Sterling Commerce
An IBM Company

Networked Warehouse Management System PCA

Billing Activity Reporting Engine Guide

Release 7.5

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Preface

This manual explains the Billing Activity Reporting Engine that records all the billing activities carried out using the Sterling nWMS PCA.

Intended Audience

This manual provides information for warehouse managers responsible for tracking inventory, inbound, outbound, and other operations in the warehouse, using the Sterling nWMS PCA.

Structure

This document contains the following chapters:

Chapter 1, "Introduction"

This chapter introduces the Billing Activity Reporting Engine provided with the Sterling Networked Warehouse Management System PCA.

Chapter 2, "Billing Activity Reporting Engine Console"

This chapter explains the Billing Activity Reporting Engine Console, which enables you to create billing activities and associate them with appropriate billing activity codes, create new billing activity codes, and view billing activities and audits.

Chapter 3, "Inbound Billing Activities"

This chapter explains the inbound billing activities that are recorded using the Billing Activity Reporting Engine.

Chapter 4, "Outbound Billing Activities"

This chapter lists the outbound billing activities that are recorded using the Billing Activity Reporting Engine.

Chapter 5, "Count Billing Activities"

This chapter lists the count billing activities that are recorded using the Billing Activity Reporting Engine.

Chapter 6, "Value-Added Services Billing Activities"

This chapter lists the value-added service billing activities that are recorded using the Billing Activity Reporting Engine.

Chapter 7, "Integrating with External Systems"

This chapter explains how to integrate the Billing Activity Reporting Engine, provided with the Sterling Networked Warehouse Management System PCA, with external systems, such as the Accounts Receivable sytem.

Chapter 8, "Extending the Billing Activity Reporting Engine Activities"

This chapter explains how to extend the Billing Activity Reporting Engine activities.

Appendix A, "Billing Activity Codes"

This appendix lists the Billing Activity Codes that are recorded using the Billing Activity Reporting Engine.

Appendix B, "Billing Activity Units of Measure"

This appendix lists the Billing Activity Units Of Measure used to charge the billing activities provided with the Sterling Networked Warehouse Management System PCA.

Documentation

For more information about the Sterling Networked Warehouse Management System PCA® (Sterling nWMS PCA®) components, see the following manuals in the Sterling nWMS PCA® documentation set:

- *Sterling Networked Warehouse Management System PCA® Release Notes*
- *Sterling Networked Warehouse Management System PCA® Installation Guide*

- *Sterling Networked Warehouse Management System PCA® Overview*
- *Sterling Networked Warehouse Management System PCA® Implementation Guide*
- *Sterling Networked Warehouse Management System PCA® Reports Guide*
- *Sterling Networked Warehouse Management System PCA® Analytics Guide*
- *Sterling Networked Warehouse Management System PCA® Printed Documents Guide*
- *Sterling Networked Warehouse Management System PCA® Billing Activity Reporting Engine Guide*
- *Sterling Networked Warehouse Management System PCA® Upgrade Guide*
- *Sterling Networked Warehouse Management System PCA® Javadocs*

For more information about the Sterling Supply Chain Applications® components, see the following manuals in the Sterling Supply Chain Applications® documentation set:

- *Sterling Supply Chain Applications® Release Notes*
- *Sterling Supply Chain Applications® Installation Guide*
- *Sterling Supply Chain Applications® Upgrade Guide*
- *Sterling Supply Chain Applications® Performance Management Guide*
- *Sterling Supply Chain Applications® High Availability Guide*
- *Sterling Supply Chain Applications® System Management Guide*
- *Sterling Supply Chain Applications® Localization Guide*
- *Sterling Supply Chain Applications® Customization Guide*
- *Sterling Supply Chain Applications® Integration Guide*
- *Sterling Supply Chain Applications® Product Concepts*
- *Sterling Supply Chain Applications® Warehouse Management System Concepts Guide*
- *Sterling Supply Chain Applications® Platform Configuration Guide*

- *Sterling Supply Chain Applications® Distributed Order Management Configuration Guide*
- *Sterling Supply Chain Applications® Supply Collaboration Configuration Guide*
- *Sterling Supply Chain Applications® Product Management Configuration Guide*
- *Sterling Supply Chain Applications® Logistics Management Configuration Guide*
- *Sterling Supply Chain Applications® Reverse Logistics Configuration Guide*
- *Sterling Supply Chain Applications® Warehouse Management System Configuration Guide*
- *Sterling Supply Chain Applications® Platform User Guide*
- *Sterling Supply Chain Applications® Distributed Order Management User Guide*
- *Sterling Supply Chain Applications® Supply Collaboration User Guide*
- *Sterling Supply Chain Applications® Global Inventory Visibility Configuration Guide*
  Sterling Supply Chain Applications® Logistics Management User Guide
- *Sterling Supply Chain Applications® Reverse Logistics User Guide*
- *Sterling Supply Chain Applications® Warehouse Management System User Guide*
- *Sterling Supply Chain Applications® Mobile Application User Guide*
- *Sterling Supply Chain Applications® Analytics Guide*
- *Sterling Supply Chain Applications® Javadocs*
- *Sterling Supply Chain Applications® Glossary*
- *Sterling Supply Chain Applications® Carrier Server Guide*
- *Sterling Supply Chain Applications® Application Server Installation Guide* (for optional component)

For a description of the various documents in the Sterling nWMS PCA® documentation set, see the Sterling nWMS PCA® Documentation Home Page at:

`<YFS_HOME>/documentation/YNW_doc_home.html`

where `<YFS_HOME> = <YANTRA_HOME>/Runtime`

and `<YANTRA_HOME>` is the directory where this PCA and *Sterling Supply Chain Applications*® are installed.

Conventions

The following conventions may be used in this manual:

Convention	Meaning
. . .	An 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.
<YANTRA_HOME>	User-supplied location of the Sterling Supply Chain Applications installation directory.
<YFS_HOME>	Location of the generated <YANTRA_HOME>/Runtime directory.
<YANTRA_HOME_OLD>	User-supplied location of the Sterling Supply Chain Applications installation directory for previously installed releases. This is only applicable for Release 7.7 or above.
<YFS_HOME_OLD>	This is the <YANTRA_HOME_OLD>/Runtime directory of previously installed releases.

1

Introduction

Third-Party Logistics (3PL) warehouses bill clients based on the different billing activities performed for the clients at the warehouse.

Billing Activities are units of work performed at the warehouse or fulfillment center of the Third-Party Logistics provider, for a specific client. Each billing activity is associated with a Billing Activity Code that uniquely identifies the billing activity performed. The billing activity is also referenced with the Sales Order number, Purchase Order number, Work Order number, and so forth. These help the client to reference the billing activity back to a specific reason.

The activities billed are generally based on the number of units received, number of units shipped, number of hours spent in inspection or physical count, number of prints, and so forth.

The Billing Activity Reporting Engine records billing activities performed within the fulfillment process. These are recorded at the warehouse level and by the Sterling nWMS PCA.

The Sterling nWMS PCA is shipped with a number of system-tracked billable activities. For each billable activity, event handlers are configured, which get triggered when the activity is performed at the warehouse.

You can also use the Sterling nWMS PCA to add, update, or remove billing activities. This PCA provides an audit trail for the changes.

The Sterling nWMS PCA Billing Activity Reporting Engine can be integrated with an external system. The Sterling nWMS PCA provides the external system with the list of all billing activities, along with the associated code, references, and the units of work.

The Billing Activity Report Engine is used to generate Billing Activity Reports based on the activities performed in the warehouse. It is used for billing clients in a Third-Party Logistics environment. For more information about Billing Activity Reports, see the *Sterling Networked Warehouse Management System PCA Reports Guide*.

1.1 Billing Activity Reporting Engine Terminology

This section introduces the various terms that are used with regard to the Billing Activity Reporting Engine.

Clients

Clients are companies that have outsourced some or all of their logistics requirements to the Third-Party Logistics provider.

Billing Activities

Billing Activities are units of work performed at the warehouse or fulfillment center of the Third-Party Logistics provider, for a specific client.

Billing Activity Code

Billing Activity Codes uniquely identify the billing activities performed. Each billing activity is associated with a Billing Activity Code.

Name

This provides the name or a meaningful description of the billing activity.

Transaction Type

The transaction type indicates the classification to which the activity belongs.

Valid Transaction Types are:

- Ancillary

  These transaction types are used to charge activities other than Receiving and Shipping. These Transaction Types are used for Count and VAS activities.

- Receiving

  These transaction types are used to charge receipt activities for the Inbound Process.

- Shipping

  These transaction types are used to charge shipment activities for the Outbound Process.

Group ID

Group IDs identify the group to which the billing activity group belongs.

Valid Group IDs are:

- Miscellaneous Charges

  These Group IDs are used to record miscellaneous charges.

- Storage Charges

  These Group IDs are used to record storage charges.

- Transaction Charges

  These Group IDs are used to record transaction charges.

- Handling Charges

  These Group IDs are used to record handling charges.

Unit Of Measure

The Unit of Measure that is used to charge the billing activity.

Valid Unit Of Measures are: PER_SKU_LINE, PER_ORDER, and so forth.

Track Type

The track type identifies the manner in which the billing activity is tracked.

Valid Track Types are:

- System

  The billing activity is recorded by the system.

- Manual

  The billing activity is recorded manually by the user.

Ship Via

This indicates the means of transportation.

Ship Via values can include Ground, Air, and so forth.

Transaction Reference

This is the reference for the activity. For example, in the case of shipment activities, the shipment number is the transaction reference.

1.2 Setting Up the Billing Activity Reporting Engine Codes

Billing Activity Reporting Engine codes are used to configure the Billing Activity Reporting Engine.

To view or modify existing Billing Activity Reporting Engine codes:

1. Log in to the application as the system administrator.
2. From the Sterling Supply Chain Application Consoles menu bar, select Configuration > Launch Configurator. The Sterling Supply Chain Applications Configurator opens in a new window.
3. From the Sterling Supply Chain Applications Configurator menu bar, select Application > Platform.
4. From the tree in the application rules side panel, choose Presentation.
5. Select Custom Common Codes. The Custom Common Codes (DEFAULT) screen displays.
6. In the Custom Common Codes (DEFAULT) screen, select the appropriate Custom Common Code Type and click . The Common Code Values screen displays.
7. To add a new Billing Activity Reporting Engine code:
   a. In the Common Code Values screen, click . The ARE Unit of Measure Details screen displays.

b. Enter the appropriate details in the ARE Unit of Measure Details screen.

c. Click .

8. To edit and view the existing Billing Activity Reporting Engine code:

a. In the Common Code Values screen, select the appropriate Code Value and click . The ARE Unit of Measure Details screen appears.

b. Enter the appropriate details in the ARE Unit of Measure Details Screen.

c. Click .

Table 1–1 lists the custom common codes that have been set up in the Sterling nWMS PCA.

Table 1–1 Custom Common Codes

Common Code Type	Description
ARE_ACTIVITY_GROUP	The type of activity group of the billing activity. The activity group of the billing activity can be: Miscellaneous Charges: This is used to record miscellaneous charges. Storage Charges: This is used to record storage charges. Transaction Charges: This is used to record transaction charges. Handling Charges: This is used to record handling charges.
ARE_ACTIVITY_STATUS	The type of activity status of the billing activity. The activity status of the billing activity can be: Created: Indicates that the billing activity is created. Modified: ARE Billing Activity Status is set to modified, if the user makes any changes manually in the ARE Activity Record. Error: ARE Billing Activity Status is set to error, if an error is encountered, while uploading the billing activity. Uploaded: ARE Billing Activity Status is set to uploaded, when the billing activity is uploaded to the host system. Cancelled: ARE Billing Activity Status is set to cancelled, when the user manually cancels the billing activity.
ARE_AUDIT_REASON	ARE Audit Reason Code. The audit reason code specifies the reason why the billing activity was modified. The Default Reason Code shipped along with the Sterling nWMS PCA is Default Reason 1.

Table 1–1 Custom Common Codes

Common Code Type	Description
ARE_TRACK_TYPE	The track type of the billing activity. The track type of the billing activity can be: Manual - Billing activities can be tracked manually. System - Billing activities can be tracked by the system.
ARE_TRAN_TYPE	The type of transaction of the billing activity. The type of transaction of the billing activity can be: Ancillary: This transaction types is used to charge activities other than Receiving and Shipping. This transaction type is used for Count and VAS activities. Receiving: This transaction types is used to charge receipt activities for the Inbound Process. Shipping: This transaction types is used to charge shipment activities for the Outbound Process.
ARE_UOM	The type of unit of measure of the billing activity. This indicates the unit of measure in which the billing activity is charged. For more information about the ARE Unit Of Measure, see Appendix B, "Billing Activity Units of Measure".

1.3 Billing Activity Reporting Engine Auditing Capabilities

The Billing Activity Reporting Engine audits any change in the value of the following fields:

- Service Quantity
- Activity Date
- Transaction Reference
- Ship Via
- Carrier Code
- Reference1

Audits are recorded when you change the entries in the Billing Activity Details screen. For more information about the Billing Activity Details screen, see Section 2.1.3, "Modifying a Billing Activity Code".

Audits also record and display the Reason Code and Reason Text. For more information about the audit details, see Section 2.2.2, "Viewing Billing Activities".

1.4 Enabling the Billing Activity Reporting Engine

To enable the Billing Activity Reporting Engine:

1. Open the `<YANTRA_HOME>/Application/Foundation/resources/yfs.properties`.
2. Add the new property: `yfs.enableARE=Y`.
3. Update the Sterling Supply Chain Applications runtime. For more information about updating the Sterling Supply Chain Applications runtime, see the *Sterling Supply Chain Applications Installation Guide*.

Upon adding this property, the system automatically enables the Billing Activity Reporting Engine. Task queue records are inserted for the Inbound, Outbound, VAS, and Count processes. These records are later processed by the system to record the billing activities, as they are performed in the warehouse.

1.5 Billing Activity Reporting Engine Activity Purge

This purge removes the Billing Activity Reporting Engine transaction data from the system. This reduces the load from frequently accessed tables. To be purged, the Billing Activity Reporting Engine activity should be marked as UPLOADED or CANCELED.

Attributes

Table 1–2 illustrates the attributes for the ARE Activity Purge time-triggered transaction.

Table 1–2 ARE Activity Purge Attributes

Common Code Type	Description
Base Transaction ID	PURGE_ARE
Base Document Type	General
Base Process Type	General
Abstract Transaction	No
APIs Called	None
User Exits Called	None

Criteria Parameters

Table 1–3 illustrates the criteria parameters for the ARE Activity Purge transaction.

Table 1–3 ARE Activity Purge Criteria Parameters

Criteria Parameters	Description
Live	Optional Mode in which to run. Valid values are: Y - Default value. Moves qualifying records from the regular tables listed under Tables Purged to the corresponding history tables. N - Test mode. Determines the rows that are moved to history tables without actually moving them.
Purge Code	Required. Purge Code is set to PURGE_ARE. Used for internal calculations, such as determining retention days. Corresponds with the PurgeCode used in the Business Rules Purge Criteria.

Statistics Tracked

Table 1–4 illustrates the statistics tracked for the ARE Activity Purge transaction.

Table 1–4 ARE Activity Purge Statistics

Statistics Name	Description
NumAREActivityPurged	Number of ARE Activity records purged.

Pending Job Count

For the ARE Activity Purge transaction, the pending job count is the number of records that can be purged from the YNW_ARE_ACTIVITY_HEADER table.

Events Raised

None.

Tables Purged

YNW_ARE_ACTIVITY_HEADER

YNW_ARE_ACTIVITY_DETAIL

YNW_ARE_ACTIVITY_AUDIT

2

Billing Activity Reporting Engine Console

The Sterling nWMS PCA stores all billable activities that are performed at the warehouse. The Billing Activity Reporting Engine records billing activities as they are performed within the fulfillment process. These are recorded at the warehouse level and uploaded to the PCA.

You can use the Billing Activity Reporting Engine Console to add, update, or remove billing activities and billing activity codes. The Billing Activity Reporting Engine Console also provides an audit trail for the changes.

This chapter explains how to create, view, modify, and delete billing activity codes, create, view, modify, and cancel billing activities, and view billing activity audits using the Billing Activity Reporting Engine Console.

2.1 Defining Billing Activity Codes

Each billing activity is associated with a Billing Activity Code. The billing activity code uniquely identifies the billing activity performed.

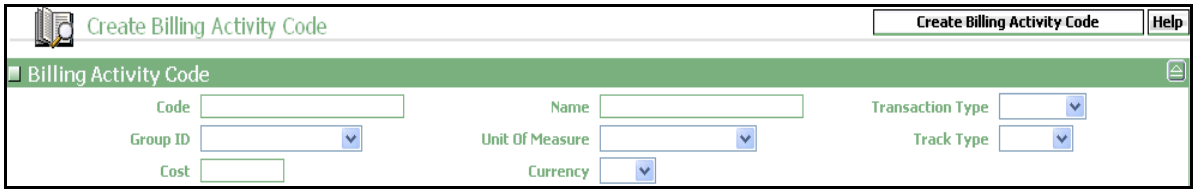
This section explains how to create, view, modify, and delete activity codes.

2.1.1 Creating Billing Activity Codes

To create a billing activity code:

1. Log in to the application as the warehouse manager.
2. From the Sterling Supply Chain Application Consoles menu, choose ARE > Create Billing Activity Code. The Create Billing Activity Code screen displays.

Figure 2–1 Create Billing Activity Code



For information about the field values, see Table 2–1.

3. In the Create Billing Activity Code screen, enter the appropriate details.
4. Click Create Billing Activity Code.

Table 2–1 Create Billing Activity Code

Fields	Description
Code	Enter the billing activity code.
Name	Enter the name of the billing activity.
Transaction Type	Select the type of transaction.
Group ID	Select the identifier of the billing activity group.
Unit Of Measure	Select the unit of measure of the billing activity.
Track Type	Select the track type of the billing activity.
Cost	Enter the cost for performing the billing activity.
Currency	Select the currency in which the cost is recorded.

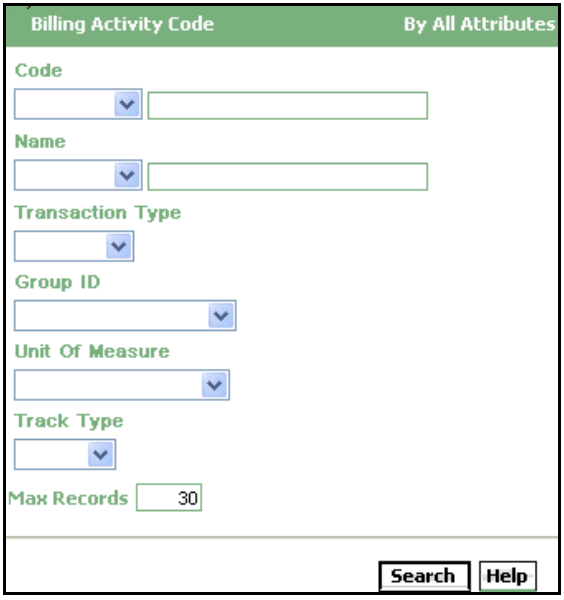
2.1.2 Viewing Billing Activity Codes

The Billing Activity Reporting Engine Console enables you to view a billing activity code.

To view a billing activity code:

1. Log in to the application as the warehouse manager, supervisor, or enterprise user.
2. From the Sterling Supply Chain Application Consoles menu, choose ARE > Billing Activity Code Console. The Billing Activity Code By All Attributes search screen displays.

Figure 2–2 Billing Activity Code By All Attributes



For more information about the field values, see Table 2–2

3. In the Billing Activity Code By All Attributes search screen, enter the appropriate search criteria and click Search. The Billing Activity Code List screen displays.

Figure 2–3 Billing Activity Code List

Billing Activity Code List — Retrieved 30 record(s) — Help

View Details | Delete

Code	Name	Transaction Type	Group ID	Unit Of Measure	Track Type	Cost	Currency
0040-0300	Order Piece Charge	Shipping	Handling Charges	PER_PIECE	System	0.00	
0040-0200	Order Line Charge	Shipping	Handling Charges	PER_SKU_LINE	System	0.00	
0040-0310	Order Piece/Reference Controlled	Shipping	Handling Charges	PER_CTRL_PIECE	System	0.00	
0010-0001	Monthly Management Fee	Ancillary	Miscellaneous Charges	ONCE_MONTHLY	Manual	0.00	
0010-0002	Monthly Management Fee/Minimum	Ancillary	Miscellaneous Charges	AS_NEEDED	Manual	0.00	
0010-0020	Management Fee/upcharge 24/6	Ancillary	Miscellaneous Charges	AS_NEEDED	Manual	0.00	
0010-0021	Management Fee/Up charge 24/7	Ancillary	Miscellaneous Charges	AS_NEEDED	Manual	0.00	
0020-0100	Storage	Ancillary	Storage Charges	SQ_FT	Manual	0.00	
0020-0101	Additional Storage	Ancillary	Storage Charges	SQ_FT	Manual	0.00	
0020-0200	Storage Pallet	Ancillary	Storage Charges	NUM_PALLET	Manual	0.00	
0020-0210	Storage-Secured Pallet	Ancillary	Storage Charges	NUM_SEC_PALLET	System	0.00	
0020-0300	Storage-Bin	Ancillary	Storage Charges	NUM_BIN	Manual	0.00	
0020-0310	Storage-Secured Bin	Ancillary	Storage Charges	NUM_SEC_BIN	Manual	0.00	
0020-0400	Storage Shelf	Ancillary	Storage Charges	NUM_SHELF	Manual	0.00	
0020-0410	Secured Shelf	Ancillary	Storage Charges	NUM_SHELF	Manual	0.00	
0020-0500	Storage Minimum	Ancillary	Storage Charges	CONTRACT_MIN	Manual	0.00	
0030-0100	Receiving Order Charge	Receiving	Handling Charges	PER_ORDER	System	0.00	
0030-0200	Receiving Line	Receiving	Handling Charges	PER_SKU_LINE	System	0.00	
0030-0310	Receiving Piece/Reference Controlled	Receiving	Handling Charges	PER_CTRL_PIECE	System	0.00	
0030-0330	Receiving Piece/Defective	Receiving	Handling Charges	PER_PIECE	System	0.00	
0030-0340	Receiving Piece/Reference Controlled-Def	Receiving	Handling Charges	PER_PIECE	System	0.00	
0030-0500	Receiving QC	Receiving	Handling Charges	PER_PIECE	System	0.00	
0030-0600	Manual Entry Of ASN	Receiving	Handling Charges	PER_ORDER	System	0.00	
0040-0100	Order Charge	Shipping	Handling Charges	PER_ORDER	System	0.00	
0040-0400	Will Call Order Charge	Shipping	Handling Charges	PER_WC_ORDER	System	0.00	
0040-0410	Will Call Piece	Shipping	Handling Charges	PER_WC_ORDER	System	0.00	
0050-0100	Return Order	Receiving	Handling Charges	PER_ORDER	System	0.00	
0050-0110	Return Piece	Receiving	Handling Charges	PER_PIECE	System	0.00	
0050-0200	Recovery Exchange Order	Receiving	Handling Charges	PER_ORDER	System	0.00	
0050-0210	Recovery Exchange Piece	Receiving	Handling Charges	PER_PALLET	System	0.00	

For information about the field values, see Table 2–3.

Table 2–2 Billing Activity Code By All Attributes Search

Field	Description
Code	Enter the activity code for which you want to generate the billing activity report.
Name	Enter the name of the billing activity code to search.

Table 2–2 Billing Activity Code By All Attributes Search

Field	Description
Transaction Type	Select the type of transaction.
Group ID	Select the billing activity group identifier.
Unit Of Measure	Select the unit of measure of the billing activity.
Track Type	Select the track type of the billing activity.
Max Records	Enter the maximum number of records to be listed as a result of your search.

Table 2–3 Billing Activity Code List

Action	Description
View Details	This action displays the Billing Activity Code Details screen, which enables you to view the detail of the billing activity code.
Delete	This action deletes the selected billing activity code.
Field	**Description**
Code	Indicates the billing activity code.
Name	Indicates the name of the billing activity.
Transaction Type	Indicates the type of transaction.
Group ID	Indicates the identifier of the billing activity group.
Unit Of Measure	Indicates the unit of measure of the billing activity.
Track Type	Indicates the track type of the billing activity.
Cost	Indicates the cost for performing the billing activity.
Currency	Indicates the currency in which the cost is recorded.

2.1.3 Modifying a Billing Activity Code

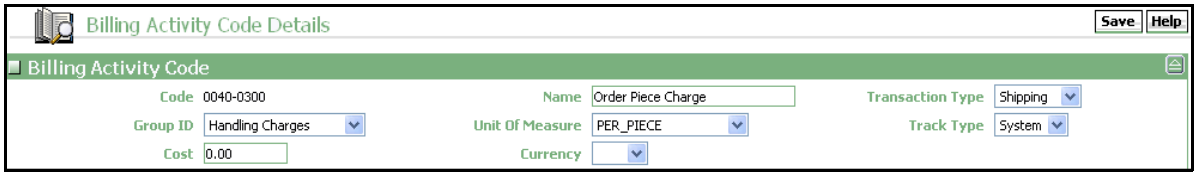
The Billing Activity Reporting Engine Console enables you to modify a billing activity code.

To modify a billing activity code:

1. Follow Step 1 to Step 3 in Section 2.1.2, "Viewing Billing Activity Codes".

2. In the Billing Activity Code List screen, select the appropriate billing activity code you want to modify and click View Details. The Billing Activity Code Details screen displays.

Figure 2–4 Billing Activity Code Details



For information about the field values, see Table 2–4.

3. In the Billing Activity Code Details screen, enter the appropriate details.

4. Click Save.

Table 2–4 Billing Activity Code Details

Fields	Description
Code	Indicates the billing activity code.
Name	Enter the name of the billing activity.
Transaction Type	Select the type of transaction.
Group ID	Select the identifier of the billing activity group.
Unit Of Measure	Select the unit of measure of the billing activity.
Track Type	Select the track type of the billing activity.
Cost	Enter the cost for performing the billing activity.
Currency	Select the currency in which the cost is recorded.

2.1.4 Deleting a Billing Activity Code

The Billing Activity Reporting Engine Console enables you to delete a billing activity code.

To delete a billing activity code:

1. Follow Step 1 to Step 3 in Section 2.1.2, "Viewing Billing Activity Codes".
2. Select the billing activity code you want to remove and click Delete.

2.2 Defining Billing Activities

Billing activities are units of work performed at the warehouse or fulfillment center of the Third-Party Logistics provider, for a specific client.

This section explains how to record, view, modify, and cancel billing activities.

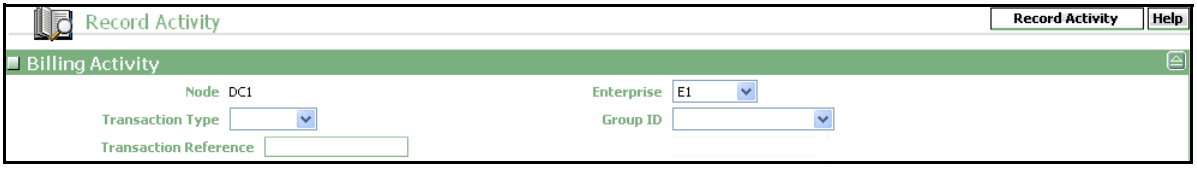
2.2.1 Manually Recording Billing Activities

The Billing Activity Reporting Engine Console enables you to create billing activities manually.

To manually create billing activities:

1. Log in to the application as the warehouse manager, supervisor, or enterprise user.
2. From the Sterling Supply Chain Application Consoles menu, choose ARE > Record Billing Activity. The Record Activity screen displays.

Figure 2–5 Record Activity



For information about the field values see Table 2–5.

3. In the Record Activity screen, enter the appropriate details.
4. Click Record Activity. The Billing Activity Details screen displays, which enables you to add multiple activities with activity codes.

Table 2–5 Record Activity

Fields	Description
Node	Indicates the node where the activity is performed.
Enterprise	Select the enterprise for which the activity is performed.
Transaction Type	Select the type of transaction.
Group ID	Select the identifier of the billing activity group.
Transaction Reference	Enter the transaction reference that corresponds to the billing activity. For example, for work order billing activities the transaction reference is work order number.

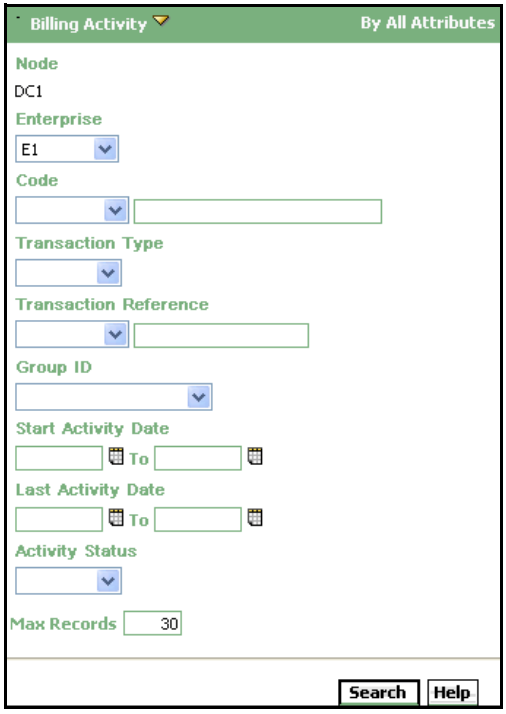
2.2.2 Viewing Billing Activities

The Billing Activity List screen enables you to view billing activities.

To view billing activities:

1. Log in to the application as the warehouse manager, supervisor, or enterprise user.
2. From the Sterling Supply Chain Application Consoles menu, choose ARE > Billing Activity Console. The Billing Activity By All Attributes search screen displays.

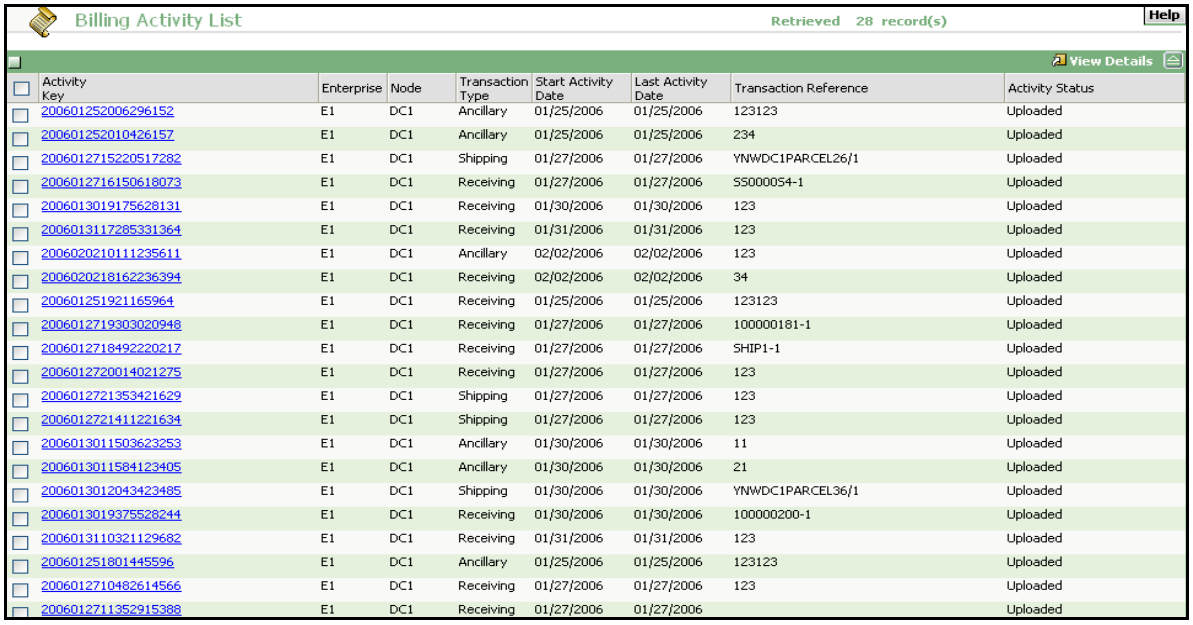
Figure 2–6 Billing Activity By All Attributes



For information about the field values, see Table 2–6.

3. In the Billing Activity By All Attributes search screen, enter the appropriate search criteria and click Search. The Billing Activity List screen displays, which enables you to view the list of billing activities.

Figure 2–7 Billing Activity List



Billing Activity List — Retrieved 28 record(s) — Help — View Details

Activity Key	Enterprise	Node	Transaction Type	Start Activity Date	Last Activity Date	Transaction Reference	Activity Status
200601252006296152	E1	DC1	Ancillary	01/25/2006	01/25/2006	123123	Uploaded
200601252010426157	E1	DC1	Ancillary	01/25/2006	01/25/2006	234	Uploaded
2006012715220517282	E1	DC1	Shipping	01/27/2006	01/27/2006	YNWDC1PARCEL26/1	Uploaded
2006012716150618073	E1	DC1	Receiving	01/27/2006	01/27/2006	SS000054-1	Uploaded
2006013019175628131	E1	DC1	Receiving	01/30/2006	01/30/2006	123	Uploaded
2006013117285331364	E1	DC1	Receiving	01/31/2006	01/31/2006	123	Uploaded
2006020210111235611	E1	DC1	Ancillary	02/02/2006	02/02/2006	123	Uploaded
2006020218162236394	E1	DC1	Receiving	02/02/2006	02/02/2006	34	Uploaded
200601251921165964	E1	DC1	Receiving	01/25/2006	01/25/2006	123123	Uploaded
2006012719303020948	E1	DC1	Receiving	01/27/2006	01/27/2006	100000181-1	Uploaded
2006012718492220217	E1	DC1	Receiving	01/27/2006	01/27/2006	SHIP1-1	Uploaded
2006012720014021275	E1	DC1	Receiving	01/27/2006	01/27/2006	123	Uploaded
2006012721353421629	E1	DC1	Shipping	01/27/2006	01/27/2006	123	Uploaded
2006012721411221634	E1	DC1	Shipping	01/27/2006	01/27/2006	123	Uploaded
2006013011503623253	E1	DC1	Ancillary	01/30/2006	01/30/2006	11	Uploaded
2006013011584123405	E1	DC1	Ancillary	01/30/2006	01/30/2006	21	Uploaded
2006013012043423485	E1	DC1	Shipping	01/30/2006	01/30/2006	YNWDC1PARCEL36/1	Uploaded
2006013019375528244	E1	DC1	Receiving	01/30/2006	01/30/2006	100000200-1	Uploaded
2006013110321129682	E1	DC1	Receiving	01/31/2006	01/31/2006	123	Uploaded
200601251801445596	E1	DC1	Ancillary	01/25/2006	01/25/2006	123123	Uploaded
2006012710482614566	E1	DC1	Receiving	01/27/2006	01/27/2006	123	Uploaded
2006012711352915388	E1	DC1	Receiving	01/27/2006	01/27/2006		Uploaded

For information about the field values, see Table 2–7.

Table 2–6 Billing Activity By All Attributes Search

Field	Description
Node	Indicates the node where the activity is performed.
Enterprise	Select the enterprise for which you want to generate the billing activity report.
Code	Enter the activity code for which you want to generate the billing activity report.
Transaction Type	Select the type of transaction.
Transaction Reference	Enter the transaction reference of the billing activity detail report.
Group ID	Select the billing activity group identifier.
Start Activity Date	Enter the start date of the specified billing activity audit.

Table 2–6 Billing Activity By All Attributes Search

Field	Description
Last Activity Date	Enter the last date of the specified billing activity audit.
Activity Status	Select the status of the specified billing activity.
Max Records	Enter the maximum number of records to be listed as a result of your search.

Table 2–7 Billing Activity List

Action	Description
View Details	This action button displays the Billing Activity List screen, which enables you to view the details of the selected code.
Field	**Description**
Activity Key	Indicates the unique key of the billing activity. Click this to view the Billing Activity Details, Billing Activity screen, which enables you to modify the activity.
Enterprise	Indicates the enterprise for which the activity is performed.
Node	Indicates the node where the activity is performed.
Transaction Type	Indicates the type of transaction.
Start Activity Date	Indicates the date when the specified billing activity started.
Last Activity Date	Indicates the date when the specified billing activity was last performed.
Transaction Reference	Indicates the transaction reference that corresponds to the billing activity. For example, for work order billing activities the transaction reference is work order number.
Activity Status	Indicates the status of the specified billing activity.

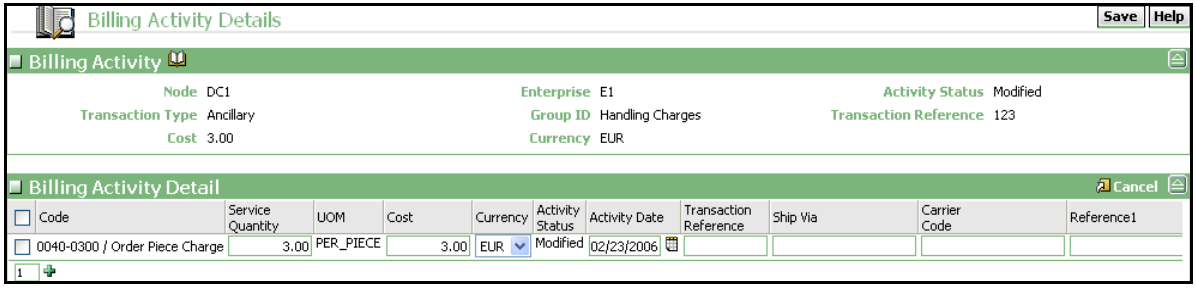
2.2.3 Modifying Billing Activities

The Billing Activity Reporting Engine Console enables you to modify billing activities.

To modify billing activities:

1. Follow Step 1 to Step 3 in Section 2.2.2, "Viewing Billing Activities".
2. In the Billing Activity Code List screen, select the appropriate billing activity code you want to modify and click View Details. The Billing Activity Details screen displays.

Figure 2–8 Billing Activity Details



For information about the field values see Table 2–8 and Table 2–9.

3. In the Billing Activity Details screen, enter the appropriate details.
4. Click Save.

Table 2–8 Billing Activity Details, Billing Activity

View Icon	Description
	Activity Audits - This icon displays the Billing Activity Detail Audit List screen, which lets you view the billing activity audit list.
Field	**Description**
Node	Indicates the node where the activity is performed.
Enterprise	Indicates the enterprise for which the activity is performed.
Activity Status	Indicates the status of the specified billing activity.

Table 2–8 Billing Activity Details, Billing Activity

Transaction Type	Indicates the type of transaction.
Group ID	Indicates the identifier of the group.
Transaction Reference	Indicates the transaction reference that corresponds to the billing activity. For example, for work order billing activities the transaction reference is work order number.
Cost	Indicates the cost for performing the billing activity.
Currency	Indicates the currency in which the cost is recorded.

Table 2–9 Billing Activity Details, Billing Activity Detail

Action	**Description**
Cancel	This action button cancels the selected billing activity.
Field	**Description**
Code	Indicates the billing activity code.
Service Quantity	Indicates the quantity for the specified billing activity. You can modify the Service Quantity, if needed.
UOM	Indicates the unit of measure of the billing activity.
Cost	Indicates the cost for performing the billing activity.
Currency	Indicates the currency in which the cost is recorded.
Activity Status	Indicates the status of the specified billing activity.
Activity Date	Indicates the date of the specified billing activity. You can modify the Activity Date, if needed.
Transaction Reference	Indicates the transaction reference that corresponds to the billing activity. You can modify the transaction Reference, if needed.
Ship Via	Indicates the mode of transportation for the specified billing activity. You can modify the Ship Via, if needed.

Table 2–9 Billing Activity Details, Billing Activity Detail

Carrier Code	Indicates the carrier code of the specified billing activity. You can modify the Carrier Code, if needed.
Reference1	Indicates the reference number of the specified billing activity. You can modify the Reference1, if needed.

Note: When a new billing activity detail record is added, the Billing Activity Reporting Engine automatically computes the cost for performing the service, based on the service quantity.

However, if the service quantity is modified later, the corresponding cost is not re-computed. In this case, you may change the cost manually.

2.3 Activity Status Transitions

The activity status of the Billing Activity Reporting Engine exhibits different modes of transition.

When the Billing Activity Reporting Engine activity creates an activity, the status of the Billing Activity Reporting Engine is shown as 'Created'. When you manually modify any attribute in the Billing Activity Reporting Engine activity, then the status changes to 'Modified'. If there is any error during the upload, the status of the Billing Activity Reporting Engine activity is changed to 'Error'. You can manually cancel a record from the Billing Activity Reporting Engine activity, then the status of the activity is changed to 'cancelled'. When an activity is uploaded to the host system, the status of the Billing Activity Reporting Engine activity is changed to 'Uploaded'.

2.3.1 Cancelling Billing Activities

The Billing Activity Reporting Engine Console enables you to cancel a billing activity.

To cancel a billing activity code:

1. Follow Step 1 to Step 3 in Section 2.2.2, "Viewing Billing Activities"
2. In the Billing Activity Code List screen, select the appropriate billing activity code you want to cancel and click View Details. The Billing Activity Details screen displays.
3. In the Billing Activity Details screen, select the billing activity code you want to cancel and click Cancel.

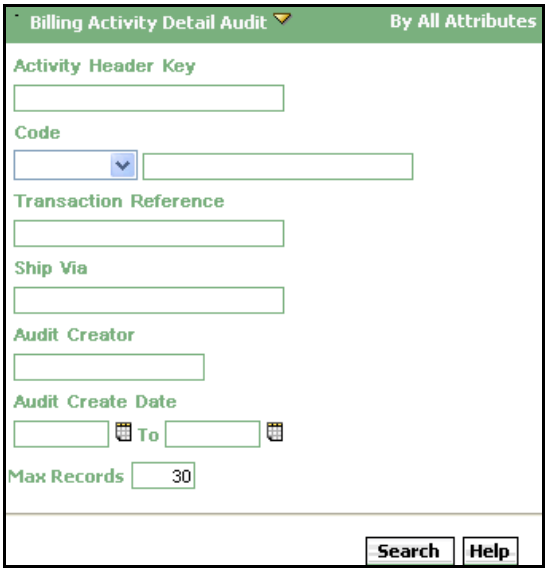
2.4 Viewing Billing Activity Detail Audits

The Billing Activity Audit screen enables you to view the audit of the billing activities.

To view the audit billing activities:

1. Log in to the application as the warehouse manager, supervisor, or enterprise user.
2. From the Sterling Supply Chain Application Consoles menu, choose ARE > Billing Activity Console. The Billing Activity By All Attributes search screen displays.
3. From the Billing Activity entities menu, select Billing Activity Detail Audit. The Billing Activity Detail Audit By All Attributes search screen displays.

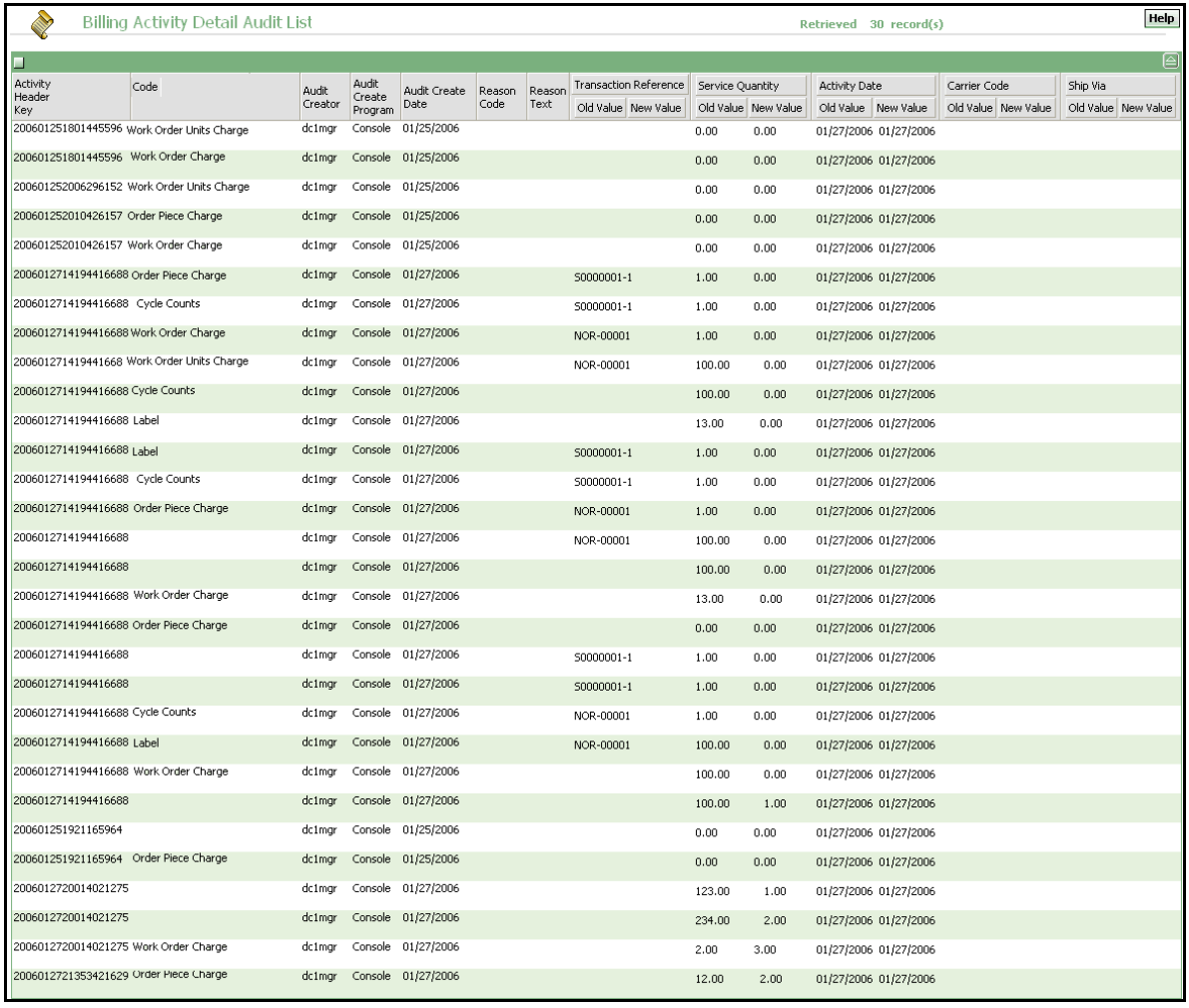
Figure 2–9 Billing Activity Detail Audit By All Attributes



For information about the field values, see Table 2–10.

4. In the Billing Activity Detail Audit By All Attributes search screen, enter the appropriate search criteria and click Search. The Billing Activity Detail Audit List screen displays.

Figure 2–10 Billing Activity Detail Audit List



Billing Activity Detail Audit List — Retrieved 30 record(s) — Help

Activity Header Key	Code	Audit Creator	Audit Create Program	Audit Create Date	Reason Code	Reason Text	Transaction Reference		Service Quantity		Activity Date		Carrier Code		Ship Via	
							Old Value	New Value	Old Value	New Value	Old Value	New Value	Old Value	New Value	Old Value	New Value
20060125180144559 6	Work Order Units Charge	dc1mgr	Console	01/25/2006					0.00	0.00	01/27/2006	01/27/2006				
20060125180144559 6	Work Order Charge	dc1mgr	Console	01/25/2006					0.00	0.00	01/27/2006	01/27/2006				
20060125200629615 2	Work Order Units Charge	dc1mgr	Console	01/25/2006					0.00	0.00	01/27/2006	01/27/2006				
20060125201042615 7	Order Piece Charge	dc1mgr	Console	01/25/2006					0.00	0.00	01/27/2006	01/27/2006				
20060125201042615 7	Work Order Charge	dc1mgr	Console	01/25/2006					0.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Order Piece Charge	dc1mgr	Console	01/27/2006			S0000001-1		1.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Cycle Counts	dc1mgr	Console	01/27/2006			S0000001-1		1.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Work Order Charge	dc1mgr	Console	01/27/2006			NOR-00001		1.00	0.00	01/27/2006	01/27/2006				
20060127141944166 8	Work Order Units Charge	dc1mgr	Console	01/27/2006			NOR-00001		100.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Cycle Counts	dc1mgr	Console	01/27/2006					100.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Label	dc1mgr	Console	01/27/2006					13.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Label	dc1mgr	Console	01/27/2006			S0000001-1		1.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Cycle Counts	dc1mgr	Console	01/27/2006			S0000001-1		1.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Order Piece Charge	dc1mgr	Console	01/27/2006			NOR-00001		1.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88		dc1mgr	Console	01/27/2006			NOR-00001		100.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88		dc1mgr	Console	01/27/2006					100.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Work Order Charge	dc1mgr	Console	01/27/2006					13.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Order Piece Charge	dc1mgr	Console	01/27/2006					0.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88		dc1mgr	Console	01/27/2006			S0000001-1		1.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88		dc1mgr	Console	01/27/2006			S0000001-1		1.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Cycle Counts	dc1mgr	Console	01/27/2006			NOR-00001		1.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Label	dc1mgr	Console	01/27/2006			NOR-00001		100.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88	Work Order Charge	dc1mgr	Console	01/27/2006					100.00	0.00	01/27/2006	01/27/2006				
20060127141944166 88		dc1mgr	Console	01/27/2006					100.00	1.00	01/27/2006	01/27/2006				
20060125192116596 4		dc1mgr	Console	01/25/2006					0.00	0.00	01/27/2006	01/27/2006				
20060125192116596 4	Order Piece Charge	dc1mgr	Console	01/25/2006					0.00	0.00	01/27/2006	01/27/2006				
20060127200140212 75		dc1mgr	Console	01/27/2006					123.00	1.00	01/27/2006	01/27/2006				
20060127200140212 75		dc1mgr	Console	01/27/2006					234.00	2.00	01/27/2006	01/27/2006				
20060127200140212 75	Work Order Charge	dc1mgr	Console	01/27/2006					2.00	3.00	01/27/2006	01/27/2006				
20060127213534216 29	Order Piece Charge	dc1mgr	Console	01/27/2006					12.00	2.00	01/27/2006	01/27/2006				

For information about the field values, see Table 2–11.

Table 2–10 Billing Activity Detail Audit By All Attributes Search

Field	Description
Activity Header Key	Enter the activity key for which you want to generate the billing activity report.
Code	Enter the activity code for which you want to generate the billing activity report.
Transaction Reference	Enter the transaction reference that corresponds to the billing activity.
Ship Via	Enter the mode of shipment.
Audit Creator	Enter the name of the person who created the billing activity audit.
Audit Create Date	Enter the date when the audit was created.
Max Records	Enter the maximum number of records to be listed as a result of your search.

Table 2–11 Billing Activity Detail Audit List

Fields	Description
Activity Header Key	Indicates the unique key of the billing activity report.
Code	Indicates the activity code of the billing activity detail report.
Audit Creator	Indicates the person who created the billing activity audit list.
Audit Create Program	Indicates the program that created the audit.
Audit Create Date	Indicates the date when the audit was created.
Reason Code	Indicates the reason code associated with the audit.
Reason Text	Describes the reason associated with the audit.

Table 2–11 Billing Activity Detail Audit List

<table>
<tr><th>Fields</th><th>Description</th></tr>
<tr><td>Transaction Reference</td><td>Indicates the transaction reference that corresponds to the billing activity audit.
<table><tr><td>Old Value</td><td>Indicates the old value of the transaction reference.</td></tr><tr><td>New Value</td><td>Indicates the new value of the transaction reference.</td></tr></table></td></tr>
<tr><td>Service Quantity</td><td>Indicates the quantity for the specified billing activity.
<table><tr><td>Old Value</td><td>Indicates the old value of the service quantity.</td></tr><tr><td>New Value</td><td>Indicates the new value of the service quantity.</td></tr></table></td></tr>
<tr><td>Activity Date</td><td>Indicates the date of the specified billing activity audit.
<table><tr><td>Old Value</td><td>Indicates the old value of the activity date.</td></tr><tr><td>New Value</td><td>Indicates the new value of the activity date.</td></tr></table></td></tr>
</table>

Table 2–11 Billing Activity Detail Audit List

<table>
<tr><th>Fields</th><th>Description</th></tr>
<tr><td>Carrier Code</td><td>Indicates the unique carrier code of the billing activity.

<table><tr><td>Old Value</td><td>Indicates the old value of the carrier code.</td></tr><tr><td>New Value</td><td>Indicates the new value of the carrier code.</td></tr></table></td></tr>
<tr><td>Ship Via</td><td>Indicates the mode of transportation used for the specified billing activity.

<table><tr><td>Old Value</td><td>Indicates the old value of the mode of transportation.</td></tr><tr><td>New Value</td><td>Indicates the new value of the mode of transportation.</td></tr></table></td></tr>
</table>

3

Inbound Billing Activities

The Sterling nWMS PCA enables you to control the Inbound process with information that is available in the warehouse. It also enables you to record the billing activities performed during the Inbound process.

This chapter lists the billing activities that are recorded for the Inbound process, along with their billing activity codes. This chapter also describes the time at which the billing activity is recorded, and the transactions, agents, and services used to record the billing activities.

For the Inbound process, the billing activities are recorded when the shipments are received into the warehouse.

3.1 Configuring the Billing Activity Reporting Engine

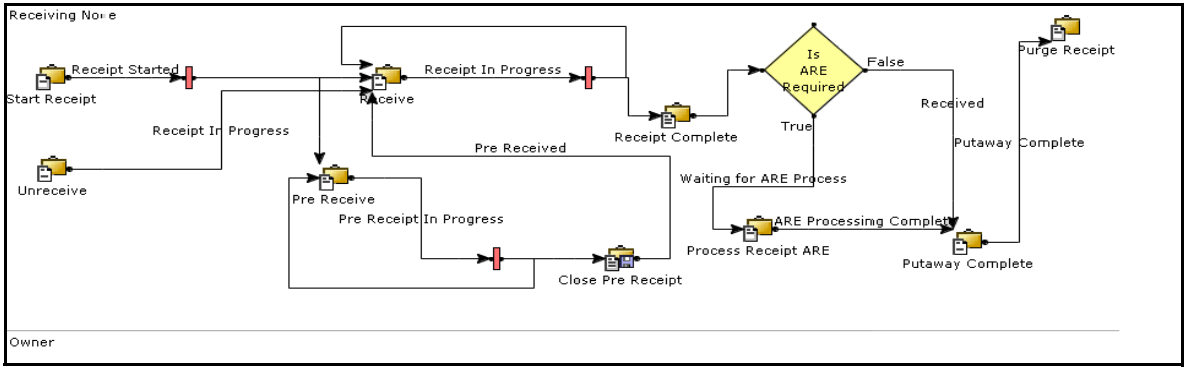
This section explains the Billing Activity Reporting Engine configuration for the Inbound process.

3.1.1 Pipeline

If you have enabled the Billing Activity Reporting Engine in your application, the receipt status changes to `Waiting for ARE Process` when the receipt completes. When the status changes to `Waiting for ARE Process`, a record is inserted into the Task Queue and this record is picked up by the `Process Receipt ARE` transaction. This transaction computes the billing activities for the receipt and inserts the billing activities into the `YNW_ARE_Activity_Header` and `YNW_ARE_Activity_Detail` tables. It then changes the receipt status to `ARE Processing Complete`.

Figure 3–1 illustrates the Receiving Pipeline.

Figure 3–1 Receiving Pipeline



3.1.2 Transactions

When the receipt is completed, the receipt enters the `Waiting for ARE Process` status. The `Process Receipt ARE` transaction then picks up these receipts, records the billing activities, and moves them to the `ARE Processing Complete` status.

3.1.2.1 Pickup Statuses

The Pickup Status for the `Process Receipt ARE` transaction is `Waiting for ARE Process`.

The `Process Receipt ARE` transaction picks up receipts that are in the `Waiting for ARE Process` status.

3.1.2.2 Drop Statuses

The Drop status for the `Process Receipt ARE` transaction is `ARE Processing Complete`.

The `Process Receipt ARE` transaction picks up receipts that are in the `Waiting for ARE Process` status, records the billing activities, and moves the receipts to the `ARE Processing Complete` status.

3.1.3 Agents

The `PROCESS_RECEIPT_ARE` agent invokes the `YNWAREReceipt` service. This service records the billing activities for the Inbound process.

3.1.4 Services

The YNWAREReceipt service records the billing activities performed in the Inbound Process.

3.1.5 Billing Activity Codes for the Inbound Process

Every billing activity is associated with a billing activity code. Billing activities can be recorded either manually or automatically by the system.

This section explains the billing activity codes for the Inbound Process.

3.1.5.1 System-Recorded

Billing activities can be recorded automatically by the system. These activities are recorded upon completion of the billing activity.

For the activities recorded, the receipt number is inserted as the value of the ACTIVITY_GROUP_KEY_DATA field in the YNW_ARE_ACTIVITY_ HEADER table. The ACTIVITY_GROUP_KEY_DATA field corresponds to the Transaction Reference field in the application console.

Figure 3–2 displays the system-recorded billing activity codes for the Inbound Process.

Figure 3–2 System-Recorded Billing Activity Codes For the Inbound Process

Code	Name	Transaction Type	Group ID	Unit Of Measure	Decimal Qty Allowed	Track Type	Cost	Currency
0030-0100	Receiving Order Charge	Receiving	Handling Charges	PER_ORDER	N	System	0.00	
0030-0200	Receiving Line	Receiving	Handling Charges	PER_SKU_LINE	N	System	0.00	
0030-0310	Receiving Piece/Reference Controlled	Receiving	Handling Charges	PER_CTRL_PIECE	N	System	0.00	
0030-0330	Receiving Piece/Defective	Receiving	Handling Charges	PER_PIECE	N	System	0.00	
0030-0340	Receiving Piece/Reference Controlled-Def	Receiving	Handling Charges	PER_PIECE	N	System	0.00	
0030-0600	Manual Entry Of ASN	Receiving	Handling Charges	PER_ORDER	N	System	0.00	
0030-0300	Receiving Piece	Receiving	Handling Charges	PER_PIECE	N	System	0.00	

Table 3–1 System-Recorded Billing Activities For the Inbound Process

Activity Name	Description	Transaction Reference
Receiving Order Charge (0030-0100)	This activity is recorded for every order received in the warehouse. For every order received, the Service Quantity is one.	Transaction Reference is Receipt No.
Receiving Line (0030-0200)	This activity is recorded for every received item in the warehouse. This includes serial-tracked items. For every received item, the Service Quantity is one.	Transaction Reference is Receipt No.
Receiving Piece/Reference Controlled (0030-0310)	For every serialized item with a disposition code as 'GOOD', a record is inserted into the YNW_ARE_ACTIVITY_DETAIL table. This includes serial-tracked items. For every serialized item, the Service Quantity is one.	Transaction Reference is Serial No.
Receiving Piece/Defective (0030-0330)	This activity is recorded whenever any non-serialized item with disposition code as 'DAMAGED' is received in the warehouse. For every non-serialized item received, the service quantity is equal to the number of units of defective item received.	Transaction Reference is Receipt No.
Receiving Piece/Reference Controlled-Def (0030-0340)	For every serialized defective item with a disposition code as 'DAMAGED', a record is inserted into the ARE Activity Detail. For every serialized defective item received, the Service Quantity is one.	Transaction Reference is Serial No.

Table 3–1 System-Recorded Billing Activities For the Inbound Process

Activity Name	Description	Transaction Reference
Manual Entry of ASN (0030-0600)	This activity is recorded whenever an ASN is entered manually in the warehouse. For every ASN recorded, the service quantity is one.	Transaction Reference is Receipt No.
Receiving Piece (0030-0300)	This activity is recorded whenever any non-serialized item is received in the warehouse. For every non-serialized item received, the service quantity is equal to the number of units of item received.	Transaction Reference is Receipt No.

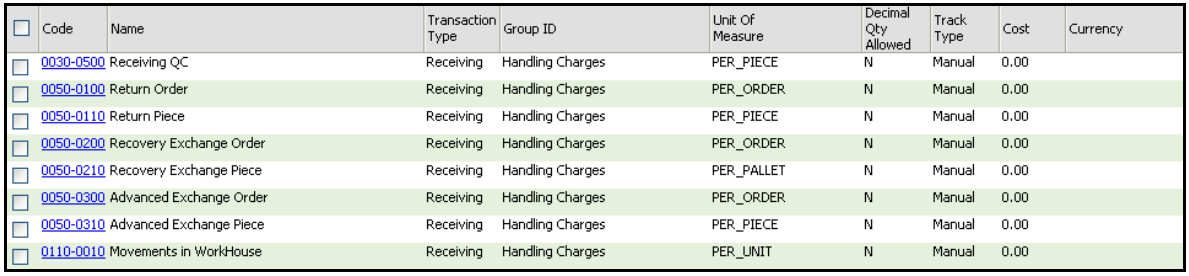
3.1.5.2 User-Recorded

The Sterling nWMS PCA also enables you to create additional billing activity codes and associate them with billing activities that are recorded as a part of the Inbound process. For more information about how to create billing activity codes manually, see Section 2.1.1, "Creating Billing Activity Codes".

The Sterling nWMS PCA also enables you to record additional billing activities manually. For more information about how to manually record billing activities, see Section 2.2.1, "Manually Recording Billing Activities".

Figure 3–3 displays an example of some manually recorded billing activity codes for the Inbound Process.

Figure 3–3 User-Recorded Billing Activity Codes For the Inbound Process



Code	Name	Transaction Type	Group ID	Unit Of Measure	Decimal Qty Allowed	Track Type	Cost	Currency
0030-0500	Receiving QC	Receiving	Handling Charges	PER_PIECE	N	Manual	0.00	
0050-0100	Return Order	Receiving	Handling Charges	PER_ORDER	N	Manual	0.00	
0050-0110	Return Piece	Receiving	Handling Charges	PER_PIECE	N	Manual	0.00	
0050-0200	Recovery Exchange Order	Receiving	Handling Charges	PER_ORDER	N	Manual	0.00	
0050-0210	Recovery Exchange Piece	Receiving	Handling Charges	PER_PALLET	N	Manual	0.00	
0050-0300	Advanced Exchange Order	Receiving	Handling Charges	PER_ORDER	N	Manual	0.00	
0050-0310	Advanced Exchange Piece	Receiving	Handling Charges	PER_PIECE	N	Manual	0.00	
0110-0010	Movements in WorkHouse	Receiving	Handling Charges	PER_UNIT	N	Manual	0.00	

Table 3–2 User-Recorded Billing Activity Codes For the Inbound Process

Activity Name	Description
Receiving QC	This activity is recorded manually whenever any item requires quality checking in the warehouse.
Return Order	This activity is recorded manually whenever any order is returned to the warehouse.
Return Piece	This activity is recorded manually whenever any item is returned to the warehouse.
Recovery Exchange Order	This activity is recorded manually for the exchange order.
Recovery Exchange Piece	This activity is recorded manually for the exchange item.
Advanced Exchange Order	This activity is recorded manually for the advanced exchange order.
Advanced Exchange Piece	This activity is recorded manually for the advanced exchange item.
Movements in WorkHouse	This activity is recorded manually whenever any shipment is moved from one location to other in the warehouse.

4

Outbound Billing Activities

The Sterling nWMS PCA enables you to control the Outbound process with the information that is available in the warehouse. It also enables you to record the activities performed during the Outbound process.

This chapter lists the billing activities that are recorded for the Outbound process, along with their billing activity codes. This chapter also describes the time at which the billing activity is recorded, and the transactions, agents, and services used to record the billing activities.

For the Outbound process, the billing activities are recorded when the shipments are shipped from the warehouse.

4.1 Configuring the Billing Activity Reporting Engine

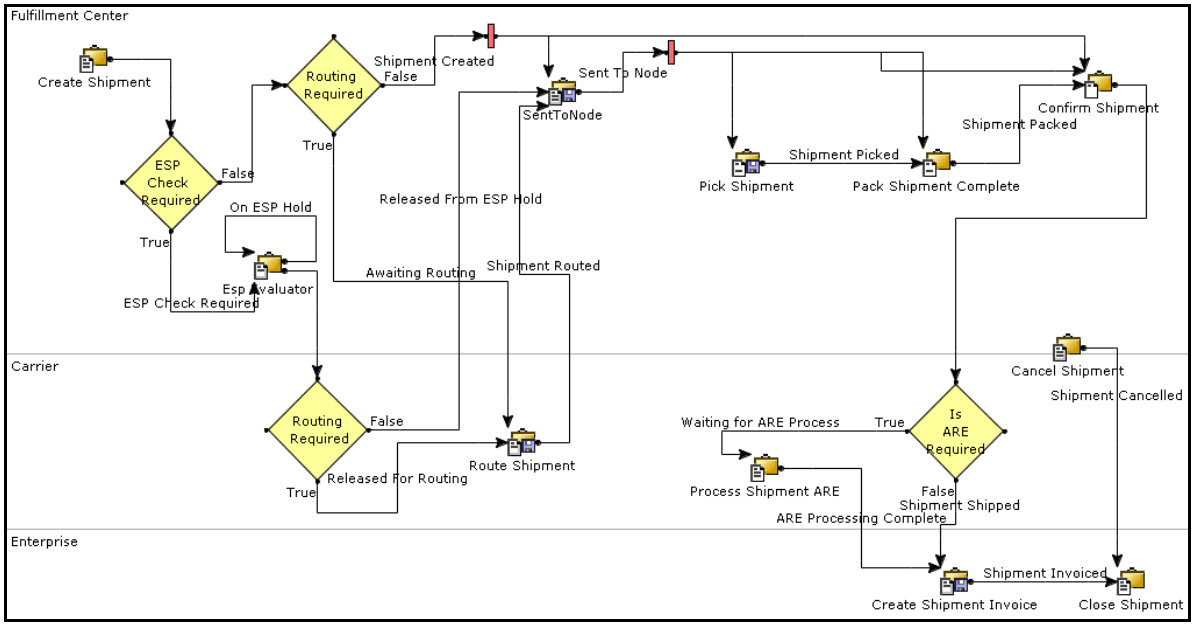
This section explains the Billing Activity Reporting Engine configuration for the Outbound Process.

4.1.1 Pipeline

If you have enabled the Billing Activity Reporting Engine in your application, the shipment status changes to `Waiting for ARE Process` when the shipment completes. When the status changes to `Waiting for ARE Process`, a record is inserted into the Task Queue and this record is picked up by the `Process Shipment ARE` transaction. This transaction computes the billing activities for the shipment and inserts the activities into the `YNW_ARE_Activity_Header` and `YNW_ARE_Activity_Detail` tables. It then changes the shipment status to `ARE Processing Complete`.

Figure 4–1 illustrates the Outbound Shipment Pipeline.

Figure 4–1 Outbound Shipment Pipeline



4.1.2 Transactions

When the shipment is completed, the shipment enters the `Waiting for ARE Process` status. The `Process Shipment ARE` transaction then picks up these shipments, records the billing activities, and moves them to the `ARE Processing Complete` status.

4.1.2.1 Pickup Statuses

The Pickup Status for the `Process Shipment ARE` transaction is `Wating for ARE Process`.

The `Process Shipment ARE` transaction picks up shipments that are in the `Waiting for ARE Process` status.

4.1.2.2 Drop Statuses

The Drop status for the `Process Shipment ARE` transaction is `ARE Processing Complete`.

The Process Shipment ARE transaction picks up shipments that are in the Wating for ARE Process status, records the billing activities, and moves the shipments to the ARE Processing Complete status.

4.1.3 Agents

The PROCESS_SHIPMENT_ARE agent invokes the YNWAREShipment service. This service records the billing activities for the Outbound process.

4.1.4 Services

The YNWAREShipment service records the billing activities performed in the Outbound Process.

4.1.5 Billing Activity Codes for the Outbound Process

Every billing activity is associated with a billing activity code. Billing activities can be recorded either manually or automatically by the system.

This section explains the billing activity codes for the Outbound Process.

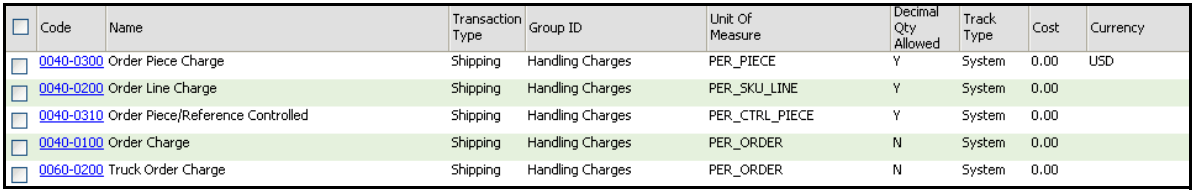
4.1.5.1 System-Recorded

Billing activities can be recorded automatically by the system. These activities are recorded upon completion of the billing activity.

For the activities recorded, the order number or release number is inserted as the value of the ACTIVITY_GROUP_KEY_DATA field in the YNW_ARE_ACTIVITY_ HEADER table. The ACTIVITY_GROUP_KEY_DATA field corresponds to the Transaction Reference field in the application console.

Figure 4–2 displays the system-recorded billing activity codes for the Outbound Process.

Figure 4–2 System-Recorded Billing Activity Codes for the Outbound Process



Code	Name	Transaction Type	Group ID	Unit Of Measure	Decimal Qty Allowed	Track Type	Cost	Currency
0040-0300	Order Piece Charge	Shipping	Handling Charges	PER_PIECE	Y	System	0.00	USD
0040-0200	Order Line Charge	Shipping	Handling Charges	PER_SKU_LINE	Y	System	0.00	
0040-0310	Order Piece/Reference Controlled	Shipping	Handling Charges	PER_CTRL_PIECE	Y	System	0.00	
0040-0100	Order Charge	Shipping	Handling Charges	PER_ORDER	N	System	0.00	
0060-0200	Truck Order Charge	Shipping	Handling Charges	PER_ORDER	N	System	0.00	

Table 4–1 System-Recorded Billing Activity Codes For The Outbound Process

Activity Name	Description	Transaction Reference
Order Piece Charge (0040-0300)	This activity is recorded for each non-serialized item shipped from the warehouse. This includes serial-tracked items. For an order shipped, the Service Quantity is equal the number of units of item shipped.	Transaction Reference is Item Id. Reference Field 1, 2 and 3 is Order Name.
Order Line Charge (0040-0200)	This activity is recorded at the shipment line level for all orders shipped from the warehouse. For all orders shipped, the Service Quantity is equal to one.	Transaction Reference is Item Id. Reference Field 1, 2 and 3 is Order Name.
Order Piece/Reference Controlled (0040-0310)	This activity is recorded when a serialized item is shipped from the warehouse. This includes serial-tracked items. For all items shipped, a record is inserted into the `YNW_ARE_Activity_Header` and `YNW_ARE_Activity_Detail` tables, with Service Quantity equal to one.	Transaction Reference is Serial No. Reference Field 1, 2 and 3 is Order Name.

Table 4–1 System-Recorded Billing Activity Codes For The Outbound Process

Activity Name	Description	Transaction Reference
Order Charge (0040-0100)	This activity is recorded for every order shipped from the warehouse. For every order shipped, the Service Quantity is equal to one.	Transaction Reference is Shipment No. Reference Field 1, 2 and 3 is Order Name. Reference Quantity 1 is Total Container Weight, Reference Quantity 2 is No of Containers, Reference Quantity 3 is Freight Charge.
Truck Order Charge (0060-0200)	This activity is recorded whenever the shipment is shipped by LTL or TL shipping mode from the warehouse.	Transaction Reference is Shipment No. Reference Field 1, 2 and 3 is Order Name, Reference Quantity 1 is Total Container Weight, Reference Quantity 2 is No of Containers, Reference Quantity 3 is Freight Charge.

4.1.5.2 User-Recorded

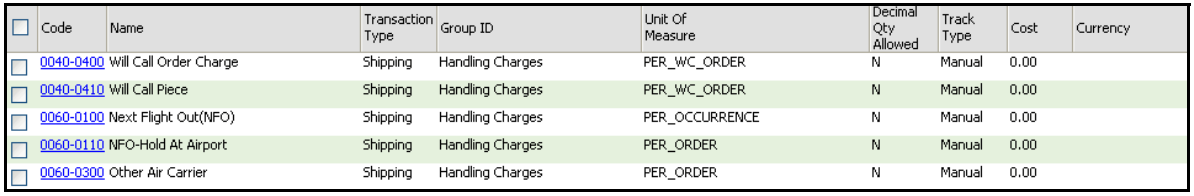
The Sterling nWMS PCA also enables you to create additional billing activity codes and associate them with billing activities that are recorded as a part of the Outbound process. For more information about how to create billing activity codes manually, see Section 2.1.1, "Creating Billing Activity Codes".

The Sterling nWMS PCA also enables you to record additional billing activities manually. For more information about how to record billing

activities manually, see Section 2.2.1, "Manually Recording Billing Activities".

Figure 4–3 displays an example of some manually recorded billing activity codes for the Outbound Process.

Figure 4–3 User-Recorded Billing Activity Codes for the Outbound Process



Code	Name	Transaction Type	Group ID	Unit Of Measure	Decimal Qty Allowed	Track Type	Cost	Currency
0040-0400	Will Call Order Charge	Shipping	Handling Charges	PER_WC_ORDER	N	Manual	0.00	
0040-0410	Will Call Piece	Shipping	Handling Charges	PER_WC_ORDER	N	Manual	0.00	
0060-0100	Next Flight Out(NFO)	Shipping	Handling Charges	PER_OCCURRENCE	N	Manual	0.00	
0060-0110	NFO-Hold At Airport	Shipping	Handling Charges	PER_ORDER	N	Manual	0.00	
0060-0300	Other Air Carrier	Shipping	Handling Charges	PER_ORDER	N	Manual	0.00	

Table 4–2 User-Recorded Billing Activity Codes for the Outbound Process

Activity Name	Description
Will Call Order Charge	This activity is recorded manually for every call order shipped.
Will Call Piece	This activity is recorded manually for every call item shipped.
Next Flight Out (NFO)	This activity is recorded manually for the shipment shipped by Next Flight Out.
NFO-Hold At Airport	This activity is recorded manually for the shipment held at airport.
Other Air Carrier	This activity is recorded manually for the shipment shipped by other modes of air carrier.

5

Count Billing Activities

The Sterling nWMS PCA enables you to control the Count process with the information that is available in the warehouse. It also enables you to record the billing activities performed during the count process, which can later be used to bill the enterprise.

This chapter lists the billing activities that are recorded for the Count process, along with their billing activity codes. This chapter also describes the time at which the billing activity is recorded, and the transactions, agents, and services used to record the billing activities.

For the Count process, the billing activities are recorded upon completion of the count request.

To complete a Count process, the user must perform the first level of count tasks. The Count process is completed when:

1. No variance is found.
2. Variance is found and
    - Another user performs the variance tasks
    - Variances, are accepted
    - The count process is completed and activities are recorded for the billing activity

5.1 Configuring the Billing Activity Reporting Engine

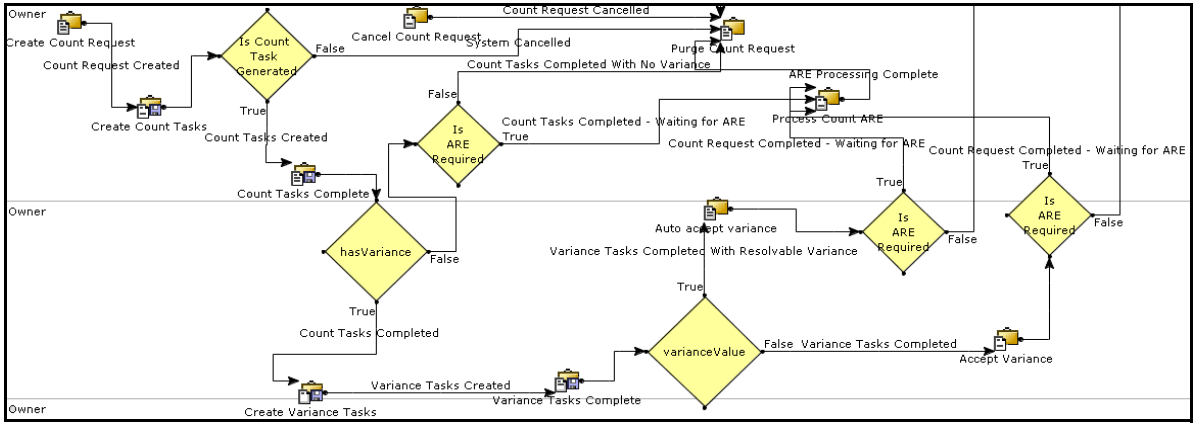
This section explains the Billing Activity Reporting Engine configuration for the Count Process.

5.2 Pipeline

If you have enabled the Billing Activity Reporting Engine in your application, the count status changes to Count Request Completed - Waiting for ARE when the count completes. When the status changes to Count Request Completed - Waiting for ARE, a record gets inserted into the Task Queue and this record is picked up by the Process Count ARE transaction. This transaction computes the billing activities for the count and inserts the billing activities into the YNW_ARE_Activity_Header and YNW_ARE_Activity_Detail tables. It then changes the count status to ARE Processing Complete.

Figure 5–1 illustrates the Cycle Count Pipeline.

Figure 5–1 Cycle Count Pipeline



5.2.1 Transactions

When the count is completed, the count enters the Count Request Completed - Waiting for ARE status. The Process Count ARE transaction then picks up these counts, records the billing activities, and moves them to the ARE Processing Complete status.

5.2.1.1 Pickup Statuses

The Pickup Status for the Process Count ARE transaction is Count Request Completed - waiting for ARE.

The Process Count ARE transaction picks up counts that are in the Count Request Completed - Waiting for ARE status.

5.2.1.2 Drop Statuses

The Drop status for the Process Count ARE transaction is ARE Processing Complete.

The Process Count ARE transaction picks up counts that are in the Count Request Completed status, records the billing activities, and moves the count to the ARE Processing Complete status.

5.2.2 Agents

The PROCESS_COUNT_ARE agent invokes the YNWARECount service. This service records the billing activities for the Count process.

5.2.3 Services

The YNWARECount service records the billing activities performed in the Count Process.

5.2.4 Billing Activity Codes for the Count Process

Every billing activity is associated with a billing activity code. Billing activities can be recorded either manually or automatically by the system.

This section explains the billing activity codes for the Count Process.

5.2.4.1 System-Recorded

Billing activities can be recorded automatically by the system. These activities are recorded upon completion of the billing activity.

For the activities recorded, the count request number is inserted as the value of the ACTIVITY_GROUP_KEY_DATA field in the YNW_ARE_ACTIVITY_HEADER table. The ACTIVITY_GROUP_KEY_DATA field corresponds to the Transaction Reference field in the application console.

Figure 5–2 displays the system-recorded billing activity codes for the Count Process.

Figure 5–2 System-Recorded Billing Activity Codes for the Count Process

Code	Name	Transaction Type	Group ID	Unit Of Measure	Decimal Qty Allowed	Track Type	Cost	Currency
0070-0100	Cycle Counts	Ancillary	Miscellaneous Charges	PER_PALLET	N	System	0.00	

Table 5–1 System-Recorded Billing Activity Codes for the Count Process

Activity Name	Description	Transaction Reference
Cycle Count (0070-0100)	This activity is recorded for every cycle count performed in the warehouse. For every cycle count, the Service Quantity is equal to one.	If the count is for an Item, the transaction reference is Item Id and Reference Field 2 is Location. If the count is not for an Item, the transaction reference is Location Id, Reference Field 1 is Item Classification 1, Reference Field 2 is Item Classification 2, Reference field 3 is Item Classification 3.

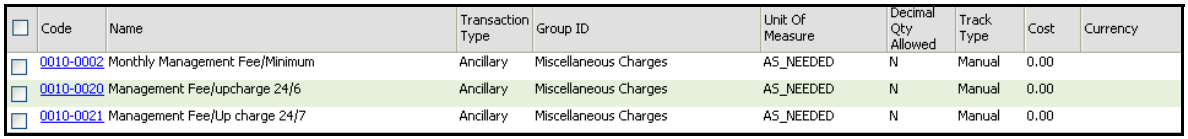
5.2.4.2 User-Recorded

The Sterling nWMS PCA also enables you to create additional billing activity codes and associate them with billing activities that are recorded as a part of the Count process. For more information about how to create billing activity codes manually, see Section 2.1.1, "Creating Billing Activity Codes".

The Sterling nWMS PCA also enables you to record billing activities manually. For more information about how to record billing activities manually, see Section 2.2.1, "Manually Recording Billing Activities".

Figure 5–3 displays an example of some manually recorded billing activity codes for the Count Process.

Figure 5–3 User-Recorded Billing Activity Codes for the Count Process



Code	Name	Transaction Type	Group ID	Unit Of Measure	Decimal Qty Allowed	Track Type	Cost	Currency
0010-0002	Monthly Management Fee/Minimum	Ancillary	Miscellaneous Charges	AS_NEEDED	N	Manual	0.00	
0010-0020	Management Fee/upcharge 24/6	Ancillary	Miscellaneous Charges	AS_NEEDED	N	Manual	0.00	
0010-0021	Management Fee/Up charge 24/7	Ancillary	Miscellaneous Charges	AS_NEEDED	N	Manual	0.00	

Table 5–2 Manually Recorded Billing Activity Codes for the Count Process

Activity Name	Description
Monthly Management Fee/Minimum	This activity is recorded manually for the monthly management fee of the activity.
Management Fee/upcharge 24/6	This activity is recorded manually for the monthly management fee of the activity for the 24/6 period.
Management Fee/Up charge 24/7	This activity is recorded manually for the monthly management fee of the activity for the 24/7 period.

6

Value-Added Services Billing Activities

Value-Added Services (VAS) are performed to meet customer demands. These can be activities performed on a product before the product is delivered to the customer or a provided service that is performed at the customer site.

VAS is performed in the warehouse on an ad-hoc basis. The Sterling nWMS PCA Billing Activity Reporting Engine records Kitting activities that are created for the purpose of completing the Order.

The different types of services include Kitting and Compliances services.

The Sterling nWMS PCA enables you to record the billing activities performed during the VAS process.

This chapter lists the billing activities that are recorded for the VAS process, along with their billing activity codes. This chapter also describes the time at which the billing activity is recorded, and the transactions, agents, and services used to record the billing activities.

For VAS, the billing activities are recorded after the work order is confirmed in the warehouse.

6.1 Configuring the Billing Activity Reporting Engine

This section explains the Billing Activity Reporting Engine configuration for the Value-Added Service Process.

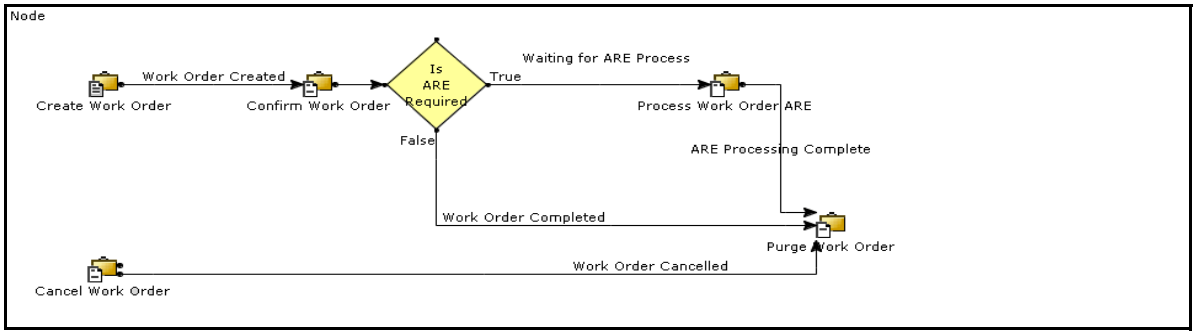
6.1.1 Pipeline

If you have enabled the Billing Activity Reporting Engine in your application, when the work order is confirmed the status changes to

Waiting for ARE Process. When the status changes to Waiting for ARE Process, a record is inserted into the Task Queue and this record is picked up by the Process Work Order ARE transaction. This transaction computes the activities for the confirmed work order and inserts the activities into the YNW_ARE_Activity_Header and YNW_ARE_Activity_Detail tables. It then changes the work order status to ARE Processing Complete.

Figure 6–1 illustrates the Work Order Pipeline.

Figure 6–1 Work Order Pipeline



6.1.2 Transactions

When the work order is completed, the work order enters the Waiting for ARE Process status. The Process Work Order ARE transaction then picks up these confirmed work orders, records the activities, and moves them to the ARE Processing Complete status.

6.1.2.1 Pickup Statuses

The Pickup Status for the Process Work Order ARE transaction is Waiting for ARE Process.

The Process Work Order ARE transaction picks up confirmed work orders that are in the Waiting for ARE Process status.

6.1.2.2 Drop Statuses

The Drop status for the Process Work Order ARE transaction is ARE Processing Complete.

The Process Work Order ARE transaction picks up confirmed work orders that are in the Waiting for ARE Process status, records the activities, and moves the confirmed work orders to the ARE Processing Complete status.

6.1.3 Agents

The PROCESS_WORK_ORDER_ARE agent invokes the YNWAREWorkOrder service. This service records the activities for the Value-Added Services process.

6.1.4 Services

The YNWAREWorkOrder service records the activities performed in the Value-Added Services Process.

6.1.5 Billing Activity Codes for the Value-Added Services Process

Every billing activity is associated with a billing activity code. Billing activities can be recorded either manually or automatically by the system.

This section explains the billing activity codes for the Value-Added Services Process.

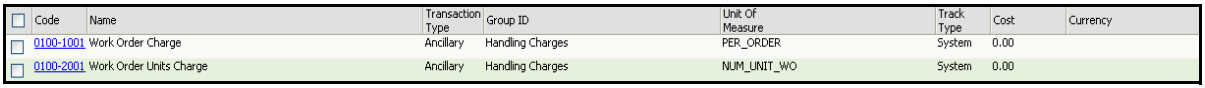
6.1.5.1 System-Recorded

Billing activities can be recorded automatically by the system. These activities are recorded upon completion of the billing activity.

For the activities recorded, the work order number is inserted as the value of the ACTIVITY_GROUP_KEY_DATA field in the YNW_ARE_ACTIVITY_HEADER table. The ACTIVITY_GROUP_KEY_DATA field corresponds to the Transaction Reference field in the application console.

Figure 6–2 displays the system-recorded billing activity codes for the Value-Added Services Process.

Figure 6–2 System-Recorded Billing Activity Codes for the Value-Added Services Process



Code	Name	Transaction Type	Group ID	Unit Of Measure	Track Type	Cost	Currency
0100-1001	Work Order Charge	Ancillary	Handling Charges	PER_ORDER	System	0.00	
0100-2001	Work Order Units Charge	Ancillary	Handling Charges	NUM_UNIT_WO	System	0.00	

Table 6–1 System-Recorded Billing Activity Codes for the Value-Added Services Process

Activity Name	Description	Transaction Reference
Work Order Charge (0100-1001)	This activity is recorded for a charge work order in the warehouse. For every charge work order, the Service Quantity is equal to one.	Work Order No.
Work Order Units Charge (0100-2001)	This activity is recorded for a charge work order in the warehouse. For every charge work order, the Service Quantity is equal to the number of units completed.	Work Order No.

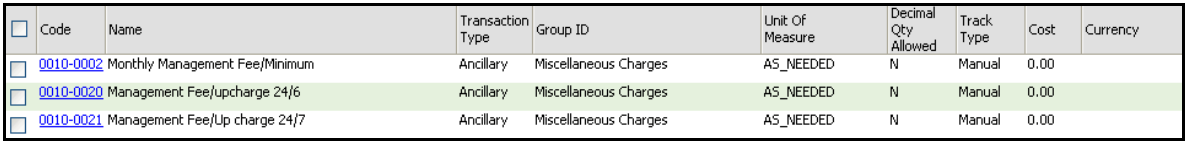
6.1.5.2 User-Recorded

The Sterling nWMS PCA also enables you to create additional billing activity codes and associate them with billing activities that are recorded as a part of the VAS process. For more information about how to create billing activity codes manually, see Section 2.1.1, "Creating Billing Activity Codes".

The Sterling nWMS PCA also enables you to record additional billing activities manually. For more information about how to record billing activities manually, see Section 2.2.1, "Manually Recording Billing Activities".

Figure 6–3 displays an example of some manually recorded billing activity codes for the VAS Process.

Figure 6–3 User-Recorded Billing Activity Codes for the Value-Added Services Process



Code	Name	Transaction Type	Group ID	Unit Of Measure	Decimal Qty Allowed	Track Type	Cost	Currency
0010-0002	Monthly Management Fee/Minimum	Ancillary	Miscellaneous Charges	AS_NEEDED	N	Manual	0.00	
0010-0020	Management Fee/upcharge 24/6	Ancillary	Miscellaneous Charges	AS_NEEDED	N	Manual	0.00	
0010-0021	Management Fee/Up charge 24/7	Ancillary	Miscellaneous Charges	AS_NEEDED	N	Manual	0.00	

Table 6–2 User-Recorded Billing Activity Codes for the Value-Added Services Process

Activity Name	Description
Monthly Management Fee/Minimum	This activity is manually recorded for the monthly management fee of the activity.
Management Fee/upcharge 24/6	This activity is manually recorded for the monthly management fee of the activity for a 24/6 period.
Management Fee/upcharge 24/7	This activity is manually recorded for the monthly management fee of the activity for a 24/7 period.

7

Integrating with External Systems

The Sterling nWMS PCA Billing Activity Reporting Engine can be integrated with an external system, such as an Accounts Receivable (AR) system. This PCA provides the external system with the list of all billing activities, along with the associated code, references, and the units of work. The external system stores the cost of a unit for each billing activity and bills the clients appropriately, at the end of the accounting period. The accounting period may be weekly, fortnightly, or monthly.

To integrate with external systems:

1. Add or Edit the following properties in the `<YANTRA_HOME>/Application/Foundation/resources/yfs.properties` file:
   a. Set `YNWAREWorkingDir` to the directory that stores temporary files, if any, during the Billing Activity Reporting Engine upload process.
   b. Set `YNWAREUploadDir` to the directory that stores files uploaded to the Billing Activity Reporting Engine record.
2. Update the Sterling Supply Chain Applications runtime. For more information about updating the Sterling Supply Chain Applications runtime, see the *Sterling Supply Chain Applications Installation Guide*.
3. Run the `UPLOAD_ARE` agent available in the `YNW_UPLOAD_ARE.2001.ex` transaction.

The format of the file generated in the `YNWAREUploadDir` directory is listed in Table 7–1 and Table 7–2.

Table 7–1 Billing Activity Reporting Engine Header Records

Field	Description	Start Position	End Position
Transaction Reference	Transaction Reference	7	46
Ship Node	Ship Node	47	86
Activity Group	Activity Group	87	96
Transaction Type	Transaction Type	97	106
ClientCode	ClientCode	107	116
Status	Status	117	126
Start Date	Start Date	127	136
Last Date	Last Date	137	146
InitTransmitDate	InitTransmitDate	147	156
LastTransmitDate	LastTransmitDate	157	166
Cost	Cost	167	181
Currency	Currency	182	191
CustomerRefNo	CustomerRefNo	192	231
Referencefield1	Referencefield1	232	271
Referencefield2	Referencefield2	272	311
Referencefield3	Referencefield3	312	351

Table 7–2 Billing Activity Reporting Engine Detail Records

Field	Description	Start Position	End position
DetailTransactionReference	DetailTransactionReference	7	46
ActivityCode	ActivityCode	47	56
ActivityDate	ActivityDate	57	66
LineActivityGroup	LineActivityGroup	67	76
LineStatus	LineStatus	77	86
ServiceQty	ServiceQty	87	100

Table 7–2 Billing Activity Reporting Engine Detail Records

Field	Description	Start Position	End position
CarrierCode	CarrierCode	101	140
ShipVia	ShipVia	141	180
RefQty1	RefQty1	181	194
RefQty2	RefQty2	195	208
RefQty3	RefQty3	209	222
LineReferencefield1	LineReferencefield1	223	262
LineReferencefield2	LineReferencefield2	263	302
LineReferencefield3	LineReferencefield3	303	342
Line Cost	Line Cost	343	357
Line Currency	Line Currency	358	367

8

Extending the Billing Activity Reporting Engine Activities

You can customize the Sterling nWMS PCA Billing Activity Reporting Engine to record activities other than those shipped with the PCA.

For recording the additional activities, you need to customize the services shipped with the Sterling nWMS PCA.

8.1 Shipment Activities

To enable the Billing Activity Reporting Engine to record additional Shipment activities:

1. Log in to the application as the ynwadmin user.
2. From the Sterling Supply Chain Application Consoles menu bar, choose Configuration > Launch Configurator. The Sterling Supply Chain Applications Configurator opens in a new window.
3. From the Sterling Supply Chain Applications Configurator menu bar, choose Application > Platform.
4. From the tree in the application rules side panel, choose Process Modeling. The Process Modeling screen displays.
5. Select the Outbound Shipment process type. The Outbound Shipment Repository tree displays in the application rules side panel.
6. In the Outbound Shipment Repository, navigate to the Outbound Shipment Services repository.
7. In the Outbound Shipment Services repository:
   a. In the AREGroup service group, select YNWAREShipment.

b. Click . The Save Service As pop-up window displays.

c. Enter the new Service Name and click OK.

8. Navigate to the Transactions repository.

9. In the Transactions repository:

a. Select the `Process Shipment ARE` transaction and click . The Transaction Detail:Process Shipment ARE (Outbound Shipment) screen displays.

b. Select the Time Triggered tab.

c. In the Agent Criteria Definitions area, select the `PROCESS_SHIPMENT_ARE` Criteria ID.

d. Click . The Agent Criteria Details pop-up window displays.

e. Click the Criteria Parameters tab.

f. Select the line where the ServiceName is `YNWAREShipment` and click . The Criteria Parameter Details pop-up window displays.

g. In Parameter Value, enter the service created in Step 7.

h. Click OK.

i. In the Agent Criteria Details pop-up window, click .

8.2 Receipt Activities

To enable the Billing Activity Reporting Engine to record additional Receipt activities:

1. Follow Step 1 through Step 4 in Section 8.1, "Shipment Activities".

2. Select the Purchase Order Receipt Process type. The Purchase Order Receipt Repository tree displays in the application rules side panel.

3. In the Purchase Order Receipt Repository, navigate to the Purchase Order Receipt Services Repository.

4. In the Purchase Order Receipt Services Repository,

a. In the `AREGroup` service group, select `YNWAREReceipt`.

b. Click . The Save Service As pop-up window displays.

c. Enter the new Service Name and click OK.

5. Navigate to the Transactions repository.
6. In the Transaction Repository:
   a. Select the `Process Receipt ARE` transaction and click . The Transaction Detail:Process Receipt ARE (Purchase Order Receipt) screen displays.
   b. Select the Time Triggered tab.
   c. In the Agent Criteria Definitions area, select `PROCESS_RECEIPT_ARE` Criteria ID.
   d. Click . The Agent Criteria Details pop-up window displays.
   e. Click the Criteria Parameters tab.
   f. Select the line where the ServiceName is `YNWAREReceipt` and click . The Criteria Parameter Details pop-up window displays.
   g. In Parameter Value, enter the service created in Step 4.
   h. Click OK.
   i. In the Agent Criteria Details pop-up window, click .

8.3 Count Activities

To enable the Billing Activity Reporting Engine to record additional Count activities:

1. Follow Step 1 through Step 4 in Section 8.1, "Shipment Activities".
2. Select Count Execution Process type. The Count Execution Repository tree displays in the application rules side panel.
3. In the Count Execution Repository, navigate to the Count Execution Services.
4. In the Count Execution Services repository:
   a. In the `AREGroup` service group, select `YNWARECount`.
   b. Click . The Save Service As pop-up window displays.
   c. Enter the new Service Name and click OK.
5. Navigate to the Transactions repository.
6. In the Transaction Repository:

a. Select the Process Count ARE transaction and click . The Transaction Detail:Process Count ARE (Count Execution) screen displays.

b. Select the Time Triggered tab.

c. In the Agent Criteria Definitions area, select PROCESS_COUNT_ARE Criteria ID.

d. Click . The Agent Criteria Details pop-up window displays.

e. Click the Criteria Parameters tab.

f. Select the line where the ServiceName is YNWARECount and click . The Criteria Parameter Details pop-up window displays.

g. In Parameter Value, enter the service created in Step 4.

h. Click OK.

i. In the Agent Criteria Details pop-up window, click .

8.4 Value-Added Service Activities

To customize value-added service:

1. Follow Step 1 through Step 4 in Section 8.1, "Shipment Activities".
2. Select the VAS Process type. The VAS Process Repository tree displays in the application rules side panel.
3. In the VAS Process Repository, navigate to the VAS Process Services.
4. In the VAS Process Services repository,
   a. In the AREGroup service group, select YNWAREWorkOrder.
   b. Click . The Save Service As pop-up window displays.
   c. Enter the new Service Name and click OK.
5. Navigate to the Transactions repository.
6. In the Transaction Repository:
   a. Select the Process Work Order ARE transaction and click . The Transaction Detail:Process Work Order ARE (VAS Process) screen displays.
   b. Select the Time Triggered tab.

c. In the Agent Criteria Definitions area, select PROCESS_WORK_ORDER_ARE Criteria ID.

d. Click . The Agent Criteria Details pop-up window displays.

e. Click the Criteria Parameters tab.

f. Select the line where the ServiceName is YNWAREWorkOrder and click . The Criteria Parameter Details pop-up window displays.

g. In Parameter Value, enter the service created in Step 4.

h. Click OK.

i. In the Agent Criteria Details pop-up window, click .

A

Billing Activity Codes

This appendix lists the Billing Activity Codes provided with the Sterling nWMS PCA.

The billing activity codes are grouped into the following classifications:

- Inbound Billing Activities
- Outbound Billing Activities
- Count Billing Activities
- Value-Added Services Billing Activities

A.1 Inbound Billing Activities

For the Inbound process, the billing activities are recorded when the shipments are received into the warehouse.

Each billing activity is recorded, along with a billing activity code, in the Billing Activity Reporting Engine. The billing activity code identifies the billing activity performed in the warehouse.

Table 8–1 lists the billing activities recorded during the Inbound Process. Billing activities may be recorded either automatically or manually.

Table 8–1 Billing Activities Created for the Inbound Process

Billing Activity Code	Billing Activity Name
0030-0100	Receiving Order Charge
0030-0200	Receiving Line
0030-0310	Receiving Piece/Reference Controlled
0030-0330	Receiving Piece/Defective

Table 8–1 Billing Activities Created for the Inbound Process

Billing Activity Code	Billing Activity Name
0030-0340	Receiving Piece/Reference Controlled-Def
0030-0500	Receiving QC
0030-0600	Manual Entry Of ASN
0050-0100	Return Order
0050-0110	Return Piece
0050-0200	Recovery Exchange Order
0050-0210	Recovery Exchange Piece
0050-0300	Advanced Exchange Order
0050-0310	Advanced Exchange Piece
0110-0010	Movements in WorkHouse
0030-0300	Receiving non-serialized item

A.2 Outbound Billing Activities

For the Outbound process, the billing activities are recorded when the shipments are shipped from the warehouse.

Each billing activity is recorded, along with a billing activity code, in the Billing Activity Reporting Engine. The billing activity code identifies the billing activity performed in the warehouse.

Table 8–2 lists the billing activities recorded during the Outbound Process. Billing activities may be recorded either automatically or manually.

Table 8–2 Billing Activities Created for the Outbound Process

Billing Activity Code	Billing Activity Name
0040-0300	Order Piece Charge
0040-0200	Order Line Charge
0040-0310	Order Piece/Reference Controlled
0040-0100	Order Charge
0040-0400	Will Call Order Charge

Table 8–2 Billing Activities Created for the Outbound Process

Billing Activity Code	Billing Activity Name
0040-0410	Will Call Piece
0060-0100	Next Flight Out (NFO)
0060-0110	NFO-Hold At Airport
0060-0200	Truck Order Charge
0060-0300	Other Air Carrier

A.3 Count Billing Activities

For the Count process, the billing activities are recorded upon completion of the count request.

To complete a Count process, the user must perform the first level of count tasks. The Count process is completed when:

1. No variance is found.
2. A variance is found and:
   - Another user performs the variance tasks.
   - Variances, are accepted.
   - The count process is completed and activities are recorded for the billing activity.

Each billing activity is recorded, along with a billing activity code, in the Billing Activity Reporting Engine. The billing activity code identifies the billing activity performed in the warehouse.

Table 8–3 lists the billing activities recorded during the Count Process. Billing activities may be recorded either automatically or manually.

Table 8–3 Billing Activities for the Count Process

Billing Activity Code	Billing Activity Name
0070-0100	Cycle Count
0010-0002	Monthly Management Fee/Minimum
0010-0020	Management Fee/upcharge 24/6
0010-0021	Management Fee/upcharge 24/7

A.4 Value-Added Services Billing Activities

Value-Added Services are performed in the warehouse on an ad-hoc basis. The different types of services include Kitting and Compliances services.

Each billing activity is recorded, along with a billing activity code, in the Billing Activity Reporting Engine. The billing activity code identifies the billing activity performed in the warehouse.

Table 8–4 lists the billing activities recorded during the VAS Process. Billing activities may be recorded either automatically or manually.

Table 8–4 Billing Activities for the Value-Added Services

Billing Activity Code	Billing Activity Name
0100-1001	Work Order Charge
0100-2001	Work Order Units Charge
0010-0002	Monthly Management Fee/Minimum
0010-0020	Management Fee/upcharge 24/6
0010-0021	Management Fee/Up charge 24/7

B

Billing Activity Units of Measure

Activity UOMs are used to charge the billing activities provided with the Sterling nWMS PCA.

Table 8–5 lists the Units Of Measure used to charge the billing activities.

Table 8–5 Billing Activities Units Of Measure

Unit Of Measure	Description
AS_NEEDED	Charge for each activity as needed.
CONTRACT_MIN	Charge according to contracted in minutes.
COST	Charge at cost.
COST_PLUS_MARKUP	Charge at cost plus the Markup.
EACH	Charge for each activity.
NUM_BIN	Charge according to the number of bin locations.
NUM_PALLET	Charge number of Pallets.
NUM_SEC_BIN	Charge according to the number of secondary bin locations.
NUM_SEC_PALLET	Charge according to the number of secondary pallet.
NUM_SHELF	Charge according to the number of shelves used for storage.
NUM_UNIT_WO	Charge according to the number of work order units.
ONCE_MONTHLY	Charge once per each month.
PER_CALL	Charge per each call.
PER_CARTON	Charge per each carton.
PER_COPY	Charge per each copy.

Table 8–5 Billing Activities Units Of Measure

Unit Of Measure	Description
PER_CTRL_PIECE	Charge per each piece.
PER_FAX	Charge per each fax.
PER_HOUR	Charge per each hour.
PER_LABEL	Charge per each label.
PER_OCCURRENCE	Charge per each occurrence.
PER_ORDER	Charge per each order.
PER_PALLET	Charge per each pallet.
PER_PIECE	Charge per each piece.
PER_QTR_HOUR	Charge per each quarter hour.
PER_SHIPMENT	Charge per each shipment.
PER_SKU_LINE	Charge per each SKU line.
PER_UNIT	Charge per each unit.
PER_WC_ORDER	Charge per each WC order.
SQ_FT	Charge per each square feet.

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