- changeBatch
- changeTask
- createBatch
- createBatchForReferences
- createTask
- createUserTranConstraint
- deleteUserTranConstraint
- getActivityGroupList
- getActivityList
- getBatchDetails
- getBatchList

- getNextTask
- getTaskDetails
- getTaskList
- getTaskReferenceList
- getTaskSummary
- getTaskTypeDetails
- getTaskTypeList
- getUserConstraintDetails
- getUserConstraintList
- getUserTranConstraintDetails
- getUserTranConstraintList
- markTaskAvailability
- modifyUserTranConstraint
- registerBatchCompletion
- registerTaskCompletion
- registerTaskInProgress
- rejectTasks

1.2.6.5 Carrier Service

The changes and new functionalities in the Carrier Service component in Release 7.9 pertain to Return Tracking Label.

1.2.6.5.1 Return Tracking Label

The enhancement in Release 7.9 pertains to the printing of the return tracking labels. This enhancement enables the printing of return labels for shipments at the container, package, and item levels.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.6.5.2 Support for Return Label

The following FedEx services support the integration of the return label with Selling and Fulfillment Foundation:

- FedEx Priority Overnight
- FedEx Standard Overnight
- FedEx 2 Day
- FedEx Ground
- FedEx Home Ground Delivery

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The existing entries in the YFS_SCAC_AND_SERVICE table are updated using the SQL statement in the `migrator_scac_and_service.xml` file located in the `<INSTALL_DIR>/Migration/7.7/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.6.5.3 Third-Party Billing for Return Shipments

In Release 7.9, an enhancement has been made to enable third-party billing for return shipments.

How It Affects You

If you want to use the third-party billing feature for return shipments, select the Bill Third-Party for Return Shipment Box in the Applications Manager.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The existing entries in the YFS_SCAC_EX table are updated using the SQL statement in the `migrator_scac_ex.xml` file located in the `<INSTALL_DIR>/Migration/7.7/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.6.6 Delivery and Service Scheduling

The changes and new functionalities in the Delivery and Service Scheduling component in Release 7.9 include pertain to Multidimensional Capacity.

1.2.6.6.1 Multidimensional Capacity

In Release 7.9, an enhancement has been made to enable capacity to be defined in different UOMs such as number of stops, weight, and volume. Hence the capacity consumptions, standard capacity, overridden capacity, and supplemental capacity contain UOMs, and each capacity record has to indicate the type of UOM.

How It Affects You

If you are using service scheduling with Selling and Fulfillment Foundation, all the records in the following table contain a new column, indicating dimensions (UOM).

- YFS_RES_POOL_CAPCTY_CONSMPTN
- YFS_RES_POOL_CAPCTY_OVERRIDE
- YFS_RES_POOL_DOW_CAPCTY

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The existing entries in the YFS_RES_POOL_CAPCTY_OVERRIDE and YFS_RES_POOL_DOW_CAPCTY tables are updated using the SQL statement in the `migrator_multi_dimentional_capacity.xml` file located in the `<INSTALL_DIR>/Migration/7.7/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.6.7 Warehouse Management

The changes and new functionalities in the warehouse management component in Release 7.9 pertain to Resource Planning - Resource Pool.

1.2.6.7.1 Resource Planning - Resource Pool

In Release 7.9, an enhancement has been made to create assignments to assign resources against their default resource pools for an infinite period of time. This enables you to shuffle resources between various resource pools for a defined period, and yet belongs to its default resource pool.

An enhancement has also been made to create the node key and resource key at the resource level.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

In the YFS_SRVC_RESOURCE_ASSIGNMENT table, a record is created for each YFS_SERVICE_RESOURCE record in the resource pool with ASSIGNMENT_START_DATE as the low date and ASSIGNMENT_END_DATE as the high date, and the ASSIGNED_TO_RES_POOL_KEY as the RESOURCE_POOL_KEY of the resource pool to which the service resource belongs.

The existing entries in the YFS_SERVICE_RESOURCE table are updated using the SQL statement in the migrator_service_resource.xml file located in the <INSTALL_DIR>/Migration/7.7/transaction/xmls directory.

A new NODE_KEY column is added to the YFS_SERVICE_RESOURCE table. This data is populated from the resource pool's node to which the service resource belongs.

The existing entries in the YFS_SERVICE_RESOURCE table are updated using the SQL statement in the migrator_service_resource.xml file located in the <INSTALL_DIR>/Migration/7.7/transaction/xmls directory.

A new SERVICE_RESOURCE_KEY column is added to the YFS_RES_POOL_CAPCTY_CONSMPTN table. For each record in the YFS_RES_POOL_CAPCTY_CONSMPTN table, SERVICE_RESOURCE_KEY is populated from the YFS_SERVICE_RESOURCE table using SERVICE_RESOURCE_ID and RESOURCE_POOL_KEY.

The existing entries in the YFS_RES_POOL_CAPCTY_CONSMPTN table are updated using the SQL statement in the migrator_res_pool_capcty_cons.xml file located in the <INSTALL_DIR>/Migration/7.7/transaction/xmls directory.

Manual Migration Processes

None.

1.2.6.7.2 Association of Primary Equipment Type with Task Type

In Release 7.9, a new PRIMARY_EQUIPMENT_TYPE column has been added to the YFS_TASK_TYPE table. If there is any batch rule associated with this task type, the PRIMARY_EQUIPMENT_TYPE column of the YFS_TASK_TYPE table is populated with the equipment type associated with this batch rule.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The existing entries in the YFS_TASK_TYPE table are updated using the SQL statement in the `migrator_task_type.xml` file located in the `<INSTALL_DIR>/Migration/7.7/transaction/xmls` directory.

Manual Migration Process

None.

1.2.6.8 Logistics Management

The changes and new functionalities introduced in the logistics management component in Release 7.9 pertain to Shipment Hold Types and Load Hold Types.

1.2.6.8.1 Shipment Hold Types and Load Hold Types

In Release 7.9, an enhancement has been made to enable the definition of holds and hold types for both shipment and load. The hold types are applicable for enterprise or document types for shipment and load.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The existing entries in the YFS_HOLD_TYPE table are updated using the SQL statements in the `migrator_hold_type.xml` file located in the `<INSTALL_DIR>/Migration/7.7/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.7 Behavior Changes Between Release 7.9 and Release 7.11

The behavior changes between Release 7.9 to Release 7.11 can be broken down into the following categories:

- Distributed Order Management
- Carrier Service
- Warehouse Management System
- Delivery and Service Scheduling
- Application Platform
- Logistics Management

1.2.7.1 Distributed Order Management

The changes and new functionalities in the Distributed Order Management component in Release 7.11 pertain to:

- Order Line Hold Type
- Provided Services in Return Orders
- Override Capacity for Work Order
- Work Order Audit
- Hold Type Monitoring
- Switch Between Work Order Types

- Promising APIs
- Order Modification APIs
- recordInvoiceCreation API
- Work Order Listeners

1.2.7.1.1 Order Line Hold Type

Release 7.11 enables you to apply the Hold functionality to both order lines and orders. However, holds can be applied only to relevant order lines, rather than to the entire order.

How It Affects You

None.

Migration Strategy

This section describes the manual and automated migration processes for this functionality.

Automated Migration Processes

The existing entries in the YFS_HOLD_TYPE_TRAN table are updated to set the hold effect level to ORDER for all the holds that have a base process type of order fulfillment using the SQL statements in the `migrator_hold_type.xml` file located in the `<INSTALL_DIR>/Migration/7.9/transaction/xmls` directory.

The existing entries in the YFS_HOLD_TYPE table are updated to set the base process type key for all document types other than 7001 to order fulfillment using the SQL statement in the `migrator_hold_type.xml` file located in the `<INSTALL_DIR>/Migration/7.9/transaction/xmls` directory.

The existing entries in the YFS_HOLD_TYPE table are updated to set the hold level to 'order' for all the hold types of order fulfillment using the SQL statement in the `migrator_hold_type.xml` file located in the `<INSTALL_DIR>/Migration/7.9/transaction/xmls` directory.

The existing entries in the YFS_TRANSACTION table are updated to set the hold prevention level to ORDER_LINE and can_resolve_hold_type to 'Y' for all instances of PROCESS_ORDER_HOLD_TYPE using the SQL

statement in the migrator_hold_type.xml file located in the <INSTALL_DIR>/Migration/7.9/transaction/xmls directory.

The existing entries in the YFS_TRANSACTION table are updated to set the can_resolve_hold_type to Y for all base_transaction_key entries that are PROCESS_WO_HOLD_TYPE, PROCESS_LOAD_HOLD_TYPE, or PROCESS_SHIP_HOLD_TYPE using the SQL statement in the migrator_hold_type.xml file located in the <INSTALL_DIR>/Migration/7.9/transaction/xmls directory.

The existing entries in the YFS_TRANSACTION table are updated to set the hold effect level to ORDER for every base_transaction_key that is empty, and the hold_type_enabled flag set to Y using the SQL statement in the migrator_hold_type.xml file located in the <INSTALL_DIR>/Migration/7.9/transaction/xmls directory.

The existing entries in the YFS_TRANSACTION table are updated to set the hold effect level to ORDER_LINE for every base_transaction_key that is set to CHANGE_ORDER_STATUS using the SQL statement in the migrator_hold_type.xml file located in the <INSTALL_DIR>/Migration/7.9/transaction/xmls directory.

Manual Migration Processes

None.

1.2.7.1.2 Provided Services in Return Orders

In Release 7.11, an enhancement has been provided to include provided services in return orders. The Is Pickup Service condition has been removed from the return fulfillment process repository. The following status modification types have been added to the return document:

- Associate Service Line With Product Line (PS_CHECK_FOR_PS_PROD_ASSC)
- Remove Service Line From Product Line Association (PS_CHECK_FOR_PS_PROD_DISASSC)
- Associate Product Line With Service Line (PROD_CHECK_FOR_PS_PROD_ASSC)

How It Affects You

To use this feature, you must install the status modification types mentioned previously in the custom document process repository.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The Is Pickup Service condition is suppressed from deletion. Therefore, this condition is not dropped during migration.

The custom document migration ensures that the newly added status modification types are added to the custom return document process repository. For more information about custom document migration, refer to Data Migration Custom Document Type.

Manual Migration Processes

None.

1.2.7.1.3 Override Capacity for Work Order

In Release 7.11, an enhancement has been made to allow the overriding of the slot capacity for a work order when the requested capacity is not available in any of the slots.

How It Affects You

None.

Migration Strategy

This section describes the automated migration processes for this functionality.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.7.1.4 Work Order Audit

In Release 7.11, you can write audit records for all work order related entities. The work order audits are no longer written in the YFS_WORK_ORDER_AUDT_DTL table. They are instead written in the YFS_AUDIT

table. The following APIs cannot be used to search by Work Order Audit detail records:

- getWorkOrderList
- getWorkOrderStatusAuditList

Attribute audits are no longer stored in YFS_Work_Order_Audit_Detail. As a result, the getWorkOrderStatusAuditList API has been changed to fetch details from the YFS_Audit table and return the output in its own format.

It is possible that for a given work order, audits are in the old audit table (YFS_Work_Order_Audit_Detail) as well as in the YFS_Audit table.

For a record that does not contain a value for AuditTranKey, the audit details will be fetched from the YFS_Work_Order_Audit_Detail table.

For a record that contains a value for AuditTranKey, the audit details will be fetched from the YFS_Audit table using the getAuditList API and AuditType="WorkOrder". These results will be translated into the format of the getWorkOrderStatusAuditList API.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.1.5 Hold Type Monitoring

In Release 7.11, you can create monitors to track orders that are currently in a certain hold type for a certain amount of time, or are in a hold type with a specified date approaching.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.1.6 Switch Between Work Order Types

In Release 7.11, Service Work Orders have been modified to enable the switching of work order type from Provided Service to Delivery Service or from Delivery Service to Provided Service based on the addition or removal of lines from an order.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The existing entries in the YFS_RULES table are updated to set ALLOW_WORK_ORDER_SERVICE_ITEM_GROUP_SWITCH to N to prevent the switching of work order service item group for the existing customers using the SQL statement in the `migrator_rule.xml` file located in the `<INSTALL_DIR>/Migration/7.9/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.7.1.7 Promising APIs

In Release 7.11, the output returned by the findInventory, getPossibleSchedules, and getWorkOrderAppointmentOptions promising APIs is controlled by a template.

How It Affects You

You must update the templates for the promising APIs with all the elements in their respective output XMLs. For example, in earlier releases, the findInventory API supported only the SuggestedOption element as template-controlled, but not the PromiseLine element. In Release 7.11, both the elements are supported as template-controlled. Therefore, if the template contains only the SuggestedOption element, the findInventory API does not return the PromiseLine element in the output XML.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Process

None.

Manual Migration Process

Update the templates for the promising APIs with all the elements in the output XML.

1.2.7.1.8 Order Modification APIs

In Release 7.11, when you call the order modification APIs such as createOrder, changeOrder, addLineToOrder, copyOrder, importOrder, and so on, the Country of Origin for the item in the order line is not defaulted from the Catalog. However, it may be passed on the order line under Item in the input XML.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.1.9 recordInvoiceCreation API

In Release 7.11, when you call the recordInvoiceCreation API, the value of the UseOrderLineCharges attribute is defaulted to Y and the invoice is processed with the charges on the order line. If you set the value of the UseOrderLineCharges attribute to N, the invoice is created with the charges passed to the API. In earlier releases, the value of the UseOrderLineCharges attribute was not defaulted and the API used the charges passed in the input XML.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.1.10 Work Order Listeners

In Release 7.11, after a work order moves to a listening state of a work order listener, the entire quantity of the work order must be in a pickable state for the listener configured to listen to that work order in a pipeline. If a listener is configured for made-to-order (MTO) or made-to-customer (MTC) work orders, and a service (PS or DS) work order is created, an error message may be display because the work order lines are not in the "Work Order Created" status for the MTO or MTC work order listener. For example, when you call the cancelWorkOrder API to cancel a multiple-appointment work order having appointments in different

statuses, the error message "Quantity greater than the allowed over shipment percentage limit" is displayed.

How It Affects You

You must perform one of the following tasks:

- Create a separate pipeline for PS or DS work orders that drop into the custom statuses, and configure a Work Order Pipeline Determination Rule to include PS or DS work orders in this pipeline, and MTO or MTC work orders in a different pipeline.

- Create a separate sales order pipeline for products that require MTC or MTO work orders, assuming that MTO or MTC lines are not within a service work order.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.2 Carrier Service

The following enhancements and new functionalities have been implemented in Release 7.11:

- Saving the Carrier Label as an Image
- Generating Carrier Label for FedEx
- Zone Skipping

1.2.7.2.1 Saving the Carrier Label as an Image

Release 7.11 enables the configuration of the printing a carrier label or saving it as a PNG image. This configuration is available for a combination of a node, enterprise, and carrier.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.2.2 Generating Carrier Label for FedEx

In Release 7.11, the task of generating carrier labels during wave release has been enhanced to support the FedEx carrier.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.2.3 Zone Skipping

In Release 7.11, a new Zone Skipping feature has been introduced to enable you to consolidate parcel shipments into a load that are shipped to different destinations within the same region. This load drops the shipments at a break bulk node. From the break bulk node, individual shipments are shipped to their respective destinations as parcels, thus saving transportation costs. Although the carrier labels for the second (parcel) leg of a shipment are printed as a part of the pack process at the ship node, the "From Address" on the carrier label is the same as the address of the break bulk node.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.3 Warehouse Management System

The following enhancements and new functionalities have been introduced in Release 7.11:

- Item or Pallet Scan-Driven Pack Process
- Cart Manifest Pick
- Outbound Sorting
- Changing the Shipment Group of a Wave
- Wave Release
- Count Request
- Automatic Cycle Count Request Generation
- Nonstandard Pallet

1.2.7.3.1 Item or Pallet Scan-Driven Pack Process

In Release 7.11, an enhancement has been made in the pack station to support the packing of shipments that are picked using the item pick strategy. To identify the shipments, you can either enter or scan the inventory licence plate, item identifier, or serial number of the item.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.3.2 Cart Manifest Pick

In Release 7.11, the cart manifest pick process has been enhanced to match the following functionalities of standard pick:

- Capture additional attributes for time-sensitive and tag-tracked items.
- Capture the secondary serials for serialized items.
- Accept all the attributes that can be supplied through a barcode scan using custom barcode translators.
- Support partial picking of an LPN.
- Explicitly display the Deposit screen after picking for the cart completes.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.3.3 Outbound Sorting

In the earlier releases, you could sort outbound shipments only into pallets. In Release 7.11, you can sort outbound shipments into locations or pallets.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.3.4 Changing the Shipment Group of a Wave

Picking strategies are associated with shipment groups. In Release 7.11, the shipment group of a wave can be modified, allowing implementations to modify picking strategies.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.3.5 Wave Release

In Release 7.11, shipments with requested serial numbers are considered for inclusion in a wave.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.3.6 Count Request

In Release 7.11, the following enhancements have been implemented for creating a count request from the console:

- Either FromLocation and ToLocation, or aisle, bay, and level number can be provided as input for generating a count request for a range of locations.
- Additional count requests can be manually generated for a count program.
- If a variance is found when executing a count task at the item level from the Mobile Application, you can count the entire location.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Process

None.

Manual Migration Process

None.

1.2.7.3.7 Automatic Cycle Count Request Generation

In Release 7.11, the count program has been enhanced to generate count requests at the location level.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

A new COUNT_LEVEL column is added to the YFS_COUNT_PROGRAM_COND table. The default value of this column is set to ItemClassification or Item based on the value of the CNT_AT_ITEM_CLASSIFICATION_LVL column.

If the value of the CNT_AT_ITEM_CLASSIFICATION_LVL column is set to Y, the value of the COUNT_LEVEL column is set to 'ItemClassification'. Otherwise, the value of the COUNT_LEVEL column is set to 'Item'.

The existing entries in the YFS_COUNT_PROGRAM_COND table are updated using the SQL statement in the `migrator_count_prog_cond.xml` file located in the `<INSTALL_DIR>/Migration/7.9/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.7.3.8 Nonstandard Pallet

In Release 7.11, a nonstandard pallet (quantity in the pallet is not equal to the quantity calculated by the standard UOM conversion) is considered as a pallet. If the "Do not break the pallet" constraint is defined for a zone or in the PLA rules, the picker is not allowed to break a nonstandard pallet when picking.

How It Affects You

If the "Do not break the pallet" constraint is defined for a zone or in the PLA rule, the picker is not allowed to break the pallet even if it is a nonstandard pallet.

> **Note:** Although replenishment strategies are configured, the Sterling Warehouse Management System does not perform demand-based replenishment for zones that have split constraints defined at the PLA rule level or at the zone level. The Sterling Warehouse Management System assumes that split constraints are defined, unless a split constraint is explicitly left blank. The existing pend in quantities are also not considered for allocation. This is to avoid violating a split constraint because the exact information about the incoming inventory is not available. However, you can replenish such zones using the location monitoring rules.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

A Java migrator is provided, which updates the DO_NO_SPLIT_LPN_TYPE column in the YFS_PLA_ZONE_SET table.

Manual Migration Processes

None.

1.2.7.4 Delivery and Service Scheduling

The changes in the Delivery and Service Scheduling component in Release 7.11 pertain to:

- Work Order Appointments
- Backorder Scheduling

1.2.7.4.1 Work Order Appointments

In Release 7.11, you can take an appointment for a work order only if the appointment's start time and end time is the same as the start time and end time of the slot.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.7.4.2 Backorder Scheduling

In Release 7.11, lines can no longer be backordered while scheduling. If product availability is beyond the appointment on the line, the line is put into reserved status.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.7.5 Application Platform

The following enhancement has been included in Release 7.11: Queue Description.

1.2.7.5.1 Queue Description

In Release 7.11, on the Sterling Supply Chain Applications Console, the Queue Description is displayed only if a queue is assigned to a user. In the earlier releases, the Queue ID was displayed.

How It Affects You

If you want to use this feature, you must define the Queue Description for the queue.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.7.6 Logistics Management

The following enhancement have been introduced in Release 7.11:

- Routing Guidelines
- History Support for Load Entities

1.2.7.6.1 Routing Guidelines

In Release 7.11, the ShipToRegion field has been added as a criteria for routing. The value of ShipToRegion is derived from the values of the AddressLine6, ShipToCity, ShipToCountry, ShipToState, and ShipToZip attributes.

How It Affects You

If you have configured the region in the routing guide, you must pass the values of the AddressLine6, ShipToCity, ShipToCountry, ShipToState, and ShipToZip attributes in the input XML of the determineRouting API.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.7.6.2 History Support for Load Entities

In Release 7.11, a load and its related entities have been enabled to support history data. When a load is purged, the data related to the load is moved to the history tables. The load history purge agent purges the loads that have exceeded the retention period from the history tables. Because the YFS_SHIPMENT_CONTAINER, YFS_CONTAINER_ACTIVITY, and YFS_ADDITIONAL_DATE tables were enabled to support history data in earlier releases, there may be records in the history tables that have a reference to loads.

How It Affects You

Records from the YFS_SHIPMENT_CONTAINER_H, YFS_CONTAINER_ACTIVITY_H, and YFS_ADDITIONAL_DATE_H tables that have a reference to loads are deleted.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The existing entries in the YFS_SHIPMENT_CONTAINER_H, YFS_CONTAINER_ACTIVITY_H, and YFS_ADDITIONAL_DATE_H tables that have a reference to loads, are deleted using the `migrator_load_`

history_cleanup.xml file located in the <INSTALL_DIR>/Migration/7.9/history/xmls directory.

Manual Migration Processes

None.

1.2.8 Behavior Changes Between Release 7.11 and Release 8.0

The product name has changed from the Sterling Supply Chain Applications to Sterling Multi-Channel Fulfillment Solution.

The changes between Release 7.11 and Release 8.0 can be broken down into the following categories:

- Distributed Order Management
- Carrier Service
- Warehouse Management System
- Application Platform
- Delivery

1.2.8.1 Distributed Order Management

The following enhancements and new functionalities have been introduced in Release 8.0:

- Invoice Returns Before Receipt
- Configurable Audits
- Resolve Hold On Cancel
- Encrypt Payment Reference

1.2.8.1.1 Invoice Returns Before Receipt

In Release 8.0, you can create an invoice and immediately issue a credit for specific return order lines before receipt of the item. You can configure invoice transactions in multiple places in your return fulfillment pipeline.

How It Affects You

None.

Migration Strategy

This section describes the manual and automated migration processes for this functionality.

Automated Migration Processes

The existing entries in the YFS_TRANSACTION table for BASE_TRANSACTION_KEY='CREATE_ORDER_INVOICE' are updated with SINGLE_DROP_STATUS = 'N' using the `migrator_transaction.xml` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.8.1.2 Configurable Audits

In Release 8.0, you can configure the types of modifications for which you want to perform auditing. By default, most modification types are enabled for auditing. There are some types of modifications that you cannot configure for auditing. This is determined based on the value of the new USER_MODIFY_AUDIT_REQ field in the YFS_STATUS_MODIFICATION_TYPE table.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The USER_MODIFY_AUDIT_REQ field in the YFS_STATUS_MODIFICATION_TYPE table is populated using the `apply-fc-setup` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

The existing entries in the YFS_STATUS_MODIFICATION_TYPE table for CUSTOM_MODIFICATION_TYPE='Y' are updated with AUDIT_REQUIRED='Y' using the `migrator_status_modification.xml` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.8.1.3 Resolve Hold On Cancel

In Release 8.0, you can configure the order and order line holds to resolve automatically on cancellation. However, only the order level hold type status event gets published when configured.

How It Affects You

The ON_HOLD_TYPE_STATUS_CHANGE event is raised for order level hold.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.8.1.4 Encrypt Payment Reference

In Release 8.0, it is possible to encrypt the PaymentReference1 field of the YFS_PAYMENT table for Credit Card payment type group. This encryption is enabled when the installation rule ENCRYPT_PAYMENT_REFERENCE1_CREDIT_CARD_PAYMENT_TYPE_GROUP is set to Y. This rule is set to 'N' by default.

1.2.8.2 Carrier Service

The following enhancements and new functionalities have been introduced in Release 8.0:

- Extended Enterprise Level of Operation
- Reprint Carrier Label
- Support for Different Printers (For FedEx only)

1.2.8.2.1 Extended Enterprise Level of Operation

In Release 8.0, each Enterprise can configure its own SCAC, SCAC and service, or carrier service. These configurations can also be inherited from the Enterprise hierarchy and the Hub.

How It Affects You

None.

Migration Strategy

This section describes the manual and automated migration processes for this functionality.

Automated Migration Processes

ORGANIZATION_CODE is set to 'DEFAULT' for all the existing entries where ORGANIZATION_CODE is blank in the YFS_CARRIER_SERVICE table, using the `migrator_enterprise_onboarding.xml` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

Similar updates are made on the YFS_SCAC_AND_SERVICE and YFS_SCAC tables.

Manual Migration Processes

None.

1.2.8.2.2 Reprint Carrier Label

In Release 8.0, you can reprint the carrier labels for those containers for which one label has already been printed.

How It Affects You

None.

Migration Strategy
None.

Automated Migration Processes
None.

Manual Migration Processes
None.

1.2.8.2.3 Support for Different Printers (For FedEx only)

Release 8.0 removes the constraint of the carrier service bound to a particular printer type. Now, every node can assign different printer types to FedEx across all the FedEx services.

How It Affects You
None.

Migration Strategy
This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes
A Java migrator, which inserts new records into the YCS_GENERAL_CODE table, is provided.

Manual Migration Processes
None.

1.2.8.3 Warehouse Management System
The following enhancements and new functionalities have been introduced in Release 8.0:

- Wave and Task Execution Exception Audit
- Serial Number Sequence Support for All the Processes
- Transaction Date Limits for Physical Count
- Selective Capture of Serial Numbers

- Equipment and Resource Constraints
- Shipment Profile

1.2.8.3.1 Wave and Task Execution Exception Audit

In Release 8.0, the following features have been audited:

- Changes in the wave status.
- Exceptions because of inventory shortages and how they are resolved (shipment moving out of the wave or shipment lines moving out the wave) during a wave release.
- Execution exceptions and overrides performed by users during task execution.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.8.3.2 Serial Number Sequence Support for All the Processes

In Release 8.0, you can process a range of serial numbers by entering the From and To serial numbers. For example, when shipping, if the From and To serial numbers are scanned, it implies shipping all the serial numbers that fall within this range, including the From and the To serial numbers.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.8.3.3 Transaction Date Limits for Physical Count

In Release 8.0, you can plan for the physical count in a warehouse. Certain activities that interrupt the physical count can be stopped for a specified duration of time before a physical count starts. For example, the receiving task should stop two days before the physical count begins, and the move task should stop three days before the physical count begins. The system stops the tasks pertaining to these activities from being executed if they fall within the duration of the dates given by the user for that activity. After the physical count is complete, all the activities are enabled again.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.8.3.4 Selective Capture of Serial Numbers.

From Release 8.0, if an item has been defined to not track the serial numbers in the inventory, the corresponding warehouse can be

configured to capture information about the serial numbers for the following operations:

- Receiving and Returns
- Only Returns
- Shipping and Returns
- Receiving, Shipping, and Returns

Also, the warehouse can exclude the capture of serial numbers for transfer shipment.

> **Note:** In the *Selling and Fulfillment Foundation: Mobile Application User Guide*, a new barcode type, Picked Serial Capture, has been introduced to translate the serial numbers for task execution.
>
> After upgrade is complete, a user should copy the hub rules to this barcode type before starting task execution.

How It Affects You

None.

Migration Strategy

This section describes the manual and automated migration processes for this functionality.

Automated Migration Processes

The entries in the YFS_SHIP_NODE tables are updated using the SQL statement in the `migrator_ship_node_serial_defaults.xml` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.8.3.5 Equipment and Resource Constraints

In Release 8.0, a warehouse can specify the number of users who will be allowed to work simultaneously in an aisle. A warehouse can also

configure a zone, so that more than one user does not work on a location belonging to that zone.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.8.3.6 Shipment Profile

In Release 8.0, users can create a shipment profile based on the shipment attributes. During wave creation, users can use the shipment profile as an additional Wave Size Constraint.

Based on the shipment profile, the item pick PLA rules can be configured with additional criteria.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.8.4 Application Platform

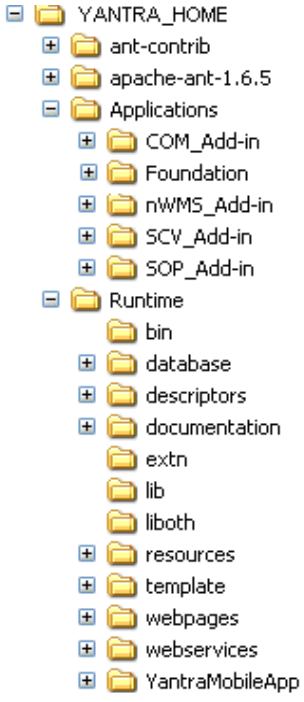
The changes and new functionalities in Release 8.0 pertain to:

- Directory Structure Changes
- Documentation Folder
- Descriptors Folder
- Enterprise-Specific User Exits
- Enterprise-Specific Monitor Rules
- Enterprise-Specific Date Types
- Enterprise-Specific Menu Types
- Enterprise-Specific Exception Types
- Customer Definition Enhancements
- Splitting of the yfs.properties file
- Max Value of SEQ_YFS_INVOICE_NO
- Config Data Versioning
- Change in the Behavior of the getCustomerList API
- Change in the Behavior of the getCustomerDetails API
- Change in Behavior of Deployment of Extensions
- Change in Behavior of Class Path Configuration
- Additional Information About Using Internet Explorer 7
- Change in the Behavior of the getResourceForUserGroup API
- Change in Behavior of the getProperty API
- Change in the Behavior of the getServerProperties API
- Change in the Behavior of the Server Properties Displayed in System Management Console
- Change in the L10N Bundle Files
- Change in Behavior for running in Development Mode
- Mark Ship Node as Fulfillment Node and Yard

1.2.8.4.1 Directory Structure Changes

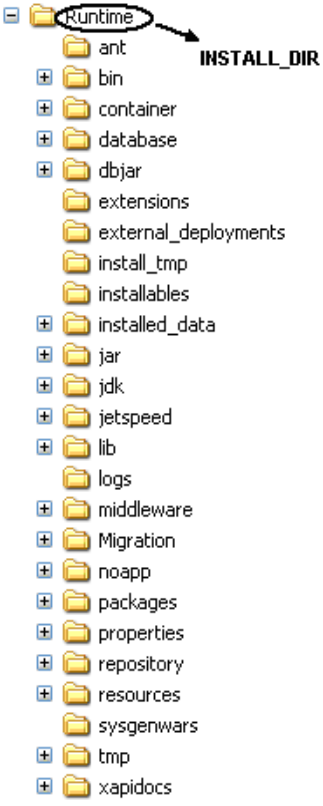
Prior to Release 8.0, the Sterling Supply Chain Applications installation directory had the following structure:

Figure 1–6 Directory Structure Prior to Release 8.0



As of Release 8.0, the Selling and Fulfillment Foundation installation directory has the following structure:

Figure 1–7 Directory Structure in Release 8.0



In Release 7.11, the runtime and database components were installed separately. The buildRT.xml script built the runtime, while the dbupdate and loaddefaults scripts installed the database. There was the YANTRA_HOME directory, under which there were the Applications and Runtime directories. Application directory contains the application-specific files for Foundation and PCAs. The Runtime directory merges all the application components into one directory.

In Release 8.0, both the runtime and database components are installed together when the Sterling Multi-Channel Fulfillment Solution application is installed. All the application components are in the Runtime (INSTALL_

DIR) directory. The application files come as packaged jars in the middleware directory.

The other notable directory changes are:

- Previously the templates were in Runtime/template directory. Now they are in <INSTALL_DIR>/repository/xapi/template directory.
- All the jars were in Runtime/lib in Release 7.11. In Release 8.0, they are in the <INSTALL_DIR>/jar/<module>/<version_no>/ directory.
- The entity XMLs were in the Runtime/database/entities directory in Release 7.11. In Release 8.0, they are in the <INSTALL_DIR>/repository/entity directory.
- The yfs.properties file is divided into module-specific yfs.properties files.

> **Note:** If you are upgrading from Release 7.3, 7.5, or 7.5 SP1, refer to Section 1.2.5.1.1, "Directory Structure Changes".

1.2.8.4.2 Documentation Folder

In Release 7.11, the documentation folder was located in <YANTRA_HOME>/Applications/Foundation folder. The contents of the documentation folder has been moved to <INSTALL_DIR>/xapidocs.

How It Affects You

You must modify any references made to the files in this folder. For example, if you are referencing the XSD and DTD directories for your XSD or DTD usage, modify the links to point to the new location.

Migration Strategy

None

1.2.8.4.3 Descriptors Folder

The location of the Descriptors folder was initially at <YANTRA_HOME>/Applications/Foundation and now it is at <INSTALL_DIR>/repository/eardata/smcfs.

How It Affects You

You must modify the reference to the above folder.

1.2.8.4.4 Enterprise-Specific User Exits

In Release 8.0, Enterprise users can configure user exit implementations that are specific to a particular Enterprise. This eliminates the impact of the modifications made to the custom code of one Enterprise on another Enterprise.

How It Affects You

None.

Migration Strategy

This section describes the manual and automated migration processes for this functionality.

Automated Migration Processes

ORG_KEY is set to DEFAULT for all the existing entries in the YFS_USER_EXIT_IMPL table using the `migrator_enterprise_onboarding.xml` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.8.4.5 Enterprise-Specific Monitor Rules

In Release 8.0, Enterprise users can configure monitor rules that are specific to a particular Enterprise. This eliminates the impact of modifications made o the custom code of one Enterprise on another Enterprise.

How It Affects You

None.

Migration Strategy

This section describes the manual and automated migration processes for this functionality.

Automated Migration Processes

ORGANIZATION_CODE is set to DEFAULT for all the existing entries in the YFS_MONITOR_RULE table and the OWNER_KEY is set to DEFAULT for all the existing entries in the YFS_STATUS_MILESTONE table using the `migrator_enterprise_onboarding.xml` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.8.4.6 Enterprise-Specific Date Types

In Release 8.0, Enterprise users can configure date types that are specific to a particular Enterprise. This eliminates the impact of modifications made to the custom code of one Enterprise on any other Enterprise.

How It Affects You

None.

Migration Strategy

This section describes the manual and automated migration processes for this functionality.

Automated Migration Processes

OWNER_KEY is set to DEFAULT for all the existing entries in the YFS_DATE_TYPE table using the `migrator_enterprise_onboarding.xml` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.8.4.7 Enterprise-Specific Menu Types

In Release 8.0, Enterprise users can configure menu types that are specific to a particular Enterprise. This eliminates the impact of modifications made to the custom code of one Enterprise on another Enterprise.

How It Affects You

None.

Migration Strategy

This section describes the manual and automated migration processes for this functionality.

Automated Migration Processes

The OWNER_KEY is set to DEFAULT for all the existing entries in the YFS_MENU table using the `migrator_enterprise_onboarding.xml` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.8.4.8 Enterprise-Specific Exception Types

In Release 8.0, Enterprise users can configure exception types that are specific to a particular Enterprise. This eliminates the impact of modifications made to the custom code of one Enterprise on another Enterprise.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The ORGANIZATION_CODE is set to DEFAULT for all the existing entries in the YFS_EXCEPTION_TYPE table and the YFS_EXCEPTION_TYPE_ROLE table using the `migrator_enterprise_onboarding.xml` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.8.4.9 Customer Definition Enhancements

In Release 8.0, when defining customer, you can:

- Specify multiple addresses
- Indicate the default organization code based on the Customer ID and Enterprise
- Inherit the customer master data from a different Enterprise
- Associate the customer with specific buyer or consumer users

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

CUSTOMER_MASTER_ORG_CODE is updated to PRIMARY_ENTERPRISE_KEY for all the organizations in the YFS_ORGANIZATION, YFS_SCAC, and YFS_SCAC_AND_SERVICE tables using the `migrator_transaction.xml` file located in the `<INSTALL_DIR>/Migration/7.11/transaction/xmls` directory.

Manual Migration Processes

None.

1.2.8.4.10 Splitting of the yfs.properties file

In Release 8.0, the `yfs.properties` file has been split into multiple properties files. If you have customized properties for your business process prior to Release 8.0, you must manually migrate the values you configured to the migrated environment.

Important: Do not manually edit the `yfs.properties.*` files that are shipped out of the box. All the changes that you want to make to these files should be made by using the `customer_override.properties` file. For additional information about overriding properties using the `customer_overrides.properties` file, refer to the *Selling and Fulfillment Foundation: Properties Guide*.

For more information about the splitting of the `yfs.properties` file and the mechanism of overriding properties, refer to the *Selling and Fulfillment Foundation: Properties Guide*.

1.2.8.4.11 Max Value of SEQ_YFS_INVOICE_NO

SEQ_YFS_INVOICE_NO maxvalue has changed from 9999999 to 999999999. The upgrade process does not, however, change the maximum value of the sequence. After upgrading, run the following commands to change the maxvalue of the SEQ_YFS_INVOICE_NO.

For Oracle:

```
ALTER SEQUENCE SEQ_YFS_INVOICE_NO MAX VALUE 999999999
```

For DB2:

```
ALTER SEQUENCE SEQ_YFS_INVOICE_NO MAX VALUE 999999999
```

1.2.8.4.12 Config Data Versioning

If customers want to use Config Data Versioning and are currently purging the audits of the config tables from YFS_AUDIT, they will be able to deploy only the unpurged changes. For more details, refer to the section on Config Data Versioning in the Release Notes.

1.2.8.4.13 Change in the Behavior of the getCustomerList API

In previous releases passing an invalid organization code would not return records. In Release 8.0 and future releases, instead of returning an empty list element, `YFS10395 (YFS:Invalid organization code)` will be thrown.

1.2.8.4.14 Change in the Behavior of the getCustomerDetails API

Error code has been changed for getCustomerDetails API, when an API is called with invalid OrganizationCode. In previous version error code used to be YFS10001 (YFS:No Record Found), now the error thrown is YFS10395 (YFS:Invalid organization code).

1.2.8.4.15 Change in Behavior of Deployment of Extensions

Deployment of extensions (templates, jars, UI) has been changed and the upgrade process will handle all existing extensions. For more information about deployment, refer to the *Selling and Fulfillment Foundation: Customization Basics Guide*.

1.2.8.4.16 Change in Behavior of Class Path Configuration

The class path configuration for the Application and agent has changed with the introduction of the concept of Dynamic classpath. All the Application and Third-Party JAR have entries in the file dynamicclasspath.cfg, that is invoked while running the Application or agent. The Third Party JAR can also be installed, for more information about Installing Third-Party JAR files, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

1.2.8.4.17 Additional Information About Using Internet Explorer 7

If you are using Internet Explorer 7 as the browser, the URLs that appear in the pop-up window title bars can display sensitive keys.

1.2.8.4.18 Change in the Behavior of the getResourceForUserGroup API

In previous releases, the output of getResourceForUserGroup API would be a single resource. In Release 8.0 and future releases, the output of this API will return either a single resource or multiple resources.

In previous releases, the output of getResourceForUserGroup API was <Resource>, but from Release 8.0, the output of getResourceForUserGroup API will be <Resources>.

Note: To facilitate backward compatibility, when a template is passed with root node as <Resource>, the getResourceForUserGroup API will return an output as <Resource...../>

1.2.8.4.19 Change in Behavior of the getProperty API

Because the `yfs.properties` file has been split, `getProperty` no longer returns the list of cached db classes. Instead, `getCachedDetails` should be used. Also, getProperty will retrieve values from the following files:

- `yfs.properties and yfs.properties_ext_<module id>` files
- `customer_overrides.properties`

For more information about the splitting of `yfs.properties`, refer to Section 1.2.8.4.10, "Splitting of the yfs.properties file".

1.2.8.4.20 Change in the Behavior of the getServerProperties API

Because the `yfs.properties` file has been split, the getServerProperties API will retrieve values from the following files:

- `yfs.properties` and `yfs.properties_ext_<module id>` files
- `dbclassCache.properties` and `dbclassCache.properties_ext_<module id>` files
- `customer_overrides.properties`

For more information about the splitting of `yfs.properties`, refer to Section 1.2.8.4.10, "Splitting of the yfs.properties file".

1.2.8.4.21 Change in the Behavior of the Server Properties Displayed in System Management Console

In the previous releases, the Server Properties screen in the System Management Console used to display the value for the property `yfs.dbcache.classes` as cached classes, separated by commas. Because the `yfs.properties` file has been split, this property is no longer available, and each cached db class is displayed as a separate property.

For more information about the splitting of the yfs.properties, refer to Section 1.2.8.4.10, "Splitting of the yfs.properties file".

1.2.8.4.22 Change in the L10N Bundle Files

ycpapibundle.properties has been split into ./resources/ycpapibundle.properties and ./resources yscpapibundle.properties. For more information about the L10N bundle files, refer to the *Selling and Fulfillment Foundation: Localization Guide*.

1.2.8.4.23 Change in Behavior for running in Development Mode

The behavior in running the application in development mode has changed. For more information about the change, refer to the *Selling and Fulfillment Foundation: Customization Basics Guide*.

1.2.8.4.24 Mark Ship Node as Fulfillment Node and Yard

In Release 8.0, you can mark Ship Node as a Fulfillment Node and as a Yard. During upgrade, all the existing nodes are marked as Fulfillment Node and Non-Yard.

How It Affects You

None.

Migration Strategy

This section describes the manual and automated migration processes for this functionality.

Automated Migration Processes

The entries in the YFS_SHIP_NODE tables are updated using the SQL statement in the migrator_ship_node_serial_defaults.xml file located in the <INSTALL_DIR>/Migration/7.11/transaction/xmls directory.

Manual Migration Processes

None.

1.2.8.5 Delivery

The following enhancements and new functionalities have been introduced in Release 8.0:

Change in the Behavior of the unpackShipment API

1.2.8.5.1 Change in the Behavior of the unpackShipment API

In previous releases, the records of the container details were retained even after the container quantity came down to zero, and the output XML of the unpackShipment API returned the ContainerDetails element under the Container element. In Release 8.0, when the container quantity comes down to zero, records of the container details are removed, and the output XML of the unpackShipment API does not return the ContainerDetails element.

How It Affects You

When you call the unpackShipment API, the output XML does not return the ContainerDetails element under the Container element when the container quantity comes down to zero.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.9 Behavior Changes Between Release 8.0 and Release 8.2

The behavior changes between Release 8.0 and Release 8.2 can be broken down into the following categories:

- Distributed Order Management
- Carrier Service
- Node Processing Time

1.2.9.1 Distributed Order Management

The following enhancements and new functionalities have been introduced in Release 8.2:

- Notification Time
- Deliver Together Bundles
- Defining Item-Based Allocation Sequences

1.2.9.1.1 Notification Time

In Release 8.2, a node can define specific days and times on which it will receive notification of orders for shipping.

How It Affects You

None.

Migration Strategy

This section describes the manual and automated migration processes for this functionality.

Automated Migration Processes

The Notification Time functionality has the following automated migration processes:

- XMLs are located in `<INSTALL_DIR>/Migration/8.0/transaction/xmls`
- The XML file is `migrator_ship_node_notification.xml`
- For records in YFS_SHIP_NODE, a new record is inserted into YFS_NODE_NOTIFICATION_PERD with the following...:
  - `NODE_NOTIFICATION_PERD_KEY = SHIPNODE_KEY`
  - `ORGANIZATION_CODE = NODE_ORG_CODE`
  - `EFFECTIVE_FROM_DATE = NULL`
  - `EFFECTIVE_TO_DATE = NULL`
  - `CREATEUSERID = “80_NOTIFYMIGRATOR_001”`
  - `CREATEUSERID = “80_NOTIFYMIGRATOR_001”`

  - MODIFYPROGID = “80_NOTIFYMIGRATOR_001”
  - MODIFYUSERID = “80_NOTIFYMIGRATOR_001”
- For records in YFS_SHIP_NODE, a new record is inserted into YFS_NODE_NOTIFICATION with the following:
  - NODE_NOTIFICATION_KEY = SHIPNODE_KEY
  - NODE_NOTIFICATION_PERD_KEY = SHIPNODE_KEY
  - MIN_NOTIFICATION_TIME = MIN_NOTIFICATION_TIME
  - ADVANCE_NOTIFICATION_TIME = ADVANCE_NOTIFICATION_TIME
  - CREATEUSERID = “80_NOTIFYMIGRATOR_001”
  - CREATEUSERID = “80_NOTIFYMIGRATOR_001”
  - MODIFYPROGID = “80_NOTIFYMIGRATOR_001”
  - MODIFYUSERID = “80_NOTIFYMIGRATOR_001”

Manual Migration Processes

None.

1.2.9.1.2 Deliver Together Bundles

In Release 8.2, bundle fulfillment can be defined as "deliver together". This means that the expected delivery date drives the ship schedule, and the components have their shipment dates pushed out to meet the same delivery date in ratio.

How It Affects You

The Deliver Together Bundles feature pushes out a bundle component’s shipment date to meet the same delivery date across components.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.9.1.3 Defining Item-Based Allocation Sequences

In Release 8.2, you can define item-based allocation sequences and conditions for orders and order lines so that they can receive higher priority and the best supplies.

How It Affects You

Item-based allocations will have an impact on the customer. These allocations allocate all the demands from order line reservations before allocating the remaining order demands. In Release 8.2, item-based allocations will allocate both the demands from order line reservations and the remaining order demands based on the dates on which they were heir requested.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.9.2 Carrier Service

In Release 8.2, you can define a carrier's pickup, delivery, and transfer schedules and whether a carrier can hold deliveries. This new functionality ensures that the system calculates more accurate shipment and delivery dates.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The carrier service functionality has the following automated processes:

- XMLs are located in <INSTALL_DIR>/Migration/8.0/transaction/xmls.
- The XML file is migrator_carrier_service.xml.
- For records in YFS_CARRIER_SERVICE, a new record is inserted into YFS_CARRIER_SERVICE_DOW with the following:
  - CARRIER_SERVICE_DOW_KEY = CARRIER_SERVICE_KEY
  - CARRIER_SERVICE_KEY = CARRIER_SERVICE_KEY
  - SUNDAY_DELIVER = DELIVERY_SUNDAY
  - MONDAY_DELIVER = DELIVERY_MONDAY
  - TUESDAY_DELIVER = DELIVERY_TUESDAY
  - WEDNESDAY_DELIVER = DELIVERY_WEDNESDAY
  - THURSDAY_DELIVER = DELIVERY_THURSDAY
  - FRIDAY_DELIVER = DELIVERY_FRIDAY
  - SATURDAY_DELIVER = DELIVERY_SATURDAY
  - CREATEUSERID = "80_CSMIGRATOR_001’
  - CREATEUSERID = "80_CSMIGRATOR_001’
  - MODIFYPROGID = "80_CSMIGRATOR_001’
  - MODIFYUSERID = "80_CSMIGRATOR_001’

Manual Migration Processes

None.

1.2.9.3 Node Processing Time

In Release 8.2, you can define a ship node’s processing time to determine the first shipment date. This processing time also considers the ship node’s receiving calendar, factoring in holidays and nonworking days.

How It Affects You

None.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The node processing time functionality has the following automated processes:

- XMLs are located in <INSTALL_DIR>/Migration/8.0/transaction/xmls
- The XML file is migrator_ship_node_notification.xml
- The YFS_RULES table will have RULE_SET_VALUE set to N where the RULE_SET_FIELD_NAME is USE_CALENDAR_FOR_PROCESSING_TIME.

Manual Migration Processes

None.

1.2.10 Behavior Changes Between Release 8.2 and Release 8.5

The behavior changes between Release 8.2 and Release 8.5 can be broken down into the following categories:

- Catalog Management
- Distributed Order Management
- Pricing Functionality
- Enterprise Onboarding
- Application Platform
- CDT Support for Organization and Colony-Driven Deployments
- Warehouse Management System

1.2.10.1 Catalog Management

The following enhancements and new functionalities have been introduced in Release 8.5:

- Attribute Management
- Supersession
- Enhancements to Catalog UI
- The new manageCategory API is Replacing the manageItemAttributeGroupsForCatalog API

1.2.10.1.1 Attribute Management

In Release 8.5, the item attribute functionality in the Catalog Management module has been replaced by the new Attribute Management functionality. The new functionality provides master definitions of attributes which can be assigned to entities, such as categories, classifications, and items.

How It Affects You

In Release 8.5, attributes and attribute groups must be defined prior to assigning attributes to categories and classifications. Additionally, Selling and Fulfillment Foundation continues to allow users to override defined attribute groups in category assignments. In earlier releases, users could

reorganize the attribute sequence within the same attribute group for each category. However, in Release 8.5, users can no longer reorganize the attribute sequence in an attribute group that is assigned to a category.

Migration Strategy

This section describes the automated and manual migration processes for the Attribute Management functionality.

Automated Migration Processes

The Attribute Management functionality has the following automated processes:

1. An attribute domain with ATTRIBUTE_DOMAIN_ID = "ItemAttribute" will be created for each catalog organization.
2. A single YFS_ATTRIBUTE_GROUP record will be created for each attribute domain, as defined in Step 1.
3. A record is inserted into YFS_ATTRIBUTE for each record in YFS_COMMON_CODE with CODE_TYPE="ITEM_ADDNL_ATTR" or CODE_TYPE="ITEM_ALIAS_TYPE".
4. A record is inserted in YFS_ATTRIBUTE for each column in YFS_ITEM, except fields.

   A YFS_ATTRIBUTE_REFERENCE record will be created for each of the YFS_ATTRIBUTE records created for the common code with CODE_TYPE="ITEM_ALIAS_TYPE" and for each column in YFS_ITEM.

   These attribute records will be assigned to the appropriate attribute domain, as defined in step 1, based on the catalog organization. These attribute records will be assigned to the appropriate attribute group, as defined in step 2.
5. No YFS_ATTR_ALLOWED_VALUE record is created for the attributes defined in the previous steps. These attributes are treated as free-form text.
6. All the records in YFS_ITEM_ATTR will have the CATEGORY_KEY and ITEM_ATTR_GROUP_TYPE populated based on their corresponding YFS_ITEM_ATTR_GROUP records.

7. Additionally, new YFS_ITEM_ATTR records will be inserted for each of the existing YFS_ITEM_ATTR records for each child category as defined by the category hierarchy. The YFS_ITEM_ATTR.IS_INHERITED is populated as Y.
8. For each record in the YFS_ITEM_ATTR_GROUP table, the column YFS_ITEM_ATTR_GROUP.SEQUENCE_NO is populated based on its corresponding record in the YFS_ITEM_ATTR_GROUP_SEQ table. The YFS_ITEM_ATTR_GROUP_SEQ table will be removed.

Manual Migration Processes

None.

1.2.10.1.2 Supersession

In Release 8.5, substitution has been renamed as supersession, and has been enhanced with the following functionalities:

- Items now have effective date ranges, which determine whether or not an item is obsolete.
- A chain of substituted items can be configured to replace unavailable or obsolete items.

How It Affects You

None.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.1.3 Enhancements to Catalog UI

In Release 8.5, a master catalog is created when you define a catalog organization. The master catalog is also marked as the active selling catalog of the catalog organization.

How It Affects You

Run the automated migration processes to ensure that a master catalog and active selling catalog are defined for the catalog organization.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The enhanced catalog UI functionality has the following automated processes:

1. A new record is inserted into YFS_CATEGORY_DOMAIN for each catalog organization with the following...:
   - CATEGORY_DOMAIN_KEY = ORGANIZATION_CODE
   - CATEGORY_DOMAIN = ORGANIZATION_CODE + ‘MasterCatalog’
   - ORGANIZATION_CODE = ORGANIZATION_CODE
   - SHORT_DESCRIPTION = ‘Master Catalog’
   - DESCRIPTION = ‘Master Catalog for’ + ORGANIZATION_CODE
2. Two new records are inserted into YFS_CLASSIFICATION_PURPOSE for each catalog organization with the following...:
   - CLASSIFICATION_PURPOSE_KEY =
     - System Timestamp + NEXTVAL for Oracle and DB2
     - ORGANIZATION_CODE + ‘MC’ for SQLServer
   - CLASSIFICATION_PURPOSE_CODE = 'MasterCatalog'
   - ORGANIZATION_CODE = ORGANIZATION_CODE
   - CATEGORY_DOMAIN_KEY = CATEGORY_DOMAIN_KEY (from step 1)

and

   - CLASSIFICATION_PURPOSE_KEY =
     - System Timestamp + NEXTVAL for Oracle and DB2
     - ORGANIZATION_CODE + ‘SC’ for SQLServer

- CLASSIFICATION_PURPOSE_CODE = 'SellingCatalog'
- ORGANIZATION_CODE = ORGANIZATION_CODE
- CATEGORY_DOMAIN_KEY = CATEGORY_DOMAIN_KEY (from step 1.)

Manual Migration Processes

None.

1.2.10.1.4 The new manageCategory API is Replacing the manageItemAttributeGroupsForCatalog API

Due to changes from the new attribute management feature, Release 8.5 does not support the manageItemAttributeGroupsForCatalog API.

How It Affects You

The manageCategory API is replacing the manageItemAttributeGroupsForCatalog API. For more information about the manageCategory API and manageItemAttributeGroupsForCatalog API, refer to the *Selling and Fulfillment Foundation: Javadocs*.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.2 Distributed Order Management

The following enhancements and new functionalities have been introduced in Release 8.5:

- Item Validation
- Automatically Resolve Order Approval Hold On Order Change

- Nodes Are Not Returned When an Invalid City Is Entered
- Customer Alerts
- Prioritize INVOICED Payment Status Over REQUEST_CHARGE For Asynchronous Payment Processing

1.2.10.2.1 Item Validation

In Release 8.5, extended item validations are performed on orders. In the earlier releases, standard item validations verified only whether ordered items exist in the corresponding catalog. However, extended validations enable an enterprise to perform additional item validations on an order, such as verifying an item's customer entitlements, status, and effective date range.

How It Affects You

If you are upgrading and do not want extended validations enabled, complete the automated migration process.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The item validation functionality has the following automated processes:

- XMLs are located in <INSTALL_DIR>/Migration/8.2/transaction/xmls
- The XML file is migrator_order_extended_validation.xml
- The YFS_RULES table will have RULE_SET_VALUE set to N where the RULE_SET_FIELD_NAME is "IS_EXTENDED_VALIDATION_ALLOWED".

Manual Migration Processes

None.

1.2.10.2.2 Automatically Resolve Order Approval Hold On Order Change

Selling and Fulfillment Foundation, Release 8.5 provides the functionality to automatically remove holds on orders after the order totals fall below their account limits. Additionally, order approval hold is not placed on

draft orders that exceed their account limits. Order approval hold is applied to a draft order only when the draft order is confirmed.

In earlier versions, holds remained on orders until they were removed manually, and draft orders were placed on order approval hold when the draft order exceeded its account limits.

How It Affects You

In Release 8.5, order approval hold is never applied to draft orders. Additionally, holds on orders are automatically resolved. To enable the new functionality, select Automatically Resolve Order Approval Hold On Order Change in the Transaction Rules window in the Distributed Order Management application.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.2.3 Nodes Are Not Returned When an Invalid City Is Entered

In Selling and Fulfillment Foundation, Release 8.5, the getSurroundingNodeList API does not return any nodes when an invalid city is entered. In earlier releases, the getSurroundingNodeList API incorrectly returned all nodes when an invalid city was entered.

How It Affects You

When you enter an invalid city, the getSurroundingNodeList API does not return any nodes.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.2.4 Customer Alerts

In Release 8.5, the customer management feature enables you to give CSRs the same access and restrictions to exceptions as they have to orders. For example, if an order is put on hold and generates an exception, CSRs with access to the order can also access the alert.

How It Affects You

All CSRs can view orders with TeamCode equal to null or BillToID equal to blank or null. The null values and blanks specify that the order has no owner and can be accessed by everyone. In earlier releases, null values and blanks specified that no one could access the order.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.2.5 Prioritize INVOICED Payment Status Over REQUEST_CHARGE For Asynchronous Payment Processing

In Release 8.5, the "Prioritize INVOICED Payment Status Over REQUEST_CHARGE For Asynchronous Payment Processing" option in the Financial Rules window has replaced the functionality enabled by the `yfs.OrderPaymentstatus.BCrequired` property. If this option is enabled, invoiced orders remain in INVOICED status when an asynchronous payment request is made on the order. However, if the option is disabled, orders move to REQUESTED_CHARGE status indicating that there is a pending charge on the order. By default, the option is enabled.

How It Affects You

If `yfs.OrderPaymentstatus.BCrequired` was set to "N" in a previous release, disable the "Prioritize INVOICED Payment Status Over REQUEST_CHARGE For Asynchronous Payment Processing" option in the Financial Rules window.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.3 Pricing Functionality

Release 8.5 provides new pricing functionality, which allows you to configure the following pricing rules:

- Combinational rules, shipping charges, and coupons
- Distribution and display of header discounts to a line
- Repricing based on the original order pricing date

How It Affects You

The earlier pricing functionality has been deprecated in Release 8.5. To use the new pricing functionality, disable Use Deprecated Pricing Functionality in the Installation Rules window in the Application Platform.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The pricing functionality has the following automated processes:

- XMLs are located in <INSTALL_DIR>/Migration/8.2/transaction/xmls.
- The XML file is migrator_pricing_engine.xml. The YFS_RULES table will have RULE_SET_VALUE set to Y, where the RULE_SET_FIELD_NAME is "USE_DEPRECATED_PRICING_ENGINE".
- The XML file is migrator_pricing_org.xml. The YFS_ORGANIZATION table will have PRICING_ORGANIZATION_CODE set to PRIMARY_ENTERPRISE_KEY.

Manual Migration Processes

None.

1.2.10.4 Enterprise Onboarding

In Release 8.5, multiple enterprises can be deployed across multiple schemas and database instances. As a result, in future releases, you will be able to migrate an enterprise to a new version without upgrade or downtime of other enterprises.

How It Affects You

A new COLONY_ID has been added to the YFS_ORGANIZATION table. The default value of this column is set as DEFAULT. All the existing organizations will belong to a default colony.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.5 Application Platform

The following enhancements and new functionalities have been implemented in Release 8.5:

- Password Encryption
- Limiting Access to Data
- Global User ID
- Reducing Table Size and Index Size
- Business Intelligence Enhancements: Best Match Region
- Performance Enhancements in the Payment and Inbox Tables

1.2.10.5.1 Password Encryption

In Release 8.5, the password credentials are protected by encryption. Passwords are hashed and salted with random values to ensure that they are secure.

How It Affects You

Passwords for existing users are not encrypted by the upgrade process. However, if you edit a user's information or create a new user, the user's password is encrypted in the database. If you want to use plain text passwords, implement the following user exits to validate and store passwords as plain text:

- YCPCheckPasswordsMatchUE
- YCPValidateChangedPasswordUE

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.5.2 Limiting Access to Data

In Release 8.5, the data access policy feature enables a hub administrator to easily configure access rules for the enterprise, buyer, and node users. Data access policies provide increased data access security for users and more flexible configuration options to achieve this security. For example, an enterprise user can be configured to have access to data belonging to the user's enterprise or to data associated with the enterprise user's team definition.

How It Affects You

When you upgrade to Release 8.5, the new data access policy is enabled. To use the earlier data security group functionality, enable backward compatibility by selecting the Use Deprecated Access Policy Functionality option in the Installation Rules window.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.5.3 Global User ID

In Release 8.5, users can be defined to be unique within an enterprise as well as globally unique. For deployments where users are globally unique, DISPLAY_USER_ID is unique for the corresponding users. For deployments where users are unique within an enterprise, DISPLAY_USER_ID and ENTERPRISE_CODE are unique for the corresponding users.

How It Affects You

All existing users are globally unique. DISPLAY_USER_ID and ENTERPRISE_CODE are populated for the existing users.

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The existing users in the YFS_USER table will be updated as follows:

- DISPLAY_USER_ID=LOGINID
- MODIFYPROGID='83_GLOBAL_USER_UPGRADE'
- ENTERPRISE_CODE= (select PRIMARY_ENTERPRISE from YFS_ORGANIZATION, where YFS_ORGANIZATION.ORGANIZATION_CODE=YFS_USER.ORGANIZATION_CODE)

Manual Migration Processes

None.

1.2.10.5.4 Reducing Table Size and Index Size

To improve system performance, Release 8.5 enables you to reduce the size of some database tables by converting some CHAR columns to VARCHAR, and Not Null columns to Null. On some databases, this will improve index performance as well.

How It Affects You

Depending on your database, this feature may add a significant amount of time to the upgrade process. If you are upgrading to Release 8.5 and do not want to convert to either VARCHAR or Nullable columns, you can enable backwards compatibility for either type of column by extending the `SMCF_85_attribute_default_extn.xml.sample file` in the `<INSTALL_DIR>/repository/entities/extensions` directory. To extend this file, copy `SMCF_85_attribute_default_extn.xml.sample` and save the file as `SMCF_85_attribute_default_extn.xml`.

If you make columns Nullable, columns with Null values are not returned. If you extend this file, attributes made Nullable are still returned in output XMLs.

The automated migration process should be used to update columns in Oracle and SQLServer databases. However, if you are using DB2, you must make manual changes to these columns. Refer to Manual Migration Processes for more information.

Also, if you are running the automated migration process on an Oracle database, you must update to Nullable columns, but updating to VARCHAR columns is optional. If you are using SQLServer, you must update to both Nullable columns and VARCHAR columns. If you are using DB2, updating to Nullable columns and VARCHAR columns is optional.

The `SMCF_85_attribute_default_extn.xml.sample` file is structured identically to entity XMLs. Refer to the *Selling and Fulfillment Foundation: Extending the Database Guide* for more information on entity XMLs. The sample file only contains the Entities and Attributes that are effected by this upgrade. In addition to the ColumnName attribute that uniquely identifies the Attribute, there are up to four possible XML attributes: DefaultValue, Nullable, DataType, and VirtualDefaultValue. The DefaultValue and Nullable attributes contain the previous entity XML values required to make a column NOT NULL. DataType contains the previous entity XML values required to keep a column as CHAR, instead of VARCHAR. VirtualDefaultValue is a new attribute that contains the same value as DefaultValue. However, this will only be used in memory and NULL will still be used in the database. Only the attributes applicable to an Attribute will be in the sample file. For more information about editing the sample file, refer to "Premigration Preparation Tasks".

Migration Strategy

This section describes the automated and manual migration processes for this functionality.

Automated Migration Processes

The automated migration process updates index and CHAR columns in the following tables.

> **Note:** Due to DB2 limitations, if you are using DB2 these changes need to be made manually. Refer to the Manual Migration Processes section for more information.

- YFS_ORDER_HEADER Table
- YFS_ORDER_LINE Table
- YFS_SHIPMENT Table
- YFS_SHIPMENT_LINE Table

- YFS_ACTIVITY_DEMAND Table
- YFS_CONTAINER_DETAILS Table
- YFS_DOCK_APPOINTMENT Table
- YFS_INBOX Table
- YFS_LOAD Table
- YFS_LOADED_CONTAINER Table
- YFS_LOAD_SHIPMENT Table
- YFS_LOAD_STOP Table
- YFS_LOCN_INVENTORY_AUDIT Table
- YFS_MANIFEST Table
- YFS_ORDER_INVOICE Table
- YFS_ORDER_LINE_SCHEDULE Table
- YFS_ORDER_RELEASE Table
- YFS_ORDER_RELEASE_STATUS Table
- YFS_PRODUCTIVITY Table
- YFS_RECEIPT_LINE Table
- YFS_RECEIVING_PREFERENCE Table
- YFS_RESPONSE Table
- YFS_SHIPMENT_CONTAINER Table
- YFS_TASK Table
- YFS_WORK_ORDER Table

Table 1–3 YFS_ORDER_HEADER Table

Column	To VARCHAR	TO NULL
ALLOCATION_RULE_ID	X	X
BILL_TO_ID		X
BUYER_ORGANIZATION_CODE		x
CONTACT_KEY		x

Table 1–3 YFS_ORDER_HEADER Table

Column	To VARCHAR	TO NULL
CUSTOMER_EMAILID		x
DEFAULT_TEMPLATE		x
ENTERED_BY		x
EXCHANGE_TYPE		x
MARK_FOR_KEY		X
NOTIFICATION_REFERENCE		x
NOTIFICATION_TYPE		x
OPTIMIZATION_TYPE		x
ORDER_NO	x	
ORDER_PURPOSE		x
PAYMENT_RULE_ID		x
PAYMENT_STATUS	x	
PRICE_PROGRAM_KEY		x
RECEIVING_NODE		x
RETURN_OH_KEY_FOR_EXCHANGE		x
SHIP_NODE		x
SHIP_TO_ID		x
SOURCING_CLASSIFICATION		x
VENDOR_ID	x	x

Table 1–4 YFS_ORDER_LINE Table

Column	To VARCHAR	TO NULL
CHAINED_FROM_ORDER_HEADER_KEY		x
CHAINED_FROM_ORDER_LINE_KEY		X
CURRENT_WORK_ORDER_KEY		X
DEPENDENCY_SHIPPING_RULE		x

Table 1–4 YFS_ORDER_LINE Table

Column	To VARCHAR	TO NULL
DEPENDENCY_ON_LINE_KEY		x
DERIVED_FROM_ORDER_HEADER_KEY		X
DERIVED_FROM_ORDER_LINE_KEY		X
DERIVED_FROM_ORDER_RELEASE_KEY		X
DISTRIBUTION_RULE_ID	X	X
MARK_FOR_KEY		X
MERGE_NODE		X
ORIG_ORDER_LINE_KEY		X
PROCURE_FROM_NODE		X
RECEIVING_NODE		x
SHIP_TO_ID		x
SHIP_TO_KEY		X
SHIPMENT_CONSOL_GROUP_ID	X	
SHIPNODE_KEY		X
SOURCE_FROM_ORGANIZATION		X
SUPPLIER_CODE	X	X

Table 1–5 YFS_SHIPMENT Table

Column	To VARCHAR	TO NULL
AIRWAY_BILL_NO	X	
APPOINTMENT_NO	X	X
BILL_TO_CUSTOMER_ID	X	
BOL_NO	X	X
BUYER_ORGANIZATION_CODE		x
DELIVERY_PLAN_KEY		X
IT_NO	X	X

Table 1–5 YFS_SHIPMENT Table

Column	To VARCHAR	TO NULL
MANIFEST_KEY		X
MANIFEST_NO	X	X
MARK_FOR_KEY		X
MERGE_NODE		X
ORDER_HEADER_KEY		X
ORDER_NO	x	X
ORDER_RELEASE_KEY		X
PARENT_SHIPMENT_KEY		X
PICK_LIST_NO		X
PICKTICKET_NO	X	X
POD_NO	X	X
PRO_NO	X	X
RECEIVING_NODE		x
SEAL_NO	X	X
SHIPMENT_CONSOL_GROUP_ID	X	
TRACKING_NO	X	X
TRAILER_NO	X	X
WORK_ORDER_APPT_KEY		X

Table 1–6 YFS_SHIPMENT_LINE Table

Column	To VARCHAR	TO NULL
EXTERNAL_RELEASE_IDENTIFIER		X
MARK_FOR_KEY		X
ORDER_HEADER_KEY		X
ORDER_LINE_KEY		X
ORDER_NO	x	X

Table 1–6 YFS_SHIPMENT_LINE Table

Column	To VARCHAR	TO NULL
ORDER_RELEASE_KEY		X
REQUESTED_TAG_NUMBER		X
SHIPMENT_CONSOL_GROUP_ID	X	

Table 1–7 YFS_ACTIVITY_DEMAND Table

Column	To VARCHAR	TO NULL
ORDER_HEADER_KEY		X
ORDER_NO	X	X

Table 1–8 YFS_CONTAINER_DETAILS Table

Column	To VARCHAR	TO NULL
ORDER_HEADER_KEY		X
ORDER_LINE_KEY		X
ORDER_RELEASE_KEY		X

Table 1–9 YFS_DOCK_APPOINTMENT Table

Column	To VARCHAR	TO NULL
APPOINTMENT_NO		X
BOL_NO	X	X
ORDER_HEADER_KEY		X
PRO_NO	X	X

Table 1–10 YFS_INBOX Table

Column	To VARCHAR	TO NULL
ORDER_HEADER_KEY		X
ORDER_NO	X	X

Table 1–11 YFS_LOAD Table

Column	To VARCHAR	TO NULL
AIRWAY_BILL_NO	X	
APPOINTMENT_NO	X	X
BOL_NO	X	X
BUYER_ORGANIZATION_CODE		X
DELIVERY_PLAY_KEY		X
MANIFEST_KEY		X
MARK_FOR_KEY		X
POD_NO	X	X
PRO_NO	X	X
SEAL_NO	X	X
TRAILER_NO	X	X

Table 1–12 YFS_LOADED_CONTAINER Table

Column	To VARCHAR	TO NULL
TRAILER_NO	X	X

Table 1–13 YFS_LOAD_SHIPMENT Table

Column	To VARCHAR	TO NULL
BOL_NO	X	
PRO_NO	X	

Table 1–14 YFS_LOAD_STOP Table

Column	To VARCHAR	TO NULL
APPOINTMENT_NO	X	X

Table 1–15 YFS_LOCN_INVENTORY_AUDIT Table

Column	To VARCHAR	TO NULL
BOL_NO	X	X
ORDER_NO	X	X

Table 1–16 YFS_MANIFEST Table

Column	To VARCHAR	TO NULL
MANIFEST_NO	X	
TRAILER_NO	X	X

Table 1–17 YFS_ORDER_INVOICE Table

Column	To VARCHAR	TO NULL
DERIVED_FROM_ORDER_HEADER_KEY		X
ORDER_NO	X	X

Table 1–18 YFS_ORDER_LINE_SCHEDULE Table

Column	To VARCHAR	TO NULL
OVERRIDE_PRODUCT_CLASS		X
PROCURE_FROM_NODE		X
RECEIVING_NODE		X
SHIP_NODE		X
SOURCE_FROM_ORGANIZATION		X

Table 1–19 YFS_ORDER_RELEASE Table

Column	To VARCHAR	TO NULL
BILL_TO_ID		X
BUYER_ORGANIZATION_CODE		X
MARK_FOR_KEY		X
MERGE_NODE		X
NOTIFICATION_REFERENCE		X
NOTIFICATION_TYPE		X
ORDER_HEADER_KEY		X
ORDER_NO	X	X
PICK_LIST_NO		X
RECEIVING_NODE		X
SHIP_TO_ID		X
SHIPMENT_CONSOL_GROUP_ID	X	
SUPPLIER_CODE	X	X
WORK_ORDER_APPT_KEY		X

Table 1–20 YFS_ORDER_RELEASE_STATUS Table

Column	To VARCHAR	TO NULL
CHAINED_TO_ORDER_HEADER_KEY		X
CHAINED_TO_ORDER_LINE_KEY		X
ORDER_RELEASE_KEY		X

Table 1–21 YFS_PRODUCTIVITY Table

Column	To VARCHAR	TO NULL
BOL_NO	X	X
MANIFEST_NO	X	X
ORDER_LINE_KEY		X
ORDER_NO	X	X
ORDER_RELEASE_KEY		x
TRAILER_NO	X	X

Table 1–22 YFS_RECEIPT_LINE Table

Column	To VARCHAR	TO NULL
ORDER_HEADER_KEY		X
ORDER_LINE_KEY		X
ORDER_NO	X	X
ORDER_RELEASE_KEY		X

Table 1–23 YFS_RECEIVING_PREFERENCE Table

Column	To VARCHAR	TO NULL
BUYER_ORGANIZATION_CODE		x

Table 1–24 YFS_RESPONSE Table

Column	To VARCHAR	TO NULL
ENTERED_BY		X

Table 1–25 YFS_SHIPMENT_CONTAINER Table

Column	To VARCHAR	TO NULL
MANIFEST_KEY		X
MANIFEST_NO	X	X
ORDER_HEADER_KEY		X
TRACKING_NO	X	X

Table 1–26 YFS_TASK Table

Column	To VARCHAR	TO NULL
BOL_NO	X	X
MANIFEST_NO	X	X
ORDER_HEADER_KEY		X
ORDER_LINE_KEY		X
ORDER_NO	X	X
ORDER_RELEASE_KEY		X

Table 1–27 YFS_WORK_ORDER Table

Column	To VARCHAR	TO NULL
BUYER_ORGANIZATION_CODE		X
ORDER_NO	X	X

Manual Migration Processes

If you are using DB2, manually make nullable the columns listed in the Automated Migration Processes section and change the default value of these columns to NULL.

1.2.10.5.5 Business Intelligence Enhancements: Best Match Region

In Release 8.5, the Best Match Region for Business Intelligence functionality enables you to generate Data Warehouse reports with best match region information for sourcing and resource pools. To enable this functionality, the short zip code field in YFS_REGION_BEST_MATCH must be correctly populated with short zip codes from YFS_PERSON_INFO records. The short zip code field in new person info records is populated from the zip code field by configuring either of the following:

- A regular expression is defined for the country's short zip code
- YCPGetShortZipCodeUE is implemented

How It Affects You

Existing customers should use database level utilities, as described in Manual Migration Processes, to update zip codes in existing person info records.

Migration Strategy

This section describes the migration process.

Automated Migration Processes

None.

Manual Migration Processes

The method for updating person info records is based on the content of your data and the database vendor. This section provides guidelines for update statements and several examples:

- Example 1:
  If your data contains US 5 digit zip codes, the short zip code may be the same as zip code. You may use the following sample update statement:

update YFS_PERSON_INFO set SHORT_ZIP_CODE = ZIP_CODE where COUNTRY = 'US'

- Example 2:
  If you are updating Canadian zip codes for an Oracle database, you may use the following sample update statement:

  update YFS_PERSON_INFO set SHORT_ZIP_CODE = substr(ZIP_CODE,1,3) where COUNTRY='CA'

  Canadian postal codes store high level region information in the first three alphanumeric characters. The last three characters are more granular.

Some scenarios may require more complex logic in which database vendor regular expression syntax or database scripts must be used.

- Example 3: Oracle
  Oracle provides regular expression functions in version 10g and later, as shown in the following sample update statement to keep the first five digits:

  update YFS_PERSON_INFO set SHORT_ZIP_CODE = REGEXP_SUBSTR(ZIP_CODE,'[[:digit:]]{5}');

For SQLServer, the .NET Common Language Runtime (CLR) can be utilized to create a customer function to handle regular expressions. Refer to Microsoft SQLServer Help for more information.

For DB2, a database script can be created to handle regular expression situations for DB2 installation.

With all database vendors, update statements can be batched to provide better performance, such as row limiting parallel threads to update the table. Records can be limited by using the following strategy on Oracle and similar syntax on other databases:

update YFS_PERSON_INFO set SHORT_ZIP_CODE = ZIP_CODE where COUNTRY = 'US' and SHORT_ZIP_CODE IS NULL AND ROWNUM < 10000

1.2.10.5.6 Performance Enhancements in the Payment and Inbox Tables

In Release 8.5, the default values of the following attributes have been updated from " " to null.

- The FIRST_NAME, MIDDLE_NAME, and LAST_NAME columns in the YFS_PAYMENT table.
- The INBOX_ADDNL_DATA column in the YFS_INBOX table.

How It Affects You

If you are upgrading to Release 8.5, these attributes do not return in output XMLs if the attributes have no value.

Migration Strategy

This section describes the migration process.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.6 CDT Support for Organization and Colony-Driven Deployments

In Selling and Fulfillment Foundation, Release 8.5, the CDT supports configuration of data entities for both single-schema and multischema deployments. As a result, the CDT has been updated with the following enhancements:

- Groups for comparing and deploying tables in the CDT have been reorganized. In earlier releases, the CDT provided Configuration Groups that grouped tables logically. In Release 8.5, tables can be compared and deployed as part of the following groups:
  - Metadata
  - Configuration Data
  - Master Data

- Data can be now compared and deployed by organization or by colony. If you are comparing or deploying data in a single-schema environment, the CDT prompts you to specify the organizations you want to compare. If you are comparing or deploying data in a multischema environment, the CDT prompts you to specify the organizations and the colonies that you want to compare.

How It Affects You

In Selling and Fulfillment Foundation, Release 8.5 you can compare and deploy tables as in previous releases. In a single-schema deployment, do not enter a value when prompted for an organization. In a multischema environment, do not enter a value when prompted for an organization or a colony.

Migration Strategy

None.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.7 Warehouse Management System

The following enhancements and new functionalities have been implemented in Release 8.5:

- Mobile Application Takes Context Root as Input Parameter
- SourceSortSequence Stamped on Count Request
- Sterling Pierbridge Integration
- Sterling FedEx Integration
- Sterling ConnectShip Integration

1.2.10.7.1 Mobile Application Takes Context Root as Input Parameter

The Mobile Application sends requests to /yantra by default. In Selling and Fulfillment Foundation, Release 8.5, the Mobile Application can take the context root as the input parameter.

How It Affects You

If the context root is not passed, the Mobile Application sends requests to /yantra. Therefore, if the application is deployed in a context other than /yantra, and the context root is not passed, the Mobile Application cannot process the request.

Migration Strategy

This section describes the migration process.

Automated Migration Processes

None.

Manual Migration Processes

The context root must be passed. For more information about the manual migration process, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

1.2.10.7.2 SourceSortSequence Stamped on Count Request

In Selling and Fulfillment Foundation, Release 8.5, a new attribute, SourceSortSequence, is stamped on count tasks.

How It Affects You

In Selling and Fulfillment Foundation, Release 8.5, the count tasks that are assigned to users after upgrade will be suggested prior to the count tasks that are assigned to users before upgrade.

Migration Strategy

This section describes the migration process.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.7.3 Sterling Pierbridge Integration

In Selling and Fulfillment Foundation, Release 8.5, integration with multiple carriers such as FedEx, UPS, Purolator, and USPS can be performed using the AgileElite shipment server.

How It Affects You

To integrate with the AgileElite shipment server for carrying out manifesting and shipping processes, in the Parcel Carrier Preferences of the Sterling Warehouse Management System users must select Sterling Pierbridge Adaptor from the drop-down list.

If you are performing an upgrade for an existing carrier that is not provided as part of the factory setup, refer to the *Parcel Carrier: Adapter Guide*.

Migration Strategy

This section describes the migration process.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.7.4 Sterling FedEx Integration

In Selling and Fulfillment Foundation, Release 8.5, integration with Fedex carriers can be performed using the FedEx server.

How It Affects You

To integrate with the FedEx server for carrying out manifesting and shipping processes, in the Parcel Carrier Preferences of the Sterling Warehouse Management System users must select Sterling Fedex Adaptor from the drop-down list.

If you are performing an upgrade for an existing carrier that is not provided as part of the factory setup, refer to the *Parcel Carrier: Adapter Guide*.

Migration Strategy

This section describes the migration process.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.10.7.5 Sterling ConnectShip Integration

In Selling and Fulfillment Foundation, Release 8.5, integration with UPS carrier can be performed using the ConnectShip server.

How It Affects You

To integrate with ConnectShip server for carrying out manifesting and shipping processes, in the Parcel Carrier Preferences of the Sterling Warehouse Management System users must select Sterling ConnectShip Adaptor from the drop-down list.

If you are performing an upgrade for an existing carrier that is not provided as part of the factory setup, refer to the *Parcel Carrier: Adapter Guide*.

Migration Strategy

This section describes the migration process.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.11 Behavior Changes Between Release 8.5 and Release 9.0

The behavior changes that occur in Selling and Fulfillment Foundation when you migrate from Release 8.5 to Release 9.0 are described in the following categories:

- Application Platform
- Sterling Sensitive Data Capture Server

1.2.11.1 Application Platform

The changes and new functionalities in the Application Platform component between 8.5 and 9.0 pertain to:

- SQLProxy Tool
- yfs.getNextException.bc.mode Property

1.2.11.1.1 SQLProxy Tool

In Release 9.0, the SQLProxy Tool has been replaced with an enhanced SQLProxy Tool for better diagnosis and resolution of connection-related issues. For more information about using the new SQLProxy Tool, refer to the *Selling and Fulfillment Foundation: Extending the Database Guide*.

To enable the new SQLProxy Tool, use the `customer_overrides.properties` file to configure the following properties:

- `jdbcService.proxyLoggingEnabled` set to Y
- `jdbcService.proxySourceLogging` set to Y
- `jdbcService.proxyLogDir` to `/path/to/log/dir`, where `/path/to/log/dir` corresponds to the directory to which the SQL logs are written.

Additionally, you must remove the following properties from the customer_overrides.properties file:

- yfs.enable.proxy.sql.logging
- yfs.enable.source.logging
- yfs.proxy.log.dir

For additional information about overriding properties using the customer_overrides.properties file, see the *Selling and Fulfillment Foundation: Properties Guide*.

How It Affects You

None.

Migration Strategy

This section describes the migration process.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.11.1.2 yfs.getNextException.bc.mode Property

In Release 9.0, the getNextException API no longer throws exceptions when no alert is found. Instead, the API returns an attribute "AlertFound" in the inbox element of the output XML to indicate that no alerts exist. This behavior is determined by the yfs.getNextException.bc.mode property, which is set to N, by default.

How It Affects You

To enable backwards compatiblity, use the customer_overrides.properties file to set the yfs.getNextException.bc.mode property to Y. For additional information about overriding properties using the customer_overrides.properties file, see the *Selling and Fulfillment Foundation: Properties Guide*.

Migration Strategy

This section describes the migration process.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.11.2 Sterling Sensitive Data Capture Server

Release 9.0 provides the Sterling Sensitive Data Capture Server, which integrates with the Selling and Fulfillment Foundation™ to ensure credit card numbers and stored value card numbers are secure by tokenizing them. To enable the Sterling Sensitive Data Capture Server, perform the following tasks:

- Install and deploy the Sterling Sensitive Data Capture Server, as described in the *Sterling Sensitive Data Capture: Configuration Guide*
- Disable the Credit Card and the Stored Value Card encryption rules in the Installation Rules window in Application Platform. For information about the Credit Card and the Stored Value Card encryption rules in the Installation Rules window, refer to the *Selling and Fulfillment Foundation: Application Platform Configuration Guide*.
- Migrate your encrypted primary account numbers for credit cards and stored value cards to tokens. For more information about performing this migration, refer to Sterling Commerce's *Sterling Sensitive Data Capture Server, Release 1.0: PA-DSS Implementation Guide*.

How It Affects You

The enhanced security functionality provided by the Sterling Sensitive Data Capture Server is replacing the earlier payment encryption functionality, which is deprecated in Release 9.0. If you want to continue to use the payment encryption functionality in Release 9.0, perform the following tasks:

- Use the `customer_overrides.properties` file to set the yfs.ssdcs.tokenize.svc property to `N` and the yfs.ssdcs.tokenize.cc property to `N`. For additional information about overriding properties

using the customer_overrides.properties file, see the *Selling and Fulfillment Foundation: Properties Guide*.

- If you use the console to show decrypted credit card numbers or stored value card numbers and have customized the console, run the difference between the console JSPs in the old runtime and the console JSPs in the Release 9.0 runtime, and then merge the changes. For information about reconciling JSPs, refer to Appendix A, "Custom JSP Reconciliation for New Functionalities in Release 9.0".

Migration Strategy

This section describes the automated and manual migration process involved in using the Sterling Sensitive Data Capture Server.

Automated Migration Processes

None.

Manual Migration Processes

None.

1.2.11.3 Sterling Warehouse Management System

The following enhancements and new functionalities have been implemented in Release 9.0:

- Scanning Serial numbers of Serialized items on HSDE screens

1.2.11.3.1 Scanning Serial numbers of Serialized items on HSDE screens

In Release 9.0, serial scan operations on HSDE screens will not accept a serial number for a serialized item, if the data is not translated to a valid barcode.

How It Affects You

None.

Migration Strategy

This section describes the migration process.

Automated Migration Processes

None.

Manual Migration Processes

Modify the length settings of the "DummySerialTranslator" barcode source that is defined under the "SerialScan" BarcodeType to match the length of the serial numbers used in the warehouse.

1.3 Selling and Fulfillment Foundation User Interface Changes

The following sections describe in detail, the various application console and Applications Manager changes between different releases that may require manual intervention. This section should be reviewed carefully, and checks must be performed as part of your premigration analysis prior to taking any migration action. It is important that pertinent data, custom code, and configurations are modified, if necessary, in order to utilize the new functionalities.

1.3.1 Differences in the Application Consoles User Interface Between Release 7.5 and Release 7.5 SP1

This section describes the UI differences in the Application Consoles between Release 7.5 and Release 7.5 SP1. These changes are described in the following sections, based on the functional modules:

- Delivery Management
- Order Management
- Warehouse Management

The new Application Consoles user interface features that have been introduced in Release 7.5 SP1 are not mentioned in this document because they do not impact migration assessment in any way. For information regarding the new features in the Application Console, refer to the *Selling and Fulfillment Foundation: Release Notes* and the set of user guides pertaining to the Application Console.

1.3.1.1 Delivery Management

The changes and new UI functionalities in the Delivery Management module in Release 7.5 SP1 pertain to:

- Outbound Shipment List Screen
- Outbound Shipment Details Screen
- Inbound Order Shipment List Screen
- Inbound Order Shipment Details Screen
- Shipment Line Details Screen
- Container List Screen

The following sections describe these differences in detail.

1.3.1.1.1 Outbound Shipment List Screen

The Create Pick List action has been removed from the Outbound Shipment List screen.

1.3.1.1.2 Outbound Shipment Details Screen

The Create Pick List action has been renamed as Print Pick List. This action is enabled only if the PRINT_PICK_LIST base transaction is valid in

the shipment pipeline. The Print Pick List action is disabled if a pick list has already been printed for the shipment.

The Is Revised field is exposed in the Carrier Info tab.

1.3.1.1.3 Inbound Order Shipment List Screen

The Create Pick List action has been removed from the Inbound Order Shipment List screen.

1.3.1.1.4 Inbound Order Shipment Details Screen

The Create Pick List action has been renamed as Print Pick List. This action is enabled only if the PRINT_PICK_LIST base transaction is valid in the shipment pipeline. The Print Pick List action is disabled if a pick list has already been printed for the shipment.

The Is Revised field is exposed in the Carrier Info tab.

1.3.1.1.5 Shipment Line Details Screen

A new field, Mark For has been added. This field displays the Mark for Address information from the order line or shipment line.

Two new fields, Department Code and Buyer MarkFor Node have also been enabled under in the Line Attributes tab.

1.3.1.1.6 Container List Screen

The Modify Containerization action has been added.

1.3.1.2 Order Management

The changes and new UI functionalities in the Order Management module in Release 7.5 SP1 pertain to:

- Order Line Lookup

1.3.1.2.1 Order Line Lookup

The Order Line Lookup screen as been renamed as Order Line.

The search type description has been changed from By Item to By All Attributes.

1.3.1.3 Warehouse Management

The changes and new UI functionalities in the Warehouse Management module in Release 7.5 SP1 pertain to:

- Location Inventory
- Count Request Details
- Create Count Request
- Count Result Details
- Complete Batch
- Print

1.3.1.3.1 Location Inventory

The outbound container details can be viewed from the Containers tab in the Location Inventory screen.

- If the selected container is an outbound container, a hyperlink is provided for Pallet ID and Case ID. Clicking this link displays the related shipment information.
- If the selected container is an inventory container, the inventory - related information is displayed.

1.3.1.3.2 Count Request Details

The Count Result Details tab has been renamed as Count Result Summary.

A new feature called Count Results Details has been added to the Count Result Summary screen to enable the viewing of count results from the Count Request screen even when there is no variance.

1.3.1.3.3 Create Count Request

You can default the count request type by configuring `requestType` as a parameter in the Java Server Page field. This field is in the Detail Views tab of the Resource Details: Create Count Request screen as shown here:

```
Jsp="/wms/count/detail/count_request_detail_
createanchor.jsp?requestType=CYCLE_COUNT"
```

Valid values for cycle count and physical count are CYCLE-COUNT and PHYSICAL-COUNT respectively. If these values are configured in the

Applications Manager, by default, the appropriate count type is displayed in the Create Count Request screen.

1.3.1.3.4 Count Result Details

The Parent CaseId field is displayed in both the Item Details screen and the Container Details tab.

1.3.1.3.5 Complete Batch

The CartLocationId, SlotNumber, and ContainerSCM values are displayed in the Complete Batch screen.

1.3.1.3.6 Print

In the Print pop-up window, the `common_printconsole_popup.jsp` has been made extensible.

1.3.2 Application Console User Interface Between Release 7.7 and Release 7.9

This section describes the UI differences between the application consoles of Release 7.7 and Release 7.9. These changes are described in the following sections based on the functional modules:

- Inventory
- Order Management

The additional Application Consoles user interface features that have been introduced in Release 7.9 are not mentioned in this document because they do not impact migration assessment in any way. For additional information regarding these new features in the Sterling Supply Chain Application Consoles, refer to the *Selling and Fulfillment Foundation: Release Notes* and the set of user guides for the Application Console.

1.3.2.1 Inventory

The changes and new UI functionalities in the Inventory module in Release 7.9 pertain to:

- Capacity Details

1.3.2.1.1 Capacity Details

Users can configure the service time slots within a service slot group in a hierarchical format. The capacity console shows capacity, supplemental capacity, consumption, and availability for both aggregate and nonaggregate slots. Hierarchical slots are displayed in a top-down structure. Users can collapse and expand the parent slots, as needed.

The standard capacity screen displays all the slots within the hierarchy without the option for expanding or collapsing. The hierarchical slots are displayed in a top-down structure. Users also have the option to copy the standard and supplemental capacity from one setup to different days of a week. The Copy Capacity To Selected Slots action is added.

The capacity functionality has been enhanced to consider multiple dimensions while inquiring and taking appointments. Standard capacity is defined for primary as well as secondary UOMs. UOMs can now be stored together with standard capacity. Overridden and supplemental capacities can be specified for each of the dimensions.

1.3.2.2 Order Management

The changes and new UI functionalities in the Order Management module in Release 7.9 pertain to:

- Order Details
- Work Order Details

1.3.2.2.1 Order Details

For an order created with Bundle item, the Order Details screen displays all the order lines. The parent bundle line will be in bold and will have an icon to display the bundle's components.

Clicking the parent bundle icon displays the indented items, and highlights the item selected in the previous screen. It is similar to the Kit Components screen, but has line and item hyperlinks maintained. The top panel has information pertaining to the top-most parent bundle.

1.3.2.2.2 Work Order Details

The total weight field and the total volume fields have been added along with UOMs to the capacity information inner panel.

1.3.3 Differences in the Configurator User Interface Between Release 7.7 and Release 7.9

This section describes the Configurator UI differences between Release 7.7 and Release 7.9. These changes are described in the following sections based on the functional modules:

- Participant Modeling
- System Administration
- Global Inventory Visibility
- Distributed Order Management
- Catalog Management
- Warehouse Management

The additional Configurator user interface features that have been introduced in Release 7.9 are not mentioned in this document because they do not impact migration assessment in any way. For additional information regarding the new features in the Sterling Supply Chain Configurator, refer to the *Selling and Fulfillment Foundation: Release Notes* and the set of user guides pertaining to the Configurator.

1.3.3.1 Participant Modeling

The changes and new UI functionalities have occurred in the participant modeling module in Release 7.9 pertain to:

- TL/LTL/Parcel Service Details
- Node Attributes
- Parcel Carrier Preferences Detail

1.3.3.1.1 TL/LTL/Parcel Service Details

Users can select a Ship To address type that is either Residential or Commercial.

1.3.3.1.2 Node Attributes

Under the Sourcing and Scheduling tab, a new check box called Item Based Allocation Allowed has been added to indicate whether the node is allowed for item-based allocation. This check box corresponds to the @Organization/Node/IsItemBasedAllocationAllowed attribute.

A new text box called Sourcing Receipt Processing Time For Forwarding is added to indicate the number of hours required to process incoming forwarding at the drop location.

1.3.3.1.3 Parcel Carrier Preferences Detail

The 'Should Shipping Charges be Billed to Third Party Organization' check box has been removed from the Parcel Carrier Preferences Detail screen. Two new check boxes, Bill Third-Party for Outbound Shipment and Bill Third-Party for Return Shipment, have been added in the Parcel Carrier Preferences Detail screen. This enables a user to set the freight term as TPB for one kind of shipment without affecting the other. If either of the check boxes is selected, the user should fill in the details of the third-party organization.

1.3.3.2 System Administration

The changes and new UI functionalities in the System Administration module in Release 7.9 pertain to:

- Installation Rules Screen

1.3.3.2.1 Installation Rules Screen

A new text box called Item Based Allocation Agent Execution Interval (in hour) has been added to indicate the interval that the Item-Based Allocation agent cannot reprocess the triggers (in the YFS_IBA_TRIGGER table) that were processed earlier based on the LAST_IBA_PROCESSED_TS attribute of the trigger. This corresponds to the 'IBA_AGENT_EXEC_INTERVAL' rule. The default value is eight hours. In this case, the IBA agent processes only the triggers with a LAST_IBA_PROCESSED_TS that was eight hours before the current time.

1.3.3.3 Global Inventory Visibility

The changes and new UI functionalities in the Global Inventory Visibility module in Release 7.9 pertain to:

- Inventory Rules
- Inventory Types and Considerations
- Slot Groups
- Resource Pool Details

1.3.3.3.1 Inventory Rules

A new inner panel named Item Based Allocation Rules has been added with a new check box for the Use Item Based Allocation – USE_IBA rule for enabling and disabling the Item-Based Allocation process.

When the 'Use Item Based Allocation' check box is selected, a new drop-down menu named 'Demand Type to Look for Availability During Item Based Allocation' is enabled. It contains a list of all the demand types. A user can select a value to represent the DEMAND_TYPE_TO_LOOK_FOR_AVAIL_FOR_IBA rule.

1.3.3.3.2 Inventory Types and Considerations

In the Inventory Supply Type Details screen, a new check box called Trigger Item Based Allocation has been added for the supply type. The check box is enabled for the supply type of type non on-hand only. This check box corresponds to the @SupplyType/TriggerItemBasedAllocation attribute.

A new check box called Use Considered Demand Type for Item Based Allocation has been added for all the supply types. This check box corresponds to the @SupplyType/UseDemandTypeForItemBasedAllocation attribute.

1.3.3.3.3 Slot Groups

Slot creation is shown in a tree paradigm.

The Save As action in the Slot Group List screen is no longer supported.

The parent slot automatically populates a new slot based on the location of the slot in the hierarchy.

Users cannot delete a parent slot without deleting the children slot. This validation is performed in the backend.

For resource pools that maintain capacity at the resource level, children slots belonging to a parent slot cannot overlap each other (or slots at every level of the tree cannot overlap).

A new screen for managing the service slot is provided. If the Can Use For Appointment Planning check box is selected, it indicates that you can take appointments for a slot.

1.3.3.3.4 Resource Pool Details

When creating a resource pool, a user can specify additional capacity limits by passing additional UOMs.

A new tab called 'Additional Capacity Limit' is added to configure the weight UOM and volume UOM as secondary UOMs.

1.3.3.4 Distributed Order Management

The changes and new UI functionalities in the Distributed Order Management module in Release 7.9 include pertain to:

- Scheduling Rules
- Sourcing Rules
- Node-Level Controls
- Order Monitoring
- Transaction Specific Rules
- Financials

1.3.3.4.1 Scheduling Rules

A new check box has been added to allow reservations during scheduling.

Two new check boxes, Ignore Fill Quantity and Reserve Bundle Out of Ratio, have been added. These two check boxes are enabled when Allow Reservations during Scheduling is selected.

1.3.3.4.2 Sourcing Rules

Scheduling now considers future inventory based on the sourcing rule configuration. The Sourced From Detail screen has three new radio

buttons to indicate whether all the inventory is considered, or only the on-hand inventory is considered, or future inventory is available within a given window should be considered for sourcing.

A new Sourcing Rule Template has been added to the shipping Source From Detail called ‘Receiving_Nodes_Relationship’. This enables sourcing from a set of nodes that have a specific relationship with the receiving node.

1.3.3.4.3 Node-Level Controls

In the Node Details screen, a new text box, Sourcing Receipt Processing Time For Forwarding, has been added to indicate the number of hours required to process incoming forwarding at the drop location.

1.3.3.4.4 Order Monitoring

Because Committed Dates are added to date types, the Date Types and Milestone List screen now has a new column, Committed. The detail screens also have a Committed check box.

When configuring order monitoring rules, there is an option to select a Committed date type along with a Requested, Expected dates based on the date type that is set up.

When dates are synchronized, the DELIVERY, SHIPMENT dates are not displayed in the Monitoring Rules for Pipelines screen.

1.3.3.4.5 Transaction Specific Rules

A new rule, Synchronize Dates Between Master Order Dates and Dates on Order Line and Schedules, has been provided.

1.3.3.4.6 Financials

A new rule, Create Invoice before Order or Shipment, has been provided to enable the recording of invoice creation without an order in the system.

1.3.3.5 Catalog Management

The changes and new UI functionalities in the Catalog Management module in Release 7.9 include changes in:

- Item Details
- Classification Value Details

1.3.3.5.1 Item Details

In the Sourcing and Transportation tab, a new check box, Use Unplanned Inventory', has been added to indicate whether the item is allowed to use unplanned inventory. This check box corresponds to the @Item/InventoryParameters/UseUnplannedInventory attribute.

A new kit code, Bundle, has been added to the drop-down menu for kit code. A new installation rule, Enable Logic Kit Functionality, enables users to continue to use Logical Kits.

If the Kit Code is 'Bundle', the Components tab is displayed. The Kit Components tab has been renamed as Components.

The Create Component screen for Bundle has two radio buttons to select the Item Group Code.

In the Create Component screen, the item look up is filtered based on the Item Group Code. A component item can be another bundle, but not a logical kit.

The Component List screen displays Item Group Code and Kit Code.

The Associations tab is not available for the configuration of a bundle parent.

The quantity in the Component Details screen is disabled for service items when One For Each Associated Product Line Quantity is turned on.

In the Inventory Info tab, a new check box named, Item Based Allocation Allowed, has been added to indicate whether the item is allowed for Item-Based Allocation. This check box corresponds to the @Item/InventoryParameters/IsItemBasedAllocationAllowed attribute.

In the Sourcing/Transportation tab, a new text box, Shipment Consolidation Window, has been added to indicate how many days an item can be delayed by (after its availability date) to be consolidated with other items.

1.3.3.5.2 Classification Value Details

In the Common Item Attributes tab a new check box, Use Unplanned Inventory, has been added to indicate whether the items under the classification are allowed to use unplanned inventory. This check box corresponds to the @Category/ClassificationItemAttribute/UseUnplannedInventory attribute.

A new check box, Item Based Allocation Allowed, has been added to indicate whether the items under the classification are allowed for Item-Based Allocation. This check box corresponds to the @Category/ClassificationItemAttribute/IsItemBasedAllocationAllowed attribute.

In the Common Item Attributes tab, a new text box, Shipment Consolidation Window, has been added to indicate how many days an item can be delayed by (after its availability date) to be consolidated with other items.

1.3.3.6 Warehouse Management

The changes and new UI functionalities in the Order Management module in Release 7.9 include pertain to:

- Item Details
- Resource Planning

1.3.3.6.1 Item Details

Under the Sourcing and Transportation tab, a new check box, Use Unplanned Inventory, has been added to indicate whether the item is allowed to use unplanned inventory. This check box corresponds to the @Item/InventoryParameters.

1.3.3.6.2 Resource Planning

This is a new feature to help warehouses plan resources and manage fulfillment demands for their outbound activities. This planning pertains to activities performed in a warehouse such as picking, replenishment, packing, and manifesting.

1.3.4 Differences in the Application Consoles User Interface Between Release 7.9 and Release 7.11

This section describes the UI differences in the Sterling Supply Chain Application Consoles between Release 7.9 and Release 7.11. These changes are described in the following sections based on the functional modules:

- Delivery Management
- Reverse Logistics
- Logistics Management
- Warehouse Management

The additional Application Consoles user interface features that have been introduced in Release 7.11 are not mentioned in this document because they do not impact migration assessment in any way. For additional information regarding these new features in the Sterling Supply Chain Application Consoles, refer to the *Selling and Fulfillment Foundation: Release Notes* and the set of user guides pertaining to the Application Console.

1.3.4.1 Delivery Management

New UI functionalities in the Delivery Management module in Release 7.11 include changes in the Outbound Shipment Details screen.

1.3.4.1.1 Outbound Shipment Details Screen

A new field, Break Bulk Node, has been added in the Outbound Shipment Details Screen. This field is displayed only if the shipment has a break bulk node.

1.3.4.2 Reverse Logistics

The changes and new UI functionalities in the Reverse Logistics module in Release 7.11 pertain to:

- Return Service Request Lookup
- Return Detail
- Associate Service Request
- Work Order Details

1.3.4.2.1 Return Service Request Lookup

A new lookup screen, Return Service Request, has been added with two search views, By All Attributes and Draft Returns.

1.3.4.2.2 Return Detail

A new action, Add Service Request, has been added in the Return header inner panel.

An icon, Line Has Associated Service Requests, is displayed in the Return Lines inner panel if there is a provided service associated with the item. Clicking this icon displays the Associated Service Requests screen.

An icon, Line has Service Requests that can be added, is displayed in the Return Lines inner panel if there is a provided service that can be associated with the return line. Clicking this icon shows the Associate Service Request screen.

An inner panel, Service Requests, is displayed if provided services are associated with the return line.

1.3.4.2.3 Associate Service Request

A new screen, Associate Service Request, has been added, which provides the visibility to the provided services that can be associated with the return line.

1.3.4.2.4 Work Order Details

The Item Related Info field in the Work Order Details screen is hyperlinked for the provided service lines.

1.3.4.3 Logistics Management

The changes and new UI functionalities in the Logistics Management module in Release 7.11 pertain to:

- Load Lookup

1.3.4.3.1 Load Lookup

A new field, Load State, has been added in the Load Lookup screen to enable a search for loads in history tables, transaction tables, or both.

1.3.4.4 Warehouse Management

The changes and new UI functionalities in the Warehouse Management module in Release 7.11 pertain to:

- Wave Summary Console
- Create Count Request Console

1.3.4.4.1 Wave Summary Console

The Wave Summary Console has two new fields with hyperlinks, # Batches and # SKUs.

Upon clicking # Batches, the Batch Summary screen is displayed. This screen displays information about the batch number, task type, batch status, equipment type, number of items, start location, end location, number of locations, and total quantity.

On clicking # SKUs, the Item Task Summary screen is displayed. This screen displays the item identifier, item description, task type, source location, target location, open quantity, held quantity, completed quantity, and total quantity.

1.3.4.4.2 Create Count Request Console

In Release 7.11, you can create cycle count requests for a range of locations. You can create count requests for an aisle, a bay, or a level within a zone. New fields that have been added to achieve this functionality are:

- From Location
- To Location
- Aisle Number
- Bay Number
- Level Number

A new action, Number of Locations, has also been added to display the number of locations to count using the From Location and To Location fields.

1.3.5 Differences in the Configurator User Interface Between Release 7.9 and Release 7.11

This section describes the Configurator UI differences between Release 7.9 and Release 7.11. These changes are described in the following sections based on the functional modules:

- Participant Modeling
- System Administration
- Distributed Order Management
- Global Inventory Visibility
- Catalog Management
- Warehouse Management System

1.3.5.1 Participant Modeling

The changes and new UI functionalities in the Participant Modeling module in Release 7.11 pertain to:

- Node Attributes

1.3.5.1.1 Node Attributes

Under the Relationship From Nodes and Relationship To Nodes tabs, in the Relationship Details screen, Transfer Schedules are displayed as a list. In the Transfer Schedule screen, Ship Date Overrides panel, a new column, Override Transit Days, has been added, in which a user can enter the override transit days for the override dates.

1.3.5.2 System Administration

The changes and new UI functionalities in the System Administration module in Release 7.11 pertain to:

- Installation Rules

1.3.5.2.1 Installation Rules

A new check box, Allow Automatic Service Item Group Change On Work Order, has been added to allow a work order to be either a Provided Service work order or a Delivery Service work order depending on the lines it contains.

1.3.5.3 Distributed Order Management

The changes and new UI functionalities in the Distributed Order Management module in Release 7.11 pertain to:

- Order Fulfillment
- Financials
- Customer Definitions
- Scheduling Rule Details

1.3.5.3.1 Order Fulfillment

A new Order Hold Types screen with two panels, Order Hold Types and Order Line Hold Types, has been added to allow holds to be created at both the order level and the order line level. A hold type can be associated with a list of transactions that are hold type-enabled.

Four new templates have been added to Monitor Rules to allow hold type monitoring.

1.3.5.3.2 Financials

A new Payment Processing Rules Determination screen has been added with a check box, Use Enterprise of an Order (Instead of the Seller Organization), to Determine Payment Processing Rules.

1.3.5.3.3 Customer Definitions

In the Create Customer and Modify Customer pop-up window, if you select the This Customer Is A Business option, the following check boxes are displayed:

- Send Functional Acknowledgement
- Send Commitment
- Send ASN

The following fields have also been added in the pop-up window:

- Functional Acknowledgement Time (Hrs)
- Commitment Time (Hrs)

1.3.5.3.4 Scheduling Rule Details

The Assume Infinite Inventory Availability Beyond Lead Time check box has been moved to a new panel, Backward Compatibility Controls. This control is for backward compatibility only and should not be used by new customers.

1.3.5.4 Global Inventory Visibility

The changes and new UI functionalities in the Global Inventory Visibility module in Release 7.11 pertain to:

- Inventory Rules

1.3.5.4.1 Inventory Rules

A new check box, Synchronize Expiration Date Across Inventory Reservations Based On The Reservation ID, has been added under the Other Rules tab. This check box is only editable for inventory organization.

1.3.5.5 Catalog Management

The changes and new UI functionalities in the Catalog Management module in Release 7.11 pertain to:

- Provided Service Details

1.3.5.5.1 Provided Service Details

A new check box, Return Service, has been added under the Primary Info tab to enable the provided services to be associated with return orders.

1.3.5.6 Warehouse Management System

The changes and new UI functionalities in the Warehouse Management System module in Release 7.11 pertain to:

- Count Screen Enhancements
- Zone Skipping
- Item-Driven Pack Process
- New LPN Translator
- Storing Connectship and FedEx Carrier Labels as Images
- Additional Split Constraints for License Plates

1.3.5.6.1 Count Screen Enhancements

In the Count Program Condition Details screen:

- A new radio button, Count at Location Level, has been added to enable the counting of inventory at a location level.
- Two new fields, Percentage to count, and Number of times to count, have been added to specify the percentage of total locations and number of times to count locations in each count cycle.

In the Location Details screen, a new field, Last Counted On, has been added to display the date on which the inventory at the location was last counted.

In the Zone Details screen, a new check box, Count whole Location when Item in Location is put on count, has been added.

1.3.5.6.2 Zone Skipping

A new panel, Consolidation Requirement for Break Bulk Node, has been added to specify the minimum weight and volume requirements required to consolidate individual shipments into a break bulk load.

1.3.5.6.3 Item-Driven Pack Process

A new check box, Single Item Shipments, has been added in the Shipment Types panel of the Shipment Selector Details screen.

1.3.5.6.4 New LPN Translator

Two new barcode validation sources, Dummy Case ID and Dummy Pallet ID, have been added to support custom barcodes for cases and pallets.

1.3.5.6.5 Storing Connectship and FedEx Carrier Labels as Images

Two new radio buttons, Print Label and Save Label as an Image, have been added in the Parcel Carrier Preferences Detail screen.

1.3.5.6.6 Additional Split Constraints for License Plates

Three new radio buttons, Pallets and Cases, Pallets but not Cases, and Neither Pallets nor Cases, have been added in the Pick Location Assignment Rule screen to specify whether users can break pallets and cases during picking.

1.3.6 User Interface Differences Between Release 7.11 and Release 8.0

This section describes the differences in the UI between Release 7.11 and Release 8.0. These changes are described in the following sections based on the following functional modules:

- Delivery Management
- Warehouse Management

Besides the differences described in this section, other additional Application Consoles UI features have been introduced Release 8.0, but are not mentioned in this document because they do not impact migration assessment in any manner. For additional information regarding these new features in the Sterling Supply Chain Application Consoles, refer to the *Selling and Fulfillment Foundation: Release Notes*.

1.3.6.1 Delivery Management

The changes and new UI functionalities in the Delivery Management module in Release 8.0 pertain to the Outbound Shipment Search Console.

- A new ShipmentProfile search has been added to the Outbound Shipment Search Console.
- The Shipment Search by Wave criteria has been modified to ignore the cancelled shipment lines.

1.3.6.2 Warehouse Management

Following are the changes and new UI functionalities in the Warehouse Management module in Release 8.0:

- Location Inventory Console

  The option to search for inventory from the consumable inventory organization has been added to all the search screens.

- Wave Summary Console
  - # Shipment profiles has been added to the Overall Summary panel.
  - Wave Audit Console has been provided.
- Serial Range entry has been introduced for the following consoles:
  - Record Container Details Console from the Inbound Shipment console
  - Report/Record Receipt Console
  - Task Completion Console
  - Batch Confirmation Console
  - Adjust Location Inventory Console
  - Mobile UIs for receiving, putaway, picking, and count
  - High Speed Data Entry (HSDE) UIs for receiving and packing

- The following consoles have been modified such that they will not to capture serial information for the transfer orders:
  - Task Completion Console
  - Batch Confirmation Console

1.3.7 Differences in the Configurator User Interface Between Release 7.11 and Release 8.0

This section describes the differences in the Configurator UI between Release 7.11 and Release 8.0. These changes are described in the following sections based on the following functional modules:

- Participant Modeling
- Warehouse Management System

1.3.7.1 Participant Modeling

Following are the changes and new UI functionalities in the Participant Modeling module in Release 8.0.

- Under the Inventory tab in the Advanced Attributes screen pertaining to an organization modeled as a node, a new panel, Serial Information, consisting of Serial Tracked and Serialized Item, has been added. This panel provides the facility to track the serials in inventory, and in inbound and outbound separately.
- Under the Inventory tab in the Advanced Attributes screen, a new panel, Inventory Organization Relationship, has been added. This panel displays the organization code and name of the consumable inventory organization.

1.3.7.2 Warehouse Management System

Following are the changes and new UI functionalities in the Warehouse Management System module in Release 8.0:

- Zone Details
- Pick Planning
- Consigned Inventory
- Task Management

1.3.7.2.1 Zone Details

- A new check box, Transfer Inventory Ownership, has been added.
- In the Task Execution Preferences tab of Zone Details, a Can Multiple User Work Simultaneously in a Location drop-down box has been added.

1.3.7.2.2 Pick Planning

- Under the Wave Size Constraints tab, in the Pick Planning screen, a check box, Do not mix shipment profiles in wave if the number of shipments in a profile exceeds, has been added.
- Under the Pick Strategy tab, in the Grouping And Prioritization tab in the Pick Planning, a check box, If # of shipments with same profile id exceeds, has been added.

1.3.7.2.3 Consigned Inventory

A Consigned Inventory option has been added in the Warehouse Management System panel.

1.3.7.2.4 Task Management

An Aisle User Constraints option has been added under Task Management in the Warehouse Management System panel.

1.3.8 User Interface Differences Between Release 8.0 and Release 8.2

There are no user interface differences between Release 8.0 and Release 8.2.

1.3.9 Differences in the Configurator User Interface Between Release 8.0 and Release 8.2

This section describes the differences in the Configurator UI between Release 8.0 and Release 8.2. The changes are described in the following sections based on the following functional modules:

- Participant Modeling
- Distributed Order Management
- Global Inventory Visibility
- Catalog Management
- Logistics Management

1.3.9.1 Participant Modeling

Following are the changes and new UI functionality in the Participant Modeling module in Release 8.2.

- From the Sourcing/Scheduling tab under Node Attributes, the following items have been moved to Distributed Order Management under the Node Details UI in the Notification Period tab:
  - Node needs to be notified at least *n* hours prior to expected time of shipment
  - Release an order to this node a total of *n* working hours and *n* system days before expected time of shipment
- Under the Sourcing/Scheduling tab in Node Attributes, Receipt Processing time has been reorganized.

1.3.9.2 Distributed Order Management

Following are changes and new UI functionality in the Distributed Order Management module in Release 8.2.

- From the Primary Information tab under Node Details, the following items have been moved to the Notification Period tab:
  - Release an order to this node a total of *n* working hours and *n* system days before expected time of shipment
  - Node needs to be notified at least *n* hours prior to expected time of shipment
- In Node Details under Node Level Controls, Receipt Processing time has been reorganized.
- In the Primary Information tab under Item Level control, the following item has been renamed: "Release an order for this item *n* days before the expected time of shipment".

1.3.9.3 Global Inventory Visibility

Following are the changes and new UI functionality in the Global Inventory Visibility module in Release 8.2.

- Under the Other Rules tab in Inventory Rules, the following items have been moved to the IBA rules tab:
  - Use Item-Based Allocation
  - Demand Type To Look For During Item-Based Allocation

1.3.9.4 Catalog Management

Following are changes and new UI functionalities in the Catalog Management module in Release 8.2.

- In the Sourcing/Transportation tab under Item Details, Release an order for this item *n* days before the expected time of shipment has been renamed as Release an order for this item a total of *n* working hours and *n* system days before expected time of shipment.
- In the Common Item Attributes under Classification: Same as above.

1.3.9.5 Logistics Management

Following are the changes and new UI functionalities in the Logistics Management module in Release 8.2.

In Carrier Service Details, Delivers On has been removed. It can now be found in the Delivery Schedule Details screen pertaining to a carrier service.

1.3.10 Differences in the Applications Manager User Interface Between Release 8.2 and Release 8.5

This section describes the differences in the Applications Manager user interface (UI) between Selling and Fulfillment Foundation, Release 8.2 and Selling and Fulfillment Foundation, Release 8.5. This section describes these changes and additions under the following modules:

- Application Platform
- Catalog Management
- Distributed Order Management
- Warehouse Management System

1.3.10.1 Application Platform

This section describes changes and new functionalities introduced in the Application Platform module in Selling and Fulfillment Foundation, Release 8.5. For a list of screens that have been deprecated or deleted in Release 8.5, refer to Section 1.4, "Deprecated Components in Release 8.5" and Section 1.6, "Deleted Components in Release 8.5".

- Attribute Postfix Details Screen
- Data Access Policy Rules Screen
- Installation Rules Screen
- Organization Details Screen
- User Details Screen
- Region Usage for Business Intelligence

- Country Details Screen
- Team Details Screen
- Organization Details

1.3.10.1.1 Attribute Postfix Details Screen

A new screen, Attribute Postfix Details, has been added to the Application Platform module under Attribute Postfix.

1.3.10.1.2 Data Access Policy Rules Screen

A new screen, Data Access Policy Rules, has been added to the Application Platform module under Security > Data Access Policy Rules. The Data Access Policy Rules screen contains the following tabs:

- Enterprise User
- Buyer User
- Seller User
- Node User

1.3.10.1.3 Installation Rules Screen

The following new fields have been added to the Installation Rules screen under System Administration > Installation Rules.

- Enable Extended Item Validation
- Use Deprecated Pricing Functionality
- Use Old Data Policy Functionality

1.3.10.1.4 Organization Details Screen

The following new fields have been added to the Organization Details screen under Participant Modeling > Participant Setup:

- Password Policy
- Gift Wrap Services Allowed

The Organization Themes tab has also been added to the Organization Details Screen. This tab is enabled when an organization performs the role of both of an enterprise and seller.

1.3.10.1.5 User Details Screen

A new field, Password Policy, has been added to the User Details screen under Security > Users.

1.3.10.1.6 Region Usage for Business Intelligence

A new screen, Region Usage for Business Intelligence, has been added to the Application Platform module under Business Intelligence > Region Usage for Business Intelligence.

1.3.10.1.7 Country Details Screen

A new field, Short Zip Code RegEx, has been added to the Country Details screen under Internationalization > Countries.

1.3.10.1.8 Team Details Screen

A new field, Node Accessible to Team Creator, has been added to the Ship Node Access tab in the Team Details screen under Security > Teams.

1.3.10.1.9 Organization Details

A new OverPick for Voice Based Tasks field has been added in the Inventory Adjustment Reasons panel of the Advanced Attributes tab under the Roles and Participation tab of the Organization Details screen.

1.3.10.2 Catalog Management

This section provides a list of changes and new UI functionalities introduced in the Catalog Management module between Release 8.2 and Release 8.5.

In Release 8.5, several Catalog Management screens have been either deprecated or deleted. For a list of deprecated and deleted screens, refer to Section 1.4, "Deprecated Components in Release 8.5" and Section 1.6, "Deleted Components in Release 8.5".

Following is a list of new screens that have been added in Selling and Fulfillment Foundation, Release 8.5:

- Catalog Rules Screen
- Content Location Screen
- Asset Types Screen

1.3.10.2.1 Catalog Rules Screen

A new screen, Catalog Rules, has been added to the Catalog Management module under Catalog Configurations > Catalog Rules.

1.3.10.2.2 Content Location Screen

A new screen, Content Location, has been added to the Catalog Management module under Catalog Configurations > Asset > Content Locations.

1.3.10.2.3 Asset Types Screen

A new screen, Asset Types, has been added to the Catalog Management module under Catalog Configurations > Asset > Asset Types.

1.3.10.3 Distributed Order Management

This section provides a list of changes and new functionalities introduced in the Distributed Order Management module in Selling and Fulfillment Foundation, Release 8.5.

In Release 8.5, several Distributed Order Management screens have also been either deprecated or deleted. For a list of these screens, refer to Section 1.4, "Deprecated Components in Release 8.5" and Section 1.6, "Deleted Components in Release 8.5".

Following is a list of screens in which either changes have been made or new functionalities have been introduced:

- Region Usage for Selling Screen
- Pricing Organization Rules Screen
- Pricing Enterprise Rules Screen

- System Payment Processing Rules Screen
- Transaction Rules: Sales Order Screen
- Customer Rules Screen

1.3.10.3.1 Region Usage for Selling Screen

A new field, Schema for Selling, has been added to the Region Usage for Selling screen under Cross Application > Financials > Region Usage for Selling.

1.3.10.3.2 Pricing Organization Rules Screen

A new screen, Pricing Organization Rules, has been added to the Distributed Order Management module under Cross Application > Financials > Pricing Organization Rules.

1.3.10.3.3 Pricing Enterprise Rules Screen

A new screen, Pricing Enterprise Rules, has been added to the Distributed Order Management module under Cross Application > Financials > Pricing Enterprise Rules.

1.3.10.3.4 System Payment Processing Rules Screen

The following new fields have been added to the System Payment Processing Rules screen under Cross Application > Financials > System Payment Processing Rules:

- Enable Draft Order Payment Processing
- Ignore Charge Request On Draft Order

1.3.10.3.5 Transaction Rules: Sales Order Screen

The following fields have been added to the Transaction Rules: Sales Order Rules screen under Document Specific > Sales Order > Fulfillment > Transaction Specific Rules:

- Pending Order Changes Will Expire In
- Hold To Be Applied When Order Has Pending Changes
- Hold Type To Be Applied When A Customer Contact Is On Hold

1.3.10.3.6 Customer Rules Screen

The following changes have been made to the Customer Rules screen under Cross Application > Customer > Customer Rules:

- A new field, Use Parent Customer For Default Address and Payment, has been added to the Other Rules screen.
- A new screen, Customer Entitlement, has been added to Customer Rules.

1.3.10.4 Warehouse Management System

This section provides a list of changes and new UI functionalities introduced in the Warehouse Management System module of Selling and Fulfillment Foundation, Release 8.5.

In Release 8.5, several of the Warehouse Management System screens that were present in the earlier versions have been either deprecated or deleted. For a list of deprecated and deleted screens, refer to Section 1.4, "Deprecated Components in Release 8.5" and Section 1.6, "Deleted Components in Release 8.5".

The following screens have been enhanced in Selling and Fulfillment Foundation, Release 8.5:

- Zone Details Screen
- Location Details Screen
- Equipment Dialog Box
- Execution Exception Code Details Dialog Box
- Node Dialog Box
- Parcel Carrier Preferences Detail Screen

1.3.10.4.1 Zone Details Screen

A Check Digit field has been added. A check digit is a numeric representation of a zone, which can be used by the voice picker to specify the picking zone.

1.3.10.4.2 Location Details Screen

A Check Digit field has been added. A check digit is a numeric representation of a location, which can be used by the voice picker to confirm the pick location.

1.3.10.4.3 Equipment Dialog Box

A Check Digit field has been added. A check digit is a numeric representation of an equipment, which can be used by the voice picker to specify the equipment being used for picking.

1.3.10.4.4 Execution Exception Code Details Dialog Box

The following changes have been carried out in the Execution Exception Code Details dialog box:

- A Check Digit field has been added. A check digit is a numeric representation of an execution exception reason code, which can be used by the voice picker to specify execution exception reason code.
- A Consider Alternate Deposit Location from any Zone check box has been added for the DEPOSIT Exception Type. On selecting this option, a user is provided with an alternate deposit location in any zone that is defined during the implementation of the WMSgetPreferenceZoneListUE user exit. This zone may or may not be a part of the putaway preferences. The zone that is to be selected must be defined by the user in the implementation class of the WMSgetPreferenceZoneListUE user exit.

1.3.10.4.5 Suggest Alternate Deposit Location Dialog Box

On selecting the Suggest Alternate Deposit Location dialog box, the following radio buttons are activated:

- Suggest location from the same target zone - Select this radio button if an alternative deposit location has to be suggested from the same target zone.
- Suggest location based on putaway preferences - Select this radio button if an alternative deposit location has to be suggested from any zone based on the putaway preferences.

1.3.10.4.6 Node Dialog Box

A Hub Data radio button has been added in the Node dialog box. On clicking this button, the hub-level screens are displayed to a user in the Application Rules Side Panel.

1.3.10.4.7 Parcel Carrier Preferences Detail Screen

A Carrier Adaptor Implementation box has been added to Parcel Carrier Preferences Detail screen. This is used to identify the carrier server that is to be integrated with for the shipping processes.

1.3.11 User Interface Differences Between Release 8.5 and Release 9.0

This section provides a list of changes and new UI functionalities introduced in the Selling and Fulfillment Foundation, Release 9.0.

- Difference in the Applications Manager User Interface Between Release 8.5 and Release 9.0
- Differences in the Business Center User Interface Between Release 8.5 and Release 9.0

1.3.12 Difference in the Applications Manager User Interface Between Release 8.5 and Release 9.0

This section describes the differences in the Applications Manager user interface (UI) between Selling and Fulfillment Foundation, Release 8.5 and Selling and Fulfillment Foundation, Release 9.0. This section describes these changes and additions under the following modules:

- Application Platform
- Distributed Order Management
- Warehouse Management System

1.3.12.1 Application Platform

This section describes changes and new functionalities introduced in the Application Platform module in Selling and Fulfillment Foundation, Release 9.0. For a list of screens that have been deprecated or deleted in Release 9.0, refer to Section 1.5, "Deprecated Components in Release 9.0" and Section 1.7, "Deleted Components in Release 9.0".

- Opportunity Tab
- Quote Document Type

1.3.12.1.1 Opportunity Tab

A new tab, Opportunity, has been added to the Application Platform module under Process Modeling.

1.3.12.1.2 Quote Document Type

A new document type, Quote, has been added to the Application Platform module under Process Modeling > Order tab.

1.3.12.2 Distributed Order Management

This section describes changes and new functionalities introduced in the Distributed Order Management module in Selling and Fulfillment Foundation, Release 9.0. For a list of screens that have been deprecated or deleted in Release 9.0, refer to Section 1.5, "Deprecated Components in Release 9.0" and Section 1.7, "Deleted Components in Release 9.0".

- Opportunity Menu
- Note Reasons Screen
- Note Reason Details Screen
- Lead Origins Screen
- Lead Origin Details Screen
- Lost Reasons Screen
- Lost Reason Details Screen
- Process Type Details Screen
- Purge Criteria List Screen
- Purge Criteria Details Screen
- Quote Menu
- Order Attributes Screen
- Order Validation Screen
- Instruction Types Screen

- Instruction Type Details Screen
- Modification Reasons Screen
- Modification Reason Details Screen
- Note Reasons Screen
- Note Reason Details Screen
- Approval Rule Violation Reasons Screen
- Approval Rule Violation Reason Details Screen
- Line Relationship Types Screen
- Line Relationship Types Details Screen
- Custom Modification List Screen
- Custom Modification Screen
- Modification Rules Screen
- Modification Impacting Pricing Screen
- Modification Type List Screen
- Modifications Requiring Auditing Screen
- Modification Type List Screen
- Hold Types Screen
- Hold Type Screen
- Order Tags Screen
- Order Tag Detail Screen
- Approval Plan List Screen
- Fulfillment Process Type Details Screen
- Transaction Specific Rules Screen
- Quote Rules Screen
- Monitoring Screen
- Monitor Events Screen
- Monitor Event Details Screen
- Transaction Dependency Screen

- Transaction Dependency Group Details Screen
- Payment Terms Screen
- Payment Term Details Screen
- Financial Attributes Screen
- Charge Category Details Screen
- Tax Name Details Screen
- Financial Rules Screen
- Purge Criteria List Screen
- Purge Criteria Details Screen
- Consider For Profit Margin Total Field

1.3.12.2.1 Opportunity Menu

Opportunity has been added to the Distributed Order Management tree structure.

1.3.12.2.2 Note Reasons Screen

A new screen, Note Reasons, has been added to the Distributed Order Management module under Opportunity > Note Reasons.

1.3.12.2.3 Note Reason Details Screen

A new screen, Note Reason Details, has been added to the Distributed Order Management module under Opportunity > Note Reasons.

1.3.12.2.4 Lead Origins Screen

A new screen, Lead Origins, has been added to the Distributed Order Management module under Opportunity > Lead Origin.

1.3.12.2.5 Lead Origin Details Screen

A new screen, Lead Origin Details, has been added to the Distributed Order Management module under Opportunity > Lead Origin.

1.3.12.2.6 Lost Reasons Screen

A new screen, Lost Reasons, has been added to the Distributed Order Management module under Opportunity > Lost Reason.

1.3.12.2.7 Lost Reason Details Screen

A new screen, Lost Reason Details, has been added to the Distributed Order Management module under Opportunity > Lost Reason.

1.3.12.2.8 Process Type Details Screen

A new screen, Process Type Details, has been added to the Distributed Order Management module under Opportunity > Opportunity Fulfillment > Opportunity Process Type Details.

1.3.12.2.9 Purge Criteria List Screen

A new screen, Purge Criteria List, has been added to the Distributed Order Management module under Opportunity > Opportunity Fulfillment > Purge Criteria.

1.3.12.2.10 Purge Criteria Details Screen

A new screen, Purge Criteria Details, has been added to the Distributed Order Management module under Opportunity > Opportunity Fulfillment > Purge Criteria.

1.3.12.2.11 Quote Menu

Quote has been added to the Distributed Order Management tree structure under Distributed Order Management > Document Specific > Quote

1.3.12.2.12 Order Attributes Screen

A new screen, Order Attributes, has been added to the Distributed Order Management module under Document Specific > Quote > Order Attributes.

1.3.12.2.13 Order Validation Screen

A new screen, Order Validation, has been added to the Distributed Order Management module under Document Specific > Quote > Order Validation.

1.3.12.2.14 Instruction Types Screen

A new screen, Instruction Types, has been added to the Distributed Order Management module under Document Specific > Quote > Instruction Types.

1.3.12.2.15 Instruction Type Details Screen

A new screen, Instruction Type Details, has been added to the Distributed Order Management module under Document Specific > Quote > Instruction Types.

1.3.12.2.16 Modification Reasons Screen

A new screen, Modification Reasons, has been added to the Distributed Order Management module under Document Specific > Quote > Modifications Reasons.

1.3.12.2.17 Modification Reason Details Screen

A new screen, Modification Reason Details, has been added to the Distributed Order Management module under Document Specific > Quote > Modification Reasons.

1.3.12.2.18 Note Reasons Screen

A new screen, Note Reasons, has been added to the Distributed Order Management module under Document Specific > Quote > Note Reasons.

1.3.12.2.19 Note Reason Details Screen

A new screen, Note Reason Details, has been added to the Distributed Order Management module under Document Specific > Quote > Note Reasons.

1.3.12.2.20 Approval Rule Violation Reasons Screen

A new screen, Approval Rule Violation Reasons, has been added to the Distributed Order Management module under Document Specific > Quote > Approval Rule Violation Reasons.

1.3.12.2.21 Approval Rule Violation Reason Details Screen

A new screen, Approval Rule Violation Reason Details, has been added to the Distributed Order Management module under Document Specific > Quote > Approval Rule Violation Reasons.

1.3.12.2.22 Line Relationship Types Screen

A new screen, Line Relationship Types, has been added to the Distributed Order Management module under Document Specific > Quote > Line Relationship Type.

1.3.12.2.23 Line Relationship Types Details Screen

A new screen, Line Relationship Types Details, has been added to the Distributed Order Management module under Document Specific > Quote > Line Relationship Type.

1.3.12.2.24 Custom Modification List Screen

A new screen, Custom Modification List, has been added to the Distributed Order module under Document Specific > Quote > Fulfillment > Order Modification > Order Modification Types.

1.3.12.2.25 Custom Modification Screen

A new screen, Custom Modification, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Order Modification > Order Modifications Types.

1.3.12.2.26 Modification Rules Screen

A new screen, Modification Rules, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Order Modification > Order Modification Rules.

1.3.12.2.27 Modification Impacting Pricing Screen

A new screen, Modifications Impacting Pricing, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Order Modification > Modifications Impacting Pricing.

1.3.12.2.28 Modification Type List Screen

A new screen, Modification Type List, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Order Modification > Modifications Impacting Pricing.

1.3.12.2.29 Modifications Requiring Auditing Screen

A new screen, Modifications Requiring Auditing, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Order Modification > Modifications Requiring Auditing.

1.3.12.2.30 Modification Type List Screen

A new screen, Modification Type List, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Order Modification > Modifications Requiring Auditing.

1.3.12.2.31 Hold Types Screen

A new screen, Hold Types, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Hold Types.

1.3.12.2.32 Hold Type Screen

A new screen, Hold Type, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Hold Types.

1.3.12.2.33 Order Tags Screen

A new screen, Order Tags, has been added to the Distributes Order Management module under Document Specific > Quote > Fulfillment > Order Tags.

1.3.12.2.34 Order Tag Detail Screen

A new screen, Order Tag Detail, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Order Tags.

1.3.12.2.35 Approval Plan List Screen

A new screen, Approval Plan List, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Approval Plans.

1.3.12.2.36 Fulfillment Process Type Details Screen

A new screen, Fulfillment Process Type Details, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Process Types Details.

1.3.12.2.37 Transaction Specific Rules Screen

A new screen, Transaction Specific Rules, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Transaction Specific Rules.

1.3.12.2.38 Quote Rules Screen

A new screen, Quote Rules, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Order Rules.

1.3.12.2.39 Monitoring Screen

A new screen, Monitoring, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Order Monitoring.

1.3.12.2.40 Monitor Events Screen

A new screen, Monitor Events, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Monitor Events.

1.3.12.2.41 Monitor Event Details Screen

A new screen, Monitor Event Details, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Monitor Events.

1.3.12.2.42 Transaction Dependency Screen

A new screen, Transaction Dependency, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Transaction Dependency.

1.3.12.2.43 Transaction Dependency Group Details Screen

A new screen, Transaction Dependency Group Details, has been added to the Distributed Order Management module under Document Specific > Quote > Fulfillment > Transaction Dependency.

1.3.12.2.44 Payment Terms Screen

A new screen, Payment Terms, has been added to the Distributed Order Management module under Document Specific > Quote > Financials > Payment Terms.

1.3.12.2.45 Payment Term Details Screen

A new screen, Payment Term Details, has been added to the Distributed Order Management module under Document Specific > Quote > Financials > Payment Terms.

1.3.12.2.46 Financial Attributes Screen

A new screen, Financial Attributes, has been added to the Distributed Order Management module under Document Specific > Quote > Financials > Financial Attributes.

1.3.12.2.47 Charge Category Details Screen

In the Charge Definitions tab, a new screen, Charge Category Details, has been added to the Distributed Order Management module under Document Specific > Quote > Financials > Financial Attributes.

1.3.12.2.48 Tax Name Details Screen

In the Tax Names tab, a new screen, Tax Name Details, has been added to the Distributed Order Management module under Document Specific > Quote > Financials > Financial Attributes.

1.3.12.2.49 Financial Rules Screen

A new screen, Financial Rules, has been added to the Distributed Order Management module under Document Specific > Quote > Financials > Financial Rules.

1.3.12.2.50 Purge Criteria List Screen

A new screen, Purge Criteria List, has been added to the Distributed Order Management module under Document Specific > Quote > Purge Criteria.

1.3.12.2.51 Purge Criteria Details Screen

A new screen, Purge Criteria Details, has been added to the Distributed Order Management module under Document Specific > Quote > Financials > Purge Criteria.

1.3.12.2.52 Consider For Profit Margin Total Field

A new field, Consider For Profit Margin Total, has been added to the Charge Category Details screen in the Distributed Order Management module under:

- Document Specific > Transfer Order > Financials > Financial Attributes (Charge Definitions tab).
- Document Specific > Sales Order > Financials > Financial Attributes (Charge Definitions tab).
- Document Specific > Master Order > Finanicals > Financial Attributes (Charge Definitions tab).
- Document Specific > Quote > Financials > Financial Attributes (Charge Definitions tab).

1.3.12.3 Warehouse Management System

This section describes changes and new functionalities introduced in the Warehouse Management System module in Selling and Fulfillment Foundation, Release 9.0. For a list of screens that have been deprecated or deleted in Release 9.0, refer to Section 1.5, "Deprecated Components in Release 9.0" and Section 1.7, "Deleted Components in Release 9.0".

- Container Return Tracking Numbers Screen

1.3.12.3.1 Container Return Tracking Numbers Screen

A new screen, Container Return Tracking Numbers, has been added to the Warehouse Management module in Release 9.0. This screen provides visibility to the return tracking numbers of an outbound container. It also provides a Print action for users to reprint the return carrier labels for the outbound container.

1.3.13 Differences in the Business Center User Interface Between Release 8.5 and Release 9.0

This section describes the changes and new functionalities introduced in Business Center, Release 9.0.

1.3.13.1 Launch Visual Product Modeler Menu Option

A new option, Launch Visual Product Modeler, has been added to the Item menu. A corresponding new hyperlink, Launch Visual Product Modeler, has also been added in the Home page under the Catalog module.

1.3.13.2 New Manual Pricing Rule Menu Option

A new option, New Manual Pricing Rule, has been added to the Pricing menu. A corresponding new hyperlink, New Manual Pricing Rule, has also been added in the Home page under the Pricing module.

1.3.13.3 Find Manual Pricing Rule Menu Option

A new option, Find Manual Pricing Rule, has been added to the Pricing menu. A corresponding hyperlink, Find Manual Pricing Rule, has also been added in the Home page under the Pricing module.

1.3.13.4 New Approval Rule Menu Option

A new option, New Approval Rule, has been added to the Pricing menu. A corresponding new hyperlink, New Approval Rule, has also been added in the Home page under the Pricing module.

1.3.13.5 Find Approval Rule Menu Option

A new option, Find Approval Rule, has been added to the Pricing menu. Alternatively, a new hyperlink, Find Approval Rule, is also added to the Home page under Pricing module.

1.3.13.6 Preview Item Details Related Task

A new related task, Preview Item Details, has been added to the Related Tasks panel in the Primary Information screen pertaining to an item.

1.3.13.7 Use Configuration Model Radio Button

A new radio button, Use Configuration Model, has been added to the Components panel of the Components screen.

1.3.13.8 Configuration Model Box

A new box, Configuration Model, has been added to the Components panel of the Components screen.

1.4 Deprecated Components in Release 8.5

This section provides information about components that have been deprecated in Selling and Fulfillment Foundation, Release 8.5. These components are available in Release 8.5 but will be deleted within the next three releases. For information about APIs and UserExits that are deprecated in Selling and Fulfillment Foundation, Release 8.5, refer to the *Selling and Fulfillment Foundation: Javadocs*.

A new application, Business Center, has been introduced in place of item functionality in the Catalog Management application and pricing

functionality in the Distributed Order Management application. If you're running a Distributed Order Management deployment, start using the Business Center to perform item and pricing maintenance tasks for master data configuration. However, you must continue to use the Applications Manager to define configuration data.

If you're running a Warehouse Management System deployment, use the Applications Manager for all item and pricing tasks.

For information about mapping the item and pricing functionalities to Business Center, refer to Introducing the Business Center Application in Release 8.5.

Information about the deprecated components is provided in the following sections:

- Deprecated Item Components
- Deprecated Pricing Components
- Deprecated Property Encrypter Class
- Deprecated Business Intelligence Reports

1.4.1 Deprecated Item Components

The Master Catalog screen under Products in Catalog Management has been deprecated in Release 8.5. There is no corresponding functionality in the Business Center.

1.4.2 Deprecated Pricing Components

This section lists the pricing screens deprecated in the Selling and Fulfillment Foundation, Release 8.5.

> **Note:** In Release 8.5, new pricing functionality is replacing old pricing functionality. To use the new pricing functionality, disable Use Deprecated Pricing Functionality in the Installation Rules screen in Application Platform. For information about Use Deprecated Pricing Functionality, refer to the *Selling and Fulfillment Foundation: Application Platform Configuration Guide*.

Information about deprecated pricing components are provided in the following sections:

- Distributed Order Management
- Reverse Logistics

1.4.2.1 Distributed Order Management

Following is a list of pricing screens deprecated in Distributed Order Management:

- Region Usage for Pricing under Cross Application > Financial
- Price Programs under Cross Application > Financial
- Price Lists under Cross Application > Financial

1.4.2.2 Reverse Logistics

Following is a list of screens deprecated in Reverse Logistics:

- Price Programs under Cross Application > Financial
- Price Lists under Cross Application > Financial

1.4.3 Deprecated Property Encrypter Class

The yfs.propertyencrypter.class is deprecated and no longer used for property encryption.

For more information about encryption through property files, refer to the *Selling and Fulfillment Foundation: Extending Transactions Guide*.

1.4.4 Deprecated Business Intelligence Reports

The Exception Aging report and Order Details report are deprecated in Release 9.0.

For more information about operational and analytical reporting capabilities using Business Intelligence, refer to the *Selling and Fulfillment Foundation: Business Intelligence Guide*.

1.5 Deprecated Components in Release 9.0

This section provides information about the components that have been deprecated in Selling and Fulfillment Foundation, Release 9.0. These components are available in Release 9.0 but will be deleted within the next three releases. For information about APIs and user exits that are deprecated in Selling and Fulfillment Foundation, Release 9.0, refer to the *Selling and Fulfillment Foundation: Javadocs*.

The following fields in the Installation Rules window in the Platform Configuration application have been deprecated in Release 9.0:

- Credit Card
- Stored Value Card

The Sterling Sensitive Data Capture Server provides an enhanced-level of security for sensitive data, which is replacing the encryption functionality that was provided by the Credit Card field and the Stored Value Card field. For information about these fields, refer to the *Selling and Fulfillment Foundation: Application Platform Configuration Guide*. For information about installing, configuring, and deploying the Sterling Sensitive Data Capture Server, refer to the *Sterling Sensitive Data Capture: Configuration Guide*.

1.6 Deleted Components in Release 8.5

This section provides a list of screens and documentation that have been deleted in Selling and Fulfillment Foundation, Release 8.5. For a complete list of components that have been removed in Selling and Fulfillment Foundation, Release 8.5, refer to the upgrade_home.html file.

A new application, Business Center, has been introduced in place of item functionality in Catalog Management and pricing functionality in Distributed Order Management. If you're running a Distributed Order Management deployment, start using the Business Center to perform all item and pricing maintenance tasks for master data configuration. However, you must continue to use the Applications Manager to define configuration data.

If you're running a Warehouse Management System deployment, use the Applications Manager for all item and pricing tasks.

For information about mapping the item and pricing functionalities to Business Center, refer to Introducing the Business Center Application in Release 8.5.

Screens

Following is a list of Catalog Management screens that have been deleted in Selling and Fulfillment Foundation, Release 8.5:

- Category Hierarchy under Products > Categories
- Distinct Attributes under Products > Classifications > Classification Hierarchy
- Searchable Attributes under Products > Classifications > Classification Hierarchy
- Specifications under Products > Classifications > Classification Hierarchy
- Delivery Service Items under Delivery Services
- Provided Service Items under Provided Services

Documentation

Selling and Fulfillment Foundation, Release 8.5 rationalizes and integrates many features that were formerly part of the Sterling Multi-Channel Selling Solution and Sterling Multi-Channel Fulfillment Solution applications. As a result, the following documents have been removed because they are no longer relevant:

- *Sterling Selling and Fulfillment Suite Integration Guide*
- *Sterling Selling and Fulfillment Suite Release Notes*

1.7 Deleted Components in Release 9.0

There are no deleted components in Selling and Fulfillment Foundation, Release 9.0.

1.8 Introducing the Business Center Application in Release 8.5

A new application, Business Center, has been introduced to the Selling and Fulfillment Foundation, Release 8.5. Business Center is replacing item and pricing functionality in the Applications Manager. If you're running a Distributed Order Management deployment, start using the Business Center to perform the item and pricing maintenance tasks pertaining to master data configuration. However, you must continue to use the Applications Manager to define configuration data.

If you are running a Warehouse Management System deployment, continue to use the Applications Manager to perform all item and pricing management tasks.

This section maps the item functionality in Catalog Management to the corresponding functionality in Business Center:

- The Items functionality (Products > Items) in Catalog Management corresponds to the Find Item functionality (Item Administration > Find Item) in Business Center.
- The Category Hierarchy functionality (Products > Categories > Category Hierarchy) in Catalog Management corresponds to the Manage Catalogs functionality (Item Administration > Manage Catalogs) in Business Center.
- The Classification Definition functionality (Products > Classifications > Classification Definition) in Catalog Management corresponds to the Manage Classifications functionality (Item Administration > Manage Classifications) in Business Center.
- The Classification Hierarchy functionality (Products > Classifications > Classification Hierarchy) in Catalog Management corresponds to the Manage Classifications functionality (Item Administration > Manage Classifications) in Business Center.
- The Delivery Service Items functionality (Delivery Services > Delivery Service Items) in the Catalog Management corresponds to the Find Service functionality (Item Administration > Find Service) in Business Center.

- The Provided Service Items functionality (Provided Services > Provided Service Items) in Catalog Management corresponds to the Find Service functionality (Item Administration > Find Service) in Business Center.
- The Kitting Services functionality (Value Added Services > Kitting Services) in Catalog Management corresponds to the Find Service functionality (Item Administration > Find Service) in Business Center.
- The Dekitting Services functionality (Value Added Services > Dekitting Services) in Catalog Management corresponds to the Find Service functionality (Item Administration > Find Service) in Business Center.
- The Compliance Services functionality (Value Added Services > Compliance Services) in Catalog Management corresponds to the Find Service functionality (Item Administration > Find Service) in Business Center.
- The Inventory Change Services functionality (Value Added Services > Inventory Change Services) in Catalog Management corresponds to the Find Service functionality (Item Administration > Find Service) in Business Center.

1.9 Migrating Alter Scripts

Alter scripts are generated at the install site by comparing the database XMLs shipped with the previous version and the XML available at the install site.

1.10 Migration Estimates

Appendix B, "Migration Estimates" provides single-hop migration estimates for the Selling and Fulfillment Foundation, Release 7.5 through Release 9.0. Refer to the information in this appendix as a rough estimate for the time it will take to perform single-hop and multihop upgrades.

1.11 Upgrading Custom Components

Read Section 2.9.2, "User Interface Customization Tasks" thoroughly and understand the impact of various features on your customizations. The impact analysis sections provide you with an understanding of the reasons behind some of the changes that were made.

For a complete list of changes, please go through the XML and HTML files shipped as part of the upgrade kit. These list every change performed to every API input and output XMLs, data published by events, user exit input and output XML changes, and data published by monitors.

User interface customizations are also impacted during upgrade. The procedure for ensuring that your user interface customizations continue to function correctly are also listed here.

1.11.1 Backward Compatibility Support

When performing your migration assessment, you should also consider backward compatibility. This section describes how Selling and Fulfillment Foundation supports APIs, user exits, and events in backward compatibility mode.

A list of APIs, user exits, and events supported in backward compatibility mode is provided in `<INSTALL_DIR>/documentation/upgrade_home.html`.

By default, this migration sets all user exits, events, and subflow versions to 'blank' (current version). The backward compatibility mode for these components must be set manually from the Applications Manager in the respective details windows found under Application Platform.

By choosing to run in backward compatibility mode, you may not be able to utilize the new functionalities. It is recommended that the current

version is used as much as possible to take advantage of the additional features provided in Release 8.5.

1.11.1.1 Backward Compatibility for APIs

Every API invocation maps to a particular class and a method. To achieve backward compatibility, the version number must be specified as part of the API invocation. Specify the version number for the API you are invoking in the `yifclient.properties` file, through the property provided, as follows:

`yfs.api.<apiname>.version=<versionnumber>`

Here, the valid values for `<versionnumber>` are `ver73`, `ver75`, or `ver75sp1`.

If the version number is not provided, the current version is assumed as the default (in this case, Release 8.5).

Note: Analyze all the APIs to determine whether backward compatibility mode is necessary to run a given API, user exit, or event. It is recommended that you use the current version rather than BC wrappers.

Note: After making modifications to this property file, you must create or update the Selling and Fulfillment Foundation runtime as described in the *Selling and Fulfillment Foundation: Installation Guide*. Before creating or updating the Selling and Fulfillment Foundation runtime, make sure that all the configurations and extensions for the Foundation or PCAs are completed in the Foundation or individual PCA folder in the `<INSTALL_DIR>` directory. This enables you to re-create the Selling and Fulfillment Foundation runtime without losing your configurations and extensions.

1.11.2 Upgrading Backend Customizations

The Upgrade home page is located at:

<INSTALL_DIR>/documentation/upgrade_home.html

From this page, you can view the following:

- API Default Template Changes: Default XML template differences between Release 7.3 and Release 9.0 provided in XML format.
- API Input and Output XML Changes: Analyzed XML differences between Release 7.3 and Release 9.0 provided in XML format.
- Event Differences: Default XML event differences between Release 7.3 and Release 9.0 provided in XML format.
- Monitor Differences: Default XML monitor differences between Release 7.3 and Release 9.0 provided in XML format.

1.11.2.1 Custom Indexes

Review the index creation scripts in <INSTALL_DIR>/Migration/8.5/database/scripts/<db version>/transaction/indexadds.sql and <INSTALL_DIR>/Migration/8.5/database/scripts/<dbtype>/history/indexadds.sql to ensure that there are no existing custom indexes of the same name. However, this is an issue only if custom indexes have been created with a YFS_ prefix. Refer to the *Selling and Fulfillment Foundation: Extending the Database Guide*, for information about creating custom indexes.

1.11.3 Upgrading Console Customizations

The list of tasks that need to be carried out for upgrading console customizations is provided as part of the upgrade procedures. Because the user interface framework-level changes affect your custom code, some reconciliations are necessary as part of the upgrade.

2

Upgrading to Release 9.0

This chapter describes the sequence of procedures you must follow to upgrade from Sterling Supply Chain Applications Release 7.3 (or later) to Selling and Fulfillment Foundation Release 9.0.

> **Note:** If you have a previous version of Sterling Multi-Channel Selling Solution that is integrated with Sterling Multi-Channel Fulfillment Solution, upgrade to Selling and Fulfillment Foundation, Release 9.0 is not supported.

If you are upgrading from Release 7.9 and have applied HF22 (or later), ensure that you apply HF42 (or later) on the 7.9 runtime before upgrading to Release 9.0.

If you are upgrading from Release 7.11, and if you have applied HF31, apply HF32 (or later) on the 7.11 runtime before upgrading to Release 9.0.

If you are upgrading from Release 8.5, ensure that you apply HF8 (or later) on the 8.5 runtime before upgrading to Release 9.0.

The sequence of procedures provided in this chapter assumes that you are installing Release 9.0 in a new directory. You must download the latest upgrade hot fix, if any, from the FTP site.

2.1 Upgrading in Single-Schema and Multischema Modes

Selling and Fulfillment Foundation, Release 9.0 (or later) supports both multischema upgrade mode, which upgrades all schemas for all colonies in a multischema deployment, and single-schema upgrade mode. Consider the following conditions when choosing an upgrade mode:

- If you are upgrading from a single-schema environment, you must upgrade in single-schema mode. You cannot upgrade from a single-schema environment to a multischema environment. Release 8.2 (or earlier) supported single-schema environments only. Refer to the information in this chapter for instructions on upgrading in single-schema mode.

  If you are running a single-schema deployment but want to enable a multischema environment, you can set up a multischema environment after migrating your data. For information about moving from a single-schema environment to a multischema environment, refer to the *Selling and Fulfillment Foundation: Multitenant Enterprise Guide*.

- If you are upgrading from a multischema environment, you must upgrade in multischema mode. You cannot upgrade from a multischema environment to a single-schema environment. Release 8.5 (or later) supports both single-schema and multischema environments. Refer to the information in this chapter for instructions on upgrading in multischema mode.

  Multischema mode upgrades all colonies in your multischema environment. If you want to upgrade one or more colonies without migrating all colonies, follow the strategy described in Chapter 3, "Multischema Colony-By-Colony Upgrade".

2.2 Upgrade Strategy for Third Party Components

For more information about the third-party component versions and other system requirements for Release 9.0, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

2.3 Prerequisites for Migration

This section provides the prerequisites that must be in place before attempting to migrate your data.

> **Note:** You must upgrade to the Selling and Fulfillment Foundation, Release 9.0 before upgrading your technical stack, which includes the application server, JDK, and database server.

Ensure that the following prerequisites are complete before migrating your data:

- Verify that you are currently on Sterling Supply Chain Applications, Release 7.3 (or later) before you begin the upgrade to Release 9.0.
- Ensure that your System Administrator users are members of the SYSTEM user group.

  If they are not, they will not have access to the Application Console user interface or the Applications Manager, and will not be able to administer your Selling and Fulfillment Foundation system.
- Ensure that you are logged in to the database server with administrative privileges in order to be able to carry out the upgrade.
- As with all system upgrades, ensure that you have a rollback strategy.

2.4 Database Overview

Selling and Fulfillment Foundation is tested and shipped using the UTF-8 transformation format.

> **Note:** If you use a different transformation encoding format, the number of characters that you can store in standard database sizes diminishes.

2.5 Preparing Your Oracle Environment

The following sections provide instructions for preparing your Oracle environment for data migration.

> **Note:** If you are upgrading in multischema mode, the instructions described in Preparing Your Oracle Environment must be followed for all schemas in all colonies.

2.5.1 Preliminary Steps

To prepare your Oracle environment for data migration, perform the following preliminary steps:

1. Verify that your database has been upgraded to the version of Oracle that is supported for your environment, as described in the *Selling and Fulfillment Foundation: Installation Guide*.
2. Configure the INIT<INSTANCE_NAME>.ORA file to set the following parameters:

   open_cursors= <*set to appropriate value*>
   For example, the minimum value for WebLogic equals the number of threads across all application servers + (connection pool size X prepared statement pool size). For IBM WebSphere, the minimum value equals the number of threads across all application servers + the prepared statement pool size

   ```
   cursor_sharing=FORCE
   compatible=<set to the Oracle version>
   timed_statistics=true
   db_block_size=8192
   ```

3. Ensure that you have a minimum of three 500 MB redo logs.

2.5.2 Database Tables

Before performing the data migration, it is strongly recommended that you analyze all of your database tables using the `dbms_stats` package.

Run the following command, which generates histograms:

```
execute dbms_stats.gather_schema_stats
(ownname => 'OWNERNAME',
estimate_percent => dbms_stats.auto_sample_size,
method_opt=>'for all columns size auto',
cascade=>true)
```

Note that `OWNERNAME` is the owner name in the database.

Running this command is crucial if you are restoring a database. For example, assume that you are going to export your production database, and import it into the test database in order to run the upgrade process in a test environment. If you do not analyze the tables, under certain circumstances, Oracle may opt to perform full table scans instead of using an index. This may slow down the migration. In addition, if your tables have a large number of records, analysis may take a long time.

2.5.3 Oracle Parameters

Change the Oracle parameter settings as described in Table 2–1. The theory behind these changes is that the database is playing more of a Decision Support System role instead of an OLTP role as part of the upgrade process.

Table 2–1 Oracle Parameters

Parameter Name	Setting
pga_aggregate_target	2 GB
log_checkpoint_interval	(disabled)
db_file_multiblock_read_count	32
fast_start_mttr_target	1800s
sga_max_size	4.5 GB

2.5.4 Undo Retention

For the data migration process, the interval of the Undo retention should be increased to handle the database changes. The recommended minimum setting for this parameter is 4 hours:

```
alter system set undo_retention=14400 scope=both
```

After the data migration, this parameter can be reset to the previous value.

2.5.5 Undo Tablespace

For the data migration process, the size of the Undo tablespace should be doubled to handle the database changes. The recommended minimum setting for this parameter is 20 GB. After the data migration, this parameter can be reset to the previous value:

```
alter tablespace <TS_NAME> add datafile '<data_file_location>' size
<NumberOfMegs> M
```

2.5.6 Additional Indexes

The data migration process has been tested with actual customer data samples. All the indexes are set appropriately for the migration process. However, depending on your data mix, you may benefit from additional indexes. It is recommended that you monitor your migration process in a test environment (with a copy of your production database) to see if any additional indexes are required. As a precaution, ensure that the additional indexes you create are non-unique.

2.5.7 Redo Log Files on Raw Devices

You can boost system performance if you implement the Oracle's Redo log files on raw devices option. For more information about how to perform this task, refer to the *Selling and Fulfillment Foundation: Performance Management Guide*.

2.6 Preparing Your Microsoft SQLServer Environment

Prior to preparing your Microsoft SQLServer environment, ensure that your database has been upgraded to the version of the Microsoft SQLServer supported for your environment, as described in the *System Requirements* section of the *Selling and Fulfillment Foundation: Installation Guide*.

Note: If you are upgrading in multischema mode, the instructions described in Preparing Your Microsoft SQLServer Environment must be followed for all schemas in all colonies.

Note: To update the database sequences for your Microsoft SQLServer, you must first generate the differences between the sequences located in `yfs_seq_sqlserver.sql` of the release from which you are upgrading to Release 9.0. After performing this task, manually apply the resulting SQL statements to the database.

2.7 Preparing Your DB2 Environment

Prior to preparing your DB2 environment, ensure that your database has been upgraded to the version of DB2 supported for your environment, as described in the *System Requirements* section of the *Selling and Fulfillment Foundation: Installation Guide*.

Note: If you are upgrading in multischema mode, the instructions described in Preparing Your DB2 Environment must be followed for all schemas in all colonies.

2.8 Installing Release 9.0

For detailed installation instructions, refer to the *Selling and Fulfillment Foundation: Installation Guide* pertaining to Release 9.0.

2.8.1 Running the Migration Tasks Using NFS Mounting

Although it is recommended that you run the migration tasks from the database server instead of the application server to avoid significant network overhead, you have the option of using NFS mounting. With NFS mounting, you can avoid installing Selling and Fulfillment Foundation on the database server.

To use NFS mounting:

1. Create a user on the database server with the same UID and GID as the user you used to install Selling and Fulfillment Foundation on your application server. This user should preferably have the same user name. For example, if the UNIX user used for installing and running Release 9.0 is Sterlite, with a UID of 5001 and GID of 101, the user that you create on the database server must have a UID of 5001 and GID of 101, and should preferably be named Sterlite.
2. Share the <INSTALL_DIR> directory in the application server.
3. Mount the <INSTALL_DIR> directory on the database server using the same path used in the application server. For example, if your <INSTALL_DIR> is /apps/ on the application server, mount it as /apps/ on the database server.
4. Share the <JAVA_HOME> directory that you are using for Selling and Fulfillment Foundation from the application server. You might have multiple Java versions installed on the application server for various reasons. Exercise and share the same <JAVA_HOME> directory that you are using for Selling and Fulfillment Foundation.
5. Mount the <JAVA_HOME> directory on the database server using the same path used in the application server. For example, if your <JAVA_

HOME> was /apps/java on the application server, you should mount it as /apps/java on the database server.

> **Note:** Use NFS mounting only for the <INSTALL_DIR> and <JAVA_HOME> directories. Do not use NFS mounting for other components, especially database files. It is not a good option for write-intensive applications because it drastically impacts database performance.

6. Log in as the Selling and Fulfillment Foundation Administrator on the database server.

2.9 Premigration Activities

This section describes the various premigration tasks to be performed when upgrading to Release 9.0.

2.9.1 Premigration Preparation Tasks

Before migrating your data, it is recommended that you take a back up of the custom files in the your current installation, such as:

- Extended API templates
- Customized screens
- Localized bundle files
- Custom themes

Next, ensure that you complete the following sequence of tasks:

1. Before upgrading from Release 8.5 to Release 9.0, compare the entity extension files in <INSTALL_DIR_OLD>/repository/entity/extensions with the entity extension files in <INSTALL_DIR_OLD>/extensions/global/entities. If extension files with matching file names exist, consolidate these files into one file in <INSTALL_DIR_OLD>/repository/entity/extensions.
2. For purposes of upgrade, Apache Ant is being shipped as part of the migration kit directory. Set the ANT_HOME environment variable to <INSTALL_DIR>/Migration/apache-ant-1.7.1.

3. Go to the <INSTALL_DIR>/Migration directory and execute the chmod -R 755 apache-ant-1.7.1 command.
4. Ensure that the <JAVA_HOME> environment variable points to the folder in which the JDK is installed.
5. Shut down your production system. The application is unavailable when database backup takes place.
6. Back up the database server.

> **Note:** This backup pertains to premigrated data. If you want this data to be available for use with Release 9.0, you must migrate the data using the directions supplied in this guide before putting your system into production.

7. For multihop upgrade from Release 7.3, 7.3 SP1, 7.5, 7.7, 7.9, and 7.11 to 9.0, the yfs.properties file located in the <INSTALL_DIR>/Migration/resources folder is used. The copyextensions task copies the yfs.properties file from the <runtime.old>/resources directory to the <INSTALL_DIR>/Migration/resources directory. The copyextensions task edits this property file by adding the following entries:
   - yfs.dblogin.userid (schema owner)
   - yfs.dblogin.password (schema owner's password)
   - yfs.dblogin.jdbcurl
   - yfs.dblogin.dbtype
   - yfs.dblogin.driverclass
8. For multihop upgrade, two separate log4jconfig.xml files are used. One file is located in the <INSTALL_DIR>/resources folder and the other is copied from the <runtime.old>/resources folder and placed in the <INSTALL_DIR>/Migration/resources folder. During the upgrade process logging will be done in the log files mentioned in both these log4jconfig.xml files.
9. If you have functional indexes, they must be dropped before migration, and re-created after migration is completed. If you are upgrading in multischema mode, functional indexes for all colonies must be dropped before migration, and recreated after migration.

10. If you upgraded from an earlier version to Release 8.0 or 8.2, you must apply 8.0-HF51 (or later) or 8.2-HF18 (or later) before upgrading to Release 9.0.

11. If you are upgrading from Release 7.11, and have applied HF13 (or later), in the YFS_SHIPMENT_H table, the UNPLACED_QUANTITY column may not exist. To include the UNPLACED_QUANTITY column in the YFS_SHIPMENT_H table, run the following SQL scripts:

    - For Oracle, run the following command:

      ```
      ALTER TABLE YFS_SHIPMENT_H ADD (UNPLACED_QUANTITY
      NUMBER(14,4)   DEFAULT NULL NULL);
      ```

    - For DB2, run the following command:

      ```
      ALTER TABLE YFS_SHIPMENT_H ADD UNPLACED_QUANTITY DECIMAL
      (14,4) DEFAULT NULL NULL;
      ```

    - For Microsoft SQLServer, run the following command:

      ```
      ALTER TABLE YFS_SHIPMENT_H ADD UNPLACED_QUANTITY NUMERIC
      (14,4) DEFAULT NULL NULL;
      ```

12. In single-schema upgrade mode, you have the option of reducing the size of some database tables by converting CHAR/NOT NULL columns to VARCHAR/NULL columns. You cannot convert these columns in a multischema environment. If you plan to move to a multischema environment and may want to convert these columns in the future, you should perform this conversion as part of the single-schema migration to Release 9.0.

    If you are migrating from 7.3, 7.5, 7.5 SP1, 7.7, 7.9, 7.11, 8.0, or 8.2 to 9.0 on Oracle or SQLServer, perform these tasks:

    -or-

    If you upgraded to 8.5 without converting these columns and are now migrating to 9.0 on Oracle or SQLServer, perform these tasks:

a. In the <INSTALL_DIR>/repository/entity/extensions directory, copy the SMCF_85_attribute_default_extn.xml.sample file and save the file as SMCF_85_attribute_default_extn.xml. If you upgraded to Release 8.5 and already have the SMCF_85_attribute_default_extn.xml file, you can refer to this file when upgrading to Release 9.0.

b. To upgrade columns to nullable, remove the Nullable and DefaultValue attributes in the SMCF_85_attribute_default_extn.xml file, but do not remove the VirtualDefaultValue attributes.

   -or-

   To prevent columns from converting to nullable, remove the VirtualDefaultValue attributes in the XML file, but do not remove the Nullable and DefaultValue attributes.

c. To upgrade CHAR columns to VARCHAR, remove the DataType attributes in the SMCF_85_attribute_default_extn.xml file.

For a list of affected database tables and columns, refer to Reducing Table Size and Index Size.

Note: To convert columns on DB2, perform the migration strategy described in DB2 Data Migration Strategy.

13. When upgrading to Release 9.0, if the DB_SCHEMA_OWNER property is not set in the <INSTALL_DIR>/properties/sandbox.cfg file, perform the following steps:

    a. Set the DB_SCHEMA_OWNER property to your database schema owner.

    b. Run the <INSTALL_DIR>\bin\setupfiles.cmd script if you are using the Windows environment, and <INSTALL_DIR>/bin/setupfiles.sh if you are using either the Linux or the UNIX environment.

14. When upgrading to Release 9.0 in multischema mode, if the multischema.enabled property is not set in the <INSTALL_DIR>/properties/sandbox.cfg file, perform the following steps:

    a. Set the multischema.enabled property to "True".

b. Run the <INSTALL_DIR>\bin\setupfiles.cmd script if you are using the Windows environment, and <INSTALL_DIR>/bin/setupfiles.sh if you are using either the Linux or the UNIX environment.

15. If custom entities are defined, TableTypes for custom entities must be specified in the entity definitions. For more information about TableTypes and entity definitions, refer to the *Selling and Fulfillment Foundation: Multitenant Enterprise Guide*.

16. If you are using DB2 and want to drop nullability constraints for the columns that are made nullable, use the <INSTALL_DIR>/Migration/8.5/buildmigration.properties file to set the following properties to Y:

    - db2.allow.required.reorg.stmts

      This property allows the generation of the DROP NOT NULL alters, which drops the null constraints. You must then perform a manual reorg of the tables.

    - db2.allow.reorg.stmts

      If the null constraints are being dropped, set this property to Y to generate REORG TABLE statements for tables that require a reorg. You must manually execute these statements, and then remove the statements from the alter scripts that get generated.

      If you are dropping nullability constraints, it is recommended that you set both these properties to Y.

2.9.2 User Interface Customization Tasks

This section presents the predata migration steps that must be carried out to analyze the System Management and Application Console customization impact when upgrading from Release 7.3 (or later) to Release 9.0. The customization tasks help maintain the existing functionality and enable new features.

2.9.2.1 Customizations Between Release 7.3 and Release 7.5

This section provides information about how you can retain the existing functionalities in all the customized components and use the new functionalities in the components that were not customized.

2.9.2.1.1 Console Customizations: Maintaining the Existing Functionalities

Following are the topics described in this section:

- Resource and Resource Permission Reconciliation
- JSP and Javascript Reconciliation
- Theme Reconciliation
- Resource Bundle Reconciliation

Resource and Resource Permission Reconciliation

Ensure that you complete the following sequence of tasks:

1. Changes to Sequence Numbering in Views

   If a custom view has been placed between system resources or after system resources in the Resource Hierarchy tree, revisit these views and ensure that the sequencing of views in the Resource Hierarchy tree is correct.

   The views specified in the following table have been added in Release 7.5 to an existing entity.

Table 2–2 Views Added in Release 7.5

View Type	View ID	View Name	Sequencing Affected in the Entity in the Resource Hierarchy Tree
Detail	YADD013	Bill To Address	Order
Action	YOML740A09	Remove Shipment From Wave	Shipment
Menu	wmsdockappointment	Pickup Dock Appointments	Menu
Detail	YOMD736I03	Appointment Details	Shipment
Detail	YWMD044I04	Hazmat Information	Inventory

The following SQL scripts identify a list of custom views that may require a change in resource numbering because of the system views that have been added:

```
select parent_resource_id, resource_type,
resource_id, resource_desc, resource_seq
from yfs_resource
where resource_create_type != 'SYSTEM'
and resource_type in ('SEARCH_VIEW','LIST_VIEW','DETAIL_VIEW')
and parent_resource_id in
(select distinct parent_resource_id from yfs_resource
where resource_id in
('YADD013','YOMD736I03','YWMD044I04'))
order by parent_resource_id, resource_type;

select parent_resource_id, resource_type,
resource_id, resource_desc, resource_seq
from yfs_resource
where resource_create_type != 'SYSTEM'
and resource_type in ('OPERATION')
and parent_resource_id in
(select distinct parent_resource_id from yfs_resource
where resource_id in
('YOML740A09'))
order by parent_resource_id, resource_type;

select parent_resource_id, resource_type,
resource_id, resource_desc, resource_seq
from yfs_resource
where resource_create_type != 'SYSTEM'
and resource_type in ('ENTITY')
and parent_resource_id in
(select distinct parent_resource_id from yfs_resource
where resource_id in
('wmsdockappointment'))
order by parent_resource_id, resource_type;
```

2. Deleted Views

   The system view described in the following table has been deleted.

Table 2–3 Deleted Views in Release 7.5

View Type	View ID	View Name	Sequencing Affected in the Entity in the Resource Hierarchy Tree
Detail	YIMD302	Modify Provider Contact Address	resourcepool

a. If there is a custom view that has been placed between system resources or after the system resources in the Resource Hierarchy tree, revisit these views and make sure that the sequence of the views in the Resource Hierarchy tree is correct. See Step 1 for the SQL scripts to be used to get a list of custom views that may require a sequence number change because of these deleted views.

b. Run the following SQL query to verify that none of the custom resources are pointing to the views that have been dropped. Apply the appropriate fix if the result of this query returns resource IDs.

The following SQL query looks into the VIEW_ID field to list all the views that have been deleted, but are being accessed by custom resources:

```
select A.resource_id, A.resource_desc, A.JSP from yfs_resource A where
A.resource_create_type <> 'SYSTEM'
And resource_type in ('ICON', 'OPERATION', 'LINK') and
VIEW_ID = '%deleted_view_id%'
and not exists (select A.resource_id from yfs_resource B where
B.resource_id = A.view_id);
```

The following SQL query looks into the resource_sub_type field to list all the views that have been deleted, but are being accessed by custom resources:

```
select A.resource_id, A.resource_desc, A.JSP from yfs_resource A where
A.resource_create_type <> 'SYSTEM'
And resource_type in ('ICON','OPERATION','LINK')and VIEW_GROUP_ID =
'%deleted_view_group_id%'
and not exists (select A.resource_id from yfs_resource B where
B.resource_sub_type = A.view_group_id);
```

The following SQL query lists all the custom resources that have Javascripts, which are accessing deleted views:

```
select distinct javascript from yfs_resource where resource_create_type
<> 'SYSTEM'
and javascript like '%<deleted view>%'
```

From the output of this query, verify if any of the Javascripts are referring to deleted views. Apart from this, search for the deleted views in the customized source code to ensure that they are not being referred to in the body of the source code.

Note: In this query, narrow down the search by specifying each deleted view in the "like" clause, and running the query for each deleted view.

c. View Group ID Changes

The View Group IDs for some of the system resources have been changed in Release 7.5. Therefore, if a custom view has been using one of these View Group IDs, the custom view will not be included in the new View Group after the upgrade. The following table contains a list of resources in which the View Group ID has changed. It also provides the new values. Update the custom views manually if they use the View Group IDs mentioned in the table.

The following table specifies the View Group IDs that have been changed in Release 7.5.

Resource Type	Resource ID	Original View Group ID	New View Group ID	Comments
Link	YOMD2630I03L01	YOMD423	YOMD413	The correct View Group ID, for example, from service request detail to delivery request detail.
Link	YOMD10710I01C04	YOMD10740	YOMD1110	Icon pointer changed from the Status Audits Detail screen to the Shipment Audits Detail screen.

The following SQL query lists custom view resources that may have to refer to a new View Group ID:

```
select parent_resource_id, resource_type,
resource_id, resource_desc, view_group_id
from yfs_resource
where resource_create_type != 'SYSTEM'
and resource_type in ('OPERATION','LINK')
and view_group_id in ('YOMD423', 'YOMD10740')
order by parent_resource_id, resource_type;
```

JSP and Javascript Reconciliation

This section describes the changes to JSPs and views that have impact on customizations.

The makeXMLInput taglib passed to other screens has changed in the following JSPs:

- `webpages\dm\load\detail\load_detail_header.jsp`
- `webpages\dm\manifest\list\manifest_list_verbose.jsp`
- `webpages\om\shipment\detail\shipment_detail_header.jsp`
- `webpages\om\shipment\detail\shipment_detail_shipmentlines.jsp`
- `webpages\om\shipment\detail\shipment_detail_supervisory_override.jsp`
- `webpages\rf\Menu\menu.jsp`

Appropriate changes must be made to the custom views to handle the changed inputs passed from these views to the custom views.

Theme Reconciliation

This section describes the process of reconciling CSS files.

Custom CSS files stored in the `/webpages/css` directory in Release 7.3 should be moved to the new `<INSTALL_DIR>/extensions/global/webpages/css` folder in Release 9.0. You must manually copy the custom theme CSS files, if any, from the Release 7.3 directory location to the Release 9.0 directory location.

Note: Standard Sterling Supply Chain Applications CSS files should not be moved, because they are included in and have been updated in Release 9.0.

The `.warninglabel` class in the CSS files for Release 7.5 has been changed. Copy the class definition changes for the Release 7.5 CSS files from the current `/webpages/css` directory and apply the changes to the customized CSS files in the new `<INSTALL_DIR>/extensions/global/webpages/css` directory.

Resource Bundle Reconciliation

This section describes the process of reconciling key-value pairs.

The following is a list of all key-value pairs in the `/resources/ycpapibundle.properties` file that have been deleted in Release 7.5. This affects the custom screens that are using these keys. The following keys must be remapped to the appropriate values and copied into the `<INSTALL_DIR>/extensions/global/resources/extnbundle.properties` file:

- 0003_Order_Awaiting_Picklist_Print=Return Awaiting Picklist Print
- 0003_Orders_Awaiting_Picklist_Print=Returns Awaiting Picklist Print
- Desc__Error_in_processing_USPS_upload_file_Detail_1_record_for_Manifest_Key__=Desc = Error in processing USPS upload file Detail-1 record for Manifest Key = \u0020
- Desc__Error_in_processing_USPS_upload_file_Detail_2_record_for_Manifest_Key__=Desc = Error in processing USPS upload file Detail-2 record for Manifest Key = \u0020
- Desc___Error_in_selecting_details_from_YFS_DOCUMENT_table_for_where_clause___=Desc = Error in selecting details from YFS_DOCUMENT table for where clause =\u0020
- Desc___Error_in_selecting_details_from_YFS_ORDER_RELEASE_table_for_where_clause___=Desc = Error in selecting details from YFS_ORDER_RELEASE table for where clause =\u0020

- Desc___Error_in_selecting_details_from_YFS_ORDER_RELEASE_table_for_where_clause___.1=Desc = Error in selecting details from YFS_ORDER_RELEASE table for where clause =\u0020
- Desc___Error_in_selecting_details_from_YFS_ORDER_RELEASE_table_for_where_clause___.2=Desc = Error in selecting details from YFS_ORDER_RELEASE table for where clause =\u0020
- Desc___Error_in_selecting_details_from_YFS_SCAC_AND_SERVICE_table_for_where_clause___=Desc = Error in selecting details from YFS_SCAC_AND_SERVICE table for where clause =\u0020
- Desc___Error_in_selecting_details_from_YFS_SHIPMENT_CONTAINER_table_for_where_clause___=Desc = Error in selecting details from YFS_SHIPMENT_CONTAINER table for where clause =\u0020
- Desc___Error_selecting_order_line_for_container_details___=Desc = Error selecting order line for container details =\u0020
- Desc___Error_selecting_order_release_for_container_details___=Desc = Error selecting order release for container details =\u0020
- Desc___Fatal_Error_deleting_container_details_for_container&Container_Key___=Desc = Fatal Error deleting container details for container&Container_Key =\u0020
- Desc___Fatal_Error_selecting_container_details_for_container&Container_Key___=Desc = Fatal Error selecting container details for container&Container_Key =\u0020
- Desc___No_records_available_in_YFS_SHIPMENT_CONTAINER_for_manifest_key___=Desc = No records available in YFS_SHIPMENT_CONTAINER for manifest key =\u0020
- Item_Picking_Condition=Item Picking Condition
- Lines_For_Transaction=_=Lines For Transaction:\u0020
- No=No
- No_records_available_in_YFS_SHIP_NODE_table_for_SHIP_NODE_KEY__=No records available in YFS_SHIP_NODE table for SHIP_NODE_KEY =\u0020
- Order_Awaiting_Picklist_Print=Order Awaiting Picklist Print
- Orders_Awaiting_Picklist_Print=Orders Awaiting Picklist Print

- Otherwise,_Use_Batch_Picking.=Otherwise, Use Batch Picking.
- Otherwise,_Use_Order_Picking_When=Otherwise, Use Order Picking When
- Otherwise,_use_Batch_Picking.=Otherwise, use Batch Picking.
- Pick_Location_Assignment=Pick Location Assignment
- Search_for_Shipment_No=Search for Shipment No
- Then_first_search_for_pick_locations_in=Then, first search for pick locations in
- Then_first_search_for_pick_locatons_in_must_be_entered='Then first search for pick locations in' must be entered.
- Unable_to_select_from_YFS_PERSON_INFO_table_for_PERSON_INFO_KEY___=Unable to select from YFS_PERSON_INFO table for PERSON_INFO_KEY =\u0020
- Unable_to_select_from_YFS_SCAC_AND_SERVICE_table_for_CARRIER_SERVICE_CODE___=Unable to select from YFS_SCAC_AND_SERVICE table for CARRIER_SERVICE_CODE =\u0020
- Unable_to_select_from_YFS_SCAC_table_for_SCAC_KEY__=Unable to select from YFS_SCAC table for SCAC_KEY=\u0020
- Unable_to_select_from_YFS_SHIP_NODE_table_for_SHIP_NODE_KEY__=Unable to select from YFS_SHIP_NODE table for SHIP_NODE_KEY=
- Update_of_YFS_SHIPMENT_table_failed.Shipment_Key____=Update of YFS_SHIPMENT table failed.Shipment Key =\u0020
- Update_of_YFS_SHIPMENT_table_failed_for_Shipment_key_=Update of YFS_SHIPMENT table failed for Shipment_key=
- Use_Item_Picking_when_any_of_the_following_conditions_are_met=Use Item Picking when any of the following conditions are met:
- When_inventory_is_not_found,_search_in=When inventory is not found, search in
- Yes=Yes
- and_having_inventory_status_in_one_of_the_following=and having inventory status in one of the following
- Pack_Station=Pack Station

2.9.2.1.2 Console Customizations: Enabling New Functionalities

This section describes the tasks that should be performed to enable new functionalities in customized components. In order to make use of the new UI features, it is recommended that if the customized UI components call the system APIs (either directly or through a service), they must be upgraded to use the system APIs in a current-version mode, and not the backward compatibility mode. This may require programming changes to be made by the user.

JSP Reconciliation

The best approach to enable the new features in the customized components is to reapply the customizations on system resources and sources.

Let us consider for example that you have customized the default order detail view (YOMD010) into EXYOMD010, copied the `<INSTALL_DIR>/repository/eardata/smcfs/war/om/order/detail/order_detail_orderlines.jsp` file into the `<INSTALL_DIR>extensions/webpages` folder, and added another column. To get the features into the order detail view, you must perform these tasks:

1. Copy the customized view into another view, BEXYOMD010, as backup.
2. Delete the customized view (EXYOMD010) and all the child resources under that customized view.
3. Copy the default order detail view once again as EXYOMD010, including the child resources.
4. Reapply your customizations by comparing BEXYOMD010 and all its child resources with EXYOMD010 and all its child resources. The manner in which customizations have been performed is based on the APIs in the previous version. As part of reapplying the customizations, you must evaluate if API changes will cause the customizations to change. If your BEXYOMD010 resources call an API, refer to the *Selling and Fulfillment Foundation: Customizing APIs Guide* for changes to the API.
5. Copy the JSPs used by the views (and the corresponding inner panels) to a backup directory such as `webpages/extn/backup`.

6. Verify if these JSPs are used by any other custom view. If any other custom view uses any of these JSPs, as part of enabling a new feature to this view, the other view may also have to be upgraded. If you do not want to do that, you can make another copy of this JSP and make the current JSP point to the newly copied JSP.
7. Copy the corresponding JSPs from the product base directory, for example, `webpages/om` into the `extn` folder and reapply the changes to the JSPs.
8. If other custom views are affected by these JSP changes, upgrade those views to use the new features as well.

2.9.2.1.3 Applications Manager Customizations: Maintaining the Existing Functionalities

The following premigration steps enable you to retain the existing functionalities in all the customized components, and to make use of the new features in the components that were not customized.

Following are the topics described in this section.

- Theme XML File Reconciliation
- Form Class Reconciliation

Theme XML File Reconciliation

Custom theme files stored in the `/template/api/extn` directory for Release 7.3 should be moved to the new `<INSTALL_DIR>/extensions/global/template/api` folder in Release 9.0.

The following color and font definitions have been added in the theme XML files. Copy these definitions for the latest version of the theme XML files from the `template/api` directory and manually add them to the customized theme files. Note that in the latest version, theme XML files are present only in the `template/api` directory.

The following new color definitions are only applicable to <theme>. xml files.

- NetworkMap.Node.Foreground
- NetworkMap.Node.FillColor1
- NetworkMap.Node.FillColor2
- NetworkMap.Node.LabelColor
- NetworkMap.Node.Selected.FillColor2

The new font definition, `NetworkMap.Node.LabelFont`, is only applicable to <theme>.xml files.

Form Class Reconciliation

For the custom form classes extending the following classes, customizations must be reapplied to the system forms corresponding to Release 7.5, using the customization steps listed in the *"Extending Organization and Item Detail Screens"* section of the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*:

- `com.yantra.ycm.ui.screens.forms.YCMClassItemAttrs`
- `com.yantra.ycm.ui.screens.forms.YCMModifyServiceItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMModifyItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMAddItemNodeDefn.class`
- `com.yantra.ycm.ui.screens.forms.YCMSingleClassValueDtls.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideDtlTab1.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideLineDtl.class`
- `com.yantra.inv.ui.screens.forms.INVResourcePoolDetail.class`
- `com.yantra.ycp.bct.ui.screens.forms.YCPBarCodeTypesDetailsDtl.class`
- `com.yantra.wms.rcv.ui.screens.forms.WMSReceivingrulesDtl.class`
- `com.yantra.wms.ui.screens.forms.WMSExecutionExceptionDetails.class`
- `com.yantra.wms.ui.screens.forms.WMSItemPickingConditionDetails.class`

- `com.yantra.wms.ui.screens.forms.WMSPlaItemConditionDetails.class`

For all the other extended custom forms, perform the following steps for the form class reconciliation:

1. Identify the screens that you have customized in the Applications Manager for Release 7.3 and locate your extended source files. The extended sources should consist of some classes used as form classes in the Applications Manager screens.
2. For each customized form class, find the corresponding form class released in Release 9.0. For instructions about how to find the latest form class file, refer to the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*.
3. Reapply the customizations to the latest version of the form class file. Ensure that you use the same class name created during the initial customization (the same class name from the list compiled in Step 1).
4. Follow the instructions provided in the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide* to deploy the new class files into the Applications Manager.

2.9.2.2 Customizations Between Release 7.5 and Release 7.5 SP1

This section provides information about how you can retain the existing functionalities in all the customized components and use the new functionalities in the components that were not customized.

2.9.2.2.1 Console Customizations: Maintaining the Existing Functionalities

Following are the topics described in this section:

- Resource and Resource Permission Reconciliation
- JSP and Javascript Reconciliation
- Theme Reconciliation

Resource and Resource Permission Reconciliation

Ensure that you complete the following sequence of tasks:

1. Deleted Views

No views have been deleted in Release 7.5 SP1.

2. View Group IDs

   None of the View Group IDs of the system resources have been changed. However, a few system resources have been newly added and a few have been deleted.

   The following View Group IDs that have been added in Release 7.5 SP1:

Resource Type	Resource ID	Original View Group ID	New View Group ID	Comments
Link	YWMD040I02L02		YOMD340	This link has been added to facilitate the viewing of the Outbound Container details from the Containers tab in the Location Inventory screen.
Operation	YWMD081I07A02		YWMD083	This action has been added to the inner panel in the Count Result Summary screen to facilitate the viewing of count results from the Count Request screen even if there is no variance.
Operation	YOMD710I09A02			A new Javascript, `callSingleTaskComplete()`, has been added to the Complete Tasks action in the Shipment Details screen.
Operation	YOMD710I09A03			A new Javascript, `callMultiTaskComplete()`, has been added to the Complete Tasks action in the Shipment Details screen.
Operation	YOML810A06			A new Modify Containerization action has been added to the Containers tab in the Location Inventory screen.

The tables lists the View Group IDS that have been deleted in Release 7.5 SP1:

Resource Type	Resource ID	Original View Group ID	New View Group ID	Comments
Operation	YOML740A08			The Create Pick List action has been deleted from the Outbound Shipment Details screen.
Operation	YOML7710A07			The Create Pick List action has been deleted from the Inbound Shipment List screen.

JSP and Javascript Reconciliation

This section describes the changes to the JSPs and views that have impact on customizations.

The makeXMLInput taglib passed to other screens has changed in the following JSPs:

- `webpages/wms/count/count_request_detail_countresult.jsp`
- `webpages/om/shipment/detail/shipment_detail_container_list.jsp`

Appropriate changes must be made to the custom views to handle the changed inputs passed from these views to the custom views.

Theme Reconciliation

This section describes the process of reconciling CSS files.

Custom CSS files stored in the `/webpages/css` directory in Release 7.5 should be moved to the new `<INSTALL_DIR>/extensions/global/webpages/css` folder in Release 9.0. You must manually copy the custom theme CSS files, if any, from the Release 7.5 directory location to the Release 9.0 directory location.

Note: Standard Sterling Supply Chain Applications CSS files should not be moved, because they are included in and have been updated in Release 9.0.

2.9.2.2.2 Console Customizations: Enabling New Functionalities

This section describes the tasks that should be performed to enable new functionalities in customized components. In order to make use of the new UI features, it is recommended that if the customized UI components call the system APIs (either directly or through a service), they must be upgraded to use the system APIs in a current-version mode, and not the backward compatibility mode. This may require programming changes to be made by the user.

JSP Reconciliation

The best approach to enable the new features in the customized components is to reapply the customizations on system resources and sources.

The following list displays the JSPs modified in Release 7.5 SP1. If you have extended any of these JSPs, ensure that you reapply the extensions and reconcile the changes made in these JSPs.

- `webpages/wms/wmsinventory/detail/inventory_detail_concise_lpn.jsp`
- `webpages/rf/wms/invinq/frmBarCodeOutboundContainer.jsp`
- `webpages/om/shipment/detail/shipment_detail_shipmentline_lineattributes.jsp`
- `webpages/wms/count/detail/count_result_containerinfo.jsp`
- `webpages/wms/count/detail/count_result_detailinfo.jsp`
- `webpages/wms/batch/popup/confirmpopup.jsp`
- `webpages/om/shipment/detail/shipment_detail_carrierinfo.jsp`
- `webpages/wms/count/detail/count_request_detail_create.jsp`

- webpages/om/shipment/detail/shipment_detail_summaryanchor.jsp
- webpages/om/poshipment/detail/poshipment_detail_summaryanchor.jsp
- webpages/console/jsp/common_printconsole_popup.jsp
- webpages/console/jsp/common_printconsole_include.jsp

2.9.2.3 Customizations Between Release 7.5 SP1 and Release 7.7

This section provides information about how you can retain the existing functionalities in all the customized components and use the new functionalities in the components that were not customized.

2.9.2.3.1 Console Customizations: Maintaining the Existing Functionalities

Following are the topics described in this section:

- Resource and Resource Permission Reconciliation
- JSP and Javascript Reconciliation
- Theme Reconciliation
- Resource Bundle Reconciliation

Resource and Resource Permission Reconciliation

If a custom view has been placed between the system resources or after the system resources in the Resource Hierarchy tree, revisit these views and ensure that the sequencing of views in the Resource Hierarchy tree is correct.

The following table lists the view that as been added in Release 7.7 to an existing entity.

Table 2–4 Views Added in Release 7.7

View Type	View ID	View Name	Sequencing Affected in the Entity in the Resource Hierarchy Tree
Detail	YWMD111	Record Count Result Details	recordcountresults

The following SQL script identifies a list of custom views that may require a change in resource numbering because of system views that have been added:

```
select parent_resource_id, resource_type,
resource_id, resource_desc, resource_seq from yfs_resource
where resource_create_type <> 'SYSTEM'
and resource_type in ('SEARCH_VIEW','LIST_VIEW','DETAIL_VIEW')
and parent_resource_id in (select distinct parent_resource_id
from yfs_resource
where resource_id = 'YWMD111') order by parent_resource_id,
resource_type;
```

JSP and Javascript Reconciliation

This section describes the changes to JSPs and views that have impact on customizations.

The makeXMLInput taglib passed to other screens has changed in the following JSP:

`\webpages\wms\batch\popup\confirmanchor.jsp`

Appropriate changes must be made to the custom views to handle the changed inputs passed from these views to the custom views.

Theme Reconciliation

This section describes the process of reconciling CSS files.

Custom CSS files stored in the `/webpages/css` directory in Release 7.5 SP1 should be moved to the new `<INSTALL_DIR>/extensions/global/webpages/css` folder in Release 9.0. You

must manually copy the custom theme CSS files, if any, from the Release 7.5 SP1 directory location to the Release 9.0 directory location.

> **Note:** Standard Sterling Supply Chain Applications CSS files should not be moved, because they are included in and have been updated in Release 9.0.

Resource Bundle Reconciliation

This section describes the process of reconciling key-value pairs.

Following is a list of all key-value pairs in the `/resources/ycpapibundle.properties` file that have been deleted in Release 7.7. This affects the custom screens that are using these keys. The following keys must be remapped to the appropriate values and copied into the `<INSTALL_DIR>/extensions/global/resources/extnbundle.properties` file:

- Cart_Location=Cart Location
- Complete_Tasks=Complete Tasks
- Is_Revised=Is Revised
- Pick_Process=Pick Process
- WizardQuestion_WarnOnLocationOverride=This flag indicates whether to display a warning message when the depositing location is different from the suggested location.

2.9.2.3.2 Console Customizations: Enabling New Functionalities

This section describes the tasks that should be performed to enable new functionalities in customized components. In order to make use of the new UI features, it is recommended that if the customized UI components call the system APIs (either directly or through a service), they must be upgraded to use the system APIs in a current-version mode, and not the backward compatibility mode. This may require programming changes to be made by the user.

JSP Reconciliation

The best approach to enable the new features in the customized components is to reapply the customizations on system resources and sources.

Let us consider for example that you have customized the default order detail view (YOMD010) to EXYOMD010, copied the `<INSTALL_DIR>/repository/eardata/smcfs/war/om/order/detail/order_detail_orderlines.jsp` file into the `<INSTALL_DIR>/extensions/webpages` folder, and added another column. To get the features into the order detail view, you must perform the following tasks:

1. Copy the customized view into another view (BEXYOMD010) as backup.
2. Delete the customized view (EXYOMD010) and all the child resources under the customized view.
3. Copy the default order detail view once again as EXYOMD010, including child resources.
4. Reapply your customizations by comparing BEXYOMD010 and all its child resources with EXYOMD010 and all its child resources. The manner in which customizations have been carried out is based on the APIs in the previous version. As part of the task of reapplying the customizations, you must evaluate whether any API changes will cause those customizations to change. If your BEXYOMD010 resources call an API, refer to the *Selling and Fulfillment Foundation: Customizing APIs Guide* for changes to the API.
5. Copy the JSPs used by the views (and the corresponding inner panels) to a backup directory, such as `webpages/extn/backup`.

6. Verify if these JSPs are used by any other custom view. If any other custom view uses any of these JSPs, as part of enabling a new feature to this view, the other view may also have to be upgraded. If you do not want to do that, you can make another copy of this JSP and make the current JSP point to the newly copied JSP.
7. Copy the corresponding JSPs from the product base directory, for example webpages/om, into the extn folder and reapply the changes to the JSPs.
8. If any other custom views are affected by these JSP changes, upgrade those views to use the new features as well.

2.9.2.3.3 Applications Manager Customizations: Maintaining Existing Functionalities

The following premigration steps enable you to retain the existing functionalities in all the customized components, and to make use of the new features in the components that were not customized.

Following are the topics described in this section.

- Theme XML File Reconciliation
- Form Class Reconciliation

Theme XML File Reconciliation

Custom theme files stored in the /template/api directory for Release 7.5 SP1 should be moved to the new <INSTALL_DIR>/extensions/global/template/api folder in Release 9.0.

The following font definitions have been added in the theme XML files. Copy these definitions for the latest version of the theme XML files from the template/api directory and manually add them to the customized theme files. Note that in the latest version, theme XML files are present only in the template/api directory.

Table 2–5 New Color and Font Definitions in Theme XML Files

New Color Definition	New Font Definition
The following new color definition is applicable only to the <theme>.xml files: -None	The following new font definitions are applicable only to the <theme>.xml files - H1TextFont - H4TextFont - H6TextFont

Form Class Reconciliation

For the custom form classes extending the following classes, customizations must be reapplied to the system forms corresponding to Release 7.7, using the customization steps listed in the *"Extending Organization and Item Detail Screens"* section of the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*:

- `com.yantra.ycp.pm.ui.screens.forms.YCPOrgDetails.class`
- `com.yantra.ycm.ui.screens.forms.YCMClassItemAttrs`
- `com.yantra.ycm.ui.screens.forms.YCMModifyServiceItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMModifyItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMAddItemNodeDefn.class`
- `com.yantra.ycm.ui.screens.forms.YCMSingleClassValueDtls.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideDtlTab1.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideLineDtl.class`
- `com.yantra.inv.ui.screens.forms.INVResourcePoolDetail.class`
- `com.yantra.ycp.bct.ui.screens.forms.YCPBarCodeTypesDetailsDtl.class`
- `com.yantra.wms.rcv.ui.screens.forms.WMSReceivingrulesDtl.class`
- `com.yantra.wms.ui.screens.forms.WMSExecutionExceptionDetails.class`

- com.yantra.wms.ui.screens.forms.WMSItemPickingConditionDetails.class
- com.yantra.wms.ui.screens.forms.WMSPlaItemConditionDetails.class

For all the other extended custom forms, perform the following steps for the form class reconciliation:

1. Identify the screens that you have customized in the Applications Manager for 7.5 SP1 and locate your extended source files. The extended source files must consist of some of the classes used as form classes in the Applications Manager screens.
2. For each customized form class, find the corresponding form class released in Release 9.0. For instructions about how to find the latest form class file, refer to the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*.
3. Reapply the customizations to the latest version of the form class file. Ensure that you use the same class name created during the initial customization (the same class name from the list compiled in Step 1.
4. To deploy the new class files into the Selling and Fulfillment Foundation Applications Manager, follow the instructions in the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*.

2.9.2.4 Customizations Between Release 7.7 and Release 7.9

This section provides information about how you can retain the existing functionalities in all the customized components and use the new functionalities in the components that were not customized.

2.9.2.4.1 Console Customizations: Maintaining the Existing Functionalities

Following are the topics described in this section:

- Resource and Resource Permission Reconciliation
- JSPs and Javascript Reconciliation
- Theme Reconciliation
- Resource Bundle Reconciliation

Resource and Resource Permission Reconciliation

If a custom view has been placed between the system resources or after the system resources in the Resource Hierarchy tree, revisit these views and ensure that the sequencing of views in the Resource Hierarchy tree is correct.

The following table displays the views that have been added in Release 7.9:

View Type	View ID	Name	Comments
Detail	YOMD045	View Holds	
Detail	YOMD046	View Holds	
Detail	YDMD300	View Holds	
Detail	YIMD302I01	Provider Contact Address	Resource Pool
Detail	YIMD180I03	Service Requests	Order Line
Detail	YIMD180I04	Delivery Requests	Order Line

SQL script to identify a list of custom views that may required a change in resource sequence numbering because of the system views that have been added and deleted:

```
select parent_resource_id, resource_type,

resource_id, resource_desc, resource_seq

from yfs_resource

where resource_create_type <> 'SYSTEM'

and resource_type in ('SEARCH_VIEW','LIST_VIEW','DETAIL_VIEW')

and parent_resource_id in

(select distinct parent_resource_id from yfs_resource

where resource_id in ('YOMD045', 'YOMD046', 'YDMD300',
'YIM302I01', 'YIMD180I03', 'YIMD180I04')

order by parent_resource_id, resource_type;
```

JSPs and Javascript Reconciliation

This section describes the changes to the JSPs and views that have impact on customizations.

The makeXMLInput taglib passed to other screens has changed in the following JSP:

`\webpages\om\order\detail\order_detail_orderlines.jsp`

Appropriate changes must be made to the custom views to handle the changed inputs passed from these views to the custom views.

Theme Reconciliation

This section describes the process of reconciling CSS files.

Custom CSS files stored in the `/webpages/css` directory in Release 7.7 should be moved to the new `<INSTALL_DIR>/extensions/global/webpages/css` folder in Release 9.0. You must manually copy the custom theme CSS files, if any, from the Release 7.7 directory location to the Release 9.0 directory location.

> **Note:** Standard Sterling Supply Chain Applications CSS files should not be moved, because they are included in and have been updated in Release 9.0.

Resource Bundle Reconciliation

This section describes the process of reconciling key-value pairs.

Following is a list of all key-value pairs in the `/resources/ycpapibundle.properties` file that have been deleted in Release 7.9. This affects the custom screens that use these key-value pairs. The following keys must be remapped to the appropriate values and copied into the `<INSTALL_DIR>/extensions/global/resources/extnbundle.properties` file:

- All_Inventory=All Inventory
- Suppress_warning_when_overriding_deposit_location=Suppress warning when overriding deposit location

- Add_node_To_List=Add Node To List
- Cart_Location=Cart Location
- WizardQuestion_WarnOnLocationOverride=Location Will Be Overridden.

2.9.2.4.2 Console Customizations: Enabling New Functionalities

This section describes the tasks that should be performed to enable new functionalities in customized components. In order to make use of the new UI features, it is recommended that if the customized UI components call the system APIs (either directly or through a service), they must be upgraded to use the system APIs in a current-version mode, and not the backward compatibility mode. This may require programming changes to be made by the user.

JSP Reconciliation

The best approach to enable the new features in the customized components is to reapply the customizations on system resources and sources. For example, you may have customized the default order detail view (YOMD010) to EXYOMD010, and copied `/webpages/om/order/detail/order_detail_orderlines.jsp` into the `/webpages/extn/` folder and added another column. To get the features in the order detail view, perform the following tasks:

1. Copy the customized view into another view (BEXYOMD010) as backup.
2. Delete the customized view (EXYOMD010) and all the child resources under that customized view.
3. Copy the default order detail view once again as EXYOMD010, including child resources.
4. Reapply your customizations by comparing BEXYOMD010 and all the child resources with EXYOMD010 and all the child resources. The manner in which customizations have been carried out is based on the APIs in the previous version. As part of reapplying the customizations, evaluate if any API changes will cause those customizations to change. If your BEX... resources call an API, refer to

the *Selling and Fulfillment Foundation: Customizing APIs Guide* for changes to the API.

5. Copy the JSPs used by the views (and the views' inner panels) to a backup directory (such as `webpages/extn/backup`).
6. Verify if these JSPs are used by any other custom view. If any other custom view is using any of these JSPs, the other view may also have to be upgraded as part of enable the new features to this view. If you do not wish to do that, you can make another copy of this JSP and point the current JSP point to the newly copied JSP.
7. Copy the corresponding JSPs from the product base directory (`webpages/om`) into the `extn` folder and reapply the changes to the JSPs.
8. If any other custom views are affected by these JSP changes, upgrade those views to use the new features as well.

2.9.2.4.3 Applications Manager Customizations: Maintaining Existing Functionalities

Following are the topics described in this section:

Form Class Reconciliation

For the custom form classes extending the following classes, customizations must be reapplied to the system forms corresponding to Release 7.9, using the customization steps listed in the *"Extending Organization and Item Detail Screens"* section of the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*:

- `com.yantra.ycp.pm.ui.screens.forms.YCPOrgDetails.class`
- `com.yantra.ycm.ui.screens.forms.YCMClassItemAttrs`
- `com.yantra.ycm.ui.screens.forms.YCMModifyServiceItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMModifyItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMAddItemNodeDefn.class`
- `com.yantra.ycm.ui.screens.forms.YCMSingleClassValueDtls.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideDtlTab1.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideLineDtl.class`

- com.yantra.inv.ui.screens.forms.INVResourcePoolDetail.class
- com.yantra.ycp.bct.ui.screens.forms.YCPBarCodeTypesDetailsDtl.class
- com.yantra.wms.rcv.ui.screens.forms.WMSReceivingrulesDtl.class
- com.yantra.wms.ui.screens.forms.WMSExecutionExceptionDetails.class
- com.yantra.wms.ui.screens.forms.WMSItemPickingConditionDetails.class
- com.yantra.wms.ui.screens.forms.WMSPlaItemConditionDetails.class

For all the other extended custom forms, perform the following steps for form class reconciliation:

1. Identify the screens that you have customized in the Applications Manager for Release 7.7. Locate your extended source files. The extended source files should consist of classes used as form classes in the Applications Manager screens.
2. For each customized form class, find the corresponding form class released in Release 9.0. For instructions about how to find the latest form class file, refer to the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*.
3. Reapply the customizations to the latest version of the form class file. Ensure that you use the same class name created during the initial customization (the same class name from the list compiled in Step 1).
4. Follow the instructions provided in the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide* to deploy the new class files into the Applications Manager.

2.9.2.5 Customizations Between Release 7.9 and Release 7.11

This section provides information about how you can retain the existing functionalities in all the customized components and use the new functionalities in the components that were not customized.

2.9.2.5.1 Console Customizations: Maintaining the Existing Functionalities

Following are the topics described in this section:

- Resource, Resource Permission and Menu Reconciliation
- JSP and Javascript Reconciliation
- Theme Reconciliation
- Resource Bundle Reconciliation

Resource, Resource Permission and Menu Reconciliation

Ensure that you complete the following sequence of tasks:

1. Changes to Sequence Numbering in Views

   If a custom view has been placed between the system resources or after the system resources in the Resource Hierarchy tree, revisit these views and ensure that the sequencing of views in the Resource Hierarchy tree is correct.

   The following displays the views that have been added in Release 7.11:

Table 2–6 View Added in Release 7.11

View Type	View ID	View Name	Sequencing Affected in the Entity in the Resource Hierarchy Tree
Detail	YOMD10176	Associated Service Requests	Return Line

The following SQL script identifies a list of custom views that may require a change in resource numbering because of the added system views:

```
select parent_resource_id, resource_type,
resource_id, resource_desc, resource_seq
from yfs_resource
where resource_create_type <> 'SYSTEM'
and resource_type in ('SEARCH_VIEW','LIST_VIEW','DETAIL_VIEW')
and parent_resource_id in
(select distinct parent_resource_id from yfs_resource
where resource_id = 'YOMD10176')
order by parent_resource_id, resource_type;
```

2. Deleted Views

   No views have been deleted in Release 7.11.

3. View Group ID Changes

   No View Group IDs of the system resources has been changed. However, a few system resources have been newly added.

   The following table contains a list of added resources. Update the custom views manually if they use the View Group IDs mentioned in this table.

   The following table lists the View Group IDs added in Release 7.11:

Resource Type	Resource ID	Original View Group ID	New View Group ID	Comments
Operation	YWMD085I02A01		YWMD086	Added. This action is added to view the count of locations between the selected From and To location in the Create Count Request view.
Operation	YOMD7335I03A01		YOMD7340	Added. This action is added to the Container List inner panel to view container details using the container list icon in the Inbound Shipment Details view.

Resource Type	Resource ID	Original View Group ID	New View Group ID	Comments
Link	YWMD240I02L04		YWMD250	Added. This Link is added to the new field # Batches" in the Wave Summary Console. The link leads to a new view of the Batch Summary view.
Link	YWMD240I02L05		YWMD251	Added. This Link is added to the new field, # Items, in the Wave Summary Console. The link leads to a new view of the Item Task Summary view.
Detail	YWMD086I01			Added. This view has been added to show the count of locations between the selected From and To location in the Create Count Request view.
Detail	YWMD094I01		YWMD094	Added. This view has been added to invoke the count program.
Detail	YWMS085			Added. This view has been added to search for agent criteria.
Detail	YWML085			Added. This view has been added to list the agent criteria that satisfy search criteria.

JSP and Javascript Reconciliation

This section describes the changes to JSPs and views that have impact on customizations.

The makeXMLInput taglib passed to other screens has changed in the following JSPs:

- `webpages\om\order\detail\order_detail_orderlines.jsp`
- `webpages\cm\item\list\item_list_ps.jsp`

- webpages\wms\resourceplanning\capacity\list\resourceplanning_list_initial.jsp
- webpages\wms\wave\detail\overall_summary_info.jsp

Appropriate changes must be performed to the custom views to handle the changed inputs passed from these views to the custom views.

Theme Reconciliation

This section describes the process of reconciling CSS files.

Custom CSS files stored in the /webpages/css directory in Release 7.9 should be moved to the new <INSTALL_DIR>/extensions/global/webpages/css folder in Release 9.0. You must manually copy the custom theme CSS files, if any, from the Release 7.9 directory location to the Release 9.0 directory location.

> **Note:** Standard Sterling Supply Chain Applications CSS files should not be moved, because they are included in and have been updated in Release 9.0.

Following is a list of all the classes that have been changed in the system CSS files. Copy these class definition changes for the Release 7.11 CSS files from the current /webpages/css directory and apply the changes to the customized CSS files in the new <INSTALL_DIR>/extensions/global/webpages/css directory.

- .timeLookup
- .calCalendar

Resource Bundle Reconciliation

This section describes the process of reconciling key-value pairs.

The yyyyMMddHHmmss=yyyyMMddHHmmss key-value pair in the /resources/ycpapibundle.properties file has been deleted in 7.11. This affects the custom screens using this key. This key must be remapped to the appropriate value and copied into the <INSTALL_DIR>/extensions/global/resources/extnbundle.properties file.

2.9.2.5.2 Console Customizations: Enabling New Functionalities

This section describes the tasks that should be performed to enable new functionalities in customized components. In order to make use of the new UI features, it is recommended that if the customized UI components call the system APIs (either directly or through a service), they must be upgraded to use the system APIs in a current-version mode, and not the backward compatibility mode. This may require programming changes to be made by the user.

JSP Reconciliation

The best approach to enable new features in the customized components is to reapply the customizations on system resources and sources. Let us consider for example that you have customized the default order detail view (YOMD010) into EXYOMD010, copied the `/webpages/om/order/detail/order_detail_orderlines.jsp` file to `/webpages/extn/` folder, and added another column. To get the features into the order detail view, perform the following tasks:

1. Copy the customized view into another view (BEXYOMD010) as backup.
2. Delete the customized view (EXYOMD010) and all the child resources under that customized view.
3. Copy the default order detail view once again as EXYOMD010 (including the child resources).
4. Reapply your customizations by comparing BEXYOMD010 and all the child resources with EXYOMD010 and all the child resources. The manner in which customizations have been carried out is based on the APIs in the previous version. As part of reapplying the customizations, you have to evaluate if any API changes will cause those customizations to change. If your BEX… resources call an API, refer to the *Selling and Fulfillment Foundation: Customizing APIs Guide* for changes to the API.
5. Copy the JSPs used by the views (and their inner panels) to a backup directory (such as `webpages/extn/backup`).
6. Verify if these JSPs are used by any other custom view. If any other custom view is using any of these JSPs, the other view may also have to be upgraded as part of enabling the new features to this view. If

you do not want to do that, you can make another copy of this JSP and point the current JSP to the newly copied JSP.

7. Copy the corresponding JSPs from the product base directory (webpages/om) into the extn folder and reapply the changes to the JSPs.

8. If any other custom views are affected by these JSP changes, upgrade those views to use the new features as well.

2.9.2.5.3 Applications Manager Customizations: Maintaining the Existing Functionalities

The following premigration steps enable you to retain the existing functionalities in all the customized components, and to make use of the new features in the components that were not customized.

Following are the topics described in this section.

- Theme XML File Reconciliation
- Form Class Reconciliation

Theme XML File Reconciliation

Custom theme files stored in the /template/api directory for Release 7.9 should be moved to the new <INSTALL_DIR>/extensions/global/template/api folder in Release 9.0.

The following font definitions have been added in the theme XML files. Copy these definitions for the latest version of the theme XML files from the template/api directory and manually add them to the customized theme files. Note that in the latest version, theme XML files are present only in the template/api directory.

Table 2–7 New Color and Font Definitions in Theme XML Files

New Color Definition	New Font Definition
The following new color definition is applicable only to the <theme>.xml files: -None	The following new font definitions are applicable only to the <theme>.xml file: - H1TextFont - H4TextFont - H6TextFont

Form Class Reconciliation

For the custom form classes extending the following classes, customizations must be reapplied to the system forms corresponding to Release 7.11, using the customization steps listed in the *"Extending Organization and Item Detail Screens"* section of the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*:

- `com.yantra.ycp.pm.ui.screens.forms.YCPOrgDetails.class`
- `com.yantra.ycm.ui.screens.forms.YCMClassItemAttrs`
- `com.yantra.ycm.ui.screens.forms.YCMModifyServiceItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMModifyItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMAddItemNodeDefn.class`
- `com.yantra.ycm.ui.screens.forms.YCMSingleClassValueDtls.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideDtlTab1.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideLineDtl.class`
- `com.yantra.inv.ui.screens.forms.INVResourcePoolDetail.class`
- `com.yantra.ycp.bct.ui.screens.forms.YCPBarCodeTypesDetailsDtl.class`
- `com.yantra.wms.rcv.ui.screens.forms.WMSReceivingrulesDtl.class`
- `com.yantra.wms.ui.screens.forms.WMSExecutionExceptionDetails.class`
- `com.yantra.wms.ui.screens.forms.WMSItemPickingConditionDetails.class`
- `com.yantra.wms.ui.screens.forms.WMSPlaItemConditionDetails.class`

For all the other extended custom forms, perform the following steps for the form class reconciliation:

1. Identify the screens that you have customized in the Applications Manager for Release 7.9. Locate your extended source files. The extended source files should consist of classes used as the form classes in the Applications Manager screens.
2. For each customized form class, find the corresponding form class released in Release 9.0. For instructions about how to find the latest

form class files, refer to the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*.

3. Reapply the customizations to the latest version of the form class file. Ensure that you use the same class name created during the initial customization (the same class name from the list compiled in Step 1).
4. Follow the instructions provided in the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide* to deploy the new class files into the Applications Manager.

2.9.2.6 Customizations Between Release 7.11 and Release 8.0

This section provides information about how you can retain the existing functionalities in all the customized components and use the new functionalities in the components that were not customized.

2.9.2.6.1 Console Customizations: Maintaining the Existing Functionalities

Following are the topics described in this section:

- Resource, Resource Permission, and Menu Reconciliation
- Theme Reconciliation
- Resource Bundle Reconciliation

Resource, Resource Permission, and Menu Reconciliation

This section describes the changes to sequence numbering in views.

If a custom view has been placed between the system resources or after the system resources in the Resource Hierarchy tree, cross check the views and verify if the sequencing of views in the Resource Hierarchy tree is correct.

The following table displays the views that have been added to an existing entity in Release 8.0:

View Type	View ID	View Name	Sequencing Affected in the Entity in the Resource Hierarchy Tree
Detail view	YVSD014	Alert List	Workorder

View Type	View ID	View Name	Sequencing Affected in the Entity in the Resource Hierarchy Tree
Search view	YWMS083	Count Search By Location Range	Wmscount
Detail view	YWMD189	Create Count Requests for Location Range	Wmscount
Detail view	YWMD190	Count Requests List for Location Range	Wmscount
Detail view	YWMD252	Shipment Profile Summary	Wave
Detail view	YWMD261	Wave Audits	Wave

The following SQL script identifies the list of custom views that may require a change in resource numbering because of the system views that have been added:

```
select parent_resource_id, resource_type,
resource_id, resource_desc, resource_seq from yfs_resource
where resource_create_type != 'SYSTEM'
and resource_type in ('SEARCH VIEW,'LIST VIEW', DETAIL VIEW) and parent_
resource_id in (select distinct parent_resource_id from yfs_resource where
resource_id in ('YVSD014', 'YWMS083', 'YWMD189', 'YWMD190', 'YWMD252',
'YWMD261')) order by parent_resource_id, resource_type;
```

The following table displays the resources for which the template XML has been modified.

Resource Type	Resource ID	Resource Name
Innerpanel	YMOD710101	Shipment
Innerpanel	YMOD7710101	Inbound Order Shipment

If you have extended any of the resources listed in the table, ensure that you reconcile the changes made in these resources, and reapply the

extensions. Otherwise, you might get an out-of-memory error while creating or viewing shipments.

Theme Reconciliation

This section describes the process of reconciling the CSS files.

Custom CSS files stored in the /webpages/css directory in Release 7.11 should be moved to the new <INSTALL_DIR>/extensions/global/webpages/css folder in Release 9.0. You must manually copy the custom theme CSS files, if any, from the Release 7.11 directory location to the Release 9.0 directory location.

> **Note:** Standard Sterling Multi-Channel Fulfillment CSS files should not be moved, because they are included in and have been updated in Release 9.0.

Resource Bundle Reconciliation

This section describes the process of reconciling key-value pairs.

The following list displays the key-value pairs in the <INSTALL_DIR>/resources/ycpapibundle.properties file and <INSTALL_DIR>/resources/yscpapibundle.properties file that have been deleted in Release 8.0. This affects the custom screens using these keys. The keys cannot start with #. The following keys must be remapped to the appropriate values and copied into the <INSTALL_DIR>/extensions/global/resources/extnbundle.properties file:

- #_Cases=# Cases
- #_Of_Count_Results=# of count results
- #_Of_Variances = # of variances
- #_Pallets=# Pallets

2.9.2.6.2 Console Customizations: Enabling New Functionalities

This section describes the tasks that should be performed to enable new functionalities in customized components. In order to make use of the new UI features, it is recommended that if the customized UI components call the system APIs (either directly or through a service), they must be upgraded to use the system APIs in a current-version

mode, and not the backward compatibility mode. This may require programming changes to be made by the user.

JSP Reconciliation

The best approach to enable new features in the customized components is to reapply the customizations on the system resources and sources. Let us consider for example that you have customized the default order detail view (YOMD010) into EXYOMD010, copied the <INSTALL_DIR>/repository/eardata/smcfs/war/om/order/detail/order_detail_orderlines.jsp file into the <INSTALL_DIR>/repository/eardata/smcfs/war/extn/ folder, and added another column. Perform the following tasks to get the features into the order detail view:

1. Copy the customized view into another view (BEXYOMD010) as backup.
2. Delete the customized view (EXYOMD010) and all the child resources under that customized view.
3. Copy the default order detail view once again as EXYOMD010 (including the child resources).
4. Reapply your customizations by comparing BEXYOMD010 and all its child resources with EXYOMD010 and all its child resources. The manner in which customizations are carried out is based on the APIs in the previous version. As part of reapplying the customizations, evaluate if any API changes will cause the customizations to change.

   If your BEX... resources calls an API, refer to the *Selling and Fulfillment Foundation: Customizing APIs Guide* to make changes to the API.
5. Copy all the JSPs used by the views and their inner panels to a backup directory such as <INSTALL_DIR>/repository/eardata/yantra/war/extn/backup.
6. Verify if these JSPs are used by another custom view. If another custom view is using any of these JSPs, the other view should also be

upgraded. If you do not want to do this, make another copy of this JSP and point the current JSPs to the newly copied JSPs.

7. Copy the corresponding JSPs from the product base directory (<INSTALL_DIR>/repository/eardata/smcfs/war/om) into the extn folder, and reapply the changes to the JSPs.

   If other custom views are affected by these JSPs changes, upgrade those views to use the new features as well.

2.9.2.6.3 Applications Manager Customizations: Maintaining the Existing Functionalities

The following premigration steps enable you to retain the existing functionalities in all the customized components, and to make use of the new features in the components that were not customized.

Following are the topics described in this section.

- Form Class Reconciliation

Form Class Reconciliation

For the custom form classes extending the following classes, customizations must be reapplied to the system forms corresponding to Release 8.0, using the customization steps listed in the *"Extending Organization and Item Detail Screens"* section of the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*:

- com.yantra.ycp.pm.ui.screens.forms.YCPOrgDetails.class
- com.yantra.ycm.ui.screens.forms.YCMClassItemAttrs
- com.yantra.ycm.ui.screens.forms.YCMModifyServiceItem.class
- com.yantra.ycm.ui.screens.forms.YCMModifyItem.class
- com.yantra.ycm.ui.screens.forms.YCMAddItemNodeDefn.class
- com.yantra.ycm.ui.screens.forms.YCMSingleClassValueDtls.class
- com.yantra.ydm.ui.screens.forms.YDMRoutingGuideDtlTab1.class
- com.yantra.ydm.ui.screens.forms.YDMRoutingGuideLineDtl.class
- com.yantra.inv.ui.screens.forms.INVResourcePoolDetail.class
- com.yantra.ycp.bct.ui.screens.forms.YCPBarCodeTypesDetailsDtl.class

- com.yantra.wms.rcv.ui.screens.forms.WMSReceivingrulesDtl.class
- com.yantra.wms.ui.screens.forms.WMSExecutionExceptionDetails.class
- com.yantra.wms.ui.screens.forms.WMSItemPickingConditionDetails.class
- com.yantra.wms.ui.screens.forms.WMSPlaItemConditionDetails.class

For all the other extended custom forms, perform the following steps to carry out form class reconciliation:

1. Identify the screens that you have customized in the Applications Manager for Release 7.11. Locate your extended source files. The extended source files should consist of some classes used as form classes in the Applications Manager screens.
2. For each customized form class, find the corresponding form class released in Release 9.0. For instructions about how to find the latest form class file, refer to the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*.
3. Reapply the customizations to the latest version of the form class file. Ensure that you use the same class name created during the initial customization (the same class name from the list compiled in Step 1).
4. Follow the instructions provided in the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide* to deploy the new class files into the Applications Manager.

2.9.2.7 Customizations Between Release 8.0 and Release 8.2

This section provides information about how you can retain the existing functionalities in all the customized components and use the new functionalities in the components that were not customized.

2.9.2.7.1 Console Customizations: Maintaining the Existing Functionalities

Following are the topics described in this section:

- Resource, Resource Permission, and Menu Reconciliation
- Theme Reconciliation
- Resource Bundle Reconciliation

Resource, Resource Permission and Menu Reconciliation

No new views have been added to Release 8.2.

Theme Reconciliation

Custom CSS files stored in the `/webpages/css` directory in Release 8.0 should be moved to the new `<INSTALL_DIR>/extensions/global/webpages/css` folder in Release 9.0. You must manually copy the custom theme CSS files, if any, from the Release 8.0 directory location to the Release 9.0 directory location.

> **Note:** Standard Sterling Multi-Channel Fulfillment Solution CSS files should not be moved, because they are included in and have been updated in Release 9.0.

Resource Bundle Reconciliation

No key-value pairs have been deleted or require reconciliation in Release 8.2.

2.9.2.7.2 Console Customizations: Enabling New Functionalities

This section describes the tasks that should be performed to enable new functionalities in customized components. In order to make use of the new UI features, it is recommended that if the customized UI components call the system APIs (either directly or through a service), they must be upgraded to use the system APIs in a current-version mode, and not the backward compatibility mode. This may require programming changes to be made by the user.

JSP Reconciliation

The best approach to enable new features in the customized components is to reapply the customizations on the system resources and sources.

Let us consider for example that you have customized the default order detail view YOMDO10 into EXYOMDO10, copied the <INSTALL_DIR>/repository/eardata/smcfs/war/om/order/detail/order_detail_orderlines.jsp file into the <INSTALL_DIR>/repository/eardata/smcfs/war/extn/ folder, and added another column. Perform the following tasks to get the features into the order detail view:

1. Copy the customized view into another view BEXYOMD010 as backup.
2. Delete the customized view EXYOMD010 and all the child resources under that customized view.
3. Copy the default order detail view once again as EXYOMD010 (including the child resources).
4. Reapply your customizations by comparing BEXYOMD010 and all its child resources with EXYOMD010 and all its child resources. The manner in which customizations have been carried out is based on the APIs in the previous version. As part of reapplying the customizations, evaluate if any API changes will cause the customizations to change.

   If your BEX… resources calls an API, refer to the *Selling and Fulfillment Foundation: Customizing APIs Guide* to make changes to the API.
5. Copy all the JSPs used by the views and their inner panels to a backup directory such as <INSTALL_DIR>/repository/eardata/smcfs/war/extn/backup.
6. Verify if these JSPs are used by another custom view. If another custom view is using any of these JSPs, the other view should also be upgraded. If you do not want to do this, make another copy of this JSP and point the current JSPs to the newly copied JSPs.
7. Copy the corresponding JSPs from the product base directory (<INSTALL_DIR>/repository/eardata/smcfs/war/om) into the extn folder, and reapply the changes to the JSPs.

   If other custom views are affected by these JSPs changes, upgrade those views to use the new features as well.

2.9.2.7.3 Applications Manager Customizations: Maintaining the Existing Functionalities

The following premigration steps enable you to retain the existing functionalities in all the customized components, and to make use of the new features in the components that were not customized.

Following are the topics described in this section.

- Theme XML File Reconciliation
- Form Class Reconciliation

Theme XML File Reconciliation

Custom theme files stored in the `/template/api` directory for Release 8.0 should be moved to the new `<INSTALL_DIR>/extensions/global/template/api` folder in Release 9.0.

Form Class Reconciliation

For the custom form classes extending the following classes, customizations must be reapplied to the system forms corresponding to Release 8.2, using the customization steps listed in the *"Extending Organization and Item Detail Screens"* section of the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*:

- `com.yantra.ycp.pm.ui.screens.forms.YCPOrgDetails.class`
- `com.yantra.ycm.ui.screens.forms.YCMClassItemAttrs`
- `com.yantra.ycm.ui.screens.forms.YCMModifyServiceItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMModifyItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMAddItemNodeDefn.class`
- `com.yantra.ycm.ui.screens.forms.YCMSingleClassValueDtls.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideDtlTab1.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideLineDtl.class`
- `com.yantra.inv.ui.screens.forms.INVResourcePoolDetail.class`
- `com.yantra.ycp.bct.ui.screens.forms.YCPBarCodeTypesDetailsDtl.class`
- `com.yantra.wms.rcv.ui.screens.forms.WMSReceivingrulesDtl.class`

- com.yantra.wms.ui.screens.forms.WMSExecutionExceptionDetails.class
- com.yantra.wms.ui.screens.forms.WMSItemPickingConditionDetails.class
- com.yantra.wms.ui.screens.forms.WMSPlaItemConditionDetails.class

For all the other extended custom forms, perform the following steps to carry out form class reconciliation:

1. Identify the screens that you have customized in the Applications Manager for Release 8.0. Locate your extended source files. The extended source files should consist of classes used as form classes in the Applications Manager screens.
2. For each customized form class, find the corresponding form class released in Release 9.0. For instructions about how to find the latest form class file, refer to the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*.
3. Reapply the customizations to the latest version of the form class file. Ensure that you use the same class name created during the initial customization (the same class name from the list compiled in Step 1).
4. Follow the instructions provided in the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide* to deploy the new class files into the Applications Manager.

2.9.2.8 Customizations Between Release 8.2 and Release 8.5

This section provides information about how you can retain the existing functionalities in all the customized components and use the new functionalities in the components that were not customized.

2.9.2.8.1 Console Customizations: Maintaining the Existing Functionalities

Following are the topics described in this section:

- Resource, Resource Permission and Menu Reconciliation
- JSP and Javascript Reconciliation
- Theme Reconciliation
- Resource Bundle Reconciliation

Resource, Resource Permission and Menu Reconciliation

No new views have been added to Release 8.5.

JSP and Javascript Reconciliation

This section describes the changes to the JSPs and views that have impact on customizations.

The makeXMLInput taglib passed to other screens has changed in the following JSPs:

- `webpages\wms\batch\detail\confirmbatch.jsp`
- `webpages\wms\resourceplanning\capacity\list\resourceplanning_list_initial.jsp`
- `webpages\wms\task\detail\task_detail_references.jsp`
- `webpages\wms\wmsinventory\detail\inventory_detail_locationinfo.jsp`
- `webpages\wms\wmsmoverequest\detail\wmsmoverequest_detail_moverequestlineitem.jsp`
- `webpages\wms\wmsphysicalcount\list\physical_count_plan_list.jsp`

Appropriate changes must be made to the custom views to handle the changed inputs passed from these views to the custom views.

Theme Reconciliation

Custom CSS files stored in the `/webpages/css` directory in Release 8.2 should be moved to the new `<INSTALL_DIR>/extensions/global/webpages/css` folder in Release 9.0. You

must manually copy the custom theme CSS files, if any, from the Release 8.2 directory location to the Release 9.0 directory location.

> **Note:** Standard Selling and Fulfillment Foundation CSS files should not be moved, because they are included in and have been updated in Release 9.0.

Resource Bundle Reconciliation

This section describes the process of reconciling key-value pairs.

The Exception_Audits_Detail = Exception Audits Detail key-value pair in the <INSTALL_DIR>/resources/ycpapibundle.properties file has been deleted in Release 8.5. The deletion affects the custom screens using these keys. This key must be remapped to the appropriate value and copied into the <INSTALL_DIR>/extensions/global/resources/extnbundle.properties file.

2.9.2.8.2 Console Customizations: Enabling New Functionalities

This section describes the tasks that should be performed to enable new functionalities in customized components. In order to make use of the new UI features, it is recommended that if the customized UI components call the system APIs (either directly or through a service), they must be upgraded to use the system APIs in a current-version mode, and not the backward compatibility mode. This may require programming changes to be made by the user.

JSP Reconciliation

The best approach to enable the new features in the customized components is to reapply the customizations on the system resources and sources. Let us consider for example that you have customized the custom order detail view YOMD010 into EXYOMD010, copied the <INSTALL_DIR>/repository/eardata/smcfs/war/om/order/detail/order_detail_orderlines.jsp file into the <INSTALL_DIR>/repository/eardata/smcfs/war/extn/ folder, and added another column. Perform the following tasks to get the features into the order detail view:

1. Copy the customized view into another view BEXYOMD010 as backup.

2. Delete the customized view EXYOMD010 and all the child resources under that customized view.
3. Copy the default order detail view once again as EXYOMD010 (including the child resources).
4. Reapply your customizations by comparing BEXYOMD010 and all its child resources with EXYOMD010 and all its child resources. The manner in which customizations have been carried out is based on the APIs in the previous version. As part of reapplying the customizations, evaluate if any API changes will cause the customizations to change.

   If your BEX… resources calls an API, refer to the *Selling and Fulfillment Foundation: Customizing APIs Guide* to make changes to the API.
5. Copy all the JSPs used by the views and their inner panels to a backup directory such as <INSTALL_DIR>/repository/eardata/smcfs/war/extn/backup.
6. Verify if these JSPs are used by another custom view. If another custom view is using any of these JSPs, the other view should also be upgraded. If you do not want to do this make another copy of this JSP and make the current JSPs point to the newly copied JSPs.
7. Copy the corresponding JSPs from the product base directory (<INSTALL_DIR>/repository/eardata/smcfs/war/om) into the extn folder, and reapply the changes to the JSPs.

   If other custom views are affected by these JSPs changes, upgrade those views to use the new features as well.

2.9.2.8.3 Applications Manager Customizations: Maintaining the Existing Functionalities

The following premigration steps enable you to retain the existing functionalities in all the customized components, and to make use of the new features in the components that were not customized.

Following are the topics described in this section.

- Theme XML File Reconciliation
- Form Class Reconciliation

Theme XML File Reconciliation

Custom theme files stored in the /template/api directory for Release 8.2 should be moved to the new <INSTALL_DIR>/extensions/global/template/api folder in Release 9.0.

This section provides information about the newly added color and font definitions in the theme XML files. Copy these color and font definitions pertaining to the latest version of theme XML files from the <INSTALL_DIR>/repository/xapi/template/merged/resource directory and manually add them to the customized theme files. Note that in the latest version, theme XML files are present only in the <INSTALL_DIR>/repository/xapi/template/merged/resource directory.

The new font definition, H2TextFont, is only applicable to <theme>.xml files.

Form Class Reconciliation

For the custom form classes extending the following classes, customizations must be reapplied to the system forms corresponding to Release 8.5, using the customization steps listed in the *"Extending Organization and Item Detail Screens"* section of the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*:

- com.yantra.ycp.pm.ui.screens.forms.YCPOrgDetails.class
- com.yantra.ycm.ui.screens.forms.YCMClassItemAttrs
- com.yantra.ycm.ui.screens.forms.YCMModifyServiceItem.class
- com.yantra.ycm.ui.screens.forms.YCMModifyItem.class
- com.yantra.ycm.ui.screens.forms.YCMAddItemNodeDefn.class
- com.yantra.ycm.ui.screens.forms.YCMSingleClassValueDtls.class
- com.yantra.ydm.ui.screens.forms.YDMRoutingGuideDtlTab1.class
- com.yantra.ydm.ui.screens.forms.YDMRoutingGuideLineDtl.class
- com.yantra.inv.ui.screens.forms.INVResourcePoolDetail.class
- com.yantra.ycp.bct.ui.screens.forms.YCPBarCodeTypesDetailsDtl.class
- com.yantra.wms.rcv.ui.screens.forms.WMSReceivingrulesDtl.class

- com.yantra.wms.ui.screens.forms.WMSExecutionExceptionDetails.class
- com.yantra.wms.ui.screens.forms.WMSItemPickingConditionDetails.class
- com.yantra.wms.ui.screens.forms.WMSPlaItemConditionDetails.class

For all the other extended custom forms, perform the following steps to carry out form class reconciliation:

1. Identify the screens that you have customized in the Applications Manager for Release 8.2. Locate your extended source files. The extended source files should consist of classes used as form classes in the Applications Manager screens.
2. For each customized form class, find the corresponding form class released in Release 9.0. For instructions about how to find the latest form class file, refer to the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*.
3. Reapply the customizations to the latest version of the form class file. Ensure that you use the same class name as was created during the initial customization (the same class name from the list compiled in Step 1).
4. Follow the instructions provided in the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide* to deploy the new class files into the Applications Manager.

2.9.2.9 Customizations Between Release 8.5 and Release 9.0

This section provides information about how you can retain the existing functionalities in all the customized components and use the new functionalities in the components that were not customized.

2.9.2.9.1 Console Customizations: Maintaining the Existing Functionalities

Following are the topics described in this section:

- Resource, Resource Permission and Menu Reconciliation
- Theme Reconciliation

Resource, Resource Permission and Menu Reconciliation

This section describes the changes to sequence numbering in views.

If a custom view has been placed between the system resources or after the system resources in the Resource Hierarchy tree, cross check the views and verify if the sequencing of views in the Resource Hierarchy tree is correct.

The following table displays the views that have been added to an existing entity in Release 9.0:

View Type	View ID	View Name	Sequencing Affected in the Entity in the Resource Hierarchy Tree
DETAIL_VIEW	YOMD353	Container Return Tracking Number	container
DETAIL_VIEW	YOMD147	Modify Order Payment Information	order
DETAIL_VIEW	YOMD3147	Modify Order Payment Information	po
DETAIL_VIEW	YOMD647	Modify Order Payment Information	return
DETAIL_VIEW	YOMD2647	Modify Order Payment Information	templateorder

The following SQL script identifies the list of custom views that may require a change in resource numbering because of the system views that have been added:

```
select parent_resource_id, resource_type,
resource_id, resource_desc, resource_seq from yfs_resource
where resource_create_type <> 'SYSTEM'
and resource_type in ('SEARCH VIEW,'LIST_VIEW', 'DETAIL_VIEW') and parent_
resource_id in (select distinct parent_resource_id from yfs_resource where
resource_id in ('YOMD353', 'YOMD147', 'YOMD3147', 'YOMD647', 'YOMD2647'))
order by parent_resource_id, resource_type;
```

Theme Reconciliation

Custom CSS files stored in the /webpages/css directory in Release 8.5 should be moved to the new <INSTALL_DIR>/extensions/global/webpages/css folder in Release 9.0. You must manually copy the custom theme CSS files, if any, from the Release 8.5 directory location to the Release 9.0 directory location.

> **Note:** Standard Selling and Fulfillment Foundation CSS files should not be moved, because they are included in and have been updated in Release 9.0.

2.9.2.9.2 Console Customizations: Enabling New Functionalities

This section describes the tasks that should be performed to enable new functionalities in customized components. In order to make use of the new UI features, it is recommended that if the customized UI components call the system APIs (either directly or through a service), they must be upgraded to use the system APIs in a current-version mode, and not the backward compatibility mode. This may require programming changes to be made by the user.

JSP Reconciliation

The best approach to enable the new features in the customized components is to reapply the customizations on the system resources and sources. Let us consider for example that you have customized the default order detail view YOMD010 into EXYOMD010, copied the <INSTALL_DIR>/repository/eardata/smcfs/war/om/order/detail/order_detail_orderlines.jsp file into the <INSTALL_DIR>/repository/eardata/smcfs/war/extn/ folder, and added another

column. Perform the following tasks to get the features into the order detail view:

1. Copy the customized view into another view BEXYOMD010 as backup.
2. Delete the customized view EXYOMD010 and all the child resources under that customized view.
3. Copy the default order detail view once again as EXYIOMD010 (including child resources).
4. Reapply your customizations by comparing BEXYOMD010 and all its child resources with EXYOMD010 and all its child resources. The manner in which customizations have been carried out is based on the APIs in the previous version. As part of reapplying the customizations, evaluate if any API changes will cause the customizations to change.

   If your BEX… resources calls an API, refer to the *Selling and Fulfillment Foundation: Customizing APIs Guide* to make changes to the API.
5. Copy all the JSPs used by the views and their inner panels to a backup directory such as <INSTALL_DIR>/repository/eardata/smcfs/war/extn/backup.
6. Verify if these JSPs are used by another custom view. If another custom view is using any of these JSPs, the other view should also be upgraded. If you do not want to do this, make another copy of this JSP and point the current JSPs to the newly copied JSPs.
7. Copy the corresponding JSPs from the product base directory (<INSTALL_DIR>/repository/eardata/smcfs/war/om) into the extn folder, and reapply the changes to the JSPs.

   If other custom views are affected by these JSPs changes, upgrade those views to use the new features as well.

2.9.2.9.3 Applications Manager Customizations: Maintaining the Existing Functionalities

The following premigration steps enable you to retain the existing functionalities in all the customized components, and be able to make use of the new features in the components that were not customized.

Form Class Reconciliation

For the custom form classes extending the following classes, customizations must be reapplied to the system forms corresponding to Release 9.0, using the customization steps listed in the *"Extending Organization and Item Detail Screens"* section of the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*:

- `com.yantra.ycp.pm.ui.screens.forms.YCPOrgDetails.class`
- `com.yantra.ycm.ui.screens.forms.YCMClassItemAttrs`
- `com.yantra.ycm.ui.screens.forms.YCMModifyServiceItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMModifyItem.class`
- `com.yantra.ycm.ui.screens.forms.YCMAddItemNodeDefn.class`
- `com.yantra.ycm.ui.screens.forms.YCMSingleClassValueDtls.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideDtlTab1.class`
- `com.yantra.ydm.ui.screens.forms.YDMRoutingGuideLineDtl.class`
- `com.yantra.inv.ui.screens.forms.INVResourcePoolDetail.class`
- `com.yantra.ycp.bct.ui.screens.forms.YCPBarCodeTypesDetailsDtl.class`
- `com.yantra.wms.rcv.ui.screens.forms.WMSReceivingrulesDtl.class`
- `com.yantra.wms.ui.screens.forms.WMSExecutionExceptionDetails.class`
- `com.yantra.wms.ui.screens.forms.WMSItemPickingConditionDetails.class`
- `com.yantra.wms.ui.screens.forms.WMSPlaItemConditionDetails.class`

For all the other extended custom forms, perform the following steps to carry out form class reconciliation:

1. Identify the screens that you have customized in the Applications Manager for Release 8.5. Locate your extended source files. The extended source files should consist of classes used as form classes in the Applications Manager screens.
2. For each customized form class, find the corresponding form class released in Release 9.0. For instructions about how to find the latest form class file, refer to the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*.
3. Reapply the customizations to the latest version of the form class file. Ensure that you use the same class name created during the initial customization (the same class name from the list compiled in Step 1).
4. Follow the instructions provided in the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide* to deploy the new class files into the Applications Manager.

2.10 Data Migration

Data migration is a two-phase process in which you migrate both history data and transaction data, separately, in any order. In releases prior to 8.5, it was necessary to bring down your entire deployment when migrating your history data and transaction data.

Release 8.5 (and later) provides the property, yfs.api.history.disable, which allows you to migrate your history data when the application is running on the transaction data. You can use this property when performing an upgrade in single-schema mode, multischema mode for all colonies, and multischema mode for individual colonies. For information about using the yfs.api.history.disable property when upgrading individual colonies, refer Migrating Transaction and History Data for Colonies.

If you are upgrading to Release 9.0 and want to use yfs.api.history.disable to migrate transaction data and then history data, follow this process:

- Migrate your transaction data and then start the application. If you are performing a multischema upgrade, migrate the transaction data for all colonies.
- Use the `customer_overrides.properties` file to set the yfs.api.history.disable property to `true`. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Selling and Fulfillment Foundation: Properties Guide*.
- Bring up your application server.
- Migrate your history data.
- Use the `customer_overrides.properties` file to set the yfs.api.history.disable property to `false`. This step ensures the application can access the upgraded history tables. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Selling and Fulfillment Foundation: Properties Guide*.
- Restart your application server.

Between the time that you run your transaction data migration and your history data migration the following restrictions exist:

- You are not able to purge any data
- You are not able to access any history data using APIs until the history data migrations is complete.
- You are not able to use the restoreOrder API, which moves an order from the history tables to the transaction tables. By default, Selling and Fulfillment Foundation uses the restoreOrder API to move an order from the history table to the transaction table while creating a return for an order that has been purged to the history tables. Therefore, you are not able to create a return for a purged order until you finish your transaction data migration.

You should evaluate the impact of not being able to purge data or use the restoreOrder API, based on how your system is configured and customized.

The migration conducted for an "upgrade from version" directory is the most recent release directory. All migrations between Release 7.3 (or higher) to Release 9.0 are done from the 8.5 folder. In this case, you must see the `<INSTALL_DIR>/Migration/8.5` folder.

For every command that is executed, log files and done files are generated in different folders depending on from which release you are migrating. For example, if you are migrating from Release 7.3, the files are generated in 7.3, 7.5, 7.5 SP1, 7.7, 7.11, 8.0, 8.2, and 8.5 folders. If you are migrating from Release 7.5, no files are generated in the 7.3 folder.

Allocating Memory in buildmigration.properties

During the upgrade process, you can pass JVM-specific JAVA and ANT arguments in `<INSTALL_DIR>\Migration\8.5\buildmigration.properties` to avoid out-of-memory errors.

- `mem_java_args_sun=-Xms128m -Xmx1408m -XX:MaxPermSize=512m`
- `mem_java_args_non_sun=-Xms128m -Xmx1408m`
- `mem_ant_args_sun=-Xms128m -Xmx1408m -XX:MaxPermSize=512m`
- `mem_ant_args_non_sun=-Xms128m -Xmx1408m`

Data Migration Custom Document Type

Factory setup changes made to document type specific entities between Release 7.3 and Release 9.0 or Release 7.11 and Release 9.0 must also be applied for custom document types. To apply the changes, you must provide the mapping between the custom document types and the system-provided document types. To provide this mapping, save the `customdoctype.properties.sample` file located in the `<INSTALL_DIR>\Migration\8.5\transaction` directory as `customdoctype.properties`. To modify the `customdoctype.properties` file, follow the instructions provided in the sample file.

The following tables are updated during custom document type migration:

- YFS_Status
- YFS_Transaction
- YFS_Transaction_Pickup_Status
- YFS_Transaction_Drop_Status
- YFS_Event
- YFS_Status_Modification_Type
- YFS_Status_Modification

Data Migration Log Files

The log files that are created by the ANT calls during migration may contain references to locations of other log files affected by the data migration. You must verify all the log files for any migration errors that occur when performing data migration.

Note: The log file is created in the directory from which the ANT command is executed.

For example, in a multihop upgrade when you run the following command, the upgrade-history-tables.log file is created in the <INSTALL_DIR>/Migration/7.9 folder:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
upgrade-history-tables.log -Dtarget=upgrade-history-tables
migrate
```

This log file contains references to the log files created in the 8.2 folder. In such a scenario, the 8.2 migration folder must contain a log file named upgrade-history-tables-8.2-8.5.log, following the convention of the ANT target and hop version.

DB Driver Setup for Microsoft SQLServer 2005/2008 Multi Hop Upgrade

When **migrating from 7.3, 7.5, 7.5 SP1, 7.7, 7.9, 7.11, 8.0 to 9.0,** update the file <INSTALL_DIR>/Migration/common/sqlserver_olddriver.properties with sqljdbc.jar version 1.1.
Go to http://www.microsoft.com/downloads to download the driver for your version of Microsoft SQLServer and any appropriate patches.

2.10.1 DB2 Data Migration Strategy

This section provides the recommended data migration strategy for DB2.

2.10.1.1 Reducing Table and Index Size

In single-schema upgrade mode, you have the option of reducing the size of some database tables by converting CHAR/NOT NULL columns to VARCHAR/NULL columns. You cannot convert these columns in a multischema environment. If you plan to move to a multischema environment and may want to convert these columns in the future, you should perform this conversion as part of the single-schema migration to Release 9.0.

If you are **migrating from 7.3, 7.5, 7.5 SP1, 7.7, 7.9, 7.11, 8.0, or 8.2 to 9.0** on DB2, perform these tasks:

-or-

If you upgraded to 8.5 without converting these columns and are migrating to 9.0 on DB2, perform these tasks:

1. In the <INSTALL_DIR>/repository/entity/extensions directory, copy the SMCF_85_attribute_default_extn.xml.sample file and save the file as SMCF_85_attribute_default_extn.xml.
2. Remove the VirtualDefaultValue attributes in SMCF_85_attribute_default_extn.xml.
3. Migrate your history and transaction data.
4. Delete the SMCF_85_attribute_default_extn.xml file.
5. Enable Nullable Columns by again copying the SMCF_85_attribute_default_extn.xml.sample file in the <INSTALL_DIR>/repository/entity/extensions directory and saving the file as SMCF_85_attribute_default_extn.xml.
6. Perform the following edits to SMCF_85_attribute_default_extn.xml:
   a. To upgrade columns to nullable, remove the Nullable and DefaultValue attributes in the XML file, but do not remove the VirtualDefaultValue attributes.

      -or-

      To prevent columns from converting to nullable, remove the VirtualDefaultValue attributes in the XML file, but do not remove the Nullable and DefaultValue attributes.

   b. To upgrade CHAR columns to VARCHAR, remove the DataType attributes in the XML file.

      For a list of columns that can be converted to VARCHAR columns, see Reducing Table Size and Index Size.
7. Run the dbverify script to generate the alter scripts. See the *Selling and Fulfillment Foundation: Installation Guide* for information about generating alters.

8. Execute the SQLs generated by the dbverify script in your database. This command updates columns to VARCHAR and Null.
9. Perform a REORG on all modified tables. You can also optionally enable value compression on all newly nullified columns.
10. Repeat steps 8 and 9 until all columns are modified.

2.10.1.2 Increasing the Page Size

When upgrading on DB2, if your tablespace is located in the four kilo bytes (4 KB) page size, perform the following activities:

1. Import the data from the tables listed in the Table 2–8 to a temporary `dmp` file. Table 2–8 lists the history tables and transaction tables for which you must increase the page size. For multischema environments, Table 2–8 provides the tabletype for each table.

Table 2–8 Increasing Page Size for Tables

Table	Tabletype	Name of Table
History Tables	TRANSACTION	• yfs_payment_h • yfs_promotion_award_h
Transaction Tables	TRANSACTION	• yfs_payment • yfs_inbox • yfs_promotion_award
	MASTER	• yfs_category
	CONFIGURATION	• yfs_sourcing_rule_dtl • plt_property_metadata

Note: In a multischema environment, the tables mentioned earlier may exist in multiple schemas for multiple colonies. For example, in a multischema environment with two colonies, the transaction schemas for Colonies 1 and 2 contain the yfs_payment_h tables.

Note: When altering tables that have a lot of extensions, check whether the page size for such tables would change after the alteration is done. If the page size changes, you must increase the page size for the tables, as described in this section.

When you drop a table, the associated views are also deleted. After you increase the page size for the tables, ensure that you recreate any views that were deleted.

2. Drop the tables that are specified in step 1 from the database. If upgrading in multischema mode, drop the tables from each schema, which contains the tables, for each colony.
3. After running the `initupgrade` task, remove the alters generated in step 1.

   In a single-schema environment, alters are found in the following directories:

   - `<INSTALL_DIR>/Migration/8.5/database/scripts/db2/history` contains alters for the history tables.
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/db2/transaction` contains alters for the transaction tables.

   In a multischema environment, alters are found in the following directories:

   - `<INSTALL_DIR>/Migration/8.5/database/scripts/db2/history/TRANSACTION` contains alters for the yfs_payment_h table and the yfs_promotion_award_h table.
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/db2/transaction/MASTER` contains alters for the yfs_category table.

- <INSTALL_DIR>/Migration/8.5/database/scripts/db2/transaction/CONFIGURATION contains alters for the yfs_sourcing_rule_dtl table and the plt_property_metadata table.
- <INSTALL_DIR>/Migration/8.5/database/scripts/db2/transaction/TRANSACTION contains alters for the yfs_inbox table, the yfs_payment table, and the yfs_promotion_award table.

4. To copy existing extensions from <INSTALL_DIR_OLD> to <INSTALL_DIR>, such as:

   - Theme, CSS, Config resources, Data types files, and so forth
   - Extended APIs, Events, and XSL templates
   - Modifications made in the database, resources, and template directories

   Rebuild the resources.jar file by running the deployer.sh utility (or deployer.cmd on Windows) from the <INSTALL_DIR>/bin directory. For example:

   ```
   ./deployer.sh -t resourcejar
   ```

5. After running the history and transaction alters, run the dbverify script. Execute the SQLs generated by the dbverify script in your database.
6. Import the data exported in step 1 into your database.

2.10.1.3 Updating si_version Table

The si_install_date column has been changed from a VARCHAR column to a timestamp. To update the si_version table, perform the following activities.

When **migrating from 8.0 to 9.0,** follow these steps:

1. Run the initupgrade task and then remove the alters generated for the si_version table from the following directory:

   <INSTALL_DIR>/Migration/8.5/database/scripts/db2/transaction/alters.sql

2. Drop the si_version table from the database.
3. After running the transaction alters, run the dbverify script. Execute the SQLs generated by the dbverify script in your database.

2.10.2 Tasks to be Performed Before History and Transaction Migration

1. Navigate to the <INSTALL_DIR>/Migration/8.5 directory.
2. When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=copyextensions migrate
   ```

   When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
   HOME_OLD> -f buildmigration.xml -logfile <logfile>
   -Dtarget=copyextensions migrate
   ```

   When migrating from 8.0 or 8.2, or 8.5 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=copyextensions migrate
   ```

   This command will prepare the extensions package from the old runtime and install it on the new <INSTALL_DIR>

   The *.done files created in the 8.5 status folder for the task copyextensions are:

   - ant_copyextensions.xml.done
   - ant_migrateprops.xml.done

To customize the web.xml, weblogic.xml, and application.xml files, apply these changes manually in the old runtime, as described in the *Selling and Fulfillment Foundation: Customization Basics Guide*.

Note: The copyextensions target copies only the standard extensions to the new runtime. For information about copying all other extensions to the new runtime, refer to Postmigration Activities.

3. When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
HOME_OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=installPCAs migrate
```

To populate the add-in version numbers of the migrated PCAs, run the following SQL command:

```
INSERT INTO SI_VERSION

("PRODUCT_LABEL","BUILD_NUMBER","LIC_PROD_VER","SI_INSTALL_
DATE","SI_COMMENTS") values ('<pca product
name>-AddIn','<pca version#>-8.0','<pca version#>-8.0','
','<pca product name>-AddIn');
```

For example, when migrating from Sterling Customer Order Management, Release 7.5 to Sterling Call Center and Store, Release 8.0, the SQL command is as follows:

```
INSERT INTO SI_VERSION

("PRODUCT_LABEL","BUILD_NUMBER","LIC_PROD_VER","SI_INSTALL_
DATE","SI_COMMENTS") values ('Sterling Call Center and
```

```
Sterling Store-AddIn','7.5-8.0','7.5-8.0',' ','Sterling
Call Center and Sterling Store-AddIn');
```

Note: When migrating from the Sterling Customer Order Management, Release 7.4, which is installed on Sterling Supply Chain Applications, Release 7.9, copy the ycdshared.jar and the ycdbe.jar files from the <YFS_HOME_OLD>/lib directory to the <INSTALL_DIR>/Migration/lib/overrides/7.9 directory. You must perform this task before you upgrade to Selling and Fulfillment Foundation, Release 9.0.

4. When migrating from 8.0, 8.2, or 8.5 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=installPCAs migrate
   ```

   This command will create a package of all the PCAs installed on the old runtime and install these packages on the new <INSTALL_DIR>.

   The *.done file created in the 8.5 status folder for the task installPCAs is ant_installPCAs.xml.done.

   If migrating from 8.5 to 9.0 as part of multi-schema upgrade, and performing an "all-colony" upgrade, to populate the add-in version numbers of the migrated PCAs, run the following SQL command in the configuration schema:

   ```
   UPDATE SI_VERSION set BUILD_NUMBER = '<pca version#>-9.0',
   LIC_PROD_VER = '<pca version#>-9.0' where PRODUCT_LABEL =
   '<pca product name> Add In';
   ```

   If migrating from 8.5 to 9.0 as part of multi-schema upgrade, and performing a "colony-by-colony" upgrade, to populate the add-in and pca version numbers of the migrated PCAs, run the following SQL commands in the 9.0 configuration schema:

   ```
   INSERT INTO SI_VERSION (PRODUCT_LABEL, BUILD_NUMBER, LIC_
   PROD_VER, SI_COMMENTS) values ('<pca product name>','<pca
   version#>','<pca version#>','<pca product name>');
   ```

```
INSERT INTO SI_VERSION (PRODUCT_LABEL, BUILD_NUMBER, LIC_
PROD_VER, SI_COMMENTS) values ('<pca product name> Add
In','<pca version#>-9.0','<pca version#>-9.0','<pca product
name> Add In');
```

> **Note:** This step is optional. It is applicable only if the PCA is installed on the previous release, and it is confirmed that the PCA install on the previous release is supported in the current release.

5. If you are using Oracle, before running `initupgrade`, modify the following scripts to use the correct tablespace:

   - SQL queries in `<INSTALL_DIR>/Migration/8.5/pre-migration-oracle.sql`
   - SQL queries in the "ORACLE_Query" nodes of `<INSTALL_DIR>/Migration/8.5/history/DropColumnOverride.xml`

   > **Note:** If you are upgrading from Release 8.5, the scripts listed above are not used and do not need to be modified. However, the script listed below should be modified.

   - SQL queries in the "ORACLE_Query" nodes of `<INSTALL_DIR>/Migration/8.5/transaction/DropColumnOverride.xml`

6. When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=initupgrade migrate
   ```

   When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
   HOME_OLD> -f buildmigration.xml -logfile <logfile>
   -Dtarget=initupgrade migrate
   ```

When migrating from 8.0, 8.2, or 8.5 to 9.0 run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=initupgrade migrate
```

This command performs the following tasks:

- Compares the entity XML files from the previous release with the entity XML files in Release 9.0.
- Generates the alter scripts for schema migration. For more information about viewing alter scripts generated during schema migration, see Schema Migration.

The *.done files created in the 8.5 status folder for the task initupgrade task are:

- history_ant_upgradepreparation.xml.done
- transaction_ant_upgradepreparation.xml.done

Notes: If the initupgrade task fails with an Invalid Index Definition error (description= A maximum of 16 columns is allowed per index) when migrating from 7.11 HF15 through 7.11 HF83 to 9.0, follow these steps:

- Perform the clean-up-for-rerun task, as described in Step 7.
- Drop the YFS_INVENTORY_SUPPLY_TMP_I4 index (YFS_INV_SUP_TMP_I4 when using DB2).
- Comment the YFS_INVENTORY_SUPPLY_TMP_I4 index (YFS_INV_SUP_TMP_I4 when using DB2) for the YFS_INVENTORY_SUPPLY_TMP entity in inv_tables.xml.
- Perform the initupgrade task, as described in Step 6.

7. If the initupgrade command fails, and you have to restart this task, when migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=clean-up-for-rerun migrate
   ```

   When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
   HOME_OLD> -f buildmigration.xml -logfile <logfile>
   -Dtarget=clean-up-for-rerun migrate
   ```

   When migrating from 8.0, 8.2, or 8.5 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=clean-up-for-rerun migrate
   ```

   This command deletes the /history and /transaction subfolders located in the <INSTALL_DIR>/Migration/8.5/database/scripts/<db version> directory.

   Notes:

   - If you are upgrading from 7.3, 7.5, 7.5 SP1, 7.7, 7.9, 7.11, 8.0, or 8.2 to 9.0, you must change the value of the onerror attribute from "abort" to "continue" in the Migration/8.5/ant_premigration_process.xml file before running the clean-up-for-rerun target.
   - After running the clean-up-for-rerun target, you must perform the copyextensions task and the initupgrade task again.

8. If you are using Oracle, after running initupgrade successfully, modify the generated scripts located in the <INSTALL_DIR>/Migration/8.5/database/scripts/oracle directory to use the correct tablespace. This includes scripts in the /history and /transaction subfolders located in the this directory. For text search

indices, the scripts are located in the <INSTALL_DIR>/Migration/8.5/database/scripts/oracle directory.

> **Note:** If you are migrating to Release 9.0 and originally had Release 5x, you must modify the YFS_Tax_Breakup table in both the /transaction/alters.sql and the /history/alters.sql files as follows:
>
> From:
>
> ```
> TAX_PERCENTAGE NUMBER (8,5) DEFAULT 0
> ```
>
> To:
>
> ```
> TAX_PERCENTAGE NUMBER (18,5) DEFAULT 0
> ```
>
> If this change is not applied, the apply alters step fails, and the "column to be modified must be empty to decrease precision or scale" error may be thrown.

9. If you are running an upgrade in multischema mode, perform this step to migrate metadata tables to the new run time.

   When migrating from 8.5 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=update-metadata-tables migrate
   ```

   The *.done file created in the 8.5 status folder for the update-metadata-tables task is transaction_ant_colonyversionmigrator.xml.done.

10. To enhance system performance, you can modify the following properties in the <INSTALL_DIR>/Migration/8.5/buildmigration.properties file:

    - yfs.upgrade.no.of.threads.for.tablealters

      This property determines the number of threads that are used to process alter scripts. By default, this value is set to 6. For example, if 10 alters are generated by initupgrade and yfs.upgrade.no.of.threads.for.tablealters is set to 6, 6 threads will process the 10 alters.

- `yfs.upgrade.no.of.colonies.in.parallel.for.tablealters`

  This property determines the number of colonies that are processed in parallel by the threads running alter scripts. This property is used only for multischema mode. By default, this value is set to 1. For example, if this value is set to 2 and `yfs.upgrade.no.of.threads.for.tablealters` is set to 6, 6 threads will run for colony1, and 6 threads will run for colony2.

2.10.3 Pre-Migration Data Validation

Before beginning the data migration, the following data validation script must be run. If any of the listed validations fail, you cannot proceed with the migration.

When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, execute the following ANT task from the `<INSTALL_DIR>/Migration/8.5` folder for migration of transaction data:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
<logfile> -Dtarget=migration-validation migrate
```

When migrating from 7.7, 7.9 or 7.11 to 9.0 execute the following ANT task from the `<INSTALL_DIR>/Migration/8.5` folder for migration of transaction data:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_HOME_
OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=migration-validation migrate
```

When migrating from 8.0, 8.2, or 8.5 to 9.0, execute the following ANT task from the `<INSTALL_DIR>/Migration/8.5` folder for migration of transaction data:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml -logfile
<logfile> -Dtarget=migration-validation migrate
```

This command searches tables for specific data that may cause errors during data migration.

Note: Depending on the size of your database and the level of logging specified, log files (created by adding the -logfile <logfile> parameter) for each migration stage can be more than several GB.

Validations for Release 7.3

The following validations are performed for Release 7.3:

- **Validation:** Identifies whether more than one region that services the entire country with the same region schema, parent region, and country, exists:
  - **Message:** *Found more than one region, which services the entire country with the same Region Schema, Parent Region, and Country.*
  - **Reason:** During migration, regions specified as servicing an entire country have `REGION_NAME` set to `COUNTRY`. If this occurs for regions that have the same region schema, parent region, and country will result in duplicate records.
  - **Action:** For the region schema listed, remove the region so that there is only one region that services the entire country for a parent region and country combination.
- **Validation:** Identifies regions for the same country configured to service the entire country as well as specific zip code ranges.
  - **Message:** *Found countries in region setup where there are regions defined to Service the Entire Country as well as specific zip code ranges.*
  - **Reason:** During migration, regions specified as servicing an entire country have their region match preference set to the country level. If another region within the same country services specific zip code ranges, this will be overlooked.
  - **Action:** For the regions and region schemas listed, modify the regions so that all the regions for a country either service the entire country, or are defined to service zip code ranges.

2.10.4 Checking Validation Status

For the migration-validation task, the following *.done files are created in the 7.3 status folder:

- transaction_ant_validation.xml.done
- history_ant_validation.xml.done

For the migration-validation task, the following *.done files are created in the 7.5 status folder:

- transaction_ant_validation.xml.done
- history_ant_validation.xml.done

For the migration-validation task, the following *.done files are created in the 7.5 SP1 status folder:

- transaction_ant_validation.xml.done
- history_ant_validation.xml.done

For the migration-validation task, the following *.done files are created in the 7.7 status folder:

- transaction_ant_validation.xml.done
- history_ant_validation.xml.done

For the migration-validation task, the following *.done files are created in the 7.9 status folder:

- transaction_ant_validation.xml.done
- history_ant_validation.xml.done

For the migration-validation task, the following *.done files are created in the 7.11 status folder:

- transaction_ant_validation.xml.done
- history_ant_validation.xml.done

For the migration-validation task, the following *.done files are created in the 8.0 status folder:

- transaction_ant_validation.xml.done
- history_ant_validation.xml.done

For the migration-validation task, the following *.done files are created in the 8.2 status folder:

- transaction_ant_validation.xml.done
- history_ant_validation.xml.done

For the migration-validation task, the following *.done files are created in the 8.5 status folder:

- transaction_ant_validation.xml.done
- history_ant_validation.xml.done

Note: To re-execute the ANT task, delete all the transaction_ant_validation.xml.done and history_ant_validation.xml.done files located in the 7.3, 7.5, 7.5 SP1, 7.7, 7.9, 7.11, 8.0, 8.2, and 8.5 status folders from the <INSTALL_DIR>/Migration directory.

2.10.5 History Data Migration

To migrate your history data from Release 7.3 (or later) to 9.0, perform the following:

1. When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=alter-history-tables migrate
   ```

   When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
   HOME_OLD> -f buildmigration.xml -logfile <logfile>
   -Dtarget=alter-history-tables migrate
   ```

   When migrating from 8.0, 8.2, or 8.5 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=alter-history-tables migrate
   ```

   This command performs preparatory tasks before performing a history upgrade. This includes getting the size of tables to determine which tables will take a longer time to upgrade. This information is used later when doing the actual upgrade so as to minimize the time.

   This command then uses the size information available and performs all the alterations to the history tables. After this, the history tables will have new columns and data. Values in the history tables are trimmed for those data types that have been changed in the newer version.

   The `*.done` file created in the `8.5 status` folder for the task alter-history-tables is `history_ant_altertables.xml.done`.

   If you encounter an error when altering history tables, fix the cause of the error and perform the previous task of altering history tables once again. Before executing the task, change the value of the onerror attribute from "abort" to "continue" in the `<INSTALL_DIR>/Migration/8.5/history/ant_altertables.xml` file.

The onerror attribute specifies how to proceed when an error occurs during the execution of one of the statements. The valid values are:

- Continue - Indicates that on encountering an error, proceed with the task of altering other tables.
- Abort - Indicates that on encountering an error, do not proceed with the task of altering other tables.

To install upgrade typechanges, run the following sql script:

```
<INSTALL_DIR>/Migration/8.5/database/scripts/<DB_
TYPE>/history/upgrade_typechanges.sql
```

If you are upgrading in multischema mode, you must run the SQL script for the schema that corresponds to the respective TableType. For example, if you are installing upgrade typechanges for the transaction TableType, run the following sql script:

```
<INSTALL_DIR>/Migration/8.5/database/scripts/<DB_
TYPE>/history/TRANSACTION/upgrade_typechanges.sql
```

2. When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
<logfile> -Dtarget=install-history-indexes
-Dnonuniqueindex=Y migrate
```

When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
HOME_OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=install-history-indexes -Dnonuniqueindex=Y migrate
```

When migrating from 8.0, 8.2, or 8.5 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=install-history-indexes
-Dnonuniqueindex=Y migrate
```

This command adds all the unique indexes and nonunique indexes. If nonunique indexes are not to be installed, then the argument `-Dnonuniqueindex=Y` should not be passed.

Nonunique indexes are required for performance improvement. On a large database, nonunique indexes may take a significant amount of time to be installed. You must analyze all the nonunique indexes and verify if all of them are required.

The `*.done` files created in the `8.5 status` folder for the install-history-indexes task are:

- `history_ant_installuniqueindexes.xml.done`
- `history_ant_installnonuniqueindexes.xml.done`

Notes: •

- Refer to the `logfile` to ensure that none of the index creations failed.
- Between the time that you run the upgrade history tables and the upgrade transaction tables, do not purge or restore any data.
- During history data migration, some table modification activities may cause table chaining. Therefore, rebuilding these tables is necessary.
- Altering maximum values for sequences is not allowed on any servers.
- Customers running Release 5x must change the YFS_Tax_Breakup table as mentioned in the note in Section 2.10.2.

3. If you have performed extensions on history tables in earlier releases, you must regenerate dbclasses. To perform the dbclassgen from Release 7.3 (or later) to Release 9.0, run the following command:

   When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=dbclassgen migrate
   ```

   When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
   HOME_OLD> -f buildmigration.xml -logfile <logfile>
   -Dtarget=dbclassgen migrate
   ```

   When migrating from 8.0, 8.2, 8.5 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=dbclassgen migrate
   ```

   This command regenerates the dbclasses and updates the entities JAR.

   The `*.done` file created in the `8.5 status` folder for the dbclassgen task is `ant_dbclassgen.xml.done`.

   > **Note:** If you have not created the nonunique indexes as a part of upgrade, you can create them at any point as a postmigration activity by following the steps described in Section 2.10.6.

4. When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=upgrade-history-tables migrate
   ```

When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
HOME_OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=upgrade-history-tables migrate
```

When migrating from 8.0, 8.2, or 8.5 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=upgrade-history-tables migrate
```

Note: Ensure that you update the unique history indexes by running the `install-history-indexes` target, as shown in Step 2, before updating tables with the `upgrade-history-tables migrate` target.

The actual data migration is performed for all the archived transaction data present in the history tables. After migration of history data, the tables will have new columns and data.

This command performs the following tasks:

- `pre-history-migration`
- `migrate-history-data`
- `post-history-migration`

The `*.done` files created in the `7.3 status` folder for the upgrade-history-tables task are:

- `ant_pca_migration.xml.done`
- `history_ant_migration.xml.done`
- `history_ant_postmigration.xml.done`
- `history_ant_premigration.xml.done`

The *.done files created in the 7.5 status folder for the upgrade-history-tables task are:

- ant_pca_migration.xml.done
- history_ant_migration.xml.done
- history_ant_postmigration.xml.done
- history_ant_premigration.xml.done

The *.done files created in the 7.5 SP1 status folder for the upgrade-history-tables task are:

- ant_pca_migration.xml.done
- history_ant_migration.xml.done
- history_ant_postmigration.xml.done
- history_ant_premigration.xml.done

The *.done files created in the 7.7 status folder for the upgrade-history-tables task are:

- ant_pca_migration.xml.done
- history_ant_migration.xml.done
- history_ant_postmigration.xml.done
- history_ant_premigration.xml.done

The *.done files created in the 7.9 status folder for the upgrade-history-tables task are:

- ant_pca_migration.xml.done
- history_ant_migration.xml.done
- history_ant_postmigration.xml.done
- history_ant_premigration.xml.done

The *.done files created in the 7.11 status folder for the upgrade-history-tables task are:

- ant_pca_migration.xml.done
- history_ant_migration.xml.done
- history_ant_postmigration.xml.done
- history_ant_premigration.xml.done

The *.done files created in the 8.0 status folder for the upgrade-history-tables task are:

- ant_pca_migration.xml.done
- history_ant_migration.xml.done
- history_ant_postmigration.xml.done
- history_ant_premigration.xml.done

The *.done files created in the 8.2 status folder for the upgrade-history-tables task are:

- ant_pca_migration.xml.done
- history_ant_migration.xml.done
- history_ant_postmigration.xml.done
- history_ant_premigration.xml.done

The *.done files created in the 8.5 status folder for the upgrade-history-tables task are:

- ant_pca_migration.xml.done
- history_ant_migration.xml.done
- history_ant_postmigration.xml.done
- history_ant_premigration.xml.done

2.10.6 Transaction Data Migration

To migrate the transaction data from Release 7.3 (or later) to 9.0, perform the following tasks:

1. When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=alter-transaction-tables migrate
   ```

   When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
   HOME_OLD> -f buildmigration.xml -logfile <logfile>
   -Dtarget=alter-transaction-tables migrate
   ```

   When migrating from 8.0, 8.2, or 8.5 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=alter-transaction-tables
   migrate
   ```

   This command performs preparatory tasks before performing an upgrade. This includes getting the size of tables to determine which tables will take longer to upgrade, and dropping the views. This information is used later when performing the actual upgrade so as to minimize the time.

   It then uses the size information available, and performs alterations to the transaction tables. After this task is performed, the transaction tables will have new columns and data. Values in the transaction tables are trimmed for the data types that have been changed in the newer version.

   The `*.done` files created in the `8.5 status` folder for the alter-transaction-tables task are:

   - `ant_dropviews.xml.done`
   - `transaction_ant_altertables.xml.done`

If you encounter any error when altering transaction tables, fix the cause of the error and perform the task of altering transaction tables again. Before executing the task, change the value of the onerror attribute from "abort" to "continue" in the <INSTALL_DIR>/Migration/8.5/transaction/ant_altertables.xml file.

The onerror attribute specifies how to proceed when an error occurs during the execution of one of the statements. The valid values are:

- Continue - Indicates that on encountering an error, proceed with the task of altering other tables.
- Abort - Indicates that on encountering an error, do not proceed with the task of altering other tables.

To install upgrade typechanges, run the following SQL script:

```
<INSTALL_DIR>/Migration/8.5/database/scripts/<DB_TYPE>/transaction/upgrade_typechanges.sql
```

If you are upgrading in multischema mode, you must run the sql script for the schema that corresponds to the respective TableType. For example, if you are installing upgrade typechanges for the transaction TableType, run the following sql script:

```
<INSTALL_DIR>/Migration/8.5/database/scripts/<DB_TYPE>/transaction/TRANSACTION/upgrade_typechanges.sql
```

2. When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
<logfile> -Dtarget=install-transaction-indexes
-Dnonuniqueindex=Y migrate
```

When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
HOME_OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=install-transaction-indexes -Dnonuniqueindex=Y
migrate
```

When migrating from 8.0, 8.2, or 8.5 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=install-transaction-indexes
-Dnonuniqueindex=Y migrate
```

This command adds all the unique indexes and nonunique indexes. If nonunique indexes are not to be installed, then the argument `-Dnonuniqueindex=Y` should not be passed.

Note: Typically, you update the unique transaction indexes by running the `install-transaction-indexes` target before updating tables by running the `upgrade-transaction-tables` target. However, if more than one record exists in the YFS_USER table for DISPLAY_USER_ID or ENTERPRISE_CODE or in the YFS_PROPERTY_METADATA table for BASE_PROPERTY_NAME or CATEGORY, you must run the `upgrade-transaction-tables` target, as shown in Step 4, before running the `install-transaction-indexes` target. Otherwise the `install-transaction-indexes` target fails because a unique index cannot be created for the respective table.

Nonunique indexes are required for performance improvement. On a large database, nonunique indexes may take a significant amount of time to be installed. You must analyze all the nonunique indexes and verify if all of them are required.

The `*.done` files created in the `8.5 status` folder for the install-transaction-indexes task are:

- `transaction_ant_installuniqueindexes.xml.done`
- `transaction_ant_installnonuniqueindexes.xml.done`

Note: Refer to the `logfile` to ensure that none of the index creations failed.

3. If you have performed extensions on transaction tables in earlier releases, you must regenerate dbclasses. To perform the dbclassgen from Release 7.3 (or later) to Release 9.0, do the following:

   When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=dbclassgen migrate
   ```

   When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
   HOME_OLD> -f buildmigration.xml -logfile <logfile>
   -Dtarget=dbclassgen migrate
   ```

   When migrating from 8.0, 8.2, or 8.5 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=dbclassgen migrate
   ```

   This command regenerates the dbclasses and updates the entities JAR.

   The `*.done` file created in the `8.5 status` folder for the dbclassgen task is `ant_dbclassgen.xml.done`.

   Note: If you have not created the nonunique indexes as a part of upgrade, you can create them at any point as a postmigration activity by following the steps described in Section 2.10.5.

4. When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
<logfile> -Dtarget=upgrade-transaction-tables migrate
```

When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
HOME_OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=upgrade-transaction-tables migrate
```

When migrating from 8.0, 8.2, or 8.5 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=upgrade-transaction-tables
migrate
```

Notes:

- Typically you update the unique transaction indexes by running the `install-transaction-indexes` target, as shown in Step 2, before updating tables with the `upgrade-transaction-tables` target. However, if more than one record exists in the YFS_USER table for DISPLAY_USER_ID or ENTERPRISE_CODE, you must run the `upgrade-transaction-tables` target before running the `install-transaction-indexes` target. Otherwise the `install-transaction-indexes` target fails because a unique index cannot be created for the YFS_USER table.
- If you deleted any factory setup records and the `upgrade-transaction-tables` target fails, you must add the deleted records to the database before continuing the upgrade.

The actual data migration is done for all the transaction data present in the transaction tables. All the new indexes required for performance are added. After migrating the transaction data, the transaction tables will have new columns and data.

The YSCPreInstallMetadataCreator class is called to create the factory setup for the metadata schema. The class creates records in the following tables:

PLT_DB_COLONY

PLT_DB_COLONY_POOL

PLT_DB_POOL

These tables store connection properties for a multischema deployment.

The *.done files created in the 7.3 status folder for the task upgrade-transaction-tables are:

- transaction_ant_applyfcsetup.xml.done
- transaction_ant_migration.xml.done
- transaction_ant_postmigration.xml.done
- transaction_ant_premigration.xml.done

The *.done files created in the 7.5 status folder for the task upgrade-transaction-tables are:

- transaction_ant_applyfcsetup.xml.done
- transaction_ant_migration.xml.done
- transaction_ant_postmigration.xml.done
- transaction_ant_premigration.xml.done

The *.done files created in the 7.5 SP1 status folder for the task upgrade-transaction-tables are:

- transaction_ant_applyfcsetup.xml.done
- transaction_ant_migration.xml.done
- transaction_ant_postmigration.xml.done
- transaction_ant_premigration.xml.done

The *.done files created in the 7.7 status folder for the task upgrade-transaction-tables are:

- transaction_ant_migration.xml.done
- transaction_ant_postmigration.xml.done
- transaction_ant_premigration.xml.done
- transaction_ant_applyfcsetup.xml.done

The *.done files created in the 7.9 status folder for the task upgrade-transaction-tables are:

- transaction_ant_migration.xml.done
- transaction_ant_postmigration.xml.done
- transaction_ant_premigration.xml.done
- transaction_ant_applyfcsetup.xml.done

The *.done files created in the 7.11 status folder for the task upgrade-transaction-tables are:

- transaction_ant_migration.xml.done
- transaction_ant_postmigration.xml.done
- transaction_ant_premigration.xml.done
- transaction_ant_applyfcsetup.xml.done

The *.done files created in the 8.0 status folder for the task upgrade-transaction-tables are:

- transaction_ant_migration.xml.done
- transaction_ant_postmigration.xml.done
- transaction_ant_premigration.xml.done
- transaction_ant_applyfcsetup.xml.done

The *.done files created in the 8.2 status folder for the task upgrade-transaction-tables are:

- transaction_ant_migration.xml.done
- transaction_ant_postmigration.xml.done

- transaction_ant_premigration.xml.done
- transaction_ant_applyfcsetup.xml.done

The *.done files created in the 8.5 status folder for the task upgrade-transaction-tables are:

- transaction_ant_migration.xml.done
- transaction_ant_postmigration.xml.done
- transaction_ant_premigration.xml.done
- transaction_ant_applyfcsetup.xml.done
- transaction_ant_applicationversion.xml.done
- transaction_ant_metadatamigrator.xml.done
- transaction_ant_apiresourcemigrator.xml.done

5. When migrating the document parameters from 7.3, 7.5 or 7.5 SP1 to 9.0 run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
<logfile> -Dtarget=migrate-doc-params migrate
```

When migrating the document parameters from 7.7, 7.9 or 7.11 to 9.0 run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
HOME_OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=migrate-doc-params migrate
```

When migrating the document parameters from 8.0, 8.2, or 8.5 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=migrate-doc-params migrate
```

The *.done file created in the 8.5 status folder for the migrate-doc-params task is transaction_ant_ docparamsmigrator.xml.done.

6. When migrating the custom document type from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=migrate-custom-doc-types migrate
   ```

   When migrating the custom document type from 7.7, 7.9 or 7.11 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
   HOME_OLD> -f buildmigration.xml -logfile <logfile>
   -Dtarget=migrate-custom-doc-types migrate
   ```

   When migrating the custom document type from 8.0, 8.2, or 8.5 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=migrate-custom-doc-types
   migrate
   ```

   The *.done file created in the 8.5 status folder for the migrate-custom-doc-types task is ant_ customdocmigrator.xml.done.

7. (Optional) OMS users can skip this task. In the context of Sterling Warehouse Management System, this task validates the locations that are dedicated to items, and ensures that the locations do not violate zone storage constraints.

   After migrating the data from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command to check the validity of the migrated data:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> validate-upgrade
   ```

After migrating the data from 7.7, 7.9 or 7.11 to 9.0, run the following command to check the validity of the migrated data:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
HOME_OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=validate-upgrade migrate
```

After migrating the data from 8.0, 8.2, or 8.5 to 9.0, run the following command to check the validity of the migrated data:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=validate-upgrade migrate
```

The `*.done` file created in the `8.5 status` folder for the validate-upgrade task is `ant_validateupgrade.xml.done`.

The following validation is performed for this release:

- **Validation -** Identifies locations that are dedicated to items that violate zone storage constraints.
  - **Message -** The `ViolatingSKUDedicationList.xml` file that contains a list of dedicated locations is published in the `<INSTALL_DIR>/Migration/8.5` folder.
  - **Reason -** Initially, you are allowed to dedicate items to the specified location even when the item violates zone storage constraints.
  - **Action -** You need to modify the zone storage constraint of such locations or remove such SKU dedications. If you do not perform this action, it may result in release wave failure under certain situations.

8. To optionally drop the unused history columns while upgrading from 7.3, 7.5, or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=run-history-drop migrate
   ```

   To optionally drop the unused history columns while upgrading from 7.7, 7.9, or 7.11 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
   ```

```
HOME_OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=run-history-drop migrate
```

To optionally drop the unused history columns while upgrading from 8.0, 8.2, or 8.5 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=run-history-drop migrate
```

The *.done file created in the 8.5 status folder for the run-history-drop task is history_ant_drops.xml.done.

To optionally drop the unused transaction columns while upgrading from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
<logfile> -Dtarget=run-transaction-drop migrate
```

To optionally drop the unused transaction columns while upgrading from 7.7, 7.9 or 7.11 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
HOME_OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=run-transaction-drop migrate
```

To optionally drop the unused transaction columns while upgrading from 8.0, 8.2, or 8.5 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=run-transaction-drop migrate
```

The *.done file created in the 8.5 status folder for the run-transaction-drop task is transaction_ant_drops.xml.done.

Note: If you are upgrading on SQLServer and the run-transaction-drop target fails because column constraints were not dropped, you must manually drop the constraints for the respective columns and then run the run-transaction-drop target again. If you are performing an upgrade in multischema mode, you must drop the constraints for the columns in each schema.

9. If you are migrating CHAR columns to VARCHAR columns on Oracle, perform this migration:

   When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
   <logfile> -Dtarget=migrate-char-to-varchar-h migrate
   ```

   When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
   HOME_OLD> -f buildmigration.xml -logfile <logfile>
   -Dtarget=migrate-char-to-varchar-h migrate
   ```

   When migrating from 8.0 or 8.2 to 9.0, run the following command:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=migrate-char-to-varchar-h
   migrate
   ```

   The `*.done` file created in the `8.2 status` folder for the `migrate-char-to-varchar-h` task is `transaction_ant_char_varchar_migrator_h.xml.done`.

   See Reducing Table Size and Index Size for information about converting CHAR columns to VARCHAR columns.

10. If you are migrating CHAR columns to VARCHAR columns on Oracle, perform this migration:

    When migrating from 7.3, 7.5 or 7.5 SP1 to 9.0, run the following command:

    ```
    ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
    -Druntime.old=<YFS_HOME_OLD> -f buildmigration.xml -logfile
    <logfile> -Dtarget=migrate-char-to-varchar migrate
    ```

    When migrating from 7.7, 7.9 or 7.11 to 9.0, run the following command:

    ```
    ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
    -Druntime.old=<YFS_HOME_OLD> -DYANTRA_HOME.OLD=<YANTRA_
    ```

```
HOME_OLD> -f buildmigration.xml -logfile <logfile>
-Dtarget=migrate-char-to-varchar migrate
```

When migrating from 8.0 or 8.2 to 9.0, run the following command:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=migrate-char-to-varchar migrate
```

The `*.done` file created in the `8.2 status` folder for the `migrate-char-to-varchar` task is `transaction_ant_char_varchar_migrator.xml.done`.

See Reducing Table Size and Index Size for information about converting CHAR columns to VARCHAR columns.

2.11 Analyzing the Business Center User Interface Upgrade

Several reports, which can be used to analyze the impact of the user interface upgrade on certain Business Center components, are provided in the Documentation CD.

2.11.1 Resource Bundle Entry Upgrade Analysis

To view the bundle entry changes between Release 8.5 and Release 9.0, either use the folders located in the Documentation CD under the `Upgrade_Guide/analysis/sbc/bundles/DiffDoc/sbc_bundles_diff_report.html` folder, or click the appropriate link in the `sbc_upgrade_analysis_reports.html` file.

If the changes made to the resource bundle entries affect any custom screens, change your customized code.

2.11.2 Property File Upgrade Analysis

To view the property file changes between Release 8.5 and Release 9.0, either use the folders located in the Documentation CD under the `Upgrade_Guide/analysis/sbc/properties/DiffDoc/sbc_properties_diff_report.html` directory, or click the appropriate link in the `sbc_upgrade_analysis_reports.html` file.

If the changes made to the property files affect any custom screens, change your customized code.

2.11.3 Cascading Style Sheet Upgrade Analysis

To view the cascading style sheet (CSS) changes between Release 8.5 and Release 9.0, either use the folders located in the Documentation CD under the `Upgrade_Guide/analysis/sbc/css/DiffDoc/sbc_css_diff_report.html` directory, or click the appropriate link in the `sbc_upgrade_analysis_reports.html` file.

If the changes made to the CSS affect any custom screens, change your customized code.

2.11.4 Struts Action Upgrade Analysis

To view the Struts action changes between Release 8.5 and Release 9.0, either use the folders located in the Documentation CD under the `Upgrade_Guide/analysis/sbc/struts/DiffDoc/sbc_struts_diff_report.html` directory, or click the appropriate link in the `sbc_upgrade_analysis_reports.html` file.

If the changes made to the Struts action affect any custom screens, change your customized code.

2.11.5 Mashup Upgrade Analysis

To view the Mashup changes between Release 8.5 and Release 9.0, either use the folders located in the Documentation CD under the `Upgrade_Guide/analysis/sbc/mashups/DiffDoc/sbc_mashups_diff_report.html` directory, or click the appropriate link in the `sbc_upgrade_analysis_reports.html` file.

If the changes made to the Mashup affect any custom screens, change your customized code.

2.12 Postmigration Activities

After performing the migration, you must prepare and configure Selling and Fulfillment Foundation according to your business requirements, as described in this section. After performing the applicable postmigration tasks as described in this section, create the EAR file for the Selling and Fulfillment Foundation. For more information about creating the EAR file for the Selling and Fulfillment Foundation, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

Note: After the migration is completed, verify whether the tables have chained or migrated rows. To confirm that the tables have chained rows, run the following command in SQL*Plus for each table. For example, to locate the chained rows in the YFS_ORDER_HEADER table, run:

create a table to contain the chained rows
```
@?/rdbms/admin/utlchain.sql

    ANALYZE TABLE yfs_order_header LIST CHAINED
ROWS;

   SELECT * FROM CHAINED_ROWS;
```

The `Analyze` command must be run for each table.

If a table has a significant number of chained rows, for example, over 10%, you must refer to the Oracle Metalink Note 122020.1 for detailed instructions about how to resolve chained or migrated rows.

2.12.1 Postmigration Selling and Fulfillment Foundation Preparation Tasks

Perform the following Selling and Fulfillment Foundation preparation tasks:

1. By default, the migration process secures the application in the following ways:
   - adds authentication to the interop servlet
   - adds authenticated access to web pages
   - enables XAPI security, authorization, and permissioning

   Note: The property, `api.security.mode`, is set to Strict during migration. However, you can specify other modes, such as Lax and Debug, for deploying, debugging, customizing, or testing of the application. For a description of the API security modes, refer to the *Selling and Fulfillment Foundation: Properties Guide*.

To run the application in backward-compatible mode, use the `customer_overrides.properties` file to set the following properties:

- `interopservlet.security.enabled to false`
  to disable authentication
- `userauthfilter.enabled to false`
  to remove authenticated access to web pages
- `api.security.enabled to N`
  `api.security.token.enabled to N`
  to disable XAPI security, authorization, and permissioning.

For additional information about overriding properties using the `customer_overrides.properties` file, see the *Selling and Fulfillment Foundation: Properties Guide*.

2. To migrate index and CHAR columns to VARCHAR columns on Microsoft SQLServer, set the database level parameter ANSI_PADDING to OFF. For a list of columns that can be converted to VARCHAR columns, see Reducing Table Size and Index Size.

   Note: To migrate index and CHAR columns to VARCHAR columns on DB2, ensure that you complete the migration process as described in DB2 Data Migration Strategy.

3. To migrate the existing LONG columns to CLOB, use the Oracle Online Redefinition feature. Refer to the Oracle® Database PL/SQL Packages and Types Reference and the *Oracle® Database Administrator's Guide* for instructions.

   Note: If you upgraded to 8.5 and are now upgrading to 9.0, you may want to migrate existing LONG columns to CLOB. However, if you are upgrading to 9.0 from a fresh install of 8.5, you can skip Step 3.

   Perform these steps:

   a. Start the redefinition process by executing the `dbms_redefinition.start_redef_table` from the Oracle Online Redefinition.

b. Verify the constraints using <INSTALL_DIR>/bin/dbverify.sh (for UNIX and Linux operating systems) or <INSTALL_DIR>\bin\dbverify.cmd (for Windows).

c. Run all the index changes generated by the dbverify command.

d. Run the SYNC_INTERIM_TABLE procedure from the Oracle Online Redefinition process.

e. Finish the redefinition.

The following table lists the LONG columns that can be migrated to CLOB.

Table 2–9 Columns Tha Can be Migrated to CLOB

Table	Column
YFS_SUB_FLOW	CONFIG_XML
YFS_REPROCESS_ERROR	MESSAGE
INTEROP_ERROR_DISPATCH	MESSAGE
YFS_GRAPH_UI	GRAPH_XML
YFS_INBOX	INBOX_ADDNL_DATA
YFS_AGENT_CRITERIA_TEMPLATE	MESSAGE_XML
YFS_AGENT_CRITERIA	MESSAGE_XML
YFS_BASE_DOCUMENT_TEMPLATE	TEMPLATE_XML
YFS_DOCUMENT_PARAMS	DOCUMENT_PARAMS
YFS_HM_THRESHOLDS	ADDITIONAL_INFO
YFS_QUERY	QUERY_DEFINITION
YFS_EXPORT	MESSAGE
YFS_IMPORT	MESSAGE
YFS_SAVED_SEARCH	SEARCH_DATA
YFS_AUDIT	AUDIT_XML
YFS_TRANSACTION_DEPENDENCY	TEMPLATE_XML
YFS_ORDER_AUDIT_DETAIL	AUDIT_XML
YFS_DEVICE	DEVICE_PARAMS_XML
YFS_DEVICE_TYPE_TEMPLATE	DEVICE_TYPE_PARAMS_XML

Table 2–9 Columns Tha Can be Migrated to CLOB

Table	Column
YFS_BATCH	REQ_BATCH_COMPLETION_XML
YCS_MANIFEST_UPS_DTL	INPUT_XML
YFS_ASYNC_REQ	MESSAGE

4. If you upgraded in single-schema mode, you can set up a multischema deployment after completing the single-schema migration process. For more information about moving from a single-schema environment to a multischema environment, refer to the *Selling and Fulfillment Foundation: Multitenant Enterprise Guide*.
5. The case insensitive search features allows you to make search operations in the application case insensitive. To enable case insensitive search on existing column data, refer to the *Selling and Fulfillment Foundation: Extending the Database Guide* for information about enabling case insensitive searches.
6. If the YFS_ITEM entity is extended to have custom columns in releases prior to Release 8.5 and these extended columns are used to define ItemAttribute records, you can manually add the extended columns of the YFS_ITEM entity as the YFS_ATTRIBUTE record and the YFS_ATTRIBUTE_REFERENCE record. These columns can also be added through the Sterling Business Center user interface.
7. If you had any extensions in your classpath in your old runtime, ensure that you copy the same extensions into the classpath for your new runtime.
8. When migrating from 8.5 to 9.0, run `<INSTALL_DIR>/bin/install3rdParty.sh` (for UNIX and Linux operating systems) or `<INSTALL_DIR>\bin\install3rdParty.cmd` (for Windows operating system) script for all the custom-installed JARs.

   Run this script for all JARs in the `<INSTALL_DIR>/extensions/${extension.root}/jars` directory, too.
9. If you have installed an extension package for customization, run the `<INSTALL_DIR>\bin\InstallService.cmd` script (for Windows) or the `<INSTALL_DIR>/bin/InstallService.sh` script (for Linux).
10. Ensure that you are able to restore the database on another server.

11. To deploy the extensions in EAR, the resource JARs must be rebuilt. To rebuild the resource JARs, execute the `./deployer.sh -t resourcejar` command from the `<INSTALL_DIR>/bin` directory (for UNIX and Linux operating systems) or the `deployer.cmd -t resourcejar` command from the `<INSTALL_DIR>\bin` directory (for Windows operating system).

12. Modify the value of the following properties in the `sandbox.cfg` file located in the `<INSTALL_DIR>/properties` file:

    - `REINIT_DB=true`
    - `LOAD_FACTORY_SETUP=true`
    - `NO_DBVERIFY=false`
    - Rerun `setupfiles.sh` from the `<INSTALL_DIR>/bin` folder (for UNIX and Linux operating systems) or `setupfiles.cmd` from the `<INSTALL_DIR>\bin` folder (for Windows operating system).

13. Execute the following tasks, which generate the `upgrade_diff.xml`:

    - `<INSTALL_DIR>\bin\tmp.cmd`
    - `set/export CLASSPATH=<DBDRIVER>;<INSTALL_DIR>\jar\install_foundation.jar;<INSTALL_DIR>\jar\platform_afc\5_5\platform_dv.jar;<INSTALL_DIR>\jar\platform_afc\5_5\platform_afc.jar;<INSTALL_DIR>\jar\platform_baseutils.jar;<INSTALL_DIR>\ant\xercesImpl.jar;<INSTALL_DIR>\jar\log4j\1_2_15\log4j-1.2.15.jar;%CLASSPATH%`

      Here, `<DBDRIVER>` points to the dbdriver JARs located in the `<INSTALL_DIR>\dbjar\jdbc\<DB>` directory.

    - `java com.yantra.tools.entityguru.reports.UpgradeXMLGenerator -ED <INSTALL_DIR>/repository/entity -DT <INSTALL_DIR>/repository/datatypes/datatypes.xml -U <User> -P <passwd> -D <jdbc driver> -URL <jdbc url>`

      Refer to the `jdbc.properties` file for the values of `<jdbc url>`, `<user>` and `<passwd>`.

    This provides a list of all the columns whose lengths must be taken into consideration when building dbclasses for the prepared

statements to function correctly. This requires all the CHAR fields to be padded to their column length.

2.12.2 Postmigration Activities for Business Intelligence

This section explains the postmigration activities that must be performed to support Selling and Fulfillment Foundation: Business Intelligence 8.5 on Selling and Fulfillment Foundation, Release 9.0 after upgrading from Selling and Fulfillment Foundation, Release 8.5.

If you upgraded in single-schema mode, no change is required in the existing Cognos setup.

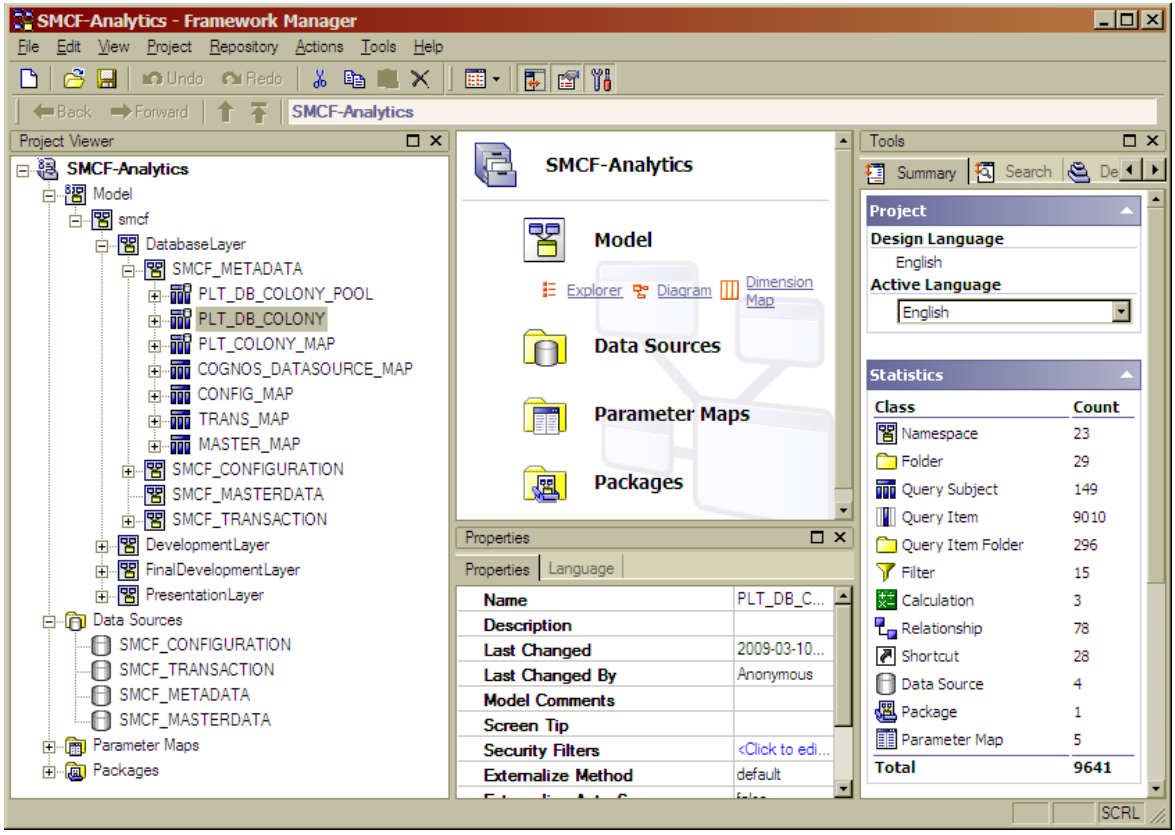
If you upgraded all colonies in your multischema environment, the Selling and Fulfillment Foundation: Business Intelligence 8.5 installation running on Selling and Fulfillment Foundation 8.5 will work well, and you do not have to make any additional changes.

If you upgraded one or more colonies in your multischema environment without migrating all colonies, you must install a new instance of Cognos 8 Business Intelligence 8.4. This is because each version of Selling and Fulfillment Foundation requires a separate instance of Cognos 8 Business Intelligence 8.4. Additionally, you must apply two filters to each instance of Cognos model. For more information about Cognos 8 Business Intelligence 8.4 installation, refer to the *Cognos 8 Business Intelligence Installation and Configuration Guide*.

To apply filters to an instance of Cognos, follow these steps:

1. Open the Business Intelligence model in Cognos Framework Manager.
2. In the Project Viewer, navigate to SMCF-Analytics > Model > smcf > > SMCF METADATA > DatabaseLayer > PLT_DB_COLONY, as shown in the Figure 2–1.

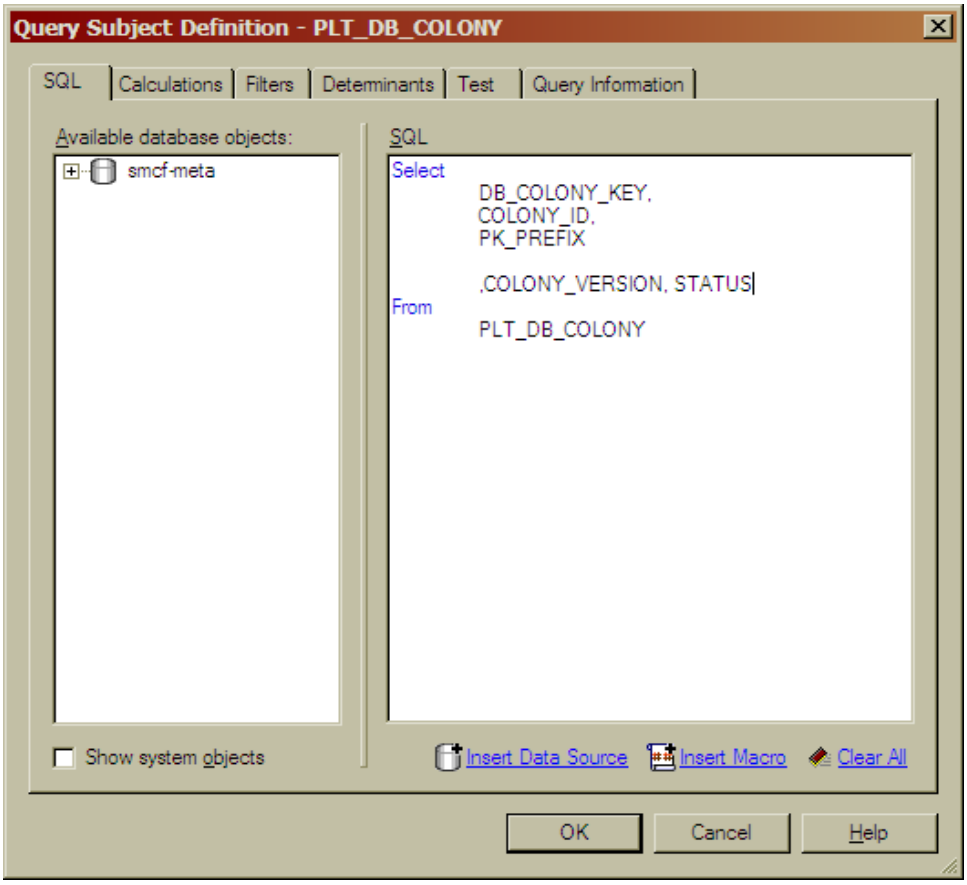
Figure 2–1 SMCF-Analytics Screen



3. Right-click the PLT_DB_COLONY Query Subject and select Edit. The Query Subject Definition screen opens.

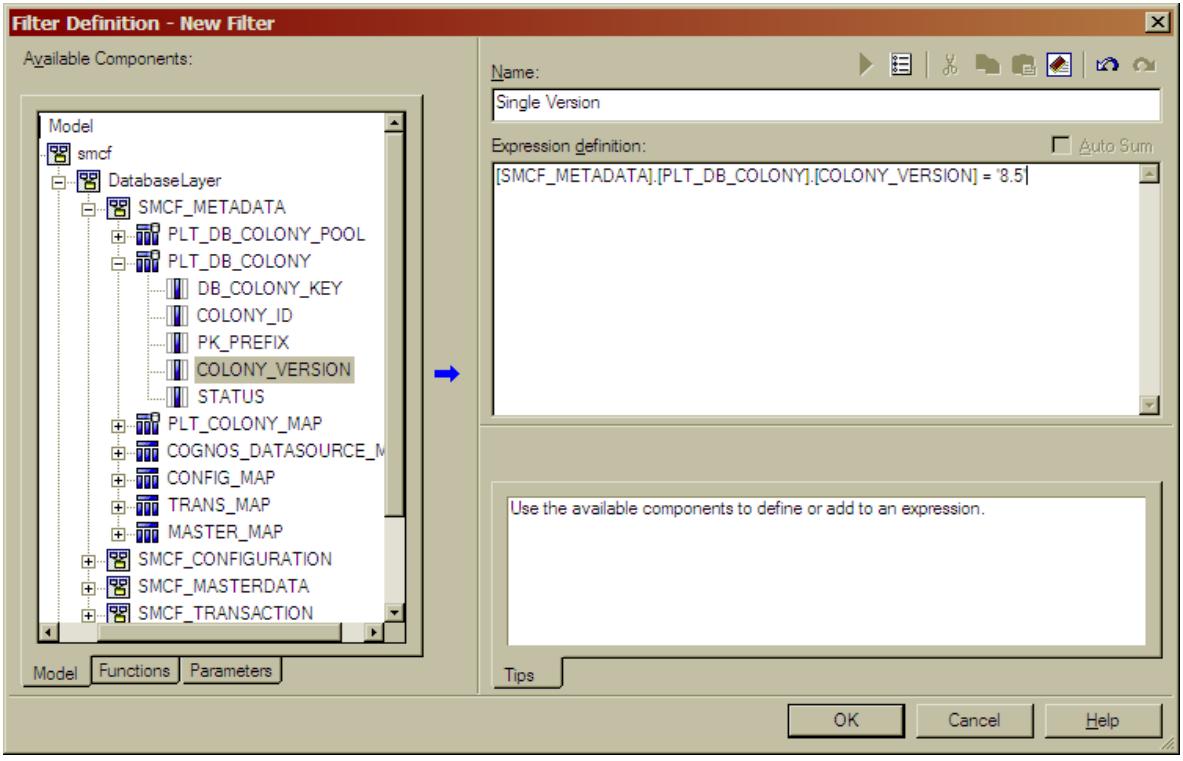
4. Add two additional columns to the Query Subject. You should give the columns the names COLONY_VERSION and STATUS, as shown in Figure 2–2.

Figure 2–2 Query Subject Definition - PLT_DB_COLONY Screen



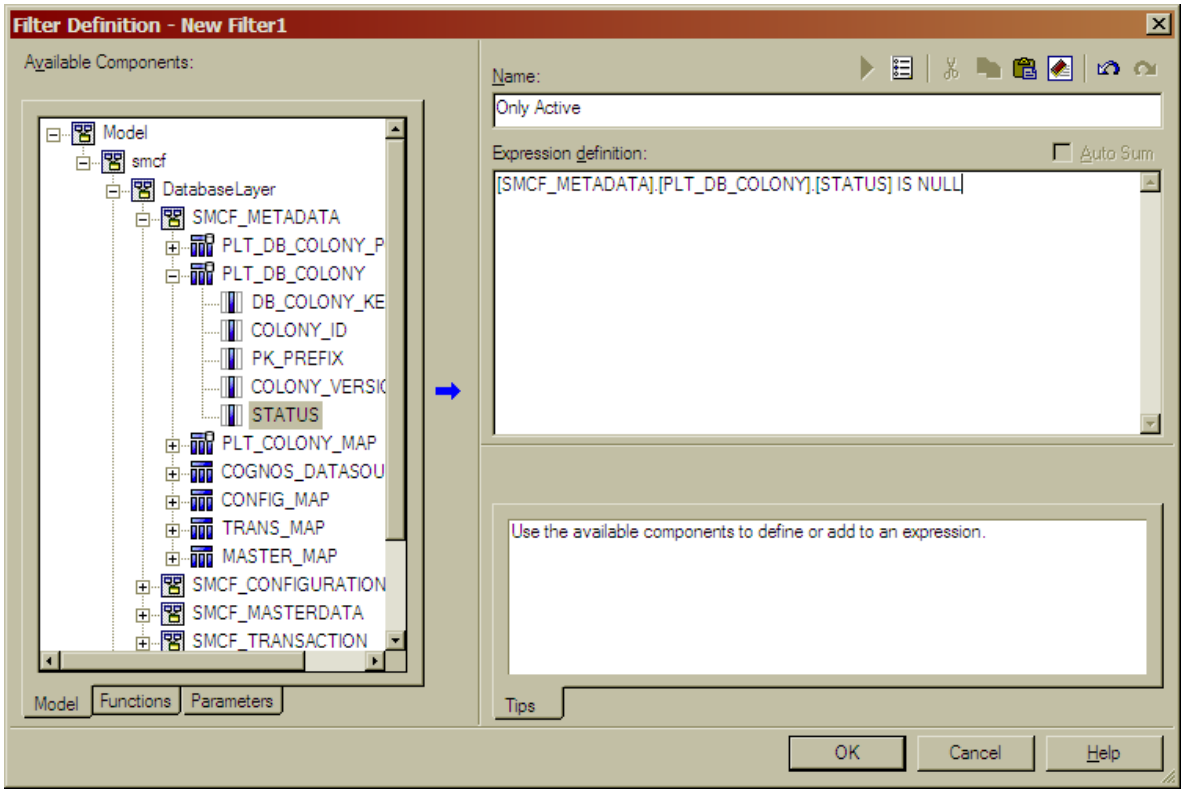
5. Click the Filters tab, and select Add. The Filter Definition screen opens.
6. Create a filter for the version of Selling and Fulfillment Foundation that corresponds to this instance of Cognos. Figure 2–3 shows an example in which a filter is defined for Selling and Fulfillment Foundation, Release 8.5.

Figure 2–3 Filter Definition Screen for Version



7. Click OK.
8. Select Add. The Filter Definition screen opens.
9. Create another filter that ignores colonies being upgraded, as shown in Figure 2–4.

Figure 2–4 Filter Definition Screen for Ignoring Upgrading Colonies



10. Click OK to close the Filter Definition screen.
11. Press OK to confirm changes to the Query Subject.
12. Publish the Cognos model. Changes are published to the server.

Repeat this process for each Cognos installation. When creating filters for a Cognos installation, ensure that you specify the Selling and Fulfillment Foundation version that corresponds to the Cognos installation. When viewing reports from Cognos, Enterprise and Node selection dialogs may have the complete list of organizations. However, if you select an organization that is disabled or on a different version, the query runs against the DEFAULT schema, which returns no results.

2.12.3 Postmigration Selling and Fulfillment Foundation Upgrade Customization Tasks

Perform the following Selling and Fulfillment Foundation upgrade customization tasks:

1. Recompile all user exit classes.
2. Ensure that all the resource, resource permission, and menu reconciliations as described in "Resource and Resource Permission Reconciliation" have been applied to the installation.
3. Ensure that all the JSP and Javascript reconciliations as described in "JSP and Javascript Reconciliation" have been applied to the installation, and exist appropriately in the `<INSTALL_DIR>/extensions/global/webpages` directory. This ensures that all the customized JSPs have been upgraded to maintain the existing functionalities.
4. Ensure that all the custom JSP reconciliations as described in Appendix A have been applied to the installation and properly exist in the `<INSTALL_DIR>/extensions/global/webpages` directory. This ensures that all the customized JSPs have been upgraded to support new functionality.
5. Ensure that all customized JSPs have been updated according to the guidelines in the *Selling and Fulfillment Foundation: Customizing Console JSP Interface for End User Guide*.
6. Ensure that all theme reconciliations described in "Theme Reconciliation" have been applied to the installation, and exist appropriately in the `<INSTALL_DIR>/extensions/global/webpages/css` directory. This ensures that all the CSS files have been upgraded to maintain the existing functionalities.
7. Enable the new features by applying the changes described in "Console Customizations: Enabling New Functionalities".
8. Ensure that all the resource bundle reconciliations described in "Resource Bundle Reconciliation" have been applied to the installation, and exist appropriately in the `<INSTALL_DIR>/resources/extn/extnbundle.properties` file. This ensures

that all the customized JSPs using the deleted resource bundle keys have been upgraded to maintain the existing functionalities.

9. Rebuild your `smcfs.ear` file as described in the *Selling and Fulfillment Foundation: Installation Guide*.

2.12.4 Postmigration Selling and Fulfillment Foundation Upgrade Configuration Tasks

Perform the following Selling and Fulfillment Foundation upgrade configuration tasks:

1. Ensure that all the theme reconciliations as described in "Theme Reconciliation" have been applied to the installation, and exist appropriately in the `<INSTALL_DIR>/extensions/global/template/api` directory. This ensures that all the customized theme XML files have been upgraded to maintain the existing functionalities and to enable new features.
2. If you have customized the Java forms for the Applications Manager, refer to "Form Class Reconciliation" and rebuild your `<INSTALL_DIR>/repository/eardata/smcfs/war/yfscommon/yfsextn.jar` file, as described in the *Selling and Fulfillment Foundation: Customizing the Swing Interface Guide*.
3. Unused columns are not dropped during migration. Run `drops.sql` to drop unused columns, if required.
4. Restart your Selling and Fulfillment Foundation system and log in as the administrator.
5. If you have defined custom user groups, using the Selling and Fulfillment Foundation Applications Manager, grant permissions to these custom user groups to access new screens, if any.
6. The following activity codes, which were a part of the Demo Warehouse, have been removed from the factory setup. If these activity codes have been used in your configuration, re-create them using the Applications Manager:
   - DE-KITTING
   - FREQ-PROGRAMMING
   - KIT-CHT

- KIT-CPG
- KITTING
- PACK-CARTON
- RE-PACK
- RUBBER-BAND
- SPECIAL-TICKETING
- WEIGH-PALLET

7. Close existing count programs and reconfigure new count programs.

2.12.5 Localizing the New Factory Setup After Upgrade

Note: You can skip this section if you are not upgrading from a localized Selling and Fulfillment Foundation.

After you have installed Selling and Fulfillment Foundation in upgrade mode, as also the Selling and Fulfillment Foundation language pack, run the Localized String Reconciler tool only in the IMPORT mode. You must not run the tool in the SWITCH mode because the IMPORT mode handles the database changes after a switch has already been performed.

If you are not using a language pack, and are localizing the application on your own, ensure that the upgraded factory setup is installed before you run the Localized String Reconciler tool in the EXPORT mode. You must then add the translations and run the tool in the IMPORT mode. For more information about localizing, refer to the *Selling and Fulfillment Foundation: Localization Guide*.

2.12.6 Postmigration Tasks for the Selling and Fulfillment Foundation Text Search Feature

Selling and Fulfillment Foundation, Release 9.0, supports the text search feature, which enhances the performance of search queries performed on specific APIs or services.

This section explains the following:

- Text Search Tasks on Oracle Database
- Text Search Tasks on DB2 Database
- Text Search Tasks on Microsoft SQLServer

2.12.6.1 Text Search Tasks on Oracle Database

To enable the Text Search feature on an Oracle Database, perform these tasks:

1. Ensure that the Oracle database is configured with the Oracle Text feature.
2. Log in to the Oracle server with a user ID having the CTXAPP privilege.
3. If upgrading in single-schema mode, run the `create.sql` script and the `update.sql` script from the `<INSTALL_DIR>/Migration/8.5/database/scripts/oracle/textsearch` directory.

   -or-

   If upgrading in multischema mode, run the `create.sql` script and the `update.sql` script from the following directories for each colony:

   - `<INSTALL_DIR>/Migration/8.5/database/scripts/oracle/textsearch/TRANSACTION`
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/oracle/textsearch/MASTER`
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/oracle/textsearch/CONFIGURATION`
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/oracle/textsearch/STATISTICS`

   The `create.sql` script creates the text search indices (if it contains any scripts) and the `update.sql` script updates the existing text search indices (if it contains any scripts).

4. (Optional) For the Context type text search index, execute the following command or commands, depending on your upgrade mode, to enable the text search indices to be incrementally updated when a text search enabled column is modified.

   If upgrading in single-schema mode, run the `modify.sql` script from the `<INSTALL_DIR>/Migration/8.5/database/scripts/oracle/textsearch` directory.

   -or-

   If upgrading in multischema mode, run the `modify.sql` script from the following directories for each colony:

   - `<INSTALL_DIR>/Migration/8.5/database/scripts/oracle/textsearch/TRANSACTION`
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/oracle/textsearch/MASTER`
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/oracle/textsearch/CONFIGURATION`
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/oracle/textsearch/STATISTICS`

   Note: Perform Step 5 only if the text search index creation is successful.

5. Use the `<INSTALL_DIR>/properties/customer_overrides.properties` file to set the following property:

   `yfs.db.textsearch to Y`

   For additional information about overriding properties using the `customer_overrides.properties` file, see the *Selling and Fulfillment Foundation: Properties Guide*.

6. Ensure that the value of the `yfs.db.textsearch.oracle.contexttype` property in the `yfs.properties` file is set to "ctxcat" or "context" depending on the type of text search index.

   You can use the `<INSTALL_DIR>/properties/customer_overrides.properties` file to override the `yfs.db.textsearch.oracle.contexttype` property. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Selling and Fulfillment Foundation: Properties Guide*.

   Note: To drop the text search indices from the Oracle database, run the `drop.sql` script.

For more information about how to enable the text search indices on Oracle database, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

2.12.6.2 Text Search Tasks on DB2 Database

To enable the Text Search feature on a DB2 Database, perform these tasks:

1. Ensure that the DB2 database is configured with the IBM DB2 Net Search Extender plug-in.
2. Log in to the DB2 server using the command editor or command-line processor with a user ID having DBA privileges.
3. If upgrading in single-schema mode, run the `create.sql` script and the `update.sql` script from the `<INSTALL_DIR>/Migration/8.5/database/scripts/db2/textsearch` directory.

   -or-

   If upgrading in multischema mode, run the `create.sql` script and the `update.sql` script from the following directories for each colony:

   - `<INSTALL_DIR>/Migration/8.5/database/scripts/db2/textsearch/TRANSACTION`

- <INSTALL_DIR>/Migration/8.5/database/scripts/db2/textsearch/MASTER
- <INSTALL_DIR>/Migration/8.5/database/scripts/db2/textsearch/CONFIGURATION
- <INSTALL_DIR>/Migration/8.5/database/scripts/db2/textsearch/STATISTICS

The create.sql script creates text search indices (if it contains any scripts) and the update.sql script updates the existing text search indices (if it contains any scripts).

> **Note:** Perform Step 4 only if the text search index creation is successful.

4. Use the <INSTALL_DIR>/properties/customer_overrides.properties file to set the following property:

   yfs.db.textsearch to Y

   For additional information about overriding properties using the customer_overrides.properties file, see the *Selling and Fulfillment Foundation: Properties Guide*.

> **Note:** To drop the text search indices from the DB2 database, run the drop.sql script.

For more information about how to enable the text search indices on DB2 database, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

2.12.6.3 Text Search Tasks on Microsoft SQLServer

To enable the Text Search feature on Microsoft SQLServer, perform these tasks:

1. Ensure that the Microsoft Search service is running on the machine on which the Microsoft SQLServer is installed.

> **Note:** By default, the full-text engine automatically runs as a service named Microsoft Search on Microsoft Windows, NT® Server 4.0, and Windows® 2000.

2. Log in to the Microsoft SQLServer manager with a user ID having DBA privileges.
3. If upgrading in single-schema mode, run the `create.sql` script and the `update.sql` script from the `<INSTALL_DIR>/Migration/8.5/database/scripts/sqlserver/textsearch` directory.

   -or-

   If upgrading in multischema mode, run the `create.sql` script and the `update.sql` script from the following directories for each colony:

   - `<INSTALL_DIR>/Migration/8.5/database/scripts/sqlserver/textsearch/TRANSACTION`
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/sqlserver/textsearch/MASTER`
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/sqlserver/textsearch/CONFIGURATION`
   - `<INSTALL_DIR>/Migration/8.5/database/scripts/sqlserver/textsearch/STATISTICS`

   The `create.sql` script creates text search indices (if it contains any scripts) and the `update.sql` script updates the existing text search indices (if it contains any scripts).

> **Note:** Perform Step 4 only if the text search index creation is successful.

4. If upgrading in single-schema mode, run the `modify.sql` script from the `<INSTALL_DIR>/Migration/8.5/database/sqlserver/textsearch` directory.

   -or-

   If upgrading in multischema mode, run the `modify.sql` script from the following directories for each colony:

   - `<INSTALL_DIR>/Migration/8.5/database/sqlserver/textsearch/TRANSACTION`
   - `<INSTALL_DIR>/Migration/8.5/database/sqlserver/textsearch/MASTER`
   - `<INSTALL_DIR>/Migration/8.5/database/sqlserver/textsearch/CONFIGURATION`
   - `<INSTALL_DIR>/Migration/8.5/database/sqlserver/textsearch/STATISTICS`

   The `modify.sql` script enables the text search indices to be incrementally updated when a text search enabled column is modified.

5. Edit the `<INSTALL_DIR>/properties/customer_overrides.properties` file and add the following entry:

   ```
   yfs.yfs.db.textsearch=Y
   ```

   For more information about overriding properties using the `customer_overrides.properties` file, see the *Selling and Fulfillment Foundation: Properties Guide*.

   Note: To drop the text search indices from the Microsoft SQLServer database, run the `drop.sql` script.

For more information about how to enable the text search indices on Microsoft SQLServer, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

2.12.7 Postmigration Tasks for Selling and Fulfillment Foundation on IBM WebSphere

If you are using IBM WebSphere MQ and Default Messaging, you must disable JMS connection pooling. To disable the JMS pooling, use the <INSTALL_DIR>/properties/customer_overrides.properties file to set the following property:

yfs.jms.session.disable.pooling to Y

For more information about overriding properties using the customer_overrides.properties file, see the *Selling and Fulfillment Foundation: Properties Guide*.

3

Multischema Colony-By-Colony Upgrade

This chapter describes the strategy for upgrading one or more colonies in a multischema deployment, without upgrading all the colonies. In a multischema environment, multiple colonies can run on multiple versions of Selling and Fulfillment Foundation. This enables you to maintain different enterprises on different versions of Selling and Fulfillment Foundation. For example, you can deploy colony 1 on Selling and Fulfillment Foundation, Release 9.0, and colonies 2 and 3 on Release 8.5. The enterprise in colony 1 runs on Release 9.0, and the enterprises in colonies 2 and 3 run on Release 8.5. All the enterprises maintain their own separate transaction/master data. However, because enterprises on the same version of Selling and Fulfillment Foundation can share configuration and statistical data with each other, the enterprises in colonies 2 and 3 share configuration and statistical data.

In this example, the colony-by-colony upgrade strategy can be either used to upgrade colony 1 to Release 9.0, or used in the future to upgrade colonies 2 and 3 to Release 9.0.

The colony-by-colony upgrade strategy provides the advantage of upgrading one or more colonies in a multischema deployment, while other colonies in the deployment remain in production. There is no loss of production time for colonies that are not being upgraded. Similarly, enterprises are maintained at different versions and are upgraded without the production time for other enterprises in the deployment being affected.

> **Note:** If you are using the DEFAULT colony's transaction schema in your production environment, you cannot use the colony-by-colony upgrade strategy. You must upgrade all colonies together at once.

The colony-by-colony upgrade process involves the following major tasks:

1. Create an upgrade environment.
2. Move the colonies that you are upgrading from the production environment to the upgrade environment.
3. In the upgrade environment, run a full multischema upgrade.
4. Return the upgraded colonies from the upgrade environment to the production environment.

Notes:

- Typically, history data and transaction data are migrated separately as part of the upgrade process. When migrating data, production is down for the deployment. The colony-by-colony upgrade strategy provides instructions for migrating history data and transaction data using this data migration process. However, Selling and Fulfillment Foundation (Release 9.0 and later) provides the yfs.api.history.disable property, which allows you to migrate a colony's history data when the application is running on the transaction data. For information about using the yfs.api.history.disable property when migrating data, refer to "Migrating Transaction and History Data for Colonies".
- When upgrading a colony, all participating organizations must also be upgraded. If a participating organization is located in a different colony, both colonies must be upgraded. Participating organizations include nodes, inventory organizations, capacity organizations, catalog organizations, and so on.
- You must use the same technical stack in Selling and Fulfillment Foundation, Release 9.0, that used in Release 8.5. A technical stack includes the application server, JDK, and database server. For information about a technical stack, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

"Colony-By-Colony Upgrade: An Example" describes a scenario in which one colony from a multischema deployment containing three colonies is upgraded from Release 8.5 to Release 9.0.

3.1 Colony-By-Colony Upgrade: An Example

In this example, the multischema deployment, Production_V1, is deployed on Selling and Fulfillment Foundation, Release 8.5, and includes the colonies CLY1, CLY2, and CLY3. The following example describes the process of upgrading CLY1 to Release 9.0.

To upgrade CLY1 to Release 9.0, perform the following tasks:

1. Create an Upgrade Environment: Upgrade_V1
2. Move CLY1 to the Upgrade Environment
3. Upgrade Upgrade_V1 to Release 9.0
4. Return CLY1 to the Production Environment

After the colony-by-colony upgrade process is completed, a new multischema production environment, Production_V2, is established. Production_V2 is your new version, active multischema runtime. Production_V2 includes CLY1 running on Release 9.0, and CLY2 and CLY3 running on Release 8.5.

Create an Upgrade Environment: Upgrade_V1

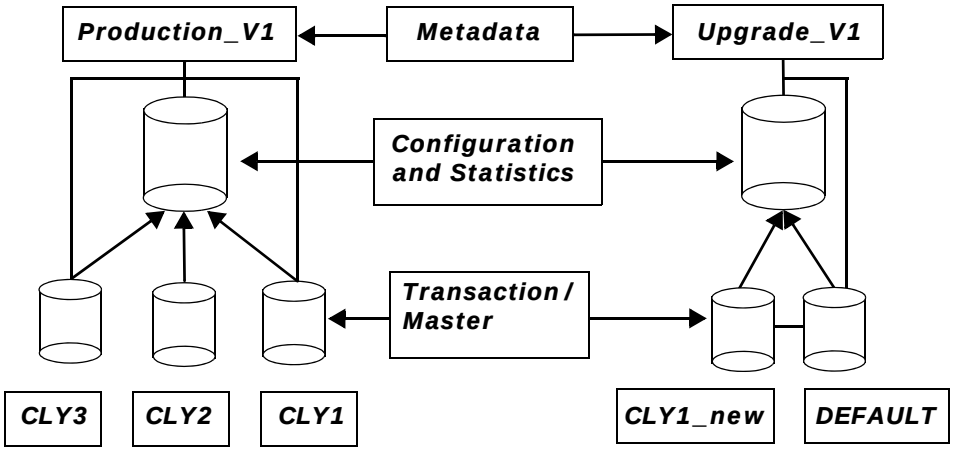
When upgrading one or more colonies using the colony-by-colony upgrade strategy, you must first create an upgrade environment, by performing the following tasks, as shown in Figure 3–1:

1. Install an upgrade environment in the version that corresponds to the current version of the multischema deployment. In this example, install a new Release 8.5 run time in multischema mode (Upgrade_V1).
2. For each colony in Production_V1 that you are upgrading, add a new colony to Upgrade_V1. The new colony acts as a placeholder in Upgrade_V1 for the colonies in Production_V1 that you are upgrading. Later, you will move the colonies from Production_V1 to

Upgrade_V1 and replace the placeholder colonies. In this example, add CLY1_new to Upgrade_V1.

Note: The DEFAULT colony is included with all new multischema installations.

Figure 3–1 Create Upgrade Environment Upgrade_V1



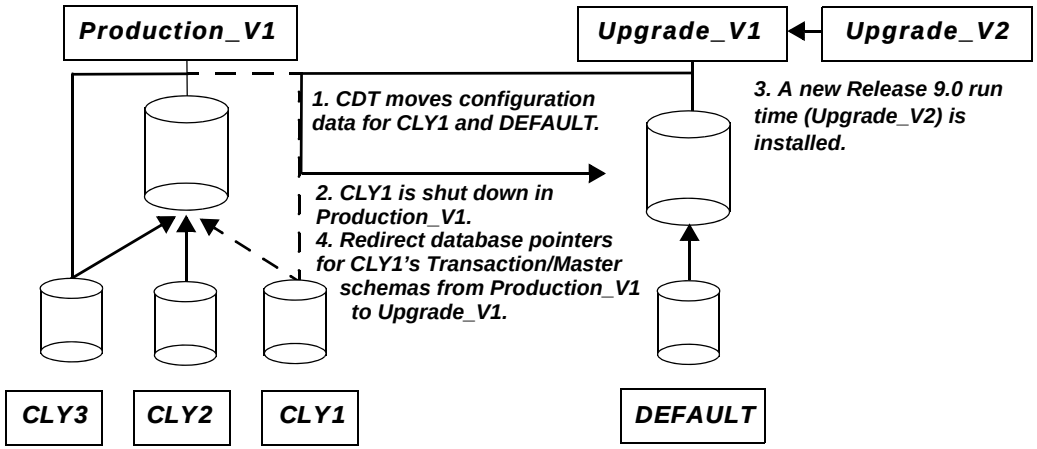
Move CLY1 to the Upgrade Environment

Next, move CLY1 to Upgrade_V1 by performing the following tasks, as shown in Figure 3–2:

1. Use the CDT to move the configuration data for CLY1 and DEFAULT from Production_V1 to Upgrade_V1. Some organizations inherit configuration data from DEFAULT. For this reason, the DEFAULT's configuration data is always moved as part of the colony-by-colony upgrade process.
2. Shut down CLY1 in Production_V1.
3. In multischema mode, install a new Release 9.0 run time in upgrade mode (Upgrade_V2). The Release 9.0 run time contains the updatecolonypool target, which is required when updating database pointers for schemas.

4. Redirect the database pointer for CLY1's TRANSACTION/MASTER schema from Production_V1 to Upgrade_V1. CLY1_new is replaced by CLY1.

Figure 3–2 Move CLY1 to Upgrade_V1



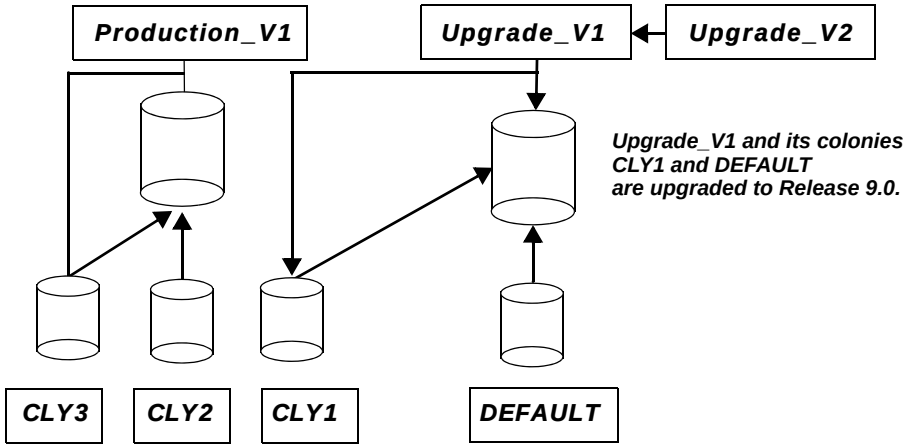
Upgrade Upgrade_V1 to Release 9.0

In this example, the Upgrade_V1 environment is upgraded to Release 9.0 (Upgrade_V2), by performing the following tasks, as shown in Figure 3–3:

1. In multischema mode, upgrade the Upgrade_V1 environment to Release 9.0. When you perform a multischema upgrade, all colonies in the upgrade environment are upgraded, including the colonies' schemas. In this case, Upgrade_V1 and its colonies CLY1 and DEFAULT are upgraded to Release 9.0. The CONFIGURATION, STATISTICS, and TRANSACTION/MASTER schemas for CLY1 are upgraded to Release 9.0.

> **Note:** Upgrade_V2 and Upgrade_V1 share the same METADATA schema, which contains database information about CLY1's CONFIGURATION, STATISTICS, and TRANSACTION/MASTER schemas.

Figure 3–3 Upgrade Upgrade_V1 to Release 9.0



Return CLY1 to the Production Environment

In this example, return an upgraded version of CLY1 to the original multischema deployment by performing the following tasks, as shown in Figure 3–4:

1. In multischema mode, install a new Release 9.0 run time (Production_V2). When installing Production_V2, database information for the METADATA schema is shared between Production_V1 and Production_V2. The METADATA schema contains database information about CLY2 and CLY3, and their schemas.

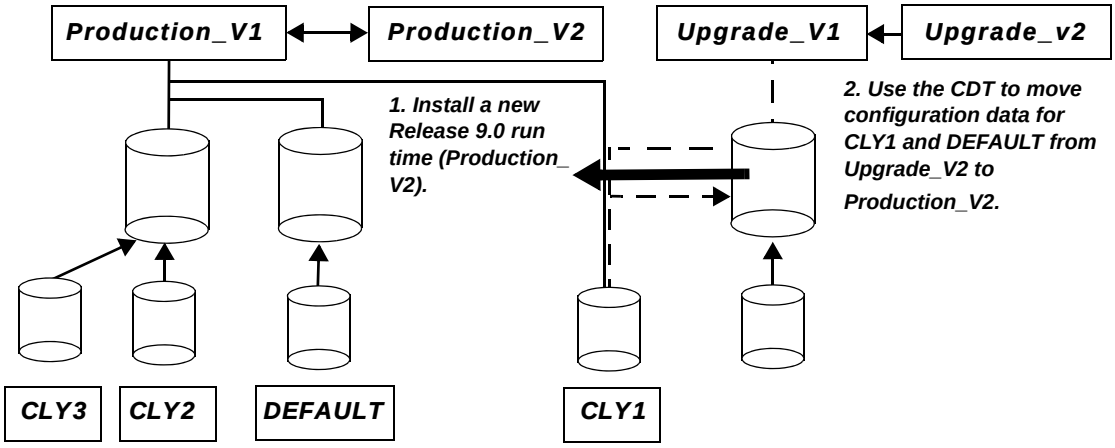
   Note: The DEFAULT colony is included with all new multischema installations.

2. Use the CDT to move configuration data for CLY1 and DEFAULT from Upgrade_V2 to Production_V2. The database pointers for CLY1's schemas are redirected from Upgrade_V2 to Production_V2, as shown in Figure 3–4. The schemas include CLY1's TRANSACTION/MASTER schema. However, CLY1's METADATA schema points at the Production_V1 schema.

Production_V2 is the new version upgrade environment. Production_V2 is a multischema deployment with CLY1 running on Release 9.0. CLY2 and

CLY3 are running on Release 8.5. All the customizations and postmigration activities are performed on the new upgrade environment, as shown in Figure 3–4.

Figure 3–4 Return CLY1 to Original Multischema Environment



3.2 Creating an Upgrade Environment

When you upgrade one or more colonies in a multischema environment, you must first create an upgrade environment and then move the colonies that are to be upgraded from the production environment to the upgrade environment.

> **Note:** You must create a new upgrade environment each time you upgrade colonies. For example, if colonies 1 and 2 were upgraded six months ago, and you are now upgrading colonies 3 and 4, you must create a new upgrade environment.

To create an upgrade environment, perform these steps:

1. In multischema mode, install a new run time in the version that corresponds to the current version of your production environment. This new run time will serve as your upgrade environment. For purposes of describing the two run times, let us refer to the new run time as Upgrade_V1 and the run time for the production environment as Production_V1.

   For example, if you are running a multischema deployment on Release 8.5, perform a complete installation of Release 8.5 in multischema mode. When you perform a complete installation, a DEFAULT colony is created with new METADATA, SYSTEM CONFIGURATION, STATISTICS, and TRANSACTION/MASTER schemas. For information about performing a complete multischema

installation, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

Notes:

- The multischema installation process requires that you provide database information for the METADATA, STATISTICS, SYSTEM CONFIGURATION, and TRANSACTION/MASTER schemas. Ensure that you create new schemas for Upgrade_V1 by specifying the database information that refers to the Upgrade_V1 environment.
- If you applied any hot fixes to the Production_V1 environment, apply the same hot fixes to Upgrade_V1.

Note: As part of creating Upgrade_V1, perform the following tasks:

- Copy all extensions from Production_V1 to Upgrade_V1.
- If you installed any PCAs on Production_V1, install the same PCAs on Upgrade_V1.
- Ensure the database tables in Upgrade_V1 are identical to the database tables in Production_V1 by rebuilding the `resources.jar` and `entities.jar` files on Upgrade_V1.

2. For each colony you are upgrading, you must add a new colony to Upgrade_V1. The new colonies correspond to the colonies that you are moving from Production_V1.

   Use the `manageColony` command to add the new colonies to Upgrade_V1. This command passes the `addColony.xml` file, which contains database information for the new colonies and their schemas. In Upgrade_V1, execute the following command, where `<path>` corresponds to the absolute path for `addColony.xml`:

   For UNIX and Linux operating systems:

   – `<INSTALL_DIR>/bin ./manageColony.sh <path>/addColony.xml`

For Windows operating systems:

– `<INSTALL_DIR>\bin manageColony.cmd <path>\addColony.xml`

You must manually configure the `addColony.xml` file before you can execute the `manageColony` command. For information about configuring the `addColony.xml` file, refer to "Modifying the addColony.xml File".

Note: When configuring a new colony in the `addColony.xml` file, you must make the following edits:

- Ensure that the new colony's schemas point to the DEFAULT colony's schemas in Upgrade_V1, and the new colony's information, such as colony name and pkprefix, are identical to the corresponding colony in Production_V1.

  For example, if the colony you are moving from Production_V1 has the parameters colony name=*colony_01* and pkprefix=*11*, the new colony in the XML file should have the parameters `colony_01` and `pkprefix=11`, and the new colony's schemas should point to the DEFAULT colony's schemas on Upgrade_V1.
- Ensure that the pool ids for the new colony's CONFIGURATION and STATISTICS table types are identical to the corresponding pool ids in Upgrade_V1.

3. If a hot fix was applied to Production_V1, apply the same hot fix to Upgrade_V1.
4. Use the CDT to move the configuration data for the colonies to be upgraded and the DEFAULT colony from Production_V1 to Upgrade_V1. For information about moving configuration data using the CDT, see to the *Selling and Fulfillment Foundation: Configuration Deployment Tool Guide*.

3.3 Moving Colonies to the Upgrade Environment

After creating the upgrade environment, move the colonies that you want to upgrade from the production environment to the upgrade environment.

To move colonies to the upgrade environment, follow these steps:

1. In multischema mode, install a new version run time in upgrade mode. For purposes of describing this new run time, let us refer to it as Upgrade_V2.

   For example, if you are running a multischema deployment on Release 8.5, and upgrading some colonies to Release 9.0, perform a complete multischema installation of Release 9.0 in upgrade mode. For information about performing a multischema installation in upgrade mode, refer to the "Upgrading to Release 9.0".

   Note: The multischema installation process requires that you provide database parameters for the METADATA schema. Ensure that the METADATA database information refers to the METADATA schema of Upgrade_V1.

2. Configure Upgrade_V2's database parameters in the `sandbox.cfg` file to refer to Production_V1's METADATA by performing the following tasks:

   a. Create a backup of the `sandbox.cfg` file that is located in Upgrade_V2's `<INSTALL_DIR>/properties` directory.

b. In the <INSTALL_DIR>/properties/sandbox.cfg file for Upgrade_V2, configure the following properties to match the corresponding properties in the <INSTALL_DIR>/properties/sandbox.cfg file for Production_V1:

- DB_PASS
- DB_USER
- DB_SCHEMA_OWNER
- DB_DATA
- DB_PORT
- YANTRA_DB_PASS
- YANTRA_DB_USER

On Oracle:

- ORA_PASS
- ORA_HOST
- ORA_USER

On DB2:

- DB2_PASS
- DB2_HOST
- DB2_USER

On SQLServer:

- MSSQL_PASS
- MSSQL_HOST
- MSSQL_USER

c. From Upgrade_V2, run the <INSTALL_DIR>/bin/setupfiles.sh script (Linux or UNIX) or the <INSTALL_DIR>\bin\setupfiles.cmd script (Windows).

3. In the <INSTALL_DIR>/Migration/8.5 directory for Upgrade_V2, run the following command, where <INSTALL_DIR_OLD> corresponds to Production_V1:

   ```
   ${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
   -Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
   -logfile <logfile> -Dtarget=initcolonypool migrate
   ```

   This command creates the <INSTALL_DIR>/Migration/8.5/database/scripts/multischema.xml file in Upgrade_V2. The XML file contains a list of colonies on Production_V1.

   The *.done file that is created in the 8.5 status folder for the initcolonypool task is ant_initcolonypool.xml.done.

4. Before you move colonies from Production_V1 to Upgrade_V2, you must disable those colonies in the Production_V1 environment, by performing the following tasks:

   a. In the Migration/8.5/database/scripts/multischema.xml file, perform the following edits:

      – Specify a status of "UPGRADE" for the colonies that you are upgrading.

      – Remove all references to the colonies that you are not upgrading, and also to the colonies' table types.

      For more information about editing the multischema.xml file, refer to "Modifying the multischema.xml File".

      For example, if you are upgrading Colony-01, but not Colony-02, set the status for Colony-01 as "UPGRADE" in the XML file, and remove Colony-02 and its corresponding table type from the XML file. The following sample multischema.xml shows these modifications highlighted in blue.

Sample Multischema File for Disabling Colonies in Production_V1

```
?xml version="1.0" encoding="UTF-8"?>
<colonyconfig>
    <pools>
        <pool id="DEFAULT_METADATA">
          <jdbc>
             <param name="url" value="<url to connect to database>"/>
             <param name="user" value="<Production_V1_METADATA>"/>
```

```
      <param name="password" value="<Production_V1_METADATA>"/>
      <param name="driver" value="<class name of your database driver>"/>
      <param name="schema" value="<Production_V1_METADATA>"/>
  </jdbc>
</pool>
<pool id="DEFAULT_STATISTICS">
  <jdbc>
      <param name="url" value="<url to connect to database>"/>
      <param name="user" value="<Production_V1_STATISTICS>"/>
      <param name="password" value="<Production_V1_STATISTICS>"/>
      <param name="driver" value="<class name of your database driver>"/>
      <param name="schema" value="<Production_V1_STATISTICS>"/>
  </jdbc>
</pool>
<pool id="DEFAULT_CONFIGURATION">
  <jdbc>
      <param name="url" value="<url to connect to database>"/>
      <param name="user" value="<Production_V1_CONFIGURATION>"/>
      <param name="password" value="<Production_V1_CONFIGURATION>"/>
      <param name="driver" value="<class name of your database driver>"/>
      <param name="schema" value="<Production_V1_CONFIGURATION>"/>
  </jdbc>
</pool>
<pool id="DEFAULT_TRANSACTION">
  <jdbc>
      <paramname="url"value="<url to connect to database>"/>
      <param name="user" value="<Production_V1_DEFAULT_TRANSACTION>"/>
      <param name="password" value="<Production_V1_DEFAULT_TRANSACTION>"/>
      <param name="driver" value="<class name of your database driver>"/>
      <param name="schema" value="<Production_V1_DEFAULT_TRANSACTION>"/>
  </jdbc>
</pool>
<pool id="TRANSACTION-01">
  <jdbc>
      <param name="url" value="<url to connect to database>"/>
      <param name="user" value="<Colony_01_TRANSACTION>"/>
      <param name="password" value="<Colony_01_TRANSACTION>"/>
      <param name="driver" value="<class name of your database driver>"/>
      <param name="schema" value="<Colony_01_TRANSACTION>"/>
  </jdbc>
</pool>
<pool id="TRANSACTION-02"> remove reference
  <jdbc>
      <param name="url" value="<url to connect to database>"/>
      <param name="user" value="<Colony_02_TRANSACTION>"/>
```

```
            <param name="password" value="<Colony_02_TRANSACTION>"/>
            <param name="driver" value="<class name of your database driver>"/>
            <param name="schema" value="<Colony_02_TRANSACTION>"/>
          </jdbc>
        </pool>
    </pools>
    <colonies>
        <colony name="Colony-01" version="8.5" status="UPGRADE" pkprefix="11">
            <schema poolid="DEFAULT_METADATA" tabletype="METADATA"/>
            <schema poolid="DEFAULT_CONFIGURATION" tabletype="CONFIGURATION"/>
            <schema poolid="DEFAULT_STATISTICS" tabletype="STATISTICS"/>
            <schema poolid="TRANSACTION-01" tabletype="TRANSACTION"/>
            <schema poolid="TRANSACTION-01" tabletype="MASTER"/>
       </colony>
        <colony name="Colony-02" version="8.5" pkprefix="21"> remove reference
            <schema poolid="DEFAULT_METADATA" tabletype="METADATA"/>
            <schema poolid="DEFAULT_CONFIGURATION" tabletype="CONFIGURATION"/>
            <schema poolid="DEFAULT_STATISTICS" tabletype="STATISTICS"/>
            <schema poolid="TRANSACTION-02" tabletype="TRANSACTION"/>
            <schema poolid="TRANSACTION-02" tabletype="MASTER"/>
        </colony>
        <colony name="DEFAULT" version="8.5" pkprefix="20">
            <schema poolid="DEFAULT_METADATA" tabletype="METADATA"/>
            <schema poolid="DEFAULT_STATISTICS" tabletype="STATISTICS"/>
            <schema poolid="DEFAULT_CONFIGURATION" tabletype="CONFIGURATION"/>
            <schema poolid="DEFAULT_TRANSACTION" tabletype="TRANSACTION"/>
            <schema poolid="DEFAULT_TRANSACTION" tabletype="MASTER"/>
        </colony>
    </colonies>
</colonyconfig>
```

b. In the <INSTALL_DIR>/Migration/8.5 directory for Upgrade_V2, run the following command, where <INSTALL_DIR_OLD> corresponds to Production_V1:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=updatecolonypool migrate
```

For the colonies that you are moving from Production_V1 to Upgrade_V2, this command sets the colonies to "UPGRADE" status, which disables the colonies in Production_V1 and updates the colony parameters.

The *.done file that is created in the 8.5 status folder of Upgrade_V2's Migration/8.5 directory for the updatecolonypool task is ant_updatecolonypool.xml.done.

Note: After you disable the colonies, the application server can take up to 10 minutes to recognize that the colonies are down.

5. Reset the database parameters in Upgrade_V2's sandbox.cfg file to refer to Upgrade_V2's METADATA by performing the following tasks:
   a. Use the backup file from Step 2 to restore the original sandbox.cfg file for Upgrade_V2.
   b. From Upgrade_V2, run the <INSTALL_DIR>/bin/setupfiles.sh script (Linux or UNIX) or the <INSTALL_DIR>\bin\setupfiles.cmd script (Windows).
6. For the colonies that you are moving from Production_V1 to Upgrade_V2, update the database parameters in Upgrade_V2 by performing the following tasks:
   a. In the Migration/8.5/database/scripts/multischema.xml file on Upgrade_V2, perform the following edits:
      – Change each colony's status from "UPGRADE" to "".
      – Change the references for colony-specific schemas, such as METADATA, CONFIGURATION, and STATISTICS, to point to the Upgrade_V1 schemas.
      – Change the references for the DEFAULT colony to point to the Upgrade_V1 schemas.

      For more information about editing the multischema.xml file, refer to "Modifying the multischema.xml File".

      For example, if you are moving Colony-01 from Production_V1 to Upgrade_V2, set the status of Colony-01 to "" in the XML file, and change the references for the METADATA, CONFIGURATION, and STATISTICS schemas to point to the Upgrade_V1 schemas. Additionally, the DEFAULT_TRANSACTION schema should point to Upgrade_V1. The following sample multischema.xml file shows these changes, with the modifications highlighted in blue.

Sample Multischema File for Updating Parameters in Upgrade_V2

```
?xml version="1.0" encoding="UTF-8"?>
<colonyconfig>
    <pools>
        <pool id="DEFAULT_METADATA">
          <jdbc>
             <param name="url" value="<url to connect to database>"/>
             <param name="user" value= "<Upgrade_V1_METADATA>"/>
             <param name="password" value="<Upgrade_V1_METADATA>"/>
             <param name="driver" value="<class name of your database driver>"/>
             <param name="schema" value="<Upgrade_V1_METADATA>"/>
          </jdbc>
        </pool>
        <pool id="DEFAULT_STATISTICS">
          <jdbc>
             <param name="url" value="<url to connect to database>"/>
             <param name="user" value="<Upgrade_V1_STATISTIC>"/>
             <param name="password" value="<Upgrade_V1_STATISTICS>"/>
             <param name="driver" value="<class name of your database driver>"/>
             <param name="schema" value="<Upgrade_V1_STATISTICS>"/>
          </jdbc>
        </pool>
        <pool id="DEFAULT_CONFIGURATION">
          <jdbc>
             <param name="url" value="<url to connect to database>"/>
             <param name="user" value="<Upgrade_V1_CONFIGURATION>"/>
             <param name="password" value="<Upgrade_V1_CONFIGURATION>"/>
             <param name="driver" value="<class name of your database driver>"/>
             <param name="schema" value="<Upgrade_V1_CONFIGURATION>"/>
          </jdbc>
        </pool>
        <pool id="DEFAULT_TRANSACTION">
          <jdbc>
             <param name="url" value="<url to connect to database>"/>
             <param name="user" value="<Upgrade_V1_DEFAULT_TRANSACTION>"/>
             <param name="password" value="<Upgrade_V1_DEFAULT_TRANSACTION>"/>
             <param name="driver" value="<class name of your database driver>"/>
             <param name="schema" value="<Upgrade_V1_DEFAULT_TRANSACTION>"/>
          </jdbc>
        </pool>
        <pool id="TRANSACTION-01">
          <jdbc>
             <param name="url" value="<url to connect to database>"/>
             <param name="user" value="<Colony_01_TRANSACTION>"/>
```

```
            <param name="password" value="<Colony_01_TRANSACTION>"/>
            <param name="driver" value="<class name of your database driver>"/>
            <param name="schema" value="<Colony_01_TRANSACTION>"/>
          </jdbc>
        </pool>
    </pools>
    <colonies>
        <colony name="Colony-01" version="8.5" status="" pkprefix="11">
            <schema poolid="DEFAULT_METADATA" tabletype="METADATA"/>
            <schema poolid="DEFAULT_CONFIGURATION" tabletype= "CONFIGURATION"/>
            <schema poolid="DEFAULT_STATISTICS" tabletype="STATISTICS"/>
            <schema poolid="TRANSACTION-01" tabletype="TRANSACTION"/>
            <schema poolid="TRANSACTION-01" tabletype="MASTER"/>
        </colony>
        <colony name="DEFAULT" version="8.5" pkprefix="20">
            <schema poolid="DEFAULT_METADATA" tabletype="METADATA"/>
            <schema poolid="DEFAULT_CONFIGURATION" tabletype="CONFIGURATION"/>
            <schema poolid="DEFAULT_STATISTICS" tabletype="STATISTICS"/>
            <schema poolid=" DEFAULT_TRANSACTION" tabletype="TRANSACTION"/>
            <schema poolid=" DEFAULT_TRANSACTION" tabletype="MASTER"/>
        </colony>
    </colonies>
</colonyconfig>
```

b. Rename the `ant_updatecolonypool.xml.done`, generated in Step 3, to `ant_updatecolonypool.xml.done.bak`.

c. In the `<INSTALL_DIR>/Migration/8.5` directory for Upgrade_V2, run the following command, where `<INSTALL_DIR_OLD>` corresponds to Upgrade_V1:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=updatecolonypool migrate
```

This command updates the colony parameters in Upgrade_V2 to refer to the TRANSACTION and MASTER schemas for the colonies you are upgrading.

The `*.done` file created in the `8.5 status` folder of Upgrade_V2's `Migration/8.5` directory for the updatecolonypool task is `ant_updatecolonypool.xml.done`.

3.4 Upgrading Colonies in Multischema Mode

After moving colonies from the production environment to the upgrade environment, run a complete upgrade in multischema mode, where <INSTALL_DIR> corresponds to Upgrade_V2, and <INSTALL_DIR_OLD> corresponds to Upgrade V1. When you perform a multischema upgrade, all colonies in the upgrade environment are upgraded, which includes the colonies' schemas, such as the STATISTICS and TRANSACTION/MASTER schemas. For information about performing an upgrade in multischema mode, refer to "Upgrading in Single-Schema and Multischema Modes".

Notes:

- When running the upgrade, do not perform the customizations or postmigration activities, as described in "Postmigration Activities". These postmigration activities are performed in Step 4 of "Returning Colonies to the Production Environment".
- If you are using the yfs.api.history.disable property to migrate transaction data before history data, do not discard Upgrade_V2 after migrating your transaction data. For information about using this property as part of colony-by-colony upgrade, refer to "Migrating Transaction and History Data for Colonies".

3.5 Returning Colonies to the Production Environment

After upgrading the colonies in the upgrade environment, return the colonies to the production environment. To return the upgraded colonies to the production environment, follow these steps:

1. In multischema mode, install a new run time in the version to which you are upgrading. For purposes of describing the new run time, let us refer to it as Production_V2.

   For example, if you are running a multischema deployment on Release 8.5 (Production_V1) and upgrading some colonies to Release 9.0, perform a complete installation of Release 9.0 in multischema mode (Production_V2). When you perform a complete installation in multischema mode, a DEFAULT colony is created with new METADATA,

SYSTEM CONFIGURATION, STATISTICS, and TRANSACTION/MASTER schemas. For information about performing a complete multischema installation, refer to the *Selling and Fulfillment Foundation: Installation Guide*.

Note: The multischema installation process requires that you provide database information for the METADATA, STATISTICS, SYSTEM CONFIGURATION, and TRANSACTION/MASTER schemas. Ensure that you specify database parameters that correspond to the METADATA schema from Production_V1. However, you should specify new schemas for SYSYTEM CONFIGURATION, STATISTICS, TRANSACTION/MASTER.

Note: As part of creating Production_V2, perform the following tasks:

- Copy all extensions from Upgrade_V2 to Production_V2.
- If you installed any PCAs on Upgrade_V2, install the same PCAs on Production_V2.
- Ensure the database tables in Prodcution_V2 are identical to the database tables in Upgrade_V2 by rebuilding the `resources.jar` and `entities.jar` files on Production_V2.

Note: You can use the Production_V2 run time each time you upgrade the colonies in your multischema environment. For example, if colonies 1 and 2 were upgraded six months ago, and you are now upgrading colonies 3 and 4, you can use the Production_V2 run time from six months ago. If any hot fixes were added to Upgrade_V2 within the six months period, you must add the same hot fixes to Production_V2 before Production_V2 can be used again.

2. Move the upgraded colonies from Upgrade_V2 to Production_V2 by performing the following tasks:

   a. Copy the `multischema.xml` file from Upgrade_V2's `Migration/8.5/database/scripts` directory to Production_V2's `Migration/8.5/database/scripts` directory.

   b. In the `Migration/8.5/database/scripts/multischema.xml` file on Production_V2, perform the following edits:

      – Set each colony's status to "".

      – Set each colony's newversion to the upgrade version.

      – Change references for the METADATA schema to point to the Production_V1 schema.

      – Change references for all other colony-specific schemas, such as CONFIGURATION and STATISTICS, to point to the Production_V2 schemas.

      For more information about editing the `multischema.xml` file, refer to "Modifying the multischema.xml File".

      The following example shows a modified `multischema.xml` file with the modifications highlighted in blue.

Sample Multischema File for Moving Colonies to Production_V2

```
<?xml version="1.0" encoding="UTF-8"?>
<colonyconfig>
    <pools>
        <pool id="DEFAULT_METADATA">
            <jdbc>
                <parram name="url" value="<url to connect to database>"/>
                <param name="user" value="<Production_V1_METADATA> "/>
                <param name="password" value="<Production_V1_METADATA> "/>
                <param name="driver" value="<class name of your database driver>"/>
                <param name="schema" value="<Production_V1_METADATA> "/>
            </jdbc>
        </pool>
        <pool id="DEFAULT_STATISTICS_90">
            <jdbc>
                <param name="url" value="<url to connect to database>"/>
                <param name="user" value="<Production_V2_STATISTICS> "/>
                <param name="password" value="<Production_V2_STATISTICS> "/>
```

```
            <param name="driver" value="<class name of your database driver>"/>
            <param name="schema" value="<Production_V2_STATITICS> "/>
        </jdbc>
    </pool>
    <pool id="DEFAULT_CONFIGURATION_90">
        <jdbc>
            <param name="url" value="<url to connect to database>"/>
            <param name="user" value="<Production_V2_CONFIGURATION>"/>
            <param name="password" value="<Production_V2_CONFIGURATIOn> "/>
            <param name="driver" value="<class name of your database driver>"/>
            <param name="schema" value="<Production_V2_CONFIGURATION> "/>
        </jdbc>
    </pool>
    <pool id="DEFAULT_TRANSACTION_90">
        <jdbc>
            <param name="url" value="<url to connect to database>"/>
            <param name="user" value="<Production_V2_DEFAULT_TRANSACTION>">/>
            <param name="password" value="<Production_V2_DEFAULT_TRANSACTION>"/>
            <param name="driver" value="<class name of your database driver>"/>
            <param name="schema" value="<Production_V2_DEFAULT_TRANSACTION>"/>
        </jdbc>
    </pool>
    <pool id="TRANSACTION-01">
        <jdbc>
            <param name="url" value="<url to connect to database>"/>
            <param name="user" value="<Colony_01_TRANSACTION>"/>
            <param name="password" value="<Colony_01_TRANSACTION>"/>
            <param name="driver" value="<class name of your database driver>"/>
            <param name="schema" value="<Colony_01_TRANSACTION>"/>
        </jdbc>
    </pool>
</pools>
<colonies>
    <colony name="Colony-01" version="8.5" newversion="9.0" status="" pkprefix="11">
     <schema poolid="DEFAULT_METADATA" tabletype="METADATA"/>
     <schema poolid="DEFAULT_CONFIGURATION_90" tabletype="CONFIGURATION"/>
     <schema poolid="DEFAULT_STATISTICS_90" tabletype="STATISTICS"/>
     <schema poolid="TRANSACTION-01" tabletype="TRANSACTION"/>
     <schema poolid="TRANSACTION-01" tabletype="MASTER"/>
    </colony>
    <colony name="DEFAULT" version="9.0" pkprefix="20">
     <schema poolid="DEFAULT_METADATA" tabletype="METADATA"/>
     <schema poolid="DEFAULT_CONFIGURATION_90" tabletype="CONFIGURATION"/>
     <schema poolid="DEFAULT_STATISTICS_90" tabletype="STATISTICS"/>
     <schema poolid="DEFAULT_TRANSACTION_90" tabletype="TRANSACTION"/>
```

```
        <schema poolid="DEFAULT_TRANSACTION_90" tabletype="MASTER"/>
      </colony>
    </colonies>
</colonyconfig>
```

c. In the <INSTALL_DIR>/Migration/8.5 directory for Production_V2, run the following command, where <INSTALL_DIR_OLD> corresponds to Upgrade_V2:

```
${ANT_HOME}/bin/ant -Druntime=<INSTALL_DIR>
-Druntime.old=<INSTALL_DIR_OLD> -f buildmigration.xml
-logfile <logfile> -Dtarget=updatecolonypool migrate
```

This command updates the colony parameters in Production_V2 to refer to the TRANSACTION and MASTER schemas for each colony you are moving.

The *.done file created in the 8.5 status folder of Production_V2's Migration/8.5 directory for the updatecolonypool task is ant_updatecolonypool.xml.done.

Note: If the status folder already contains the ant_updatecolonypool.xml.done file, you must delete the file before running the updatecolonypool target.

3. Use the CDT to move the configuration data for the colonies you are upgrading and the DEFAULT colony from Upgrade_V2 to Production_V2. For information about moving configuration data using the CDT, see the *Selling and Fulfillment Foundation: Configuration Deployment Tool Guide*.

Note: You can use the Production_V2 run time each time you upgrade colonies in your multischema environment. If this is not your first upgrade on Production_V2 and the CDT results in conflicts, you must resolve all the conflicts manually.

4. Production_V2 is your new version upgrade environment. All customizations and postmigration activities should be performed on this new upgrade environment. When performing postmigration activities, Production_V2 is <INSTALL_DIR> and Production_V1 is <INSTALL_DIR_OLD>. For more information about moving customizations and performing postmigration tasks, refer to "Postmigration Activities".

3.6 Modifying the addColony.xml File

The addColony.xml file lets you add colonies to a multischema deployment. You can define database information for colonies by creating an addColony.xml file that you can pass with the manageColony command. This file contains colony and database information that is required when you add a colony.

Create the addColony.xml file with a text editor. The file must contain the entries described in Table 3–1. An example of an addColony.xml file is provided after the table.

After you edit the file, make a note of its name and location, so that you can pass it with the manageColony command.

Table 3–1 Parameters for the addColony.xml File

Parameter	Definition
<*colony_name*>	The name of the colony you want to create or modify. This can be up to 40 characters in length.
<*primary_key_prefix*>	A two-digit prefix for the colony. This can be any number from 10 – 99 (except 19 and 20).
<*new_pool_id*>	The new connection pool pointing to the schema this colony is associated with.

Table 3–1 Parameters for the addColony.xml File

Parameter	Definition

<*jdbc_url*>	Specify the URL to connect to the database.
	• If using Oracle, set to:
	`jdbc:oracle:thin:@<DatabaseServerHostname/IPaddress>:<TNSListenerPortNumber>:<DatabaseSID>`
	• If using Microsoft SQLServer 2005 or 2008, set to:
	`jdbc:sqlserver://<Database ServerHostname>:<PortNumber>;DatabaseName=<Database name>`
	• If using DB2, set to:
	`jdbc:db2://<Database ServerHostname>:<Port Number>/<Database name>.<db_user> Database user name`

<*db_user*>	Specify the user name associated with the database.
<*db_password*>	Specify the password associated with the database.

<*db_driver_class*>	Specify the class name of your database driver as follows.
	• If using Oracle, set to:
	`oracle.jdbc.OracleDriver`
	• If using Microsoft SQLServer 2005/2008, set to:
	`com.microsoft.sqlserver.jdbc.SQLServerDriver`
	• If using DB2, set to:
	`com.ibm.db2.jcc.DB2Driver`

<*db_schema*>	Specify the schema name associated with the database if it is different from the <*db_user*> name you entered. This parameter is case sensitive and you must specify it in UPPERCASE.

Sample addColony File

The following sample file contains the parameters described in Table 3–1. Only the properties displayed in italics in the sample `addColony.xml` file can be changed.

Sample addColony File

```
<colonyconfig>
    <colonies>
       <colony name="<colony_name>" pkprefix="<primary_key_prefix>"
version="9.0">
          <schema poolid="DEFAULT_METADATA" tabletype="METADATA"/>
          <schema poolid="DEFAULT_CONFIGURATION" tabletype="CONFIGURATION"/>
          <schema poolid="DEFAULT_STATISTICS" tabletype="STATISTICS"/>
          <schema poolid="<new_pool_id_1>" tabletype="TRANSACTION"/>
          <schema poolid="<new_pool_id_1>" tabletype="MASTER"/>
       </colony>
    </colonies>
    <pools>
       <pool id="<new_pool_id_1>">
          <jdbc>
             <param name="url" value="<jdbc_url>"/>
             <param name="user" value="<db_user>"/>
             <param name="password" value="<db_password>"/>
             <param name="driver" value="<db_driver_class>"/>
             <param name="schema" value="<db_schema>"/>
          </jdbc>
       </pool>
    </pools>
</colonyconfig>
```

3.7 Modifying the multischema.xml File

The `multischema.xml` file lets you update database parameters for colonies. This file is generated by the `initcolonypool` target, which uses the METADATA schema from the target's specified run time to build the `multischema.xml` file.

The `multischema.xml` file contains database information for the METADATA, CONFIGURATION, STATISTICS, and TRANSACTION/MASTER schemas for each colony on the run time. After the `multischema.xml` file is generated, you can update database information by modifying the file, and then invoking the `updatecolonypool` target.

You can modify the following parameters in the `multischema.xml` file:

Table 3–2 Parameters for multischema.xml

Parameters	Definition
<colonies>	For each colony on the run time, specify the following information: • *colony name=* Identifies the colony, such as "Colony-01". • *version=* Identifies the colony's version, such as "8.5". • *newversion=* If updating the colony, identifies the version to which you are upgrading the colony, such as "9.0". • *status=* Changes the status of the colony. For example, you can change the status of the colony to "UPGRADE". If you do not want to change the status, specify "". • *pkprefix=* Identifies the colony's pkprefix, such as "11". • *schema poolid=* Identifies a schema for each table type. In addition to the table types that you define, each colony contains the METADATA, CONFIGURATION, STATISTICS, TRANSACTION, and MASTER table types. These table types refer to the schemas identified by the <pool id= " "> sections of the multischema.xml file.

Parameters	Definition
<pool id= " ">	For each schema, identified by table types in the <colonies> section of the multischema.xml file, specify the following information: • "*url*" value= Specify the URL to connect to the database. If using Oracle, set to: jdbc:oracle:thin:@<DatabaseServerHostname/IPaddress>:<TNSListenerPortNumber>:<DatabaseSID> If using Microsoft SQLServer 2005 or2008, set to: jdbc:sqlserver://<Database ServerHostname>:<PortNumber>;DatabaseName=<Database name> If using DB2, set to: jdbc:db2://<Database ServerHostname>:<Port Number>/<Database name>.<db_user> Database user name • "*user*" value= Specify the user name associated with the database. • "*password*" value= Specify the password associated with the database. • "*driver*" value= Specify the class name of your database driver as follows. If using Oracle, set to: oracle.jdbc.driver.OracleDriver If using Microsoft SQLServer 2005/2008, set to: com.microsoft.sqlserver.jdbc.SQLServerDriver If using DB2, set to: com.ibm.db2.jcc.DB2Driver • "*schema*" value= specify the schema name associated with the database if it is different from the "user" value you entered. **Note:** This parameter is case sensitive, and you must specify it in UPPERCASE.

3.8 Migrating Transaction and History Data for Colonies

Selling and Fulfillment Foundation (Release 9.0 or later) provides the yfs.api.history.disable property, which allows you to migrate a colony's history data when the application is running on the transaction data. You can use this property to migrate your data without completely shutting down the production for the colony. When using the property, you must migrate the transaction data first, and then the history data.

If you are using the yfs.api.history.disable property to migrate the transaction data before the history data, follow this process:

1. Follow the colony-by-colony upgrade strategy, as described in this chapter. However, when upgrading colonies, as described in "Upgrading Colonies in Multischema Mode", migrate only the transaction data to Production_V2, and not the history data. For information about migrating transaction data, refer to "Transaction Data Migration".
2. After returning the colonies to the production environment, as described in "Returning Colonies to the Production Environment", go to Production_V2 and use the `customer_overrides.properties` file to set the yfs.api.history.disable property to `true`. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Selling and Fulfillment Foundation: Properties Guide*.
3. Bring up your application server.
4. From Upgrade_V2, migrate your history data. When executing targets, `<INSTALL_DIR>` corresponds to Upgrade_V2 and `<INSTALL_DIR_OLD>` corresponds to Upgrade_V1. For instructions about migrating history data, refer to "History Data Migration".

   At this point, the TRANSACTION/MASTER database parameters for the colony in your Upgrade_V2 environment continue to refer to the TRANSACTION/MASTER schema from the production environment.

5. In Production_V2, use the `customer_overrides.properties` file to set the yfs.api.history.disable property to `false`. For additional information about overriding properties using the `customer_overrides.properties` file, see the *Selling and Fulfillment Foundation: Properties Guide*.
6. Restart your application server.

4

Product Changes in Business Intelligence

This chapter discusses the changes in the Sterling Analytics module between releases. In the Selling and Fulfillment Foundation, Release 8.5, Sterling Analytics has been renamed Business Intelligence.

4.1 Product Changes between Release 7.3 and Release 7.5

This section discusses the changes between Sterling Analytics, Release 7.3 and Release 7.5.

4.1.1 General Changes

None.

4.1.2 Scope

No additional cubes or reports provided.

4.1.3 Technical Changes

None.

4.1.4 Functional Changes

None.

4.1.5 Changes to Meta Data Model and Views

Several changes have been made to the Selling and Fulfillment Foundation database model. These changes include adding new tables, deleting existing tables, adding new columns to existing tables, and deleting columns from existing tables.

To accommodate the changes to the database model, the Meta Data model and the views have been changed. The following section lists the changes in folders and views.

The Impromptu Catalog and ReportNet models are updated to reflect the modified, new, and deleted views.

4.1.5.1 Changes to Folders

A folder is a container used to present data in a meta data model. Folders contain data items that represent columns within a database table. They can also contain items that do not directly reference database columns, such as calculated data items, filter conditions, and report prompts.

Existing folders have been modified to synchronize with the corresponding view changes, and new folders have been created for new views.

The following tables list the folders that have been modified for view changes. See Section 4.1.5.3, "Changes to View" for a list of columns that have been modified, added, or deleted.

Table Name	View Name	Catalog Folder
YFS_ORDER_HOLD_TYPE	YAF_ORDER_HOLD_TYPE_VW	Order/Order Header/Order Hold Type
YFS_ORDER_HOLD_TYPE_LOG	YAF_ORDER_OLD_TYPE_LOG_VW	Order/Order Header/Order Hold Type Log
YFS_CHANGE_TRAN_DIST	YAF_CHARGE_TRAN_DIST_VW	Order/Order Header Charge Transaction/Charge Transition Distribution

Table Name	View Name	Catalog Folder
YFS_CONTAINER_INNER_PACK	YAF_CONTAINER_INNER_PACK_VW	[Model].[Folders].[Shipment~2].[Shipment Container]

Table Name	View Name	Catalog Folder
YFS_WORK_ORDER	YAF_WORK_ORDER_VW	Work Order/Work Order
YFS_WORK_ORDER_TAG	YAF_WORK_ORDER_TAG_VW	Work Order/Work Order Tag
YFS_WORK_ORDER_STS_AUDIT	YAF_WORK_ORDER_STS_AUDIT_VW	Work Order/Work Order Status Audit
YFS_WORK_ORDER_SERVICE_TOOL	YAF_WORK_ORDER_SERVICE_TOOL_VW	Work Order/Work Order Service Tool
YFS_WORK_ORDER_SERVICE_LINE	YAF_WORK_ORDER_SERVICE_LINE_VW	Work Order/Work Order Service Line
YFS_WORK_ORDER_PROD_DEL	YAF_WORK_ORDER_PROD_DEL_VW	Work Order/Work Order Product Delivery
YFS_WORK_ORDER_NOTES	YAF_WORK_ORDER_NOTES_VW	Work Order/Work Order Notes
YFS_WORK_ORDER_COMPONENT	YAF_WORK_ORDER_COMPONENT_VW	Work Order/Work Order Component
YFS_WORK_ORDER_COMP_TAG	YAF_WORK_ORDER_COMP_TAG	Work Order/Work Order
YFS_WORK_ORDER_AUDT_DTL	YAF_WORK_ORDER_AUDT_DTL_VW	Work Order/Work Order Audit Detail
YFS_WORK_ORDER_APPT	YAF_WORK_ORDER_APPT_VW	Work Order/Work Order Appointment
YFS_WORK_ORDER_ACTY_DTL	YAF_WORK_ORDER_ACTY_DTL_VW	Work Order/Work Order Activity Detail
YFS_WORK_ORDER_ACTIVITY	YAF_WORK_ORDER_ACTIVITY_VW	Work Order/Work Order Activity
YFS_WO_HOLD_TYPE	YAF_WO_HOLD_TYPE_VW	Work Order/Work Order Hold Type
YFS_WO_HOLD_TYPE_LOG	YAF_WO_HOLD_TYPE_LOG_VW	Work Order/Work Order Hold Type Log
YFS_WO_APPT_USER	YAF_WO_APPT_USER_VW	Work Order/Work Order Appointment User

4.1.5.2 Changes to Joins

This section lists changes to joins.

New Joins

- YAF_WORK_ORDER_VW<-->YAF_ORDER_HEADER_VW

  YAF_WORK_ORDER_VW joins with YAF_ORDER_HEADER_VW on ORDER_HEADER_KEY.

- YAF_WORK_ORDER_VW<-->YAF_WO_HOLD_TYPE_VW

  YAF_WORK_ORDER_VW joins with YAF_WO_HOLD_TYPE_VW on WORK_ORDER_ KEY.

- YAF_WO_HOLD_TYPE_VW<-->YAF_WO_HOLD_TYPE_LOG_VW

  YAF_WO_HOLD_TYPE_VW joins with YAF_WO_HOLD_TYPE_LOG_VW on WORK_ORDER_HOLD_TYPE_KEY.

- YAF_WORK_ORDER_COMPONENT_VW<-->YAF_WORK_ORDER_VW

  YAF_WORK_ORDER_COMPONENT_VW joins with YAF_WORK_ORDER_ VW on WORK_ORDER_KEY.

- YAF_WORK_ORDER_ACTIVITY_VW<-->YAF_WORK_ORDER_VW

  YAF_WORK_ORDER_ACTIVITY_VW joins with YAF_WORK_ORDER_VW on WORK_ORDER_KEY.

- YAF_WORK_ORDER_APPT_VW<-->YAF_WO_APPT_USER_VW

  YAF_WORK_ORDER_APPT_VW joins with YAF_WO_APPT_USER_VW on WORK_ORDER_APPT_KEY.

- YAF_WORK_ORDER_VW<-->YAF_WORK_ORDER_ACTIVITY_VW

  YAF_WORK_ORDER_VW joins with YAF_WORK_ORDER_ACTIVITY_VW on WORK_ORDER_KEY.

- YAF_WORK_ORDER_NOTES_VW<-->YAF_WORK_ORDER_VW

  YAF_WORK_ORDER_NOTES_VW joins with YAF_WORK_ORDER_VW on WORK_ORDER_KEY.

- YAF_WORK_ORDER_PROD_DEL_VW<-->YAF_WORK_ORDER_VW

  YAF_WORK_ORDER_PROD_DEL_VW joins with YAF_WORK_ORDER_ VW on WORK_ORDER_KEY.

- YAF_WORK_ORDER_SERVICE_LINE_VW<-->YAF_WORK_ORDER_VW

  YAF_WORK_ORDER_SERVICE_LINE_VW joins with YAF_WORK_ ORDER_VW on WORK_ORDER_KEY.

- YAF_WORK_ORDER_SERVICE_TOOLS_VW<-->YAF_WORK_ORDER_ VW

  YAF_WORK_ORDER_SERVICE_TOOLS_VW joins with YAF_WO_HOLD_ TYPE_LOG_VW on WORK_ORDER_KEY.

- YAF_WORK_ORDER_STS_AUDIT_VW<-->YAF_WORK_ORDER_VW

  YAF_WORK_ORDER_STS_AUDIT_VW joins with YAF_WORK_ORDER_VW on WORK_ORDER_KEY.

- YAF_WORK_ORDER_TAG_VW<-->YAF_WORK_ORDER_VW

  YAF_WORK_ORDER_TAG_VW joins with YAF_WORK_ORDER_VW on WORK_ORDER_KEY.

Modified Joins

None.

Deleted Joins

None.

4.1.5.3 Changes to View

The following tables describe the views that have been added, modified, or deleted.

4.1.5.3.1 YAF_SHIPMENT_LINE_VW

The following table displays the columns that have been added in the YAF_SHIPMENT_LINE_VW view.

Column Name	Table Name	Catalog Folder
OVER_SHIP_QUANTITY	YFS_SHIPMENT_LINE	[Model]/[Folders]/[Shipment~2]/[Shipment Line]
IS_HAZMAT	YFS_ORDER_LINE_SCHEDULE	[Model]/[Folders]/[Shipment~2]/[Shipment Line]

4.1.5.3.2 YAF_ORDER_INVOICE_DETAIL_VW

The following table displays the columns that have been added in the YAF_ORDER_INVOICE_DETAIL_VW view.

Column Name	Table Name	Catalog Folder
PRIME_LINE_NO	YFS_ORDER_INVOICE_DETAIL	Invoicing/Invoice Order Detail/Prime Line No
SUB_LINE_NO	YFS_ORDER_INVOICE_DETAIL	Invoicing/Invoice Order Detail/Sub Line No

Column Name	Table Name	Catalog Folder
ORIGINAL_UNIT_PRICE	YFS_ORDER_INVOICE_DETAIL	Invoicing/Invoice Order Detail/Original Unit Price

4.1.5.3.3 YAF_ORDER_INVOICE_VW

The following table displays the columns that have been added in the YAF_ORDER_INVOICE_VW view.

Column Name	Table Name	Catalog Folder
ORDER_NO	YFS_ORDER_INVOICE	Invoicing/Invoice Order/ Invoice Order/Order No
CURRENCY	YFS_ORDER_INVOICE	Invoicing/Invoice Order/ Invoice Order/Currency
INVOICE_CREATION_REASON	YFS_ORDER_INVOICE	Invoicing/Invoice Order/ Invoice Order/Invoice Creation Reason

4.1.5.3.4 YAF_ORDER_LINE_CHARGES_VW

The following table displays the columns that have been added in the YAF_ORDER_LINE_CHARGES_VW view.

Column Name	Table Name	Catalog Folder
ORIGINAL_CHARGEPERUNIT	YFS_LINE_CHARGES	Order/Order Line/Order Line Charges/Original Charge Per Unit
ORIGINAL_CHARGEPERLINE	YFS_LINE_CHARGES	Order/Order Line/Order Line Charges/Original Charge Per Line

4.1.5.3.5 YAF_INVOICE_LINE_CHARGES_VW

The following table displays the columns that have been added in the YAF_INVOICE_LINE_CHARGES_VW view.

Column Name	Table Name	Catalog Folder
ORIGINAL_CHARGEPERUNIT	YFS_LINE_CHARGES	Invoicing/Invoice Line Charges/Original Charge Per Unit

Column Name	Table Name	Catalog Folder
ORIGINAL_CHARGEPERLINE	YFS_LINE_CHARGES	Invoicing/Invoice Line Charges/Original Charge Per Line

4.1.5.3.6 YAF_ORDER_HEADER_CHARGES_VW

The following table displays the columns that have been added in the YAF_ORDER_HEADER_CHARGES_VW view.

Column Name	Table Name	Catalog Folder
ORIGINAL_CHARGE	YFS_HEADER_CHARGES	Order/Order Header Charges/ Original Charge

4.1.5.3.7 YAF_INVOICE_HEADER_CHARGES_VW

The following table displays the columns that have been added in the YAF_INVOICE_HEADER_CHARGES_VW view.

Column Name	Table Name	Catalog Folder
ORIGINAL_CHARGE	YFS_HEADER_CHARGES	Invoicing/Invoice Header Charges/Original Charge

4.1.5.3.8 YAF_PAYMENT_VW

The following table displays the columns that have been added in the YAF_PAYMENT_VW view.

Column Name	Table Name	Catalog Folder
BILL_TO_KEY	YFS_PAYMENT	Order/Order Header Payment/ Bill To Key
DISPLAY_CUST_ACCT_NO	YFS_PAYMENT	Order/Order Header Payment/Display Customer Account number
SVC_NO	YFS_PAYMENT	Order/Order Header Payment/SVC Number
DISPLAY_SVC_NO	YFS_PAYMENT	Order/Order Header Payment/Display SVC Number
DISPLAY_PAYMENT_REF1	YFS_PAYMENT	Order/Order Header Payment/Display Payment Reference1
TOTAL_ALT_REFUNDED_AMOUNT	YFS_PAYMENT	Order/Order Header Payment/Total Alternate Refund Amount

4.1.5.3.9 YAF_SHIPMENT_TAG_SERIAL_VW

The following table displays the columns that have been added in the YAF_SHIPMENT_TAG_SERIAL_VW view.

Column Name	Table Name	Catalog Folder
CONTAINER_INNER_PACK_KEY	YFS_SHIPMENT_TAG_SERIAL	Shipment~2/Shipment Tag Serial

4.1.5.3.10 YAF_ORDER_RELEASE_VW

The following table displays the columns that have been added in the YAF_ORDER_RELEASE_VW view.

Column Name	Table Name	Catalog Folder
WORK_ORDER_KEY	YFS_ORDER_RELEASE	Order/Order Release/Order Release~1/Order Release/WORK_ORDER_KEY
WORK_ORDER_APPT_KEY	YFS_ORDER_RELEASE	Order/Order Release/Order Release~1/Order Release/WORK_ORDER_APPT_KEY
GIFT_FLAG	YFS_ORDER_RELEASE	Order/Order Release/Order Release~1/Order Release/GIFT_FLAG

4.1.5.3.11 YAF_ITEM_VW

The following table displays the columns that have been added in the YAF_ITEM_VW view.

Column Name	Table Name	Catalog Folder
NODE_LEVEL_INV_MONITOR_RULE	YFS_ITEM	Catalog/Item/Item/Node Level Inventory Monitoring Rule
CAPACITY_UOM	YFS_ITEM	Catalog/Item/Item/Capacity Uom
SERVICE_TYPE_ID	YFS_ITEM	Catalog/Item/Item/Service Type Id
ORDERING_QUANTITY_STRATEGY	YFS_ITEM	Catalog/Item/Item/Ordering Quantity Strategy
CAPACITY_PER_ORDERED_QTY	YFS_ITEM	Catalog/Item/Item/Capacity Per Ordered Qty
ASSUME_INFINITE_INVENTORY	YFS_ITEM	Catalog/Item/Item/Assume Infinite Inventory
ONHAND_SAFETY_FACTOR_QTY	YFS_ITEM	Catalog/Item/Item/Onhand Safety Factor Quantity

Column Name	Table Name	Catalog Folder
ONHAND_SAFETY_FACTOR_PCT	YFS_ITEM	Catalog/Item/Item/Onhand Safety Factor Percentage
FUTURE_SAFETY_FACTOR_PCT	YFS_ITEM	Catalog/Item/Item/Future Safety Factor Percentage
IS_AIR_SHIPPING_ALLOWED	YFS_ITEM	Catalog/Item/Item/Is Air Shipping Allowed
IS_HAZMAT	YFS_ITEM	Catalog/Item/Item/Is Hazmat
IS_FREEZER_REQUIRED	YFS_ITEM	Catalog/Item/Item/Is Freezer Required
IS_FORWARDING_ALLOWED	YFS_ITEM	Catalog/Item/Item/Is Forwarding Allowed
IS_PROCUREMENT_ALLOWED	YFS_ITEM	Catalog/Item/Item/Is Procurement Allowed
CAN_USE_AS_SERVICE_TOOL	YFS_ITEM	Catalog/Item/Item/Can Use As Service Tool

4.1.5.3.12 YAF_SHIPMENT_CONTAINER_VW

The following table displays the columns that have been added in the YAF_SHIPMENT_CONTAINER_VW view.

Column Name	Table Name	Catalog Folder
IS_HAZMAT	YFS_SHIPMENT_CONTAINER	Shipment~2/Shipment Container/Shipment Container

4.1.5.3.13 YAF_SHIPMENT_VW

The following table displays the columns that have been added in the YAF_SHIPMENT_VW view.

Column Name	Table Name	Catalog Folder
GIFT_FLAG	YFS_SHIPMENT	Shipment~2/Shipment~3/Shipment/GIFT_FLAG
WORK_ORDER_KEY	YFS_SHIPMENT	Shipment~2/Shipment~3/Shipment/WORK_ORDER_KEY
WORK_ORDER_APPT_KEY	YFS_SHIPMENT	Shipment~2/Shipment~3/Shipment/WORK_ORDER_APPT_KEY
COD_PAY_METHOD	YFS_SHIPMENT	Shipment~2/Shipment~3/Shipment/COD_PAY_METHOD

4.1.5.3.14 YAF_LOAD_VW

The following table displays the columns that have been added in the YAF_LOAD_VW view.

Column Name	Table Name	Catalog Folder
MANIFEST_KEY	YFS_LOAD	Logistics/Load/Load
IS_EXP_INCL_IN_MANIFEST	YFS_LOAD	Logistics/Load/Load
AIRWAY_BILL_NO	YFS_LOAD	Logistics/Load/Load

4.1.5.3.15 YAF_SCAC_AND_SERVICE_VW

The following table displays the columns that have been added in the YAF_SCAC_AND_SERVICE_VW view.

Column Name	Table Name	Catalog Folder
CAN_SHIP_HAZMAT	YFS_SCAC_AND_SERVICE	Scac and Service/Can Ship Hazmat
IS_AIR	YFS_SCAC_AND_SERVICE	Scac and Service/Is Air
HAS_FREEZER	YFS_SCAC_AND_SERVICE	Scac and Service/Has Freezer

4.1.5.3.16 YAF_SCAC_VW

The following table displays the columns that have been added in the YAF_SCAC_VW view.

Column Name	Table Name	Catalog Folder
PRO_NO_LENGTH	YFS_SCAC	Scac/Pro No Length

4.1.5.3.17 YAF_ORDER_LINE_VW

The following table displays the columns that have been added in the YAF_ORDER_LINE_VW view.

Column Name	Table Name	Catalog Folder
BASIC_CAPACITY_REQUIRED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Basic Capacity Required
OPTION_CAPACITY_REQUIRED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Option Capacity Required
CURRENT_WORK_ORDER_KEY	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Current Work Order Key

Column Name	Table Name	Catalog Folder
GIFT_FLAG	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Gift Flag
IS_CAPACITY_OVERRIDDEN	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Is Capacity Overridden
CAPACITY_UOM	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Capacity Uom
IS_FORWARDING_ALLOWED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Is Forwarding Allowed
IS_PROCUREMENT_ALLOWED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Is Procurement Allowed
INTENTIONAL_BACKORDER	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Intentional Backorder
FUTURE_AVAIL_DATE	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Future Available Date
REPRICING_QTY	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line/Repricing Quantity

4.1.5.3.18 YAF_ORDER_LINE_PROD_VW

The following table displays the columns that have been added in the YAF_ORDER_LINE_PROD_VW view.

Column Name	Table Name	Catalog Folder
BASIC_CAPACITY_REQUIRED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Basic Capacity Required
OPTION_CAPACITY_REQUIRED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Option Capacity Required
CURRENT_WORK_ORDER_KEY	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Current Work Order Key
GIFT_FLAG	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Gift Flag
IS_CAPACITY_OVERRIDEN	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Is Capacity Overridden
CAPACITY_UOM	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Capacity Uom
IS_FORWARDING_ALLOWED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Is Forwarding Allowed
IS_PROCUREMENT_ALLOWED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Is Procurement Allowed

Column Name	Table Name	Catalog Folder
INTENTIONAL_BACKORDER	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Intentional Backorder
FUTURE_AVAIL_DATE	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Future Available Date
REPRICING_QTY	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Products/Repricing Quantity

4.1.5.3.19 YAF_ORDER_LINE_PS_VW

The following table displays the columns that have been added in the YAF_ORDER_LINE_PS_VW view.

Column Name	Table Name	Catalog Folder
BASIC_CAPACITY_REQUIRED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Basic Capacity Required
OPTION_CAPACITY_REQUIRED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Option Capacity Required
CURRENT_WORK_ORDER_KEY	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Current Work Order Key
GIFT_FLAG	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Gift Flag
IS_CAPACITY_OVERRIDEN	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Is Capacity Overridden
CAPACITY_UOM	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Capacity Uom
IS_FORWARDING_ALLOWED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Is Forwarding Allowed
IS_PROCUREMENT_ALLOWED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Is Procurement Allowed
INTENTIONAL_BACKORDER	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Intentional Backorder
FUTURE_AVAIL_DATE	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Future Available Date
REPRICING_QTY	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Provided Services/Repricing Quantity

4.1.5.3.20 YAF_ORDER_LINE_DS_VW

The following table displays the columns that have been added in the YAF_ORDER_LINE_DS_VW view.

Column Name	Table Name	Catalog Folder
BASIC_CAPACITY_REQUIRED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Basic Capacity Required
OPTION_CAPACITY_REQUIRED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Option Capacity Required
CURRENT_WORK_ORDER_KEY	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Current Work Order Key
GIFT_FLAG	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Gift Flag
IS_CAPACITY_OVERRIDEN	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Is Capacity Overridden
CAPACITY_UOM	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Capacity Uom
IS_FORWARDING_ALLOWED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Is Forwarding Allowed
IS_PROCUREMENT_ALLOWED	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Is Procurement Allowed
INTENTIONAL_BACKORDER	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Intentional Backorder
FUTURE_AVAIL_DATE	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Future Available Date
REPRICING_QTY	YFS_ORDER_LINE	Order/Order~2/Order Line~3/Order Line Delivery Services/Repricing Quantity

4.1.5.3.21 YAF_ORGANIZATION_VW

The following table displays the columns that have been added in the YAF_ORGANIZATION_VW view.

Column Name	Table Name	Catalog Folder
SUPPLY_KEPT_EXTERNALLY	YFS_ORGANIZATION	Participant/Organization~2/Organization ~3/Organization/Supply Kept Externally

4.1.5.3.22 YAF_ORGANIZATION_BUYER_VW

The following table displays the columns that have been added in the YAF_ORGANIZATION_BUYER_VW view.

Column Name	Table Name	Catalog Folder
SUPPLY_KEPT_EXTERNALLY	YFS_ORGANIZATION	Participant/Buyer/Organization Buyer/Supply Kept Externally

4.1.5.3.23 YAF_ORGANIZATION_SELLER_VW

The following table displays the columns that have been added in the YAF_ORGANIZATION_SELLER_VW view.

Column Name	Table Name	Catalog Folder
SUPPLY_KEPT_EXTERNALLY	YFS_ORGANIZATION	Participant/Seller/Organization Seller/Supply Kept Externally

4.1.5.3.24 YAF_ORGANIZATION_CARRIER_VW

The following table displays the columns that have been added in the YAF_ORGANIZATION_CARRIER_VW view.

Column Name	Table Name	Catalog Folder
SUPPLY_KEPT_EXTERNALLY	YFS_ORGANIZATION	Participant/Carrier/Organization Carrier/Supply Kept Externally

4.1.5.3.25 YAF_ORGANIZATION_ENTERPRISE_VW

The following table displays the columns that have been added in the YAF_ORGANIZATION_ENTERPRISE_VW view.

Column Name	Table Name	Catalog Folder
SUPPLY_KEPT_EXTERNALLY	YFS_ORGANIZATION	Participant/Enterprise/Organization Enterprise/Supply Kept Externally

4.1.5.3.26 YAF_ORDER_HEADER_VW

The following table displays the columns that have been added in the YAF_ORDER_HEADER_VW view.

Column Name	Table Name	Catalog Folder
SOURCING_CLASSIFICATION	YFS_ORDER_HEADER	Order/Order Header/Order Header/Sourcing Classification
ORDER_PURPOSE	YFS_ORDER_HEADER	Order/Order Header/Order Header/Order Purpose
RETURN_OH_KEY_FOR_EXCHANGE	YFS_ORDER_HEADER	Order/Order Header/Order Header/Return Order Header Key For Exchange
EXCHANGE_TYPE	YFS_ORDER_HEADER	Order/Order Header/Order Header/Exchange Type
PENDING_TRANSFER_IN	YFS_ORDER_HEADER	Order/Order Header/Order Header/Pending Transfer In
RETURN_BY_GIFT_RECIPIENT	YFS_ORDER_HEADER	Order/Order Header/Order Header/Return By Gift Recipient
IS_SHIP_COMPLETE	YFS_ORDER_HEADER	Order/Order Header/Order Header/Is Ship Complete
IS_LINE_SHIP_COMPLETE	YFS_ORDER_HEADER	Order/Order Header/Order Header/Is Line Complete
IS_SHIP_SINGLE_NODE	YFS_ORDER_HEADER	Order/Order Header/Order Header/Is Ship Single Node
IS_LINE_SHIP_SINGLE_NODE	YFS_ORDER_HEADER	Order/Order Header/Order Header/Is Line Ship Single Node
CANCEL_ORDER_ON_EXCP_FLAG	YFS_ORDER_HEADER	Order/Order Header/Order Header/Cancel Order On Exception Flag
OPTIMIZATION_TYPE	YFS_ORDER_HEADER	Order/Order Header/Order Header/Optimization Type
PURGE_HISTORY_DATE	YFS_ORDER_HEADER	Order/Order Header/Order Header/Purge History Date

4.1.5.3.27 YAF_LOCATION_VW

The following table displays the columns that have been added in the YAF_LOCATION_VW view.

Column Name	Table Name	Catalog Folder
DOCK_TYPE	YFS_LOCATION	Warehouse Management System/Warehouse Layout/Location

4.1.5.3.28 YAF_ORDHDR_CHARGE_TRANSN_VW

The following table displays the columns that have been added in the YAF_ORDHDR_CHARGE_TRANSN_VW view.

Column Name	Table Name	Catalog Folder
TRANSFER_FROM_OH_KEY	YFS_CHARGE_TRANSACTION	Order/Order Header Charge Transaction/ Order Header Charge Transaction/Transfer From Order Header Key and Order/Order Header Charge Transaction/Payment/Transfer From Order Header Key
TRANSFER_TO_OH_KEY	YFS_CHARGE_TRANSACTION	Order/Order Header Charge Transaction/ Order Header Charge Transaction/Transfer To Order Header Key and Order/Order Header Charge Transaction/Payment/Transfer To Order Header Key
EXECUTION_DATE	YFS_CHARGE_TRANSACTION	Order/Order Header Charge Transaction/ Order Header Charge Transaction/Execution Date and Order/Order Header Charge Transaction/Payment/Execution Date
IS_COLLECTION_DATE_FIRM	YFS_CHARGE_TRANSACTION	Order/Order Header Charge Transaction/ Order Header Charge Transaction/Is Collection Date Firm and Order/Order Header Charge Transaction/Payment/Is Collection Date Firm

4.1.5.3.29 YAF_EXCEPTION_INBOX_VW

The following table displays the columns that have been added in the YAF_EXCEPTION_INBOX_VW view.

Column Name	Table Name	Catalog Folder
WORK_ORDER_KEY	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/Work Order Key
WORK_ORDER_NO	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/Work Order No
CONSOLIDATION_COUNT	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/Consolidation Count
LAST_OCCURRED_ON_DATE	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/Last Occurred On Date
FLOW_NAME	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/Flow Name

Column Name	Table Name	Catalog Folder
API_NAME	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/API Name
SUB_FLOW_NAME	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/Sub Flow Name
VIEW_ID	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/View Id
ERROR_REASON	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/Error Reason
ERROR_TYPE	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/Error Type
EXPIRATION_DAYS	YFS_INBOX	Exceptions/Exception Inbox/Exception Inbox/Expiration Days

4.1.5.3.30 YAF_ORGANIZATION_SHIP_NODES_VW

The following table displays the columns that have been added in the YAF_ORGANIZATION_SHIP_NODES_VW view.

Column Name	Table Name	Catalog Folder
TAG_TRACKED_IN_INVENTORY	YFS_SHIP_NODE	Participant/Organization~2/Organization Distribution Nodes~4/Organization Distribution Nodes/Tag Tracked In Inventory
TAG_TRACKED_AT_RECEIPT	YFS_SHIP_NODE	Participant/Organization~2/Organization Distribution Nodes~4/Organization Distribution Nodes/Tag Tracked At Receipt
CAN_SHIP_TO_ALL_NODES	YFS_SHIP_NODE	Participant/Organization~2/Organization Distribution Nodes~4/Organization Distribution Nodes/Can Ship To All Nodes
REQUIRE_TRANSFER_ ACCEPTANCE	YFS_SHIP_NODE	Participant/Organization~2/Organization Distribution Nodes~4/Organization Distribution Nodes/Require Transfer Acceptance

4.1.5.3.31 YAF_MANIFEST_VW

The following table displays the columns that have been added in the YAF_MANIFEST_VW view.

Column Name	Table Name	Catalog Folder
IS_HAZMAT	YFS_MANIFEST	Manifest
TRAILER_NO	YFS_MANIFEST	Manifest
SHIPPER_ACCOUNT_NO	YFS_MANIFEST	Manifest

4.1.5.3.32 YAF_TASK_VW

The following table displays the columns that have been added in the YAF_TASK_VW view.

Column Name	Table Name	Catalog Folder
IS_PARENT	YFS_TASK	Warehouse Management System/Task/Task
ITEM_CLASSIFICATION1	YFS_TASK	Warehouse Management System/Task/Task

Column Name	Table Name	Catalog Folder
ITEM_CLASSIFICATION2	YFS_TASK	Warehouse Management System/Task/Task
ITEM_CLASSIFICATION3	YFS_TASK	Warehouse Management System/Task/Task

4.1.5.3.33 YAF_TASK_TYPE_VW

The following table displays the columns that have been added in the YAF_TASK_TYPE_VW view.

Column Name	Table Name	Catalog Folder
ALLOW_MULTIPLE_USERS	YFS_TASK_TYPE	Warehouse Management System/Task/Task Type

4.1.5.4 New Aliases

None.

4.1.6 Sample Reports

No changes.

4.1.7 Cubes

No changes.

4.2 Product Changes in Sterling Analytics Between Release 7.5 to Release 7.9

This section discusses the changes between the Sterling Analytics, Release 7.5 and Release 7.9.

4.2.1 General Changes

None.

4.2.2 Scope

No additional cubes or reports provided.

4.2.3 Technical Changes

None.

4.2.4 Functional Changes

None.

4.2.5 Changes to Meta Data Model and Views

Several changes have been made in the Selling and Fulfillment Foundation's database model. These changes include adding new tables, dropping existing tables, adding new columns to existing tables, and dropping columns from existing tables.

To accommodate the changes to the database model, the Framework Model and the views have been changed. The following section lists the changes in folders and views.

All the modified, new, and deleted views have been updated in the Impromptu Catalog and ReportNet models.

4.2.5.1 Changes to Folders

A folder is a container used to present data in an IBM Cognos Framework. Folders contain data items, that represent columns within a database table. They can also contain items that do not directly reference database columns, such as calculated data items, filter conditions, and report prompts.

Existing folders have been modified to synchronize with the corresponding view changes, and new folders have been created for new views.

The following section lists the folders that have been modified for view changes. See Section 4.1.5.3, "Changes to View" for a list of columns that have been modified, added, or deleted.

4.2.5.2 Changes to Joins

This section lists changes to joins.

New Joins

- YAF_ORDER_HEADER_VW<-->YAF_PROMOTION_VW

  YAF_ORDER_HEADER_VW joins with YAF_PROMOTION_VW on ORDER_HEADER_KEY.

- YAF_ORDER_HEADER_VW<-->YAF_PROMOTION_AWARD_VW

  YAF_PROMOTION_VW joins with YAF_PROMOTION_AWARD_VW on ORDER_HEADER_KEY.

- YAF_PROMOTION_VW<-->YAF_PROMOTION_AWARD_VW

  YAF-PROMOTION_VW joins with YAF_PROMOTION_AWARD_VW on PROMOTION_KEY.

- YAF_EXCEPTION_INBOX_VW<-->YAF_INBOX_NOTES_VW

  YAF_EXCEPTION_INBOX_VW joins with YAF_INBOX_NOTES_VW on INBOX_KEY.

Modified Joins

None.

Deleted Joins

None.

4.2.5.3 Changes to Views

The following tables describe the views that have been added, modified, and deleted.

4.2.5.3.1 New Views

Table Name	View Name	Catalog Folder
YFS_INBOX_NOTES	YAF_INBOX_NOTES_VW	Exceptions/Exception Notes
YFS_PROMOTION	YAF_PROMOTION_VW	Order/Order Header/Promotion
YFS_PROMOTION_AWARD	YAF_PROMOTION_AWARD_VW	Order/Order Header/Promotion Award

4.2.5.3.2 YAF_EXCEPTION_INBOX_VW

The following table displays the columns that have been added in the YAF_EXCEPTION_INBOX_VW view.

Column Name	Table Name	Catalog Folder
COUNT_PROGRAM_NAME	YFS_INBOX	Exceptions/Inbox

4.2.5.3.3 YAF_LOAD_VW

The following table displays the columns that have been added in the YAF_LOAD_VW view.

Column Name	Table Name	Catalog Folder
ACTUAL_FREIGHT_CHARGE	YFS_LOAD	Logistics/Load

4.2.5.3.4 YAF_ORDER_HEADER_VW

The following table displays the columns that have been added in the YAF_ORDER_HEADER_VW view.

Column Name	Table Name	Catalog Folder
BUYER_RECEIVING_NODE_ID	YFS_ORDER_HEADER	Order/Order Header/Order Header
BUYER_MARK_FOR_NODE_ID	YFS_ORDER_HEADER	Order/Order Header/Order Header

4.2.5.3.5 YAF_ORDER_LINE_VW Alias Audit Order Line, Exception Order Line, Invoice Line

The following table displays the columns that have been added in the YAF_ORDER_LINE_VW view.

Column Name	Table Name	Catalog Folder
BUYER_MARK_FOR_NODE_ID	YFS_ORDER_LINE	Order/Order Line~2/Order Line~3/
BUYER_RECEIVING_NODE_ID	YFS_ORDER_LINE	Order/Order Line~2/Order Line~3/

4.2.5.3.6 YAF_SHIPMENT_VW

The following table displays the columns that have been added in the YAF_SHIPMENT_VW view.

Column Name	Table Name	Catalog Folder
BUYER_RECEIVING_NODE_ID	YFS_SHIPMENT	Shipment~2/Shipment~3/Shipment/
SHIPMENT_CONSOL_GROUP_ID	YFS_SHIPMENT	Shipment~2/Shipment~3/Shipment/

4.2.5.3.7 YAF_SHIPMENT_LINE_VW

The following table displays the columns that have been added in the YAF_SHIPMENT_LINE_VW view.

Column Name	Table Name	Catalog Folder
BUYER_MARK_FOR_NODE_ID	YFS_SHIPMENT_LINE	Shipment~2/Shipment Line
ORDER_TYPE	YFS_SHIPMENT_LINE	Shipment~2/Shipment Line
SHIPMENT_CONSOL_GROUP_ID	YFS_SHIPMENT_LINE	Shipment~2/Shipment Line
GIFT_FLAG	YFS_SHIPMENT_LINE	Shipment~2/Shipment Line

4.2.5.3.8 YAF_WORK_ORDER_PROD_DEL_VW

The following table displays the columns that have been added in the YAF_WORK_ORDER_PROD_DEL_VW view.

Column Name	Table Name	Catalog Folder
CAUSE_APPT_CHANGE	YFS_WORK_ORDER_PROD_DEL	Work Order/Work Orer Product delivery

4.2.5.3.9 YAF_ORDER_LINE_PROD_VW

The following table displays the columns that have been added in the YAF_ORDER_LINE_PROD_VW view.

Column Name	Table Name	Catalog Folder
BUYER_MARK_FOR_NODE_ID	YFS_ORDER_LINE	Order/Order Line~2/Order Line Products/Order Line
BUYER_RECEIVING_NODE_ID	YFS_ORDER_LINE	Order/Order Line~2/Order Line Products/Order Line

4.2.5.3.10 YAF_ORDER_LINE_PS_VW

The following table displays the columns that have been added in the YAF_ORDER_LINE_PS_VW view.

Column Name	Table Name	Catalog Folder
BUYER_MARK_FOR_NODE_ID	YFS_ORDER_LINE	Order/Order Line~2/Order Line Provided Services/
BUYER_RECEIVING_NODE_ID	YFS_ORDER_LINE	Order/Order Line~2/Order Line Provided Services/

4.2.5.3.11 YAF_ORDER_LINE_DS_VW

The following table displays the columns that have been added in the YAF_ORDER_LINE_DS_VW view.

Column Name	Table Name	Catalog Folder
BUYER_MARK_FOR_NODE_ID	YFS_ORDER_LINE	Order/Order Line~2/Order Line Delivery Services/Order Line
BUYER_RECEIVING_NODE_ID	YFS_ORDER_LINE	Order/Order Line~2/Order Line Delivery Services/Order Line

4.2.5.3.12 YAF_PROMOTION_AWARD_VW

The following table displays the columns that have been added in the YAF_PROMOTION_AWARD_VW view.

Column Name	Table Name	Catalog Folder
PROMOTION_AWARD_KEY	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
PROMOTION_KEY	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
PROMOTION_ID	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
ORDER_HEADER_KEY	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
ORDER_LINE_KEY	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
AWARD_ID	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
DESCRIPTION	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
AWARD_TYPE	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
AWARD_AMOUNT	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
AWARD_APPLIED	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
DENIAL_REASON	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award
POS_REASON_CODE	YFS_PROMOTION_AWARD	Order/Order Header~1/Promotion Award

4.2.5.3.13 YAF_PROMOTION_VW

The following table displays the columns that have been added in the YAF_PROMOTION_VW view.

Column Name	Table Name	Catalog Folder
PROMOTION_KEY	YFS_PROMOTION	Order/Order Header~1/Promotion
PROMOTION_ID	YFS_PROMOTION	Order/Order Header~1/Promotion
ORDER_HEADER_KEY	YFS_PROMOTION	Order/Order Header~1/Promotion

Column Name	Table Name	Catalog Folder
PROMOTION_TYPE	YFS_PROMOTION	Order/Order Header~1/Promotion
PROMOTION_APPLIED	YFS_PROMOTION	Order/Order Header~1/Promotion
DENIAL_REASON	YFS_PROMOTION	Order/Order Header~1/Promotion
DESCRIPTION	YFS_PROMOTION	Order/Order Header~1/Promotion

4.2.5.3.14 YAF_INBOX_NOTES_VW

The following table displays the columns that have been added in the YAF_INBOX_NOTES_VW view.

Column Name	Table Name	Catalog Folder
INBOX_NOTES_KEY	YFS_INBOX_NOTES	Exceptions/Exception Notes
INBOX_KEY	YFS_INBOX_NOTES	Exceptions/Exception Notes
SEQUENCE_NO	YFS_INBOX_NOTES	Exceptions/Exception Notes
TRANID	YFS_INBOX_NOTES	Exceptions/Exception Notes
AUDIT_TRANSACTION_ID	YFS_INBOX_NOTES	Exceptions/Exception Notes
REASON_CODE	YFS_INBOX_NOTES	Exceptions/Exception Notes
NOTE_TEXT	YFS_INBOX_NOTES	Exceptions/Exception Notes
CONTACT_TYPE	YFS_INBOX_NOTES	Exceptions/Exception Notes
CONTACT_REFERENCE	YFS_INBOX_NOTES	Exceptions/Exception Notes
CONTACT_TIME	YFS_INBOX_NOTES	Exceptions/Exception Notes
CONTACT_USER	YFS_INBOX_NOTES	Exceptions/Exception Notes

4.2.5.4 New Aliases

None

4.2.5.5 Sample Reports

No changes.

4.2.5.6 Cubes

No changes.

4.3 Product Changes in Sterling Analytics Between Release 7.9 to Release 7.11

This section discusses the changes between the Sterling Analytics, Release 7.9 to Release 7.11.

4.3.1 General Changes

None.

4.3.2 Scope

No additional cubes or reports provided.

4.3.3 Technical Changes

None.

4.3.4 Functional Changes

None.

4.3.5 Changes to Meta Data Model and Views

None.

4.3.5.1 Changes to Folders

None.

4.3.5.2 Changes to Joins

None.

4.3.5.3 Modified Joins

None.

4.3.5.4 Deleted Joins

None.

4.3.5.5 Changes to View

None.

4.4 Product Changes in Sterling Analytics Between Release 7.11 and Release 8.0

This section discusses the changes between Sterling Analytics, Release 7.11 and Release 8.0.

4.4.1 General Changes

In Release 8.0, the names of some of the Analytic components have been changed.

- The `Yantra-Analytics.zip` file is now `SMCF-Analytics.zip`.
- The datasource, `yantra`, is now `smcfs`.
- The meta data model, `Yantra-Analytics`, is now `SMCF-Analytics`.
- The package, `Yantra-Analytics`, is now `SMCF-Analytics`.
- The `yantra.properties` file is now `analytics.properties`.
- The `yantra.app.url` property located in the `analytics.properties` file is now `smcfs.app.url`.
- The `yantraanalytics.jar` file is now `sscanalytics.jar`.
- The `yantra-auth.jar` file is now `smcfs-auth.jar`.
- Reports are now packaged using the packaging methods.
- Sterling Analytics now supports IBM Cognos 8 Business Intelligence 8.2.
- All sample reports, packages, models, and deployments have been migrated to IBM Cognos 8 BI 8.2.
- New sample reports have been created on IBM Cognos 8 BI 8.2
- Reports customized by you must to be upgraded to IBM Cognos 8.

- For more information about upgrading to IBM Cognos 8 BI 8.2 from Cognos 7x, refer to the *IBM Cognos 8 Business Intelligence Installation and Configuration Guide*.
- The Sterling Analytics model structure has been revamped to improve performance for custom reports. See Changes to Folders on page A-376 for information about the these changes and the modifications you need to make to access the new structure.

4.4.2 Scope

Following are the new sample reports that are provided:

- Backlog Summary Report - Provides visibility into sales orders that have been in certain fulfillment statuses for a specific period of time.
- Business Volume Report - Provides visibility into the number of sales and the amount of revenue generated during a specific period of time.
- Days of Supply Report - Provides visibility into the estimated number of days the inventory supply will be available, and the total supply and demand.
- Goods in Transit Report - Provides visibility into transfer orders and procurement orders whose delayed shipment impacts the shipment of an outbound order
- Invoice Collections Report -Provides visibility into the total amount invoiced and the total payments for each invoice type.
- Orders On Hold Report - Provides visibility into the number of sales orders, purchase orders, and transfer orders that are on hold and unresolved.
- Returned Products Report - Provides visibility into the ten most frequently returned items for an enterprise within a specific period of time, based on quantity.
- Top 10 Products Report - Provides visibility into the 10 most frequently purchased products within a specified time period.
- Unshipped Orders Report - Provides visibility into the requested order releases for a specific day.

4.4.3 Technical Changes

None.

4.4.4 Functional Changes

None.

4.4.5 Changes to the Meta Data Model and Views

The Sterling Analytics model structure for custom reports has been revamped to improve performance, as described in the next section.

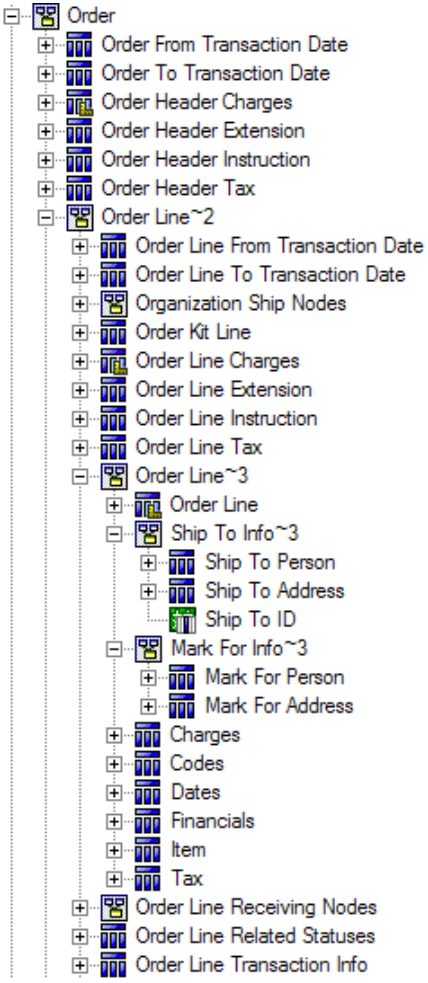
4.4.5.1 Folder Changes

In the Sterling Analytics Model structure, some unnecessary joins were slowing performance. To remedy this, columns have been restructured and namespaces have changed. This section contains a description of these changes and the modifications that you must make to reports and namespaces to access these changes.

4.4.5.1.1 Description of Changes to the Sterling Analytics Model

The Sterling Analytics Model prior to this release had a structure similar to the one shown in Figure 4–1.

Figure 4–1 Sterling Analytics Model Structure Prior to 8.0



In Figure 4–1, The “Order Line~3” namespace contains an “Order Line” query subject. This query subject pulls its data from the YAF_ORDER_LINE_VW view. The query subjects below it, including the namespaces below it, also pull their data from the YAF_ORDER_LINE_VW view.

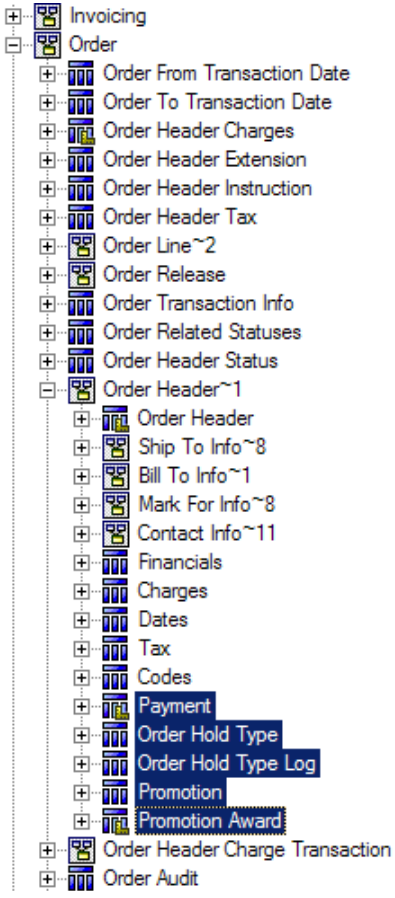
This caused a performance problem when you pulled a query item from Order Line and Codes into a report.

The structure has been relabeled in this release. For example, in the case of Order Line, Order Line~3 is now a query subject that selects all the

necessary columns from the items below. The Order Line query subject is now a query item folder containing only those columns that the Order Line query subject contains. The same applies to Charges, Codes, Dates, Ship To Info~3, Ship To Person, and so on.

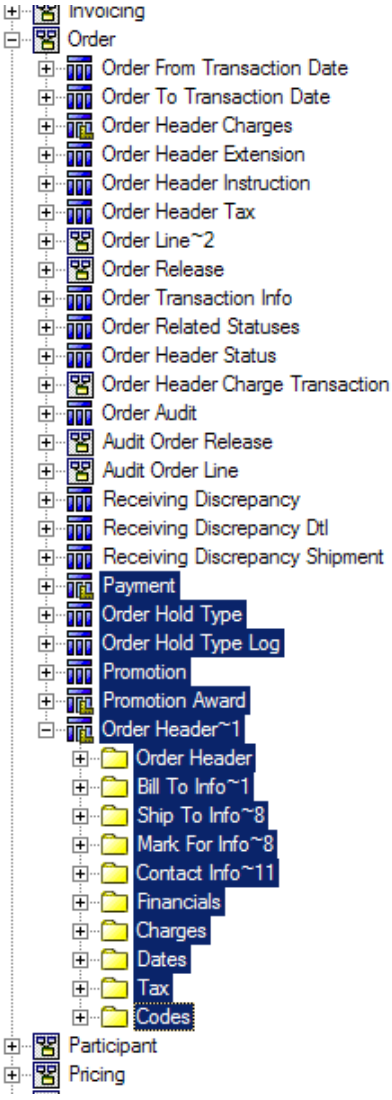
In addition, some cases such as Order Header~1, existed where the namespace contained several query subjects that accessed the same view, while the others accessed a different view. Figure 4–2 depicts five such query subjects. Payment refers to YAF_PAYMENT_VW view, while others refer to YAF_ORDER_HEADER_VW. In this example, these subjects are pulled out and placed in the Order namespace. A relationship is also added from the query subject back up to Order Header.

Figure 4–2 Previous Release: Query Subjects that Access Several Views



The revamped structure is similar to the one shown in Figure 4–3.

Figure 4–3 Current Release: Query Subjects That Access Several Views



4.4.5.1.2 Modifying Existing Reports

You can perform manual changes to custom reports using one of the following methods:

- Export the report into XML format using Report Studio and perform a search-and-replace action for each namespace item that has changed. Reload the report into Report Studio and validate it.
- In Report Studio, change the report's query items, filters, calculations, and so on, in order to reference the same query items in the new namespace. Validate the report to determine the problem items.

The format of reports in this release is the same, but the namespaces and query subjects have changed. The syntax is as follows:

```
[closest namespace].[query subject].[query item]
```

In the previous release, the original access to the object was:

```
[Order Header~1].[Dates].[Order Date]
```

...as shown in Figure 4–2. In the current release, the access to the object is:

```
[Order].[Order Header~1].[Order Date]
```

...as shown in Figure 4–3.

This is also true for [Order Header~1].[Financials], [Order Header~1].[Codes], and so on.

Query items such as EnterpriseKey in the old Order Header query subject, are also accessed differently because of namespace changes.

The earlier way to access them is:

```
[Order Header~1].[Order Header].[Enterprise Key]
```

The new way to access them is:

```
[Order].[Order Header~1].[Enterprise Key]
```

Another example of the earlier access method is:

```
[Order Header~1].[Charges].[Other Charges]
```

The new access method is:

```
[Order].[Order Header~1].[Other Charges]
```

Exceptions

In the following exceptions, both the structure and the namespace have changed:

In the case of Order Header ~1, the Payment query subject has moved to the Order namespace (compare Figure 4–2 with Figure 4–3.). As a result, instead of accessing `[Order Header~1].[Payment].[Payment Type]`, you must use `[Order].[Payment].[Payment Type]`.

This applies to the following query subjects:

- `[Order Header~1].[Payment] => [Order].[Payment]`
- `[Order Header~1].[Order Hold Type] => [Order].[Order Hold Type]`
- `[Order Header~1].[Order Hold Type Log] => [Order].[Order Hold Type Log]`
- `[Order Header~1].[Promotion Award] => [Order].[Promotion Award]`
- `[Shipment Container].[Shipment Container Inner Pack] => [Shipment~2].[Shipment Container Inner Pack]`

4.4.5.1.3 Renaming the Affected Namespaces

If your existing reports use the following namespaces, change them to the new namespaces that are also shown in this list:

- Logistics -> Load
- Logistics -> Load Stop
- Catalog -> Item
- Catalog -> Item Organization
- Inventory~1 -> Inventory Item Organization
- Inventory~1 -> Inventory Cost Shipment Order
- Inventory~1 -> Inventory Cost Shipment Line
- Inventory~1 -> Cost Receipt Distribution Nodes
- Inventory~1 -> Cost Shipment Distribution Nodes
- Inventory~1 -> Inventory Demand Distribution Nodes

- Inventory~1 -> Inventory Supply Distribution Nodes
- Invoicing -> Invoice Order
- Invoicing -> Invoice Line
- Invoicing -> Invoice Shipment
- Order -> Order Line~2 -> Organization Ship Nodes
- Order -> Order Line~2 -> Order Line ~3
- Order -> Order Line~2 -> Order Line Receiving Nodes
- Order -> Order Line~2 -> Services Shipments
- Order -> Order Line~2 -> Order Line Products
- Order -> Order Line~2 -> Order Line Provided Services
- Order -> Order Line~2 -> Order Line Delivery Services
- Order -> Order Release -> Order Release~1
- Order -> Order Release -> Order Release Ship Nodes
- Order -> Order Release -> Order Release Receiving Nodes
- Order -> Order Header~1
- Order -> Order Header Charge Transaction
- Order -> Audit Order Release
- Order -> Audit Order Line
- Participant -> Buyer
- Participant -> Seller
- Participant -> Carrier
- Participant -> Enterprise
- Participant -> Organization~2 -> Organization Users
- Participant -> Organization~2 -> Organization~3
- Participant -> Organization~2 -> Organization Distribution Nodes~4
- Participant -> Hub
- Pricing -> Price List Seller Organization
- Shipment~2 -> Shipment Container

- Shipment~2 -> Shipment~3
- Shipment~2 -> Shipment Order Release
- General -> Contact Info~22
- Exceptions -> Exception Inbox
- Exceptions -> Queue
- Exceptions -> Exception Order Line
- Exceptions -> Exception Organization
- Exceptions -> Exception Users Organization
- Exceptions -> Exception Queue Organization
- Exceptions -> Exception Enterprises
- Exceptions -> Exception Queue Subs Users Organization
- Exceptions -> Exception Users
- Exceptions -> Exception Queue Subs Users

4.4.5.2 Changes to Joins

4.4.5.2.1 New Joins

None.

4.4.5.2.2 Modified Joins

None.

4.4.5.2.3 Deleted Joins Y

AF_SCAC_AND_SERVICE_VW <-->YAF_SHIPMENT_VW

4.4.5.3 Changes to Alias Relationships

This section describes changes to alias relationships.

4.4.5.3.1 New Alias Relationships •

- Order Header <--> Order Hold Type

  Order Header joins with Order Hold Type on Order Header Key.

- Order Header <--> Order Header Status

  Order Header joins with Order Header Status on Order Header Key.

- Order Header <--> Shipment

  Order Header joins with Shipment on Order Header Key.

- Inventory Item <--> Inventory Item Supply

  Inventory Item joins with Inventory Item Supply on Inventory Item Key.

- Invoice Order <--> Charges

  Invoice Order joins with Charges on Invoice Order Key.

4.4.5.3.2 Modified Alias Relationships

None.

4.4.5.3.3 Deleted Alias Relationships

None.

4.4.5.4 Changes to Views

The following tables describe the views that have been added, modified, or deleted.

4.4.5.4.1 New Views

The following table displays the views that have been added.

Table Name	View Name	Catalog Folder
YFS_LOCALE	YAF_ORG_LOCALE_VW	General/Org Locale Info
YFS_ORDER_RELEASE_STATUS	YAF_RELEASE_RELATED_STATUS_VW	Order/Order Release/Release Related Statuses

4.4.5.4.2 YAF_INVOICE_ORDER_VW T

The following table shows the new columns that have been added to the YAF_INVOICE_ORDER_VW view.

Column Name	Query Item	Table Name	Catalog Folder
CREATETS	Invoice Date	YFS_INVOICE_ORDER	Invoicing/Invoice Order/Invoice Order

4.5 Product Changes in Sterling Analytics Between Release 8.0 and Release 8.2

There are no changes between Sterling Analytics, Release 8.0 and Release 8.2.

4.6 Product Changes in Business Intelligence Between Release 8.2 to Release 8.5

This section discusses the changes between Business Intelligence, Release 8.2 and Release 8.5.

4.6.1 General Changes

In Release 8.5, the following changes have been made:

- Sterling Analytics has been renamed Business Intelligence.
- Business Intelligence now supports multischema mode.
- All the views have been deprecated, and are no longer provided by Business Intelligence.
- IBM Cognos query subjects are replacing the views for Business Intelligence reports. However, WithHistory views will not be replaced.
- The Business Intelligence model structure is modified to accommodate IBM Cognos query subjects, that are replacing views.
- Business Intelligence now supports IBM Cognos 8 Business Intelligence (BI) 8.4. All sample reports, packages, models, and deployments have been migrated to IBM Cognos 8 Business Intelligence 8.4.

- The path required for the COGNOS_HOME variable has been changed. It now includes the subdirectory where IBM Cognos is installed. For example, if IBM Cognos is installed in `C:\Program Files\Cognos\c8`, you would specify `C:\Program Files\Cognos` in earlier versions. However, in Release 8.5, you should specify `C:\Program Files\Cognos\c8`.
- Reports customized with JavaScript must be upgraded to IBM Cognos 8 Business Intelligence 8.4. See http://support.cognos.com/en/support/diagnostics/pdf/upgrading_javascript_applications.pdf for instructions. Following is the list of affected Business Intelligence reports:
  - Sample_Backlog_Summary_Report
  - Sample_Invoice_Collections_Report
  - Sample_Open_Orders_Report
  - Sample_Orders_On_Hold_Report
  - Sample_Returned_Products_Report
- There are four required data sources in Release 8.5. These data sources are based on schema type: Config, Metadata, MasterData, and Transaction. For details refer to the *Selling and Fulfillment Foundation: Business Intelligence Guide*.
- Powerplay Cubes have been deprecated.
- For more information about upgrading to IBM Cognos 8 Business Intelligence 8.4 from Cognos 7x, refer to the *IBM Cognos 8 Business Intelligence Installation and Configuration Guide*.

4.6.2 Scope

None.

4.6.3 Technical Changes

None.

4.6.4 Functional Changes

In Release 8.5, the following functional changes have been carried out:

- When a user is adding containers to a manifest using the Add To Manifest High Speed Data Entry (HSDE) screen, it is mandatory to select a station from the Station drop-down list and then click the Add To Manifest button. Otherwise, an error message is displayed.
- When a user is removing containers from a manifest using the Remove From Manifest HSDE screen, it is mandatory to select a station from the Station drop-down list and then click the Remove From Manifest button. Otherwise, an error message is displayed.

4.6.5 Changes to the Meta Data Model and Views

The Sterling Analytics model structure for custom reports has been revamped to improve performance, as described in the next section.

4.6.5.1 Changes to Folders and Namespaces

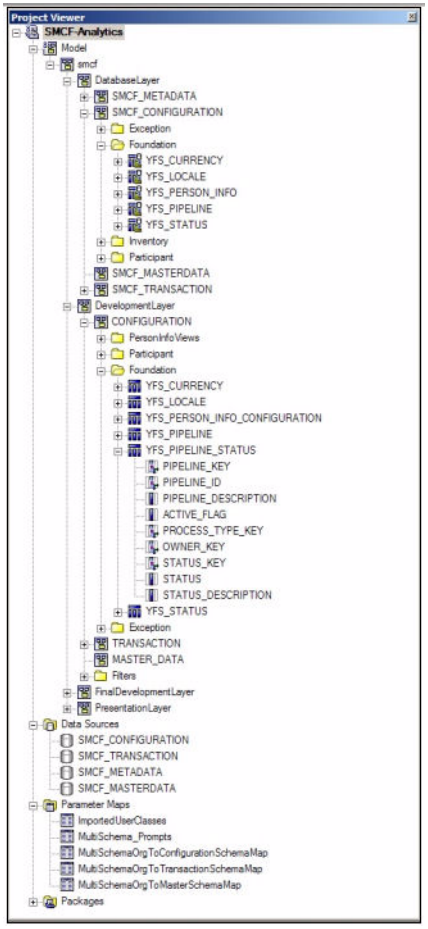
The model's folders and namespaces have been restructured to support multischema and the use of IBM Cognos query subjects to build final query subjects.

4.6.5.1.1 Description of Sterling Analytics Model Changes

Folders and namespaces have been reorganized in Release 8.5. The smcf namespace contains the DatabaseLayer, DevelopmentLayer, FinalDevelopmentLayer, and PresentationLayer namespaces. The DatabaseLayer and DevelopmentLayer contain a collection of namespaces corresponding to the different types of schemas supported by multischema deployments.

Figure 4–4 shows an expanded view of the DatabaseLayer and DevelopmentLayer.

Figure 4–4 Sterling Analytics Model Structure in 8.5



The DatabaseLayer namespace contains all the Cognos query subjects that are data source query subjects. No relationships are defined here. There is only one query subject per table per schema type. Query subjects select only from tables in the corresponding schema type namespace. Folders are used to group query subjects by common functionality.

The DevelopmentLayer namespace contains all the Cognos query subjects that are model query subjects. Relationships between query subjects are defined here. There can be multiple query subjects for each data source query subject based on relationships, view, or schema type, for example, person info address types. Query subjects are grouped by folder in functional area. Query subjects select only from other query subjects in the corresponding schema type namespace in the DevelopmentLayer or DatabaseLayer, except when the query subject has a relationship with a query subject in another schema type.

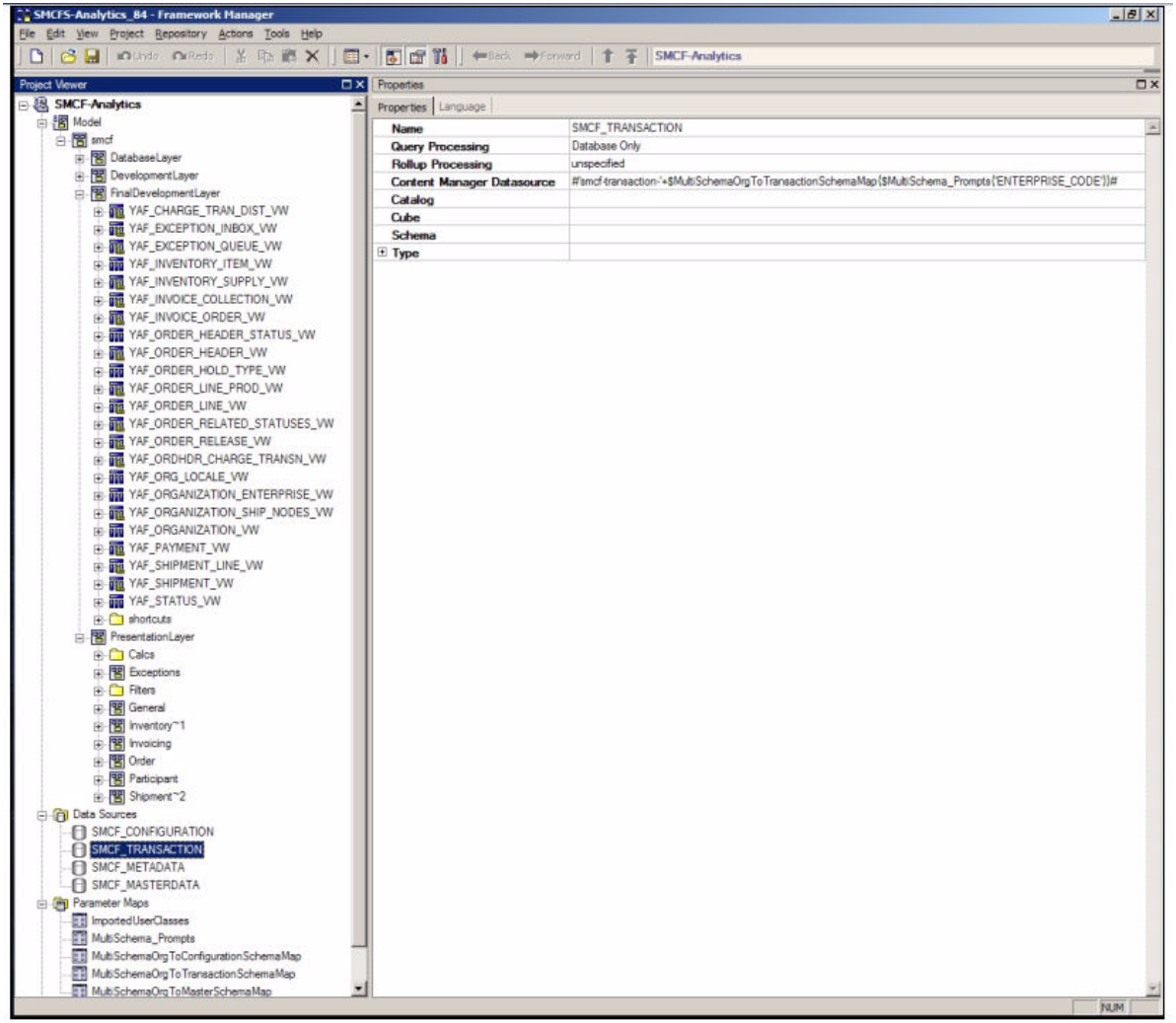
The DevelopmentLayer also contains the Filters folder. The Filters folder contains reusable filters, such as DRAFT_ORDER_FLAG=N. These filters refer to the DevelopmentLayer query subjects for their data items whenever possible.

The FinalDevelopmentLayer namespace contains model query subjects that are named the same and replicate the functionality of the earlier existing views.

The PresentationLayer namespace contains no new query subjects. IBM Cognos query subjects used by the reports are remapped to the FinalDevelopmentLayer. All unused query subjects have been removed.

Figure 4–5 shows an expanded view of the PresentationLayer namespace.

Figure 4–5 Sterling Analytics Model Structure / Data Source Config in 8.5



There is also one data source for each schema type. Transaction and MasterData groups can have multiple schemas, the selection logic of these schemas has been parameterized.

4.6.5.2 Changes to Joins

4.6.5.2.1 New Joins

None.

4.6.5.2.2 Modified Joins

All joins in Release 8.5 will execute against a minimal number of tables at runtime. The join between YFS_ORDER_HEADER.BILL_TO_KEY and YFS_PERSON_INFO.PERSON_INFO_KEY has changed from a left outer join to an inner join. Also, the join between YFS_ORDER_HEADER.SHIP_TO_KEY and YFS_PERSON_INFO.PERSON_INFO_KEY has changed from a left outer join to an inner join.

4.6.5.2.3 Deleted Joins

All the joins to the removed views have been deleted.

4.6.5.3 Changes to Alias Relationships

None.

4.6.5.3.1 New Alias Relationships

None.

4.6.5.3.2 Modified Alias Relationships

None.

4.6.5.3.3 Deleted Alias Relationships

None.

4.6.5.4 Changes to Cognos Query Subjects and Views

This section describes changes to IBM Cognos query subjects and to views.

4.6.5.4.1 Views Converted to Cognos Query Subjects

The following views have been converted to IBM Cognos query subjects in Release 8.5:

- YAF_INVENTORY_ITEM_VW
- YAF_INVENTORY_SUPPLY_VW
- YAF_ORDHDR_CHARGE_TRANSNW_VW
- YAF_ORDER_HEADER_STATUS_VW
- YAF_ORDER_HEADER_VW
- YAF_ORDER_LINE_PROD_VW
- YAF_ORDER_LINE_VW
- YAF_ORDER_RELEASE_STATUSES_VW
- YAF_ORDER_RELEASE_VW
- YAF_ORGANIZATION_ENTERPRISE_VW
- YAF_ORG_LOCALE
- YAF_ORGANIZATION_SHIP_NODES_VW
- YAF_ORGANIZATION_VW
- YAF_SHIPMENT_VW
- YAF_EXCEPTION_INBOX_VW
- YAF_EXCEPTION_QUEUE_VW
- YAF_INVOICE_COLLECTION_VW
- YAF_INVOICE_ORDER_VW
- YAF_SHIPMENT_LINE_VW
- YAF_STATUS_VW
- YAF_ORDER_HOLD_TYPE_VW

4.6.5.4.2 Removed Views

All the views have been removed in Release 8.5.

4.6.5.4.3 Removed Columns

The following columns have been removed from YAF_ORGANIZATION_SHIP_NODES_VW:

- MIN_NOTIFICATION_TIME
- ADVANCED_NOTIFICATION_TIME

4.7 Product Changes Between Business Intelligence, Release 8.5 and Release 9.0

There have been no changes between Sterling Analytics, Release 8.5 and Release 9.0.

A

Custom JSP Reconciliation for New Functionalities in Release 9.0

This appendix provides instructions for obtaining the list of JSPs that have been modified in the Selling and Fulfillment Foundation. If you have extended any of these JSPs, ensure that you re-apply the extensions and reconcile the changes made in these JSPs.

The context path "yantra" is no longer hard coded in the JSPs. This is now derived as "request.getContextPath()" and all the JSPs that have "yantra" have been modified accordingly.

For example, the following section of code `<script language="javascript" src="/yantra/console/scripts/tools.js"></script>` has been changed to `<script language="javascript" src="<%=request.getContextPath()%>/console/scripts/tools.js"></script>`

Besides the change described, the JSPs in Release 9.0 have been modified for various reasons.

To reapply extensions and reconcile changes made in JSPs after your last upgrade (or after installation), follow these steps:

1. Extract and explode the war file from the ear file of the old runtime.
2. Build the ear file for the Release 9.0 runtime in <INSTALL_DIR>. For information about building the ear file, refer to *Selling and Fulfillment Foundation: Installation Guide*.
3. Extract and explode the smcfs.war file from the smcfs.ear file.
4. Run a file-by-file difference between the files in the old runtime and corresponding files in the Release 9.0 runtime.
5. If you have customized any of the JSPs found in step 4, apply the changes from step 4 to the <INSTALL_DIR>/extensions/global/webpages directory.

B

Migration Estimates

This appendix provides single-hop migration estimates for Sterling Supply Chain Applications, Release 7.5 through Selling and Fulfillment Foundation, Release 9.0. You can refer to these migration estimates as a general guideline when determining the time it takes to perform a multihop upgrade. However, you must understand that the multihop migration process may require less time to perform than the combined single-hop migrations. Some tasks require less time when performed as part of a multihop upgrade than when performed as part of multiple single-hop upgrades. Other tasks are performed multiple times when you perform multiple single-hop migrations but performed only once as part of a multihop migration, such as performing the `initupgrade` task. Additionally, migration times vary depending on hardware configuration and other factors.

For example, do not combine the migration times for the following single-hop upgrades to determine the time it will take you to perform an upgrade from Release 7.7 to Release 7.11:

- Release 7.7 to Release 7.9
- Release 7.9 to Release 7.11

Single-hop migration estimates are provided in the following sections:

- Migration Estimates for Release 8.5
- Migration Estimates for Release 9.0

Note: Migration estimates are not available for Release 7.5 SP1.

B.1 Migration Estimates for Release 7.5

The time it takes to upgrade from Release 7.3 to Release 7.5 varies, because of numerous factors. It is therefore recommended that you use the information in Table B–2 as a rough estimate, and not as a guarantee. The following hardware configuration was used to arrive at these time estimates:

DB Version: 9.2.0.5

DB Server OS: HP-UX 11.11

Class of the DB Server: rp7410

Number of CPUs on the DB Server: 8 (750 MHz processors)

RAM on Database Server: 8 GB

Disks Used for Database Files: EMC CLARiiON FC4700 SANS

Disk Filesystem: RAW

Application Server (The server on which the migration program was run):

Database Server

Total Data Size: 315 GB

Total Data Size postmigration: 316 GB

Row Counts for Key Tables

Table B–1 provides row counts for key tables in the sample database for Release 7.5.

Table B–1 Row Counts for Key Tables in the Sample Database

Data	Current Data Size	History Data Size
Number of Orders	1 076 465	93 966
Number of Order Lines	8 977 050	793 668

Table B–1 Row Counts for Key Tables in the Sample Database

Data	Current Data Size	History Data Size
Number of Shipments	1 446 589	152 527
Number of Items	243 883	N/A
Number of Inventory Items	154 151	N/A
Number of Receipts	97 321	0

Migration Estimates

Table B–2 provides time estimates pertaining to the migration process.

Table B–2 Migration Estimates

Time	Task
< 12 mins	initupgrade
< 1 min	migration-validation
< 5 mins	history-upgrade-preparation
~ 33 min	alter-history-tables
< 2 mins	migrate-history-data
< 1 min	post-history-migration
< 7 mins	transaction-upgrade-preparation
40 mins	alter-transaction-tables
< 13 mins	apply-fc-setup
55 mins	migrate-transaction-data Note: No order line schedule migration for merge node.
3 hrs 40 mins	migrate-transaction-data Note: With order line schedule migration for merge node.
< 13 mins	post-transaction-migration

B.2 Migration Estimates for Release 7.7

The time it takes to upgrade from Release 7.5 to Release 7.7 varies, because of numerous factors. It is therefore recommended that you use the information in Table B–4 as a rough estimate, and not as a guarantee. The following hardware configuration was used to arrive at these time estimates:

DB Version: 9.2.0.5

DB Server OS: HP-UX 11.11

Class of the DB Server: rp7410

Number of CPUs on the DB Server: 8 (750 MHz processors)

RAM on Database Server: 8 GB

Disks Used for Database Files: EMC CLARiiON FC4700 SANS

Disk Filesystem: RAW

Application Server (The server on which the migration program was run):

Database Server

Total Data Size: 327 GB

Total Data Size postmigration: 330 GB

Row Counts for Key Tables

Table B–3 provides row counts for key tables in the sample database for Release 7.7.

Table B–3 Row Counts for Key Tables in the Sample Database

Data	Current Data Size	History Data Size
Number of Orders	2020646	3646369
Number of Order Lines	3407941	7207180
Number of Shipments	2665353	5121472
Number of Items	1201544	N/A
Number of Inventory Items	286670	N/A
Number of Receipts	177848	N/A

Migration Estimates

Table B–4 provides time estimates pertaining to the migration process.

Table B–4 Migration Estimates

Time	Task
17 mins	initupgrade
< 1 min	migration-validation
26 mins	upgrade-transaction-tables that include the following tasks: - pre-transaction-migration - migrate-transaction-data - post-transaction-migration - apply-fc-setup
42 mins	alter-transaction-tables
15 mins	upgrade-history-tables that include the following tasks: - prehistory-migration - migrate-history-data - post-history-migration
13 mins	alter-history-tables

B.3 Migration Estimates for Release 7.9

The time it takes to upgrade from Release 7.7 to Release 7.9 varies, because of numerous factors. It is therefore recommended that you use the information in Table B–6 as a rough estimate, and not as a guarantee. The following hardware configuration was used to arrive at these time estimates:

DB Version: 10.2.0.1

DB Server OS: HP-UX 11.11

Class of the DB Server: rp7410

Number of CPUs on the DB Server: 8 (750 MHz processors)

RAM on Database Server: 8 GB

Disks Used for Database Files: EMC CLARiiON FC4700 SANS

Disk Filesystem: RAW

Application Server (The server on which the migration program was run):

Database Server

Total Data Size: ~ 330 GB

Total Data Size postmigration: ~ 330 GB

Row Counts for Key Tables

Table B–5 provides row counts for key tables in the sample database for Release 7.9.

Table B–5 Row Counts for Key Tables in the Sample Database

Data	Current Data Size	History Data Size
Number of Orders	2020646	3646369
Number of Order Lines	3407941	7207180
Number of Shipments	2665353	5121472
Number of Items	1201544	N/A
Number of Inventory Items	286670	N/A
Number of Receipts	177848	N/A

Migration Estimates

Table B–6 provides time estimates pertaining to the migration process.

Table B–6 Migration Estimates

Time	Task
14 mins	initupgrade
< 1 min	migration-validation

Table B–6 Migration Estimates

Time	Task
9 mins	upgrade-transaction-tables that include the following tasks: - pre-transaction-migration - migrate-transaction-data - post-transaction-migration - apply-fc-setup
6 mins	alter-transaction-tables
5 mins	upgrade-history-tables that include the following tasks: - prehistory-migration - migrate-history-data - post-history-migration
2 mins	alter-history-tables

B.4 Migration Estimates for Release 7.11

The time it takes to upgrade from Release 7.9 to Release 7.11 varies, because of numerous factors. It is therefore recommended that you use the information in Table B–8 as a rough estimate, and not as a guarantee. The following hardware configuration was used to arrive at these time estimates:

DB Version: 10.2.0.1

DB Server OS: HP-UX 11.11

Class of the DB Server: rp7410

Number of CPUs on the DB Server: 8 (750 MHz processors)

RAM on Database Server: 8 GB

Disks Used for Database Files: EMC CLARiiON FC4700 SANS

Disk Filesystem: RAW

Application Server (The server on which the migration program was run):

Database Server

Total Data Size: ~ 342 GB

Total Data Size postmigration: ~ 345 GB

Row Counts for Key Tables

Table B–7 provides row counts for key tables in the sample database for Release 7.11.

Table B–7 Row Counts for Key Tables in the Sample Database

Data	Current Data Size	History Data Size
Number of Orders	2020646	3646369
Number of Order Lines	3407941	7207180
Number of Shipments	2665353	5121472
Number of Items	1201544	N/A
Number of Inventory Items	286670	N/A
Number of Receipts	177848	N/A

Migration Estimates

Table B–8 provides time estimates pertaining to the migration process.

Table B–8 Migration Estimates

Time	Task
~ 17 mins	initupgrade
< 1 min	migration-validation
~ 16 mins	upgrade-transaction-tables that include the following tasks: - pre-transaction-migration - migrate-transaction-data - post-transaction-migration - apply-fc-setup

Table B–8 Migration Estimates

Time	Task
~ 11 mins	alter-transaction-tables
~ 16 mins	upgrade-history-tables that include the following tasks: - prehistory-migration - migrate-history-data - post-history-migration
~ 59 mins	alter-history-tables

B.5 Migration Estimates for Release 8.0

The time it takes to upgrade from Release 7.11 to Release 8.0 varies, because of numerous factors. It is therefore recommended that you use the information in Table B–10 as a rough estimate, and not as a guarantee. The following hardware configuration was used to arrive at these time estimates:

DB Version: 10.2.0.1

DB Server OS: HP-UX 11.11

Class of the DB Server: rp7410

Number of CPUs on the DB Server: 8 (750 MHz processors)

RAM on Database Server: 8 GB

Disks Used for Database Files: EMC CLARiiON FC4700 SANS

Disk Filesystem: RAW

Application Server (The server on which the migration program was run):

Database Server

Total Data Size premigration: ~ 342.2 GB

Total Data Size postmigration: ~ 348.5 GB

Row Counts for Key Tables

Table B–9 provides row counts for key tables in the sample database in Release 8.0.

Table B–9 Row Counts for Key Tables in the Sample Database

Data	Current Data Size	History Data Size
Number of Orders	2020646	3646369
Number of Order Lines	3407941	7207180
Number of Shipments	2665353	5121472
Number of Items	1201544	N/A
Number of Inventory Items	286670	N/A
Number of Receipts	177848	N/A

Migration Estimates

Table B–10 provides time estimates pertaining to the migration process.

Table B–10 Migration Estimates

Time	Task
~ 12 mins	initupgrade
< 1 min	migration-validation
~ 50 mins	alter-history-tables
~ 5 mins	upgrade-history-tables that include the following tasks: - prehistory-migration - migrate-history-data - post-history-migration
~ 1 min	create unique indexes - history tables
~ 50 mins	alter-transaction-tables

Table B–10 Migration Estimates

Time	Task
~ 10 mins	upgrade-transaction-tables that include the following tasks: - pre-transaction-migration - migrate-transaction-data - post-transaction-migration - apply-fc-setup
~ 1 min	create unique indexes-transaction tables
~ 110 mins	create nonunique indexes-history tables
~ 45 mins	create nonunique indexes-transaction tables

B.6 Migration Estimates for Release 8.2

The time it takes to upgrade from Release 8.0 to Release 8.2 varies, because of numerous factors. It is therefore recommended that you use the information in Table B–12 as a rough estimate, and not as a guarantee. The following hardware configuration was used to arrive at these time estimates:

DB Version: 10.2.0.1

DB Server OS: HP-UX 11.11

Class of the DB Server: rp7410

Number of CPUs on the DB Server: 8 (750 MHz processors)

RAM on Database Server: 8 GB

Disks Used for Database Files: EMC CLARiiON FC4700 SANS

Disk Filesystem: RAW

Application Server (The server on which the migration program was run):

Database Server

Total Data Size premigration: ~ 342.2 GB

Total Data Size postmigration: ~ 348.5 GB

Row Counts for Key Tables

Table B–11 provides row counts for key tables in the sample database for Release 8.2.

Table B–11 Row Counts for Key Tables in the Sample Database

Data	Current Data Size	History Data Size
Number of Orders	2020646	3646369
Number of Order Lines	3407941	7207180
Number of Shipments	2665353	5121472
Number of Items	1201544	N/A
Number of Inventory Items	286670	N/A
Number of Receipts	177848	N/A

Migration Estimates

Table B–12 provides time estimates pertaining to the migration process.

Table B–12 Migration Estimates

Time	Task
~ 12 mins	initupgrade
< 1 min	migration-validation
~ 50 mins	alter-history-tables
~ 5 mins	upgrade-history-tables that include the following tasks: - prehistory-migration - migrate-history-data - post-history-migration
~ 1 min	create unique indexes - history tables
~ 50 mins	alter-transaction-tables

Table B–12 Migration Estimates

Time	Task
~ 10 mins	upgrade-transaction-tables that include the following tasks: - pre-transaction-migration - migrate-transaction-data - post-transaction-migration - apply-fc-setup
~ 1 min	create unique indexes-transaction tables
~ 110 mins	create nonunique indexes-history tables
~ 45 mins	create nonunique indexes-transaction tables

B.7 Migration Estimates for Release 8.5

The time it takes to upgrade from Release 8.2 to Release 8.5 varies, because of numerous factors. It is therefore recommended that you use the information in Table B–14 as a rough estimate, and not as a guarantee. The following hardware configuration was used to arrive at these time estimates:

DB Version: 11.1.0.7

DB Server OS: RHEL 5.3

Class of the DB Server: PowerEdge R900

Number of CPUs on the DB Server: 2 Quad 2.4 GHz processors

RAM on Database Server: 16 GB

Disks Used for Database Files: EMC CLARiiON CX3-20 SANS

Disk Filesystem: ASM

Application Server (The server on which the migration was performed):

Database Server

Total Data Size premigration: ~ 269 GB

Total Data Size postmigration: ~ 272 GB

> **Note:** If you run the "migrate-char-to-varchar-h" and "migrate-char-to-varchar" targets as part of the upgrade process, data size may decrease after the database is defragmented.

Row Counts for Key Tables

Table B–13 provides row counts for key tables in the sample database for Release 8.5. These row counts are based on tables with > 500,000 records.

Table B–13 Row Counts for Key Tables in the Sample Database

Data	Current Data Size	History Data Size
Number of Orders	2020646	3646369
Number of Order Lines	3407941	7207180
Number of Shipments	2665353	5121472
Number of Items	1201544	N/A
Number of Inventory Items	286670	N/A
Number of Receipts	177848	N/A

Migration Estimates

Table B–14 provides time estimates pertaining to the migration process.

Table B–14 Migration Estimates

Time	Task
< 1 min	copyextensions
~ 2 mins	initupgrade
< 1 min	migration-validation

Table B–14 Migration Estimates

Time	Task
< 1 min	alter-history-tables
~ 43 mins	install-history-indexes
< 1 min	upgrade-history-tables
< 1 min	alter-transaction-tables
~ 26 mins	install-transaction-indexes
~ 4 mins	upgrade-transaction-tables
< 1 min	migrate-doc-params
< 1 min	validate-upgrade
~ 16 mins	run-history-drop
~ 13 mins	run-transaction-drop
~ 310 mins	migrate-char-to-varchar-h
~ 113 mins	migrate-char-to-varchar

B.8 Migration Estimates for Release 9.0

Time estimates for migrating from Release 8.5 to Release 9.0 are identical to the time estimates for migrating from Release 8.2 to Release 8.5.