Oracle® Retail Warehouse Management System

Operations Guide

Release 13.2.4

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Oracle® Retail Warehouse Management System Operations Guide, Release 13.2.4

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Contributor:

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Preface

This Operations Guide provides critical information about the processing and operating details of Oracle Retail Warehouse Management System (RWMS), including the following:

- System configuration settings
- Technical architecture
- Functional integration dataflow across the enterprise
- Batch processing

Audience

This guide is for:

- Systems administration and operations personnel
- Systems analysts
- Integrators and implementers
- Business analysts who need information about Product processes and interfaces

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Related Documents

For more information, see the following documents in the Oracle Retail Warehouse Management System Release 13.2.4 documentation set:

- *Oracle Retail Warehouse Management System Data Model*
- *Oracle Retail Warehouse Management System Installation Guide*
- *Oracle Retail Warehouse Management System Online Help*
- *Oracle Retail Warehouse Management System Radio Frequency User Guide*
- *Oracle Retail Warehouse Management System Release Notes*
- *Oracle Retail Warehouse Management System User Interface User Guide*
- Oracle Retail Integration Bus documentation

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- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 13.2) or a later patch release (for example, 13.2.2). If you are installing the base release, additional patch, and bundled hot fix releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch and bundled hot fix releases can contain critical information related to the base release, as well as information about code changes since the base release.

Oracle Retail Documentation on the Oracle Technology Network

Documentation is packaged with each Oracle Retail product release. Oracle Retail product documentation is also available on the following Web site:

http://www.oracle.com/technology/documentation/oracle_retail.html

(Data Model documents are not available through Oracle Technology Network. These documents are packaged with released code, or you can obtain them through My Oracle Support.)

Documentation should be available on this Web site within a month after a product release.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Overview

RWMS is a warehouse management system that provides all of the tools necessary to control a modern Distribution Center (DC). RWMS optimizes the flow of merchandise and resources at the DC, fulfillment center, or warehouse. RWMS functionality enables fulfillment across multiple channels. The Web architecture extends functionality and visibility to remote facilities and trading partners via the Internet.

Decision support tools help plan using facility resources efficiently and monitoring existing activities and merchandise flow. Radio frequency (RF) terminals make real-time inventory control and task management possible.

The table-driven functionality supports a variety of business formats and industries, enabling the system to change as the business changes.

Features

RWMS delivers a functional match to distribution management requirements, including:

- Trailer/yard management
- Inbound freight scheduling
- Carrier compliance tracking
- Receiving and pre-distribution with inbound processing
- Cross-docking, flow-through, and stock
- Full ASN functionality
- Web-based vendor ASN entry
- Quality assurance (QA) with vendor compliance tracking
- Inventory control
- Inventory management
- Item maintenance, management, and profiling
- Customer returns
- Return to vendor (RTV)
- Value-added services
- Distribution and resource planning
- Radio frequency picking and packing
- Paper picking

- Task management
- Shipping and EDI manifesting

Hardware and Software Requirements

See the *Oracle Retail Warehouse Management System Installation Guide* for information about the following:

- Hardware and software requirements
- Oracle Retail application software compatibility

2

System Administration

Each system user must have a unique logon ID to the operating system, Oracle, and RWMS. This chapter describes how you can create each of these accounts and contains the following sections:

Creating the rdmusr Account on the Operating System

This account is created on the application server.

When RWMS is first installed, the group rdm is created, and the users rdmhost and rdmusr are created. The rdmusr user's home directory is typically /home/rdmusr, and the rdmhost user's home directory is typically /home/rdmhost.

```
#!/bin/ksh
#Run this to set the environment variables to compile forms for rwms13instDAN.
echo "
This is the forms profile for the rwms13instDAN environment. This profile will
export the variables needed to compile forms and menus.
To manually recompile an object run:
. /u00/webadmin/rwms13instDAN/base/forms.profile
and then run the following command:
# /u00/webadmin/product/10.3.3/WLS_Forms/as_1/forms/templates/scripts/frmcmp_
batch.sh userid=\$UP module_type=form_or_menu_or_library module=module_name
"
LC_ALL=UTF-8; export LC_ALL
ORACLE_HOME=/u00/webadmin/product/10.3.3/WLS_Forms/as_1; export ORACLE_HOME
ORACLE_INSTANCE=/u00/webadmin/product/10.3.3/WLS_Forms/asinst_1; export ORACLE_
INSTANCE
UP=/@rwms13instDAN; export UP
NLS_LANG=AMERICAN_AMERICA.UTF8; export NLS_LANG
TNS_ADMIN=/u00/webadmin/rwms13instDAN/base/.wallet; export TNS_ADMIN
ORACLE_TERM=vt220; export ORACLE_TERM
TERM=vt220; export TERM
PATH=$ORACLE_INSTANCE/bin:/u00/webadmin/rwms13instDAN/base/forms_
scripts:/u00/webadmin/product/10.3.3/WLS_Forms/as_
1/bin:/u00/webadmin/product/10.3.3/WLS_Forms/wlserver_
```

```
10.3/server/bin:/u00/webadmin/product/10.3.3/WLS_Forms/modules/org.apache.ant_
1.7.1/bin:/vol.rtk/java/oracle_linux/jdk1.6.0_
18.64bit/jre/bin:/vol.rtk/java/oracle_linux/jdk1.6.0_
18.64bit/bin:/u00/webadmin/product/10.3.3/WLS/jdk1.6.0_
18.64bit/bin:/vol.rtk/java/oracle_linux/java1.5.0_10/bin:.:/vol.rtk/java/oracle_
linux/java1.5.0_
10/bin:.:/usr/kerberos/bin:/usr/local/bin:/bin:/usr/bin:/usr/ccs/bin:/usr/ucb:.:/v
ol.rtk/tools/bin:/dba/bin:/usr/local/bin:/usr/bin:/etc:/usr/sbin:/usr/ccs/bin:/usr
/ucb:.:/vol.rtk/tools/bin:/dba/bin:/usr/local/bin:/usr/bin:/etc:/usr/sbin:/u00/web
admin/product/10.3.3/WLS/bin; export PATH

FORMS_
PATH=/u00/webadmin/rwms13instDAN/base/forms/bin:/u00/webadmin/product/10.3.3/WLS_
Forms/as_1/forms:/u00/webadmin/product/10.3.3/WLS_Forms/asinst_
1/FormsComponent/forms:$ORACLE_HOME/forms:$ORACLE_INSTANCE/FormsComponent/forms;
export FORMS_PATH

CLASSPATH=/u00/webadmin/product/10.3.3/WLS_Forms/as_
1/jlib/importer.jar:/u00/webadmin/product/10.3.3/WLS_Forms/as_
1/jlib/debugger.jar:/u00/webadmin/product/10.3.3/WLS_Forms/as_
1/jlib/utj.jar:/u00/webadmin/product/10.3.3/WLS_Forms/as_
1/jlib/ewt3.jar:/u00/webadmin/product/10.3.3/WLS_Forms/as_
1/jlib/share.jar:/u00/webadmin/product/10.3.3/WLS_Forms/as_
1/jlib/dfc.jar:/u00/webadmin/product/10.3.3/WLS_Forms/as_
1/jlib/help4.jar:/u00/webadmin/product/10.3.3/WLS_Forms/as_1/jlib/oracle_
ice.jar:/u00/webadmin/product/10.3.3/WLS_Forms/as_1/jlib/jewt4.jar; export
CLASSPATH

FORMS_BUILDER_CLASSPATH=$CLASSPATH
TK_UNKNOWN=/u00/webadmin/product/10.3.3/WLS_Forms/as_1/guicommon/tk/admin; export
TK_UNKNOWN
LOGDIR=/u00/webadmin/rwms13instDAN/base/log; export LOGDIR
ERRDIR=/u00/webadmin/rwms13instDAN/base/error; export ERRDIR
RDMUSR=rdm username
   export RDMUSR
RDMPWD=rdm password
   export RDMPWD
SORTATION_DIR=/u01/app/rdm/hostcomm/sortation;
export SORTATION_DIR
DOWNLOAD_DIR=/u01/app/rdm/hostcomm/download;
export DOWNLOAD_DIR
UPLOAD_DIR=/u01/app/rdm/hostcomm/upload;
export UPLOAD_DIR
```

Note: The value for fields shown in italics (above) must be set to the value appropriate for the installation.

Creating Operating System Accounts for Other Users

Create the user account in the operating system. The default shell should be ksh. The home directory should be /home/rdmusr, or whatever directory was assigned to the rdmusr. This prevents each user from having an individual home directory and makes the maintenance of the .profile easier.

Use whatever security measures are appropriate for the installation. The user may use the operating system's security provisions for password expiration.

RWMS enforces access control over the System screens regardless of the operating system security measures.

Creating Users in Oracle

Use the Oracle facility, such as Server Manager (svrmgrl), to create accounts in Oracle.

Set the default tablespace to USERS and the temporary tablespace to TEMP. The user's name must be the same as the account name on the operating system. The user's password must be the same as the user's name. Grant the new user the wms_user role. It has all the sufficient privileges to operate on all application tables.

Use the following SQL syntax to create new user accounts in Oracle:

```
create user rdmusr identified by <password>
temporary tablespace TEMP;
grant wms_user to rdmusr;
default tablespace USERS
```

Creating User Accounts

Add the user in RWMS, using the User Table Editor screen. The password the user specifies in the system can be the same as or different than the user's operating system password.

Radio Frequency Operations

Radio Frequency users must login to a terminal server through remote desktop on Radio Frequency (RF) devices to launch the RF application. The terminal server is configured for each user. When a user logins to a terminal server, Internet Explorer is launched in Kiosk mode and RF device selection menu is displayed. The RF launch menu is configured for each user during installation and has 4 options:

- Hand Held
- Truck Mount
- Wrist Mount
- Close

Users must select an option configured for the type of device they are logging into. When an option is selected, an application URL is launched that is specific to an entry on the formsweb.cfg file (configured during installation). This allows users to set specific environment variables for the type of device that is being used during implementation.

The close option calls a web page with an active x control that executes the c:/WINDOWS/system32/shutdown.ex executable file and completely shuts down the session on the terminal server and returns the users to the RF devices operating screen.

Note:

- The terminal server administrator must set up Internet Explorer to allow active X control so the user is not prompted or blocked from running it.
- The terminal server must be configured based on the business practices of the client to handle instances when the user is involuntarily disconnected from the system.

Operating System Functions

This section describes the print queues, cron jobs, daemon process, and system parameters.

Printer Queues

Create print queues in the operating system for reports and labels. RWMS does not embed any printer-specific commands in jobs being sent to report printers. Non-Label printer queues are typically defined as standard ASCII devices. For label printers, raw xml data is sent through a filter that converts it to ZPL (Zebra Programming Language). All label printers must be able to interpret ZPL text.

The names of the printer queues are specified on the System Parameter screen. Please also refer to the System Parameters section for more discussion of those parameters. The names of the parameters are listed here:

- pick_audit_queue
- pick_label_queue
- pick_package_queue
- recv_audit_queue
- recv_label_queue
- recv_receipt_queue
- reprint_label_queue
- ship_bol_queue
- ship_label_queue
- unit_pick_lbl_queue

Operating System Scheduled Jobs

This table describes the programs that should be run periodically to remove obsolete data from the system, schedule locations for cycle counting, close appointments, upload data, download data, and so forth. The user should run these programs using the operating system facility (cron) for scheduling jobs for unattended operation.

In the table, the name of the program to run is listed under the column heading "Name." The programs are in the $RDM_BIN directory. For each routine, a system parameter exists that specifies the number of days of data to retain. These parameters are maintained on the System Parameter editor, which is described in the *Oracle Retail Warehouse Management System User Guide*.

The rdmhost user must submit the jobs. The user's cron should first execute the .profile to set the environmental variables.

Table 2–1 Programs that must be run through cron job

Name	Purpose	Parameters	Frequency
capacity_replen.sh	Releases on-hold replenishments destined for Forward Pick locations.	facility_id	Every several minutes
dc_view.sh	Refreshes data in the DC VIEW and DC UTILIZATION tables.	facility_id	Once daily
insert_distribution_ queue.sh	Works with the Automate wave processing.	facility_id	Every several minutes or time that meets customer needs.
inv_bal_upload_b.sh	Create an inventory balance upload file for each facility id, part of the facility type.	facility_id	Once daily
maintain_wave_stats.sh	Updates wave statistics.		Every 15 minutes
run_dcplan.sh	Populates planned production activity data into the dc_plan_ data table, which is used for the Operational Overview screen.	facility_id	Once or twice a day at the beginning of the working day
run_distribution.sh	Matches inventory to allocation requests, creates pick directives and prints picking packages (if applicable).		Manually or every 15 minutes
run_kpidata.sh	Populates actual production data into the operational_data_ store table, which is used for the Operational Overview screen	facility_id	Every 15 minutes
schedule_cycle_count_b.sh	Schedules cycle counts (SS) for the DC.	Cycle_count_ period	Once daily
schedule_rop_ distribution.sh	Schedules a Re-Order Point distribution run.		Every 5 minutes
update_daily_wh_stats_b.sh	Updates statistics for daily warehouse activities.		Once daily
unreconciled_appt_ monitor.sh	Closes any unreconciled appointments that had all labels scanned or nulled.	None	Hourly
purge_rwms_tables.sh	Executes a number table purges.	facility_id	Once daily

Daemon Process

One daemon process must be run continuously. It should be run by the user rdmhost from the $RDM_BIN directory. The Calling Syntax includes the parameter -s, which is the sleep time in seconds: how often the daemon should wake up and look for inducted or diverted cartons. A typical value is between 10 and 30 seconds. In the Calling Syntax, <user_name/password> refers to an Oracle user and password.

Table 2–2 Daemon Process

Name	Description	Calling Syntax
Read_divert_data	Loads the sorter intake table from a data file.	read_divert_data <username/password> <facility_id>-s[n]

File Management (Directories)

Discusses permissions and any file cleanup (purging needed for each directory).

Table 2–3 File Management

Directory	Path	Purpose	Perm	Purging
Base Directory	$RDM	This is the base directory that other directories branch from.	775	None
Reports	$RDM/reports It is present on the application server where the Forms Server directory is located. (/u00/webadmin/product/10.3.3/WLS/user_projects/domains/ClassicDomain/servers/WLS_FORMS/tmp/_WL_user/formsapp_11.1.1/e18uoi/war/rwms/ reptemp/)	Temporary holding area for reports. Only non label reports that are executed using the RWMS GUI application are sent here. All the other reports are routed and managed by BI Publisher processing and configurations.	777	Occasional (weekly)
Host Download	$DOWNLOAD_DIR	Temporary holding area for files to download and log files.	775	Occasional (weekly)
Host Upload	$UPLOAD_DIR	Temporary holding area for files to upload.	775	Occasional (weekly)
Sortation	$SORTATION_DIR		775	Occasional (weekly)
BIN	$RDM/bin	Holds all executables.	755	None
INSTALL	$RDM_ADMIN/create	Holds files used to build the system.	755	None

3

DBA Administration Module

The DBA Administration module allows the DBA Administrator to monitor database information such as table locks, tablespace, indices, and errors.

The chapter describes how to display locks on tables, table information, tablespace information, rollback information, index information, sequence information, and the error log.

The following procedures are included in this section:

- Display Locks on Tables
- Display Table Information
- Display Rollback Information
- Display Index Information
- Display Sequences Information
- Display the Error Log
- View Error Log Details
- Delete Error Log Records

Display Locks on Tables

The user can use the Display Locks on Tables to display the status of the tables.

1. Select the DBA Administration menu.
2. Select the Display Locks on Tables option. The Display Locks on Tables is displayed.

Figure 3–1 Main Menu > DBA Administration > Display Locks on Tables Screen

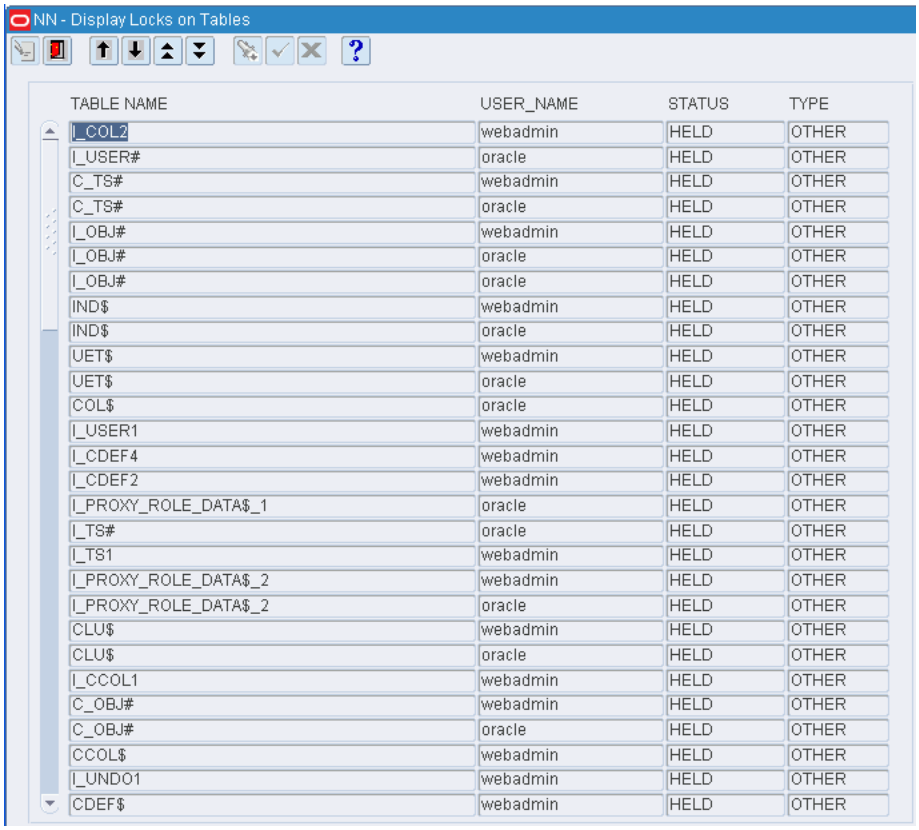


TABLE NAME	USER_NAME	STATUS	TYPE
I_COL2	webadmin	HELD	OTHER
I_USER#	oracle	HELD	OTHER
C_TS#	webadmin	HELD	OTHER
C_TS#	oracle	HELD	OTHER
I_OBJ#	webadmin	HELD	OTHER
I_OBJ#	oracle	HELD	OTHER
I_OBJ#	oracle	HELD	OTHER
IND$	webadmin	HELD	OTHER
IND$	oracle	HELD	OTHER
UET$	webadmin	HELD	OTHER
UET$	oracle	HELD	OTHER
COL$	oracle	HELD	OTHER
I_USER1	webadmin	HELD	OTHER
I_CDEF4	webadmin	HELD	OTHER
I_CDEF2	webadmin	HELD	OTHER
I_PROXY_ROLE_DATA$_1	oracle	HELD	OTHER
I_TS#	oracle	HELD	OTHER
I_TS1	webadmin	HELD	OTHER
I_PROXY_ROLE_DATA$_2	webadmin	HELD	OTHER
I_PROXY_ROLE_DATA$_2	oracle	HELD	OTHER
CLU$	webadmin	HELD	OTHER
CLU$	oracle	HELD	OTHER
I_CCOL1	webadmin	HELD	OTHER
C_OBJ#	webadmin	HELD	OTHER
C_OBJ#	oracle	HELD	OTHER
CCOL$	webadmin	HELD	OTHER
I_UNDO1	webadmin	HELD	OTHER
CDEF$	webadmin	HELD	OTHER

3. Click the exit button to close the window.

Display Table Information

The user can use the Display Table Information option to display specific table information.

Note: The user can monitor the number of extents to detect table growth. A large extent value indicates possible table fragmentation. If the number of extents approaches the maximum, the table should be rebuilt.

---

1. Select DBA Administration > Display Table Information.
2. In the Display Table Information window, click the enter query button.
3. In the Find Table query field, enter the name of the table, or click the LOV button and select the table.

4. Click the execute query button. The details of the selected table appear.

Figure 3–2 Main Menu > DBA Administration > Display Table Information Screen

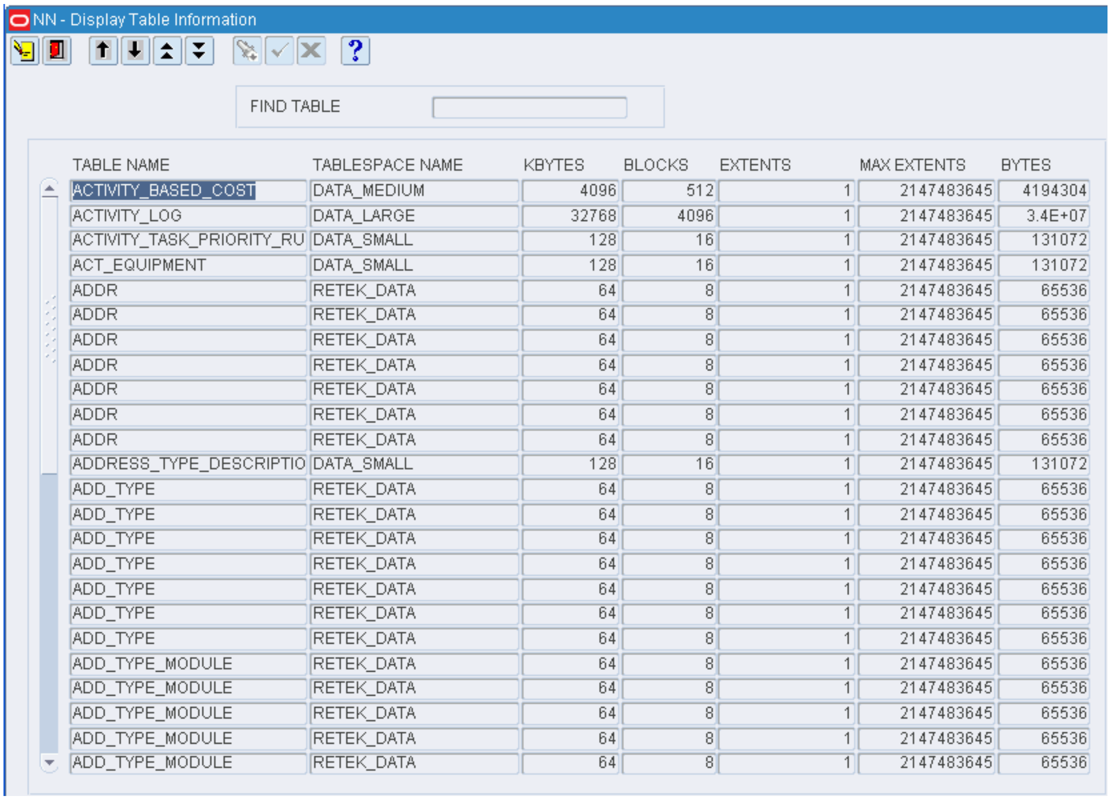


TABLE NAME	TABLESPACE NAME	KBYTES	BLOCKS	EXTENTS	MAX EXTENTS	BYTES
ACTIVITY_BASED_COST	DATA_MEDIUM	4096	512	1	2147483645	4194304
ACTIVITY_LOG	DATA_LARGE	32768	4096	1	2147483645	3.4E+07
ACTIVITY_TASK_PRIORITY_RU	DATA_SMALL	128	16	1	2147483645	131072
ACT_EQUIPMENT	DATA_SMALL	128	16	1	2147483645	131072
ADDR	RETEK_DATA	64	8	1	2147483645	65536
ADDR	RETEK_DATA	64	8	1	2147483645	65536
ADDR	RETEK_DATA	64	8	1	2147483645	65536
ADDR	RETEK_DATA	64	8	1	2147483645	65536
ADDR	RETEK_DATA	64	8	1	2147483645	65536
ADDR	RETEK_DATA	64	8	1	2147483645	65536
ADDR	RETEK_DATA	64	8	1	2147483645	65536
ADDRESS_TYPE_DESCRIPTIO	DATA_SMALL	128	16	1	2147483645	131072
ADD_TYPE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE_MODULE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE_MODULE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE_MODULE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE_MODULE	RETEK_DATA	64	8	1	2147483645	65536
ADD_TYPE_MODULE	RETEK_DATA	64	8	1	2147483645	65536

The fields on the Display Table Information screen are explained in the Table 4-1:

Table 3–1 Fields on the Table Information Screen

Field Name	Field Description
Find Table	Table name for table to be queried.
Table Name	Name of the database table.
Tablespace Name	Tablespace name.
Kbytes	Number of (K) bytes in the table.
Blocks	Number of blocks the table is using.
Extents Cur.	Current table extents.
Extents Max	Maximum allowable table extents.

Note: If the user wants to display information about a particular table, enter the specific table name at the Find Table field. The user can also enter a partial table name. For example, the user can enter APP to display all tables that begin with these letters.

---

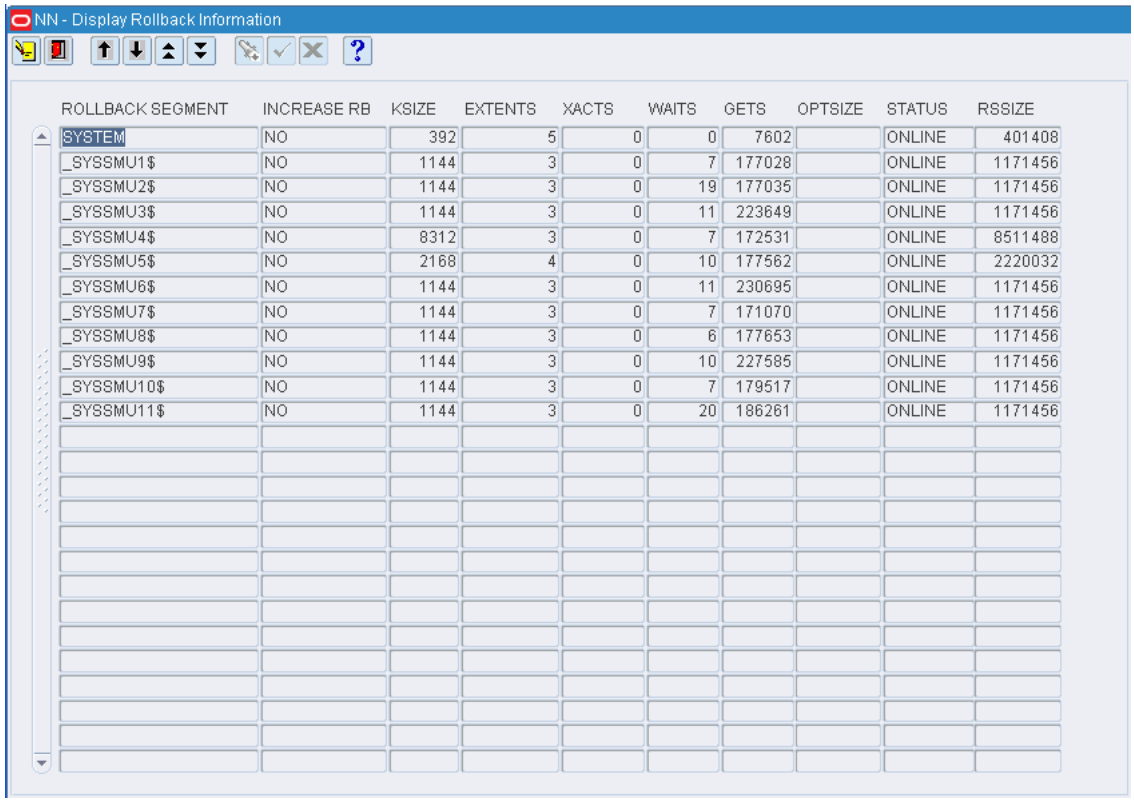
5. Click the **Exit** button to close the Display Table Information screen.

Display Rollback Information

The user can use the Display Rollback Information option to display information about rollbacks. The user can also use this information to determine whether the rollback segments need to be enlarged for a specific installation.

1. Select the DBA Administration > Display Rollback Information. The Display Rollback Information screen is displayed, along with all rollback segments.

Figure 3–3 Main Menu > DBA Administration > Display Rollback Information Screen



ROLLBACK SEGMENT	INCREASE RB	KSIZE	EXTENTS	XACTS	WAITS	GETS	OPTSIZE	STATUS	RSSIZE
SYSTEM	NO	392	5	0	0	7602		ONLINE	401408
_SYSSMU1$	NO	1144	3	0	7	177028		ONLINE	1171456
_SYSSMU2$	NO	1144	3	0	19	177035		ONLINE	1171456
_SYSSMU3$	NO	1144	3	0	11	223649		ONLINE	1171456
_SYSSMU4$	NO	8312	3	0	7	172531		ONLINE	8511488
_SYSSMU5$	NO	2168	4	0	10	177562		ONLINE	2220032
_SYSSMU6$	NO	1144	3	0	11	230695		ONLINE	1171456
_SYSSMU7$	NO	1144	3	0	7	171070		ONLINE	1171456
_SYSSMU8$	NO	1144	3	0	6	177653		ONLINE	1171456
_SYSSMU9$	NO	1144	3	0	10	227585		ONLINE	1171456
_SYSSMU10$	NO	1144	3	0	7	179517		ONLINE	1171456
_SYSSMU11$	NO	1144	3	0	20	186261		ONLINE	1171456

The fields on the Display Rollback Information screen are explained in the Table 4-2:

Table 3–2 Fields on the Display Rollback Information Screen

Field Name	Field Description
Rollback Segment	Name of the rollback segment.
Increase RB	Indicates when additional rollback segments need to be added. YES = rollback segments should be added. NO = rollback segments do not need to be added.
KSize	Size of rollback segments in bytes.
Extents	The number of times that the rollback segment had to acquire a new extent
XACTS	Number of Active Transactions
WAITS	The number of rollback segment header requests that resulted in waits
GETS	The number of rollback segment header requests

Table 3–2 (Cont.) Fields on the Display Rollback Information Screen

Field Name	Field Description
OPTSIZE	The value of the optimal parameter for the rollback segment
STATUS	Status (Online/Offline)
RRSIZE	Rollback Size

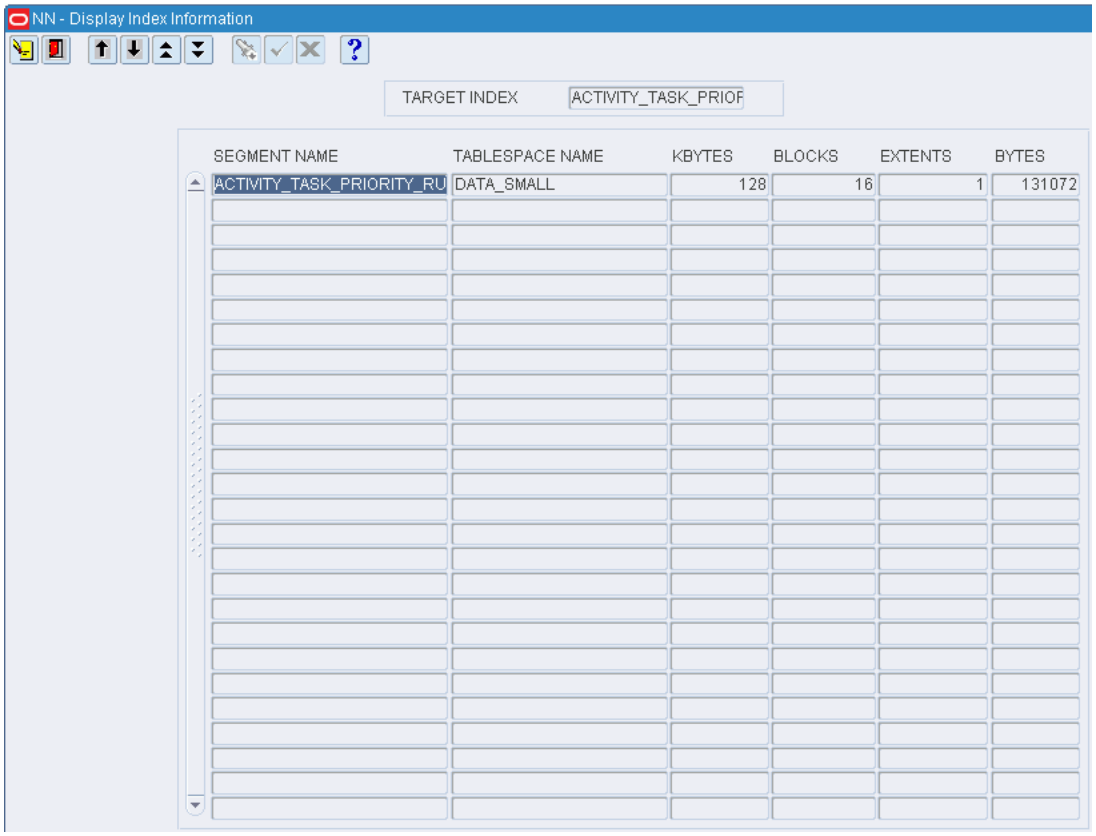
2. Click the **Exit** button to return to the Display Rollback Information screen.

Display Index Information

The user can use the Display Index Information option to display sizing information for the database indexes. The user can use this information to analyze the growth of the database indexes, which can indicate table growth.

1. Select DBA Administration > Display Index Information.
2. Click the enter query button. In the Target Index query field, enter the name of the index or click the LOV button and select the index. Select the The Display Index Information screen is displayed.
3. Click the execute query button. The details of the selected index appear.

Figure 3–4 Main Menu > DBA Administration > Display Index Information Screen



The fields on the Display Index Information screen are explained in the Table 4-3:

Table 3–3 Fields on the Display Index Information Screen

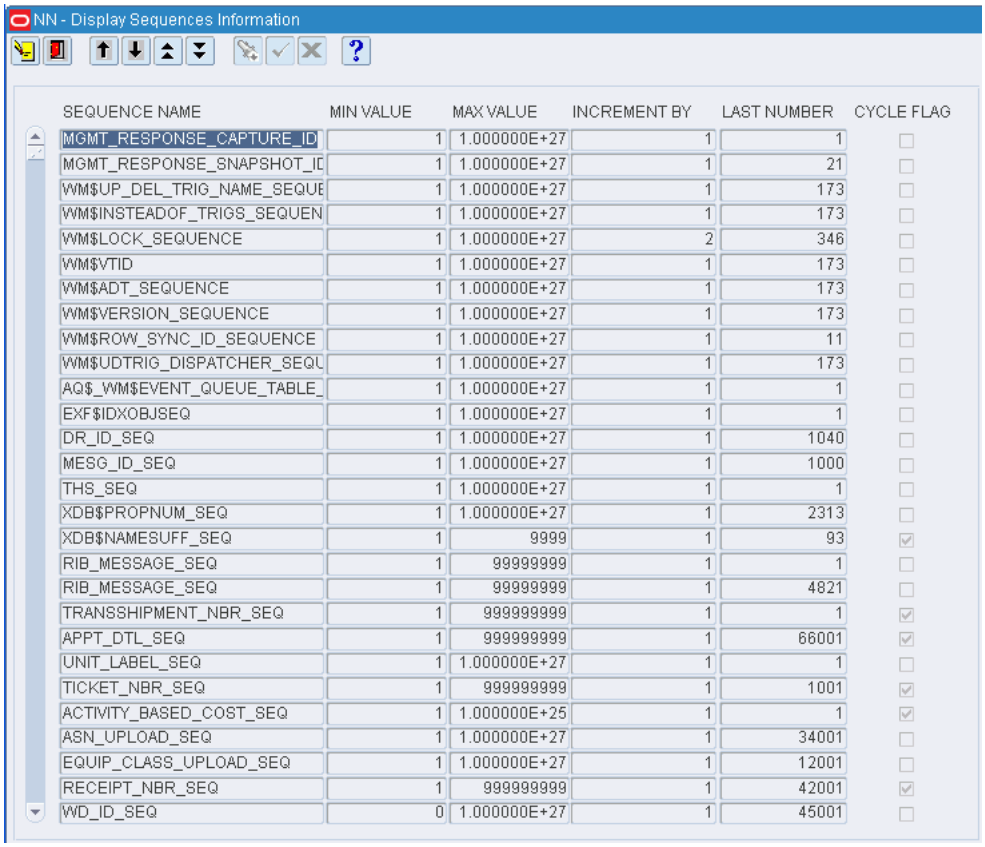
Field Name	Field Description
Target Index	Index name user wishes to query.
Segment Name	Name of index.
Tablespace Name	Tablespace name where the index resides.
Kbytes	Size of index in kilobytes.
Blocks	Number of blocks the index is using (1 block = 4096 bytes).
Extents	Current number of index extents.
Bytes	Size of index in bytes.

Display Sequences Information

The user can use the Display Sequence Information option to display sizing information specific to the sequences used by the system. The user can use this information to determine whether a sequence is being called as many times as originally planned.

1. Select DBA Administration > Display Sequences Information. The Display Sequences Information screen is displayed, along with the sequence information already entered into the system.

Figure 3–5 Main Menu > DBA Administration > Display Sequences Information Screen



The fields on the Display Sequences Information screen are explained in the Table 4-4:

Table 3–4 Fields on Display Sequences Information Screen

Field Name	Field Description
Sequence Name	Name of the database sequence.
Min Value	Minimum value of the sequence.
Max Value	Maximum value of the sequence.
Increment By	Increment, amount the sequence increases after each use.
Last Number	Last sequence value used. Some sequences cache the values in memory so this number does not increase until the cache is empty and a new group of numbers is cached into memory.
Cycle Flag	Cycle, whether the sequence rolls back to minimum value when the maximum value is reached.

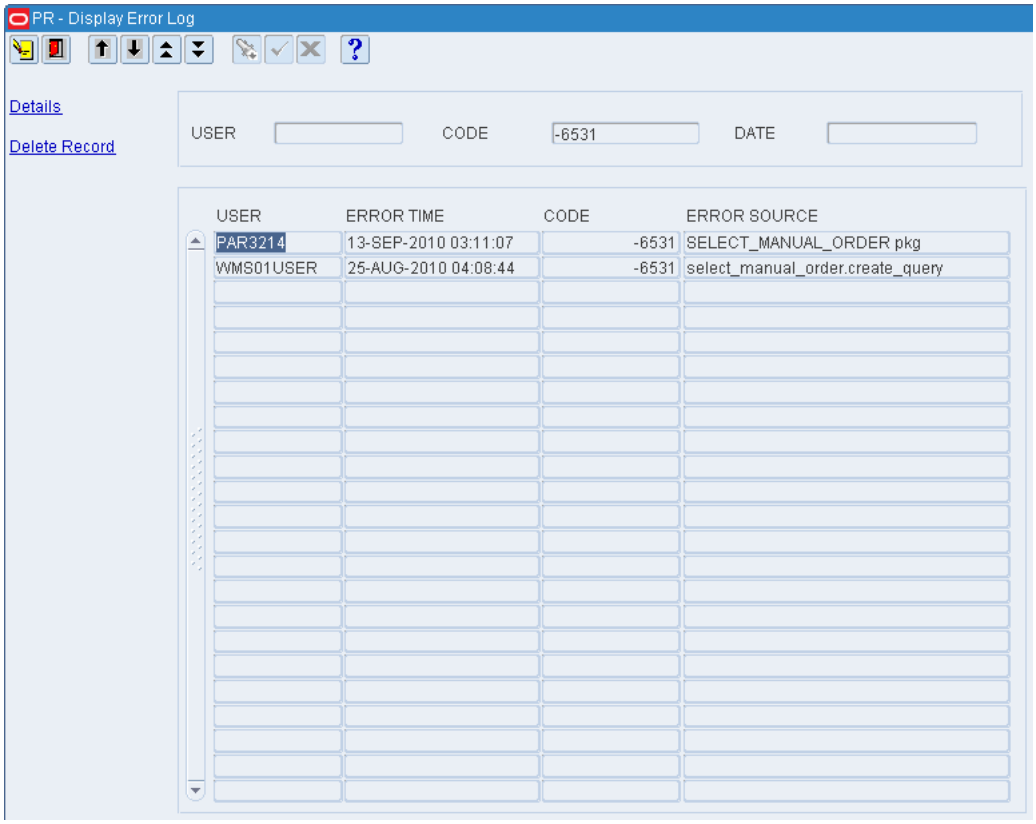
2. Click the **Exit** button to close the Display Sequences Information screen.

Display the Error Log

Display Error Log option to display, view details, and delete logged errors. These are unanticipated errors or errors occurring in background processes. The user can select Reports-> Print Reports menu option (available from any RWMS screen) in the windows toolbar and then use the Error Log report in BI Publisher to print the error log.

1. Select DBA Administration > Display Error Log.
2. Enter the query. The Display Error Log screen is displayed as shown below.

Figure 3–6 Main Menu > DBA Administration > Display Error Log Screen



The fields on the Display Error Log screen are explained in the Table 4-5:

Table 3–5 Fields on the Display Error Log Screen

Field Name	Field Description
User, Code, Date	Enter any combination of user, error code, or error date to search for records.
User	User identification.
Error Time	The date and time the error was logged.
Code	The error code.
Error Source	Program where the error originated

3. Click the execute query button to display a list of all existing errors.

> **Note:** To display the errors for a particular user, enter the user name in the User field.

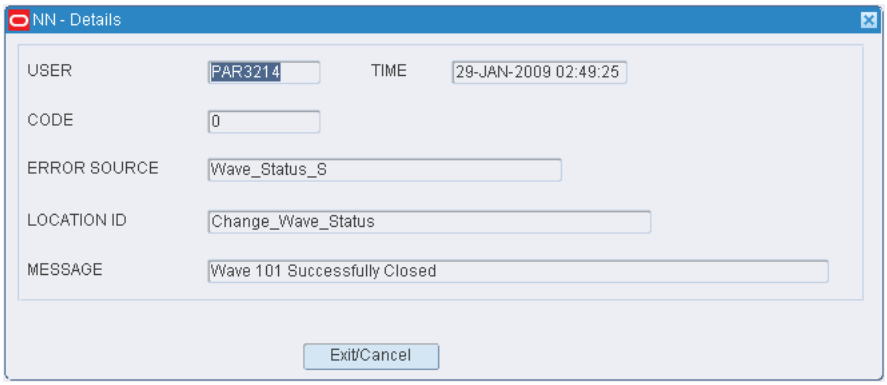
4. To display a specific error for a particular user, enter the user name in the User field and the error code in the Code field.
5. To display a specific error for a specific user for a particular date, enter the user name in the User field, the error code in the Code field, and the date in the Date field.

Note: RWMS accepts any combination of the above fields.

View Error Log Details

1. Select DBA Administration > Display Error Log.
2. Enter the user, error code, or date to view and click the execute query button.
3. Select the record to view in more detail, using the keypad arrow keys to move up and down the list, and then click the **Details** button. The Error Log screen is displayed.

Figure 3–7 Main Menu > DBA Administration > Display Error Log > Details screen



The fields on the Details screen are explained in the Table 4-6:

Table 3–6 Fields on the Error Log Screen

Field Name	Field Description
User	Identification of the user who had the error.
Time	Date and time the error was logged.
Code	The error code.
Source	The program in which the error originated.
Location	The location within the source program where the error occurred.
Message	Full text of the error message.

4. Click the **Cancel** button to close the Details screen.

Delete Error Log Records

1. Select DBA Administration > Display Error Log.
2. Click the enter query button or the LOV button to enter the options in the user, error code, or date to delete.
3. Click the execute query button. A list of all errors are displayed.
4. Select the record to delete, using the keypad arrow keys to move up and down the list, and then click the Delete Record link. A message box asks to confirm the deletion. The message reads:

```
Confirm Delete Operation (Yes/No)
```

5. Click **Yes** to delete the error log record.

4

Batch Management

This chapter describes the batch programs that should be run periodically to remove obsolete data from the system, to schedule locations for cycle counting, and to close appointments that are now reconciled. You should run these programs using the operating system facility (cron) for scheduling jobs for unattended operation.

In the following table, the name of the program to run is listed under the column heading *Name*. The programs are in the *$RDM_BIN* directory. For each routine, a system parameter exists that specifies the number of days of data to retain. These parameters are maintained on the System Parameter editor.

The *rdmhost* user must submit the jobs. The user's cron should first execute the *.profile* to set the environmental variables.

Table 4–1 Batch Programs

Name	Purpose	Parameters	Frequency
capacity_replen.sh	Releases on-hold replenishments destined for Forward Pick locations.	facility_id	Every several minutes
dc_view.sh	Refreshes data in the DC VIEW and DC UTILIZATION tables.	facility_id	Once daily
insert_distribution_ queue.sh	Works with the Automate wave processing.	facility_id	Every several minutes or time that meets customer needs.
inv_bal_upload_b.sh	Create an inventory balance upload file for each facility id, part of the facility type.	facility_id	Once daily
maintain_wave_stats.sh	Updates wave statistics.		Every 15 minutes
run_dcplan.sh	Populates planned production activity data into the dc_plan_ data table, which is used for the Operational Overview screen.	facility_id	Once or twice a day at the beginning of the working day
run_distribution.sh	Matches inventory to allocation requests, creates pick directives and prints picking packages (if applicable).		Manually or every 15 minutes
run_kpidata.sh	Populates actual production data into the operational_data_ store table, which is used for the Operational Overview screen	facility_id	Every 15 minutes

Table 4–1 Batch Programs

Name	Purpose	Parameters	Frequency
schedule_cycle_count_b.sh	Schedules cycle counts (SS) for the DC.	Cycle_count_ period	Once daily
schedule_rop_ distribution.sh	Schedules a Re-Order Point distribution run.		Every 5 minutes
update_daily_wh_stats_b.sh	Updates statistics for daily warehouse activities.		Once daily
unreconciled_appt_ monitor.sh	Closes any unreconciled appointments that had all labels scanned or nulled.	None	Hourly
purge_rwms_tables.sh	Executes a number table purges.	facility_id	Once daily

Security

RWMS Batch programs can be run using wallet alias as the first parameter to the batch command line arguments. This is enabled to prevent the security concerns around exposing database user id and password while running the batch programs. For more information about wallet creation, refer to the *Oracle Retail Warehouse Management System Installation Guide*.

The wallet and wallet alias creation is a pre-requisite to use batch programs in secured mode. For batch programs, RDMUSR and RDMPWD variables are used. If we assume wallet alias is "dvols29_rwms01batch", usage is as follows:

```
Export TNS_ADMIN = /projects/rwms13.2/dev/forms
Export RWMS_FORMS_ENV_FILE = /u00/webadmin/product/10.3.2_WLS_64/WLS_64/user_
projects/domains/ClassicDomain/config/fmwconfig/servers/WLS_
FORMS/applications/formsapp_11.1.1/config/develop/rwms132dvwallet.env
Export RMDUSR =
Export RDMPWD = @dvols29_rwms01batch
```

Note: The value for fields shown in italics (above) must be set to the value appropriate for the installation.

RWMS batch programs use a concatenation of RDMUSR/RDMPWD to execute the batch programs. When @<wallet_entry> is set as RMDPWD the end result is /@<wallet_entry>.

For wallet alias dvols29_rwms01batch, end result is /@ dvols29_rwms01batch.

Passwords

If an invalid password is used during login, the account gets locked after a few attempts. The number of attempts after which an account gets locked is set by the SCP max_invld_login_cnt. The account can be reset by the system administrator. If the account of the system administrator gets locked, it can be reset using a script rwms_ reset_app_user_pwd.sh or using the User Interface. See *Oracle Retail Warehouse Management System UI User Guide* for more details.

5

Subsystem Interfaces

This chapter consists of the following:

Batch File Formats

All batch files passed between an outside system and RWMS consist of one or more records in the upload or download files. These records contain printable ASCII characters (with space characters between each field) and are of a fixed length based on the transaction type.

Fields that are defined within transaction records have an associated template that defines the arrangement, length, and logical content of the field. They appear as one of the following types:

Table 5–1 Different Types of Fields

Template	Meaning
A	A character data type.
N	A numbered digit (0 through 9).
N(p)	An unsigned p-digit number.
N(p)vN(q)	A fixed point number with a decimal point, p digits to the left of the decimal and q digits to the right.
sN(p)	A p-digit number that has a sign ('+' or '-') as its first significant character.
X	An alphanumeric character.
X(p)	A p-character string.
YYYYMMDDHHMI	A date/time, with a 4-digit year followed by a 2-digit month followed by a 2-digit day followed by a 2-digit hour, a 24 hour format, followed by a 2-digit minute.

Note: Numeric fields are always right justified with leading zeros. Character fields are left justified with trailing blanks, unless otherwise stated.

Unit Pick System Files

Allocation Data Download

This file specifies the outstanding store orders to be fulfilled to the Unit Pick System.

Table 5–2 Store Orders

Field Description	Template	Destination
Facility id (dc)	X (2)	Code for the DC
Unit pick system code	X (4)	Code for Unit Pick System
Wave number	N (3)	Unique identifier of wave
Item id	X (25)	Unique identifier of the item.
Dest id	X (10)	Identifier of the ship destination.
Unit qty	N (8) v N (4)	Number of units
Logical chute	X (10)	Logical chute assigned to group
Group id	N (4)	Identifier for a set of orders
Slot	N (3)	Identifier with a group associated to an order
To container id	X (20)	System generated container ID merchandise to be packed

Inbound Carton Download

This file specifies the carton content and the associated wave to the Unit Pick System.

Table 5–3 Carton Content

Field Description	Template	Destination
Facility id (dc)	X (2)	Code for the DC
Unit pick system code	X (4)	Code for Unit Pick System
Wave number	N (3)	Unique identifier of wave
Container id	X (20)	Unique identifier of the source container.
Item id	X (25)	Unique identifier of the item.
Requested unit qty	N (8) v N (4)	Number of units

Process UPS Upload

This file serves as a notification from a Unit Pick System to RWMS concerning contents of a picked container, the associated wave number and the outbound destination ID.

Table 5–4 Notification

Field Description	Template	Destination
Facility ID (DC)	X (2)	Code for the DC
Transaction Date/Time	YYYYMMDD HH24MI	Date and time this record was created.
Wave Number	N (3)	Unique identifier of wave
Container ID	X (20)	Unique identifier of the container.
Item ID	X (25)	Unique identifier of the item
Distributed Unit Qty	N (8) v N (4)	Number of distributed units
Dest ID	X (10)	Identifier of the ship destination.

Pick By Light Interface

The Pick By Light system (PBL) requires a variety of information from a host in order to drive its paperless picking processes. These transactions are sent periodically; the frequency is determined by the urgency of the transaction type. The host is either RWMS or, as in standalone operations, some other application. Data is exchanged through text files. With text file data exchange, PBL is not concerned with the specifics of how the files were created or how they arrived in the upload or download directories. Each customer selects an approach to suit the preferred communication methods.

Files and Directories

All download files are placed in a directory that is named by the UNIX environment variable DOWNLOAD_DIR. All upload files are placed in a directory that is named by the UNIX environment variable UPLOAD_DIR.

The download and upload files have set names as listed in the following table. The files are listed in the order in which they are run because each download may depend upon a previous one.

Table 5–5 Files and Directories

Interface Name	Script Name	File Name
Destination Container Download	dest_container_ download.sh	dest_container_download.dat dest_cont_item_download.dat
Distribution Item Download	distro_item_ download.sh	distro_item_download.dat
Inventory Adjustment Download	inv_adj_download.sh	inv_adj_download.dat
Ship Destination Download	pps_ship_dest_ upload.sh	ship_dest_upload.dat
Distro Item Upload	create_distro_item_ upload.sh	distro_item_upload.dat
Expected Source Container Upload	create_exp_container_ upload.sh	exp_container_upload.dat
Source Container Upload	generate_source_ container_upld.sh	source_container_upload.dat

Download Transactions

The PBL downloads include several fields that are future use. These fields are included to allow for the future growth in RWMS and to allow the PBL to work standing alone, without RWMS. PBL download errors are recorded in the local RWMS error log, and are not uploaded to the host. The user can view and maintain this log in the Error Log screen.

Destination Container Download

The Destination Container download files are built by PBL for use by RWMS. They contain PBL built containers and the items and quantities in them that are added back to inventory or shipped. If the destination is marked as the DC, the container is sent to stock; otherwise, a distribution is assumed, and the container is routed appropriately. When PBL has finished creating the files, they are first copied to the download directory by PBL. Then, the script in RWMS for this download is started by PBL. The script reads the files, loads the data into RWMS, and adds the container information to RWMS.

The Destination Container Download consists of a Header file and a Detail file.

The Header file, which describes the container, has the following format:

Table 5–6 Destination Container Download

Field Description	Template	Description
Transaction Date/Time	YYYYMMDD HH24MISS	Date and time this record was created (future use)
Record Type	A	Record type in PBL. Always a Z for a Destination Container Download header record (future use).
Facility ID	X (2)	Identifier for the facility.
Company Number	N (1)	Company Number (future use).
Destination ID	X (10)	Identification of the ship destination.
Container ID	X (20)	Identifier for the container.
Destination Name	X (30)	Descriptive name of the ship destination (future use).
Address 1	X (30)	First address line of the ship destination (future use).
Address 2	X (30)	Second address line of ship destination (future use).
Address 3	X (30)	Third address line of the ship destination (future use).

The Detail file, which describes the contents of the closed picking container, has the following format:

Table 5–7 Detail File

Field Description	Template	Description
Transaction Date/Time	YYYYMMDD HH24MISS	Date and time this record was created (future_use).

Table 5–7 (Cont.) Detail File

Field Description	Template	Description
Record Type	A	Record type in PBL. Always a Y for a Destination Container Download detail (future use).
Facility ID	X (2)	Identifier for the facility.
Container ID	X (20)	Identifier for the container.
Distribution/Order Number	X (10)	Identifier for the distribution or order.
Item ID	X (25)	Identifier for the item.
Unit Qty	N (8) v N (4)	Unit quantity that was picked for this item.
Item Description	X (60)	Text description of the item (future use).

Errors due to data integrity with the download are recorded in the error log and the record is ignored. Possible errors include:

- Facility ID does not exist in RWMS.
- Container already exists in RWMS.
- Non-existent Destination ID.
- Duplicate Item ID/Distro Nbr (or Item/Order) on the container detail.
- Non-existent Item ID.

Distribution Item Download

The Distribution Item Download file is built by PBL and sent to RWMS. Therefore, pick directive records are deleted and stock allocations adjusted as needed. When PBL has finished creating the files, they are first copied to the download directory by PBL. Then the script in RWMS for this download starts by PBL. The script reads the file, loads the data into RWMS, and updates the picking information in RWMS as required.

The format for the Distribution Item Download is as follows:

Table 5–8 Distribution Item Download

Field Description	Template	Description
Transaction Date/Time	YYYYMMDD HHMISS	Date and time this record was created (future use).
Record Type	A	Record type in PPS. Always an X for a Destination Container Download header record (future use).
Facility ID	X (2)	Identifier for the facility.
Company Number	N (1)	Company Number (future use).
Distro Number	X (10)	Identifier for the distribution or order.
Item ID	X (25)	Identifier for the item.
Destination ID	X (10)	Identifier for the shipping destination.

Table 5–8 (Cont.) Distribution Item Download

Field Description	Template	Description
Requested Unit Qty	N (8) v N (4)	Number of units of this item requested for picking.
Distributed Unit Qty	N (8) v N (4)	Number of units of this item actually picked.

Errors due to data integrity with the download are recorded in the error log and the record is ignored. Possible errors include:

- Non-existent Facility ID.
- Non-existent Destination ID.
- Non-existent Item ID.
- No pick for the distro/item/destination.

Inventory Adjustment Download

The Inventory Adjustment Download file is built by PBL and sent to RWMS when there is a difference between the quantity sent on the Source Container Upload and the actual quantity picked. RWMS validates the data in the file and sends the information in an Inventory Adjustment Upload to the host system. This is the only action RWMS takes on this; no change in RWMS data occurs. After PBL creates the files, they are copied to the download directory by PBL. Then PBL starts the script in RWMS, or this download. The script reads the files, validates the data, and inserts the information into the Inventory Adjustment Upload table in RWMS for upload to the host (reason code to the host for this adjustment is 30).

The format for the Inventory Adjustment Download is as follows:

Table 5–9 Inventory Adjustment Download

Field Description	Template	Description
Transaction Date/Time	YYYYMMDD HHMISS	Date and time this record was created (future use).
Record Type	A	The record type in PBL. This is always sent as W for an Inventory Adjustment Download (future use).
Facility ID	X (2)	Identifier for the facility.
Company Number	N (1)	A single digit number for the company. This is a new system parameter in RWMS (future use).
Distro Number	X (10)	The identifier for the distribution (future use).
Item ID	X (25)	The identifier for the item.
Adjusted Unit Qty	sN (8) v N (4)	The difference between source container units and the number of units of this item actually picked. A positive number means more were picked than expected; a negative number means fewer were picked than expected.

Errors due to data integrity with the download are recorded in the error log and the record is ignored. Possible errors include:

- Non-existent Item ID.

Upload Transactions

Ship Destination Upload

The Ship Destination Upload file is spooled from the Shipping Destination table and sorted by Facility ID, Company Number, and Shipping Destination. This file is empty unless an adjustment action (add/modify/delete) is sent to RWMS from the host, or performed in the Destination Editor screen. Whenever an adjustment is performed, all shipping destinations that RWMS knows about are sent to PBL via the upload. Thus, this upload is an all or nothing data file.

The format for the Ship Destination Upload is as follows:

Table 5–10 Ship Destination Upload

Field Description	Template	Description
Transaction Date/Time	YYYYMMDD HHMISS	Date and time this record was created.
Record Type	A	Record type in PBL. Always an 'A' for a Ship Destination Upload.
Facility ID	X (2)	Identifier for the facility.
Company Number	N (1)	Company Number.
Destination ID	X (10)	Identification of the ship destination.
Destination Name	X (30)	Descriptive name of the ship destination.
Address 1	X (30)	First address line of the ship destination.
Address 2	X (30)	Second address line of ship destination.
Address 3	X (30)	Third address line of the ship destination.

Distro Item Upload

The Distro Item Upload file contains records that indicate to PBL which items, and how many, are shipped to specified destinations. After the distribution process runs, this file is built from all remaining sorted allocation records that are eligible to be processed by PBL (the item does not have a FPL defined). Records are sorted by facility number, company number, distribution/order number, item, distro/order creation time stamp, and shipping destination.

The format for the Distro Item Upload is as follows:

Table 5–11 Distro Item Upload

Field Description	Template	Description
Transaction Date/Time	YYYYMMDD HHMISS	Date and time this record was created.

Table 5–11 (Cont.) Distro Item Upload

Field Description	Template	Description
Record Type	A	Record type in PBL. Always a B for a Distro Item Upload.
Facility ID	X (2)	Identifier for the facility.
Company Number	N (1)	Company Number.
Distro Number	X (10)	Identifier for the distribution or order.
Item ID	X (25)	Identifier for the item.
Distro Create Date/Time	YYYYMMDD HHMISS	Date and time the distribution/order was created
Destination ID	X (10)	Identifier for the shipping destination.
Unit Qty	N (8) v N (4)	Number of units of this item to be shipped.
Item Dept	X (4)	Department of the item.
Item Description	X (60)	Item description.

Expected Source Container Upload

This Expected Source Container Upload file contains records identifying all Inventory containers necessary to fulfill the PBL requirements determined by the last distribution run. This information is used by PBL to know ahead of time what containers are needed by PBL. This file is built after each distribution run. Records are sorted by facility number, company number, distribution/order number, item, distribution/order creation time stamp, and container ID.

The format of the Expected Source Container Upload is as follows:

Table 5–12 Expected Source Container Upload

Field Description	Template	Description
Transaction Date/Time	YYYYMMDD HH24MISS	Date and time this record was created.
Record Type	A	Record type in PBL. Always a C for an Expected Source Container Upload.
Facility ID	X (2)	Identifier for the facility.
Company Number	N (1)	Company Number.
Distro Number	X (10)	Identifier for the distribution or order.
Item ID	X (25)	Identifier for the item.
Distro Create Date/Time	YYYYMMDD HH24MISS	Date and time the distribution/order was created.
Container ID	X (20)	Identifier for the container.
Requested Qty	N (8) v N (4)	Unit quantity that is requested for picking of this item.

Source Container Upload

The Source Container Upload file is built as PBL Source containers are picked and dropped off at the PBL staging area. The upload file is used to match up expected containers with actual source containers delivered to PBL. It has no sorted order.

> **Note:** The value of Actual Quantity in the Upload is 0 (zero) if the pick was canceled either by the user or indirectly via a system function (such as a location marked for cycle count).

The format for the Source Container Upload is as follows:

Table 5–13 Source Container Upload

Field Description	Template	Description
Transaction Date/Time	YYYYMMDD HH24MISS	Date and time this record was created.
Record Type	A	Record type in PBL. Always a D for a Source Container Upload.
Facility ID	X (2)	Identifier for the facility.
Container ID	X (20)	Identifier for the container.
Actual Qty	N (8)	Unit quantity in the container.

Sortation Subsystem Interface

Due to the increased use of UCC-128 labeled containers and the addition of WIP code functionality to RWMS, the Oracle Retail Distribution Management Sortation module now sends container divert instruction messages to the sortation system to control the flow of containers on the conveyor.

Each message that RWMS sends to the sortation system informs it of the next logical destination for a container. The divert instruction could be, but is not limited to, one of the following: any type of processing area, QA sampling, palletization, putaway staging, or shipping lane divert instructions. Initially, a message is sent to the sorter whenever a container is created on RWMS. However, subsequent messages are sent to the sorter if the container is assigned one or more WIP codes. The sortation system is only sent the next logical destination for a container.

The sortation system continues to notify RWMS of any container diverts that occur on the conveyor system. Depending on the type of divert that has taken place, RWMS either attempts to auto-receive, move, or manifest the container.

Files and Directories

All files are placed in a directory that is named by the UNIX environment variable SORTATION_DIR. The files have set names as listed below. They are listed in the order in which they should be run because each download may depend upon a previous one.

Table 5–14 Files and Directories

Interface Name	Script Name	File Name
Container Divert Download	sorter_dnld.sh	sorter_dnld.dat

Table 5–14 (Cont.) Files and Directories

Interface Name	Script Name	File Name
Container Divert Instruction Upload	sorter_upload.sh	sorter_upload.dat

Download Transactions

Container Divert Message

The sortation system sends a message when a container is scanned, indicating whether it was scanned as an induction, diverted to a processing area, or diverted to a shipping lane. If the container was inducted, RWMS performs an auto-receiving function. If the container is diverted to a processing area, RWMS updates the location of the container. When a divert to a shipping lane is sent, RWMS adds the container to the manifest for the trailer if one is available. For more details, refer to the RWMS Shipping Module in the *Oracle Retail Warehouse Management System User Guide*.

The Container Divert Message Download file has the following format:

Table 5–15 Container Divert Message Download

Field Description	Template	Description
Container ID	X (20)	Identifier of the container.
Divert Type	A	I = Induction D = Shipping Lane Divert.
Logical Destination	X (4)	Area of the DC to which the container was sorted.
Tracking ID	X (25)	Tracking ID (if any) applied to the container by a carrier for tracking purposes.
Divert Timestamp	YYYYMMDD HH24MISS	Date/Time the container was scanned by the sortation system.

Upload Transactions

Container Divert Instruction Message

RWMS sends a Container Divert Instruction Message to the sortation system to control the flow of containers on the conveyor system. If a container must be diverted to several areas in the distribution center before it is ready to be putaway or shipped, RWMS only informs the sortation system of the next logical destination for the container. This way, the sortation system does not need to keep track of all divert instructions for a container. The first divert instruction for a container is sent when the container ID is first created on RWMS.

When the receiving allocation module creates a container, RWMS calculates a pallet group identifier in order to provide a palletization operator a quickly recognized code that helps to group cartons together on pallets. RWMS assigns a four-digit number to each PO/Item/Destination and concatenates this with the total number of cartons expected for the pallet group to make up the pallet group identifier.

The Container Divert Instruction Message Upload file has the following format:

Table 5–16 Container Divert Instruction Message Upload

Field Description	Template	Description
Container ID	X (20)	Container identifier.
Logical Destination	X (4)	Next area of DC to which the container should be diverted.
Transaction Date/Time	YYYYMMDD/HHMISS	Date/Time of upload to sortation system.

Manifest Mailing System

The MMS uses the merchandise carton ID to form an Oracle Data Base Compliant (ODBC) query into the RWMS data base. This query gathers the information necessary for generating a shipping label and manifesting the carton.

Merchandise, planned and picked, using the logic currently implemented in RWMS, is first taken to a shipping station. Each shipping station is a PC running a MMS with interfaces to a user interface terminal and often to a scale.

The label applied by the RWMS picker is then scanned to retrieve the carton ID necessary for the ODBC query.

Files and Directories

In addition to the normal BOL upload records, MMS information is uploaded to the host. This additional information is prepared for upload to the host system upon completion of the normal BOL upload operation.

Each Container ID, pro number combination in the shipment has one detail record in the MMS upload. The BOL Sequence Number is incremental and unique for each BOL.

An MMS upload consists of a single detail file with the following format:

Table 5–17 Manifest Mailing System

Field Description	Template	Description
Batch Number	N (7)	Numeric Sequence of the upload
BOL Number	X (17)	BOL number
Container ID	X (20)	Identifier of container
Pro Number	X (18)	Shipper's tracking number
Cube	N (10) v N (2)	Container cube
Weight	N (8) v N (4)	Container weight
Freight	N (6) v N (2)	Freight charge
Markup	N (6) v N (2)	Markup charge
Charge type	X (6)	Carrier charge code
Service Code	X (6)	Carrier service code
Service Level	X (12)	Carrier service level
Tracking ID	X (25)	Tracking ID

MMS Views

The RWMS data base, which the MMS queries is actually two views: the MMS Container View and the MMS Container Item View.

MMS Container View

The value in the CARRIER_SERVICE_CODE is set by the host system, or it could be blank. If the value is blank, the user must input data at the shipping station. The MMScan change the value of the CARRIER_SERVICE_CODE, even if the field is not blank.

RWMS downloads the SHIP_TO_ADDRESS with the stock order. If this field is blank in the order download, the information is supplied by the SHIP_DEST table. The MMS can change the value of the SHIP_TO_ADDRESS, even if the field is not blank.

The format of the MMS Container view is as follows:

Table 5–18 MMS Container

Field Description	Template	Description
Facility ID	X (2)	Identifier for the facility
Container ID	X (20)	Identifier for the container
Ship Address Description	X (30)	The description (such as store or ship-to name). This is the first line of the address block.
Ship Address1	X (30)	Shipping Address Line 1
Ship Address2	X (30)	Shipping Address Line 2
City	X (25)	Shipping City
State	X (3)	Shipping State
Zip	X (10)	Shipping Zip
Dest ID	X (10)	Destination identifier
Carrier Service Code	X (6)	Carrier service code for the delivery (such as First Class).
Bill Address Description	X (30)	The first line of the address block. A description, such as company or bill-to name.
Bill Address1	X (30)	Billing Address line 1
Bill Address2	X (30)	Billing Address line 2
Bill Address3	X (30)	Billing Address line 3
Amount1	N (8) v N (4)	Amount Charge 1
Amount2	N (8) v N (4)	Amount Charge 2
Amount3	N (8) v N (4)	Amount Charge 3
DL Comment	X (30)	Download comment that is printed on the label (optional).

Note: A default value using nvl or decode statements should be supplied for any null values.

MMS Container Item View

The data item called DISTRO is analogous to CUSTOMER_ORDER_NUMBER in a wholesale system.

The format of the Container Item View is as follows:

Table 5–19 Container Item View

Field Description	Template	Description
Facility ID	X (2)	Identifier for the facility
Container ID	X (20)	Container identifier
Item ID	X (25)	Unique item identifier
Unit Qty	N (8) v N (4)	Standard unit quantity for an item
Weight	N (8) v N (4)	Item weight or unit quantity weight
Retail Price	N (16) v N (4)	Retail selling price
Class	X (7)	Class of merchandise (optional)
Distro/Order	X (10)	Unique identifier of a distribution or order
Ticket Type	X (4)	Refers to Ticket Type table (optional)

Rapistan Socket Interface

RWMS interfaces with Rapistan through socket interfaces. RWMS still generates directives based on logical destination IDs associated to locations setup in RWMS.

For RWMS generated directives (message sent to the control system), a trigger calls stored procedures used in the socket interface for various message types. Different message types are generated depending on where the container is going in the facility due to data required by the control system. RWMS determines the message type and call the appropriate procedure.

For control system confirmations (message received from the control system), divert confirmations are sent to RWMS via stored procedures. Similar to the directive procedures, the upload confirmation procedures is created based on the message type sent from the control system.

Triggers

create_sorter_instruction_trg

When the Rapistan interface is enabled in RWMS, the trigger calls the socket interface package on the message transfer from RWMS to Rapistan.

appt_rec_dir_trig

When the Rapistan interface is enabled in RWMS, the trigger writes receiving directive records for ASN appointments when the appointment status is updated to PEND.

cont_dest_trg.sql

Send the destination ID (carrier service) to Rapistan if the destination ID changes for an outbound container.

Packages

process_diverts_a.sql

Select additional fields from the sorter_intake table, in addition to performing palletization logic.

receiving_upload.osp

Accept receiving location directive confirmations from the control system. It inserts records into the sorter_intake table to be processed by the process_diverts_a.sql script.

divert_confirmation.osp

Accept divert directive confirmations from the control system. It inserts records into the sorter_intake table to be processed by the *process_diverts_a.sql* script.

ship_lane_upload.osp

Accept shipping location directive confirmations from the control system. It inserts records into the sorter_intake table to process by the *process_diverts_a.sql* script.

pack_wave_release_upload.osp

Receive pack wave release confirmations from the control system. It calls the new *unit_sorter_directive.osp* stored procedure to send unit sortation information to the control system for the pack wave that releases by the control system.

unit_control_sorter_upload.osp

Receive unit sorter confirmations from the control system. It updates the container_item table for the outbound carton being sorted.

combine_wip_codes.osp

WIP processing associated with outbound cartons.

receive_container2.osp

Write receiving_directive records upon receipt for non-ASN, specified case pack PO receiving.

Tables

Sorter_Intake

This table is used for all container transactions from the control system to RWMS, including inbound, outbound, and movements within the facility.

Table 5–20 Table for Container Transactions

Field Name	Field Type	Primary Key?	Req?	Description
facility_id	X (2)	N	N	Facility identifier

Table 5–20 (Cont.) Table for Container Transactions

Field Name	Field Type	Primary Key?	Req?	Description
sorter_seq	N (9)	Y	Y	Sorting Sequence
container_id	X (20)	Y	Y	RWMS container identifier
logical_dest_id	X (4)	N	Y	Logical destination ID that relates to a location within RWMS.
divert_type	X (1)	N		
divert_ts	DATETIME	N	N	Date/time stamp
tracking_id	X (25)	N	N	Current field.
pallet_id	N (6)	N	N	Rapistan pallet identifier.
expected_cont_qty	N (6)	N	N	Number of cases on pallet ID.
scale_weight	N (4) v N (3)	N	N	Scale weight
Length	N (4) v N (2)	N	N	Measured length
Width	N (4) v N (2)	N	N	Measured width
Height	N (4) v N (2)	N	N	Measured height
Packer_id	X (10)	N	N	Populated for shipping cartons for audit purposes.

Third Party Routing Interface

The third party routing interface determines the order in which outbound containers are picked and loaded onto trailers. The estimated cube and weight to be shipped for a given set of stores for a specified ship date is loaded into a file in RWMS for the third party routing system to process. The routing system then defines the routes used for that date and the order in which each store's stock is loaded onto trailers shipped that day. This information is then used in RWMS to determine the order in which outbound containers are picked so that they are loaded in the proper sequence.

Packages

ship_cube_inquiry.pkg

Procedures and functions used to select stock orders based on user-defined criteria, calculate estimated weight and cube by ship destination, populate the Ship Cube Inquiry screen with the results, and generate a route data file used as input for the third party routing system.

route_data_upload.pkg

Procedures used to read and process route information returned from the third party routing system and update stock orders with the carrier service route and ship date provided.

de_sort_picks.osp

Process used in distribution to order picks on a wave based on the carrier service route and ship date assigned to a stock order by the third party routing system.

route_data_upload.sh and route_data_upload.sql

Batch process used to read data files provided by the third party routing system to create routes and route sequences and then assign a route and ship date to designated stock orders.

Download Transactions

RWMS sends a file containing estimated weights and cubes for the ship destinations by stock order number for which picking and shipping occurs on a given ship date. This file is created in the Ship Cube Inquiry screen, and placed in the directory specified in the DOWNLOAD_DIR environmental variable.

Route data files created have the following naming convention:

route_data_facility ID_YYYYMMDDHH24MISS.dat

where *facility ID* is the 2-character facility identifier and *YYYYMMDDHH24MISS* is a date time stamp from the point of creation. Multiple route data files may be created for a single ship date, though this is not a recommended practice.

The route data file has the format:

Table 5–21 Format of Route Data File

Field Name	Field Type	Primary Key?	Req?	Description
Dest_id	X (10)	Y	Y	Ship destination identifier.
Distro_nbr	X (10)	Y	Y	Stock order identifier.
Total_cube	N(10)V(2)	N	N	Total cube for destination ID in the stock order.
Total_weight	N(9)V(3)	N	N	Total weight for destination ID in the stock order.
Ship_date	YYYYMMDD	Y	Y	Date stock is to be picked and shipped.
Order_cube_UDA1	X(10)	N	N	User defined attribute.
Order_cube_UDA2	X(10)	N	N	User defined attribute.
Order_cube_UDA3	X(10)	N	N	User defined attribute.
Order_cube_UDA4	X(10)	N	N	User defined attribute.

Upload Transactions

The files created by the third party routing package are placed in a directory named by the UNIX environment variable UPLOAD_DIR. The files are named with any set of numbers or characters as a prefix, but must end with the following character strings:

Table 5–22 File Format

File	File Naming Conventions
Distro Route Upload	…distro_route.dat
Carrier Service Route Upload	…carrier_service_route.dat
Route Date Upload	…route_date.dat
Route Dest Upload	…route_dest.dat

Multiple files named with different prefixes may exist for a single data type (for example, 001_route_dest.dat, 002_route_dest.dat). RWMS processes spool data from the routing files into corresponding upload tables, then each file processed is renamed with an extension of .baknnn, where nnn is a UNIX session ID.

There are no interdependencies across the four routing upload files. Any or all of them may exist in the upload directory and processed at the same time.

Distro Route Upload

The distribution route data file contains the ship date, carrier, service, and route codes to assign to a given stock order. The carrier service route must be a valid entry in the carrier_service_route table in RWMS.

Table 5–23 Distribution Route Data File

Field Name	Field Type	Primary Key?	Req?	Description
Facility_id	X(2)	N	Y	Facility identifier
Transaction_ts	YYYYMMDDHH24MI	N	N	Date time stamp
Distro_nbr	X (10)	N	Y	Stock order identifier
Carrier_code	X(4)	N	Y	Carrier identifier
Service_code	X(6)	N	Y	Service identifier
Route	X(10)	N	Y	Route identifier
Ship_date	YYYYMMDDHH24MI	N	Y	Date stock is to be picked and shipped.
Distro_route_UDA1	X(10)	N	N	User defined attribute
Distro_route_UDA2	X(10)	N	N	User defined attribute
Distro_route_UDA3	X(10)	N	N	User defined attribute
Distro_route_UDA4	X(10)	N	N	User defined attribute
Distro_route_UDA5	X(10)	N	N	User defined attribute
Dest_id	X(10)	N	N	Store or DC dest id
Item_id	X(25)	N	N	Item id/code

Carrier Service Route Upload

The carrier service route data file contains carrier service route combinations are stored in the RWMS carrier_service_route table. Carrier code and route must be valid entries in the carrier and route tables in RWMS respectively.

Table 5–24 Carrier Service Route Upload

Field Name	Field Type	Primary Key?	Req?	Description
Facility_id	X(2)	Y	Y	Facility identifier
Transaction_ts	YYYYMMDDHH24MI	N	N	Date time stamp
Carrier_code	X(4)	Y	Y	Carrier identifier
Service_code	X(6)	Y	Y	Service identifier
Route	X(10)	Y	Y	Route identifier

Table 5–24 (Cont.) Carrier Service Route Upload

Field Name	Field Type	Primary Key?	Req?	Description
Location_id	X(12)	N	N	Optional location ID where containers for this carrier service route are staged for loading.

Route Date Upload

The route date upload file contains routes and the order in which they are picked and loaded for a given ship date. If a route coming from the third party routing system is not already defined in the RWMS route table, an entry in this table is created for it.

Table 5–25 Route Date Upload File

Field Name	Field Type	Primary Key?	Req?	Description
Facility_id	X(2)	Y	Y	Facility identifier
Transaction_ts	YYYYMMDDHH24MI	N	N	Date time stamp
Route	X(10)	Y	Y	Route identifier
Ship_date	YYYYMMDDHH24MI	Y	Y	Shipping date for which route sequence applies.
Route_sequence	N(3)	N	N	Sequence in which the route is loaded with other routes for the same day.

Route Dest Upload

The route destination upload file contains all of the ship destinations for a given route and the order in which they are loaded onto a trailer. The route and destination ID values must be valid in The RWMS route and ship_dest tables respectively.

Ship date is a required entry for each record in the route destination upload file. A default value of 01-Jan-1900 (190001011200) may be used for static route destination sequences that do not change from day to day. Ship destination sequences loaded for any other date are valid only for that ship date.

Table 5–26 Route Destination Upload File

Field Name	Field Type	Primary Key?	Req?	Description
Facility_id	X(2)	Y	Y	Facility identifier
Transaction_ts	YYYYMMDDHH24MI	N	N	Date time stamp
Route	X(10)	Y	Y	Route identifier
Dest_id	X (10)	Y	Y	Ship destination identifier
Ship_date	YYYYMMDDHH24MI	Y	Y	Shipping date for which load sequence applies.
Load_sequence	N(3)	N	N	Sequence in which the containers for a given destination ID are loaded with other ship destinations in the same route.

6

Appendix: Error Codes

RWMS maintains many API interfaces to support the downloading of specific data used in the application. These interfaces provide both generic and specific return values to the RIB as each message is consumed. The appendices contain the status codes and error messages returned by the API interfaces.

The first table contains the entire list of return values with the status code in numeric order. The second table contains the same list, with the error messages in alphabetic order.

Detail of Procedures

Each CONSUME procedure returns both a status code and an error message. When the message is consumed successfully, the status code returns an S, and the error message is NULL.

Appendix: Error Codes

All error codes pertaining to RIB interface are contained in the RWMSRIB_ERROR package.

Error Codes in Numerical Order

The following table includes error codes in numerical order.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_GENERAL_SUCCESS	S	A message was consumed.
k_GENERAL_API_FAILURE	E	A fatal error occurred in the procedure.
k_GENERAL_INVALID_FACILITY	102	Facility does not exist in the transshipment_setup table.
k_GENERAL_INVALID_ROUTING	103	An invalid destination was passed.
k_GENERAL_PRE_ADDL_PROCESSING	104	An error occurred in pre-additional processing.
k_GENERAL_FACILITY_NOT_FOUND	105	Facility does not exist in the transshipment_setup table.
k_VENDOR_DELETE_ERROR	200	Error while deleting a vendor.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_VENDOR_OVERWRIT_STATUS_ ERROR	201	Errors while retrieving overwrite status values.
k_VENDOR_MISSING_ERROR	202	Cannot delete or modify the record because it does not exist.
k_VENDOR_FOUND_ERROR	203	Cannot create record, record already exists.
k_VENDOR_ADDR_IND_UPDATE_ ERROR	204	An error occurred updating the primary address indicator.
k_VENDOR_PRIMARY_KEY_ERROR	205	Primary Key Violation.
k_VENDOR_ADDR_PRIM_KEY_ERROR	206	Primary Key Violation.
k_VENDOR_FK_ERROR	207	Referential Integrity error.
k_VENDOR_ADDR_TYPE_UPD_ERROR	208	Unable to update the Vendor Address description.
k_VENDOR_STATE_FK_ERROR	209	Referential Integrity error.
k_VENDOR_ADDR_MISSING_ERROR	210	Cannot delete or modify the record because it does not exist.
k_VENDOR_ADDR_FOUND_ERROR	211	Cannot create record, record already exists.
k_DIFF_ID_MISSING_ERROR	250	Cannot delete or modify the record because it does not exist.
k_DIFF_INSERT_ERROR	251	Diff ID is already being used as a Diff Group ID.
k_DIFF_PRIMARY_KEY_ERROR	252	Primary Key Violation.
k_DIFF_OTHER_ERROR	253	Unanticipated Differentiator error.
k_DIFF_ID_FOUND_ERROR	254	Cannot create record, record already exists.
k_DIFF_GRP_ID_MISSING_ERROR	300	Cannot delete or modify the record because it does not exist.
k_DIFF_GROUP_INSERT_ERROR	301	A Diff Group already exists.
k_DIFF_GROUP_PRIMARY_KEY_ERROR	302	Primary Key Violation.
k_DIFF_GROUP_OTHER_ERROR	303	An error occurred evaluating the Diff Group ID.
k_DIFF_DELETE_DIFF_GROUP_ERROR	304	An error occurred deleting from the Diff Group Detail table.
k_DIFF_GRP_ID_FOUND_ERROR	306	Cannot create record, record already exists.
k_DIFF_GRP_DET_MISSING_ERROR	350	Cannot delete or modify the record because it does not exist.
k_DIFF_GRP_DET_FOUND_ERROR	351	Cannot create record, record already exists.
k_DIFF_GROUP_DET_PRI_KEY_ERROR	352	Primary Key Violation.
k_DIFF_GROUP_DET_DG_FK_ERROR	353	Referential Integrity error.
k_DIFF_GROUP_DET_DI_FK_ERROR	354	Referential Integrity error.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_ITEM_UPC_IND_UPDATE_ERROR	400	An error occurred in updating the primary UPC indicator in item_ upc.
k_ITEM_SUPP_IND_UPDATE_ERROR	401	An error occurred updating the item_supplier or item_master tables.
k_ITEM_COUNTRY_IND_UPD_ERROR	402	Error updating item_supp_ country primary country indicator.
k_ITEM_OVERWRITE_STATUS_ERROR	403	Error when checking if a column can be overwritten.
k_APPT_DETAIL_POD_FK	404	Referential Integrity error.
k_ITEM_VENDOR_REF_ERROR	405	Foreign key error for vendor when creating an item.
k_ITEMM_PK_ERROR	406	Primary Key Violation.
k_ITEMM_UOM_FK_ERROR	407	Referential Integrity error.
k_ITEMM_VDR_FK_ERROR	408	Referential Integrity error.
k_ITEMM_CT_FK_ERROR	409	Referential Integrity error.
k_ITEMM_UPS_FK_ERROR	410	Referential Integrity error.
k_ITEMM_WC_FK_ERROR	411	Referential Integrity error.
k_ITEMUPC_PK_ERROR	412	Primary Key Violation.
k_ITEMUPC_IM_FK_ERROR	413	Referential Integrity error.
k_ITEMUPC_UNIQUE_ERROR	414	Unique error on item_upc UPC number when modifying a record.
k_ITEM_DIFF_PK_ERROR	415	Primary Key Violation.
k_ITEM_SUPP_PK_ERROR	416	Primary Key Violation.
k_ITEM_SUPP_IM_FK_ERROR	417	Referential Integrity error.
k_ITEM_SUPP_VDR_FK_ERROR	418	Referential Integrity error.
k_ISC_PK_ERROR	419	Primary Key Violation.
k_ISC_IS_FK_ERROR	420	Referential Integrity error.
k_ISCD_PK_ERROR	421	Primary Key Violation.
k_ISCD_ISC_FK_ERROR	422	Referential Integrity error.
k_ITEMA_PK_ERROR	423	Primary Key Violation.
k_ITEMA_ATTR_FK_ERROR	424	Referential Integrity error.
k_ITEMA_IM_FK_ERROR	425	Referential Integrity error.
k_PICKFROMLOC_ITEMM_FK_ERROR	426	Referential Integrity error.
k_PICKFROMLOC_LOC_FK_ERROR	427	Referential Integrity error.
k_STOCKA_ITEMM_FK_ERROR	428	Referential Integrity error.
k_ITEMCP_IM_FK_ERROR	429	Referential Integrity error.
k_ITEMCP_CURR_FK_ERROR	430	Referential Integrity error.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_ITEM_SCD_OTHER_ERROR	431	Error while updating the dimensions of an item.
k_ITEM_CREATE_OTHER_ERROR	432	Unanticipated error while creating an item.
k_ITEM_SUPP_MOD_OTHER_ERROR	433	Unanticipated error while modifying an item.
k_ITEM_SUPP_ITEM_CRE_OTH_ERROR	434	Unanticipated error while modifying the item.
k_ITEM_MOD_MSG_OTHER_ERROR	435	Unanticipated error when modifying an item, item differentiator.
k_ITEM_MISSING_ERROR	436	Cannot delete or modify the record because it does not exist.
k_ITEM_FOUND_ERROR	437	Error when item is created. Item already exists.
k_ITEM_SUPPLIER_MISSING_ERROR	438	Cannot delete or modify the record because it does not exist.
k_ITEM_SUPPLIER_FOUND_ERROR	439	Cannot create record, record already exists.
k_ITEM_SUPP_CTR_MISSING_ERROR	440	Cannot delete or modify the record because it does not exist.
k_ITEM_SUPP_CTR_FOUND_ERROR	441	Cannot create record, record already exists.
k_ITEM_SUPP_CTR_DIM_MISS_ERROR	442	Cannot delete or modify the record because it does not exist.
k_ITEM_SUPP_CTR_DIM_FND_ERROR	443	Cannot create record, record already exists.
k_ITEM_UPC_MISSING_ERROR	444	Cannot delete or modify the record because it does not exist.
k_ITEM_UPC_FOUND_ERROR	445	Cannot create record, record already exists.
k_ITEM_UDA_MISSING_ERROR	446	Cannot delete or modify the record because it does not exist.
k_ITEM_UDA_FOUND_ERROR	447	Cannot create record, record already exists.
k_ITEM_BOM_MISSING_ERROR	448	Cannot delete or modify the record because it does not exist.
k_ITEM_BOM_FOUND_ERROR	449	Cannot create record, record already exists.
k_ITEM_DIFF_FOUND_ERROR	451	Cannot create record, record already exists.
k_ITEM_ATTR_DEFAULTS_ERROR	452	Error when creating item and processing the attributes.
k_ITEMBOM_COMP_MSTR_SAME_ ERROR	453	MasterItemID is the same as the ComponentItemID.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_ITEMBOM_CHECKING_ERROR	454	Error occurred checks to see if the MasterItemID is the same as the ComponentItemID.
k_ITEM_CLASS_ERROR	457	Error applying Item Download class.
k_PO_VENDOR_REF_ERROR	503	Error on the vendor foreign key reference when creating a record.
k_PO_PK_ERROR	504	Primary Key Violation.
k_PO_DETAIL_PK_ERROR	505	Primary Key Violation.
k_PO_DETAIL_PO_ERROR	506	Error on the foreign key reference to PO from PO details when creating a PO detail.
k_PO_DETAIL_ITEM_ERROR	507	Error on the foreign key reference to item from PO details when creating a PO detail.
k_PO_RECEIPT_FK_ERROR	508	Referential Integrity error.
k_PO_CRE_MOD_OTHER_ERROR	509	Unanticipated error while creating a PO.
k_PO_FOUND_ERROR	512	Cannot create record, record already exists.
k_PO_MISSING_ERROR	513	Cannot delete or modify the record because it does not exist.
k_PO_DETAIL_FOUND_ERROR	514	Cannot create record, record already exists.
k_PO_DETAIL_MISSING_ERROR	515	Cannot delete or modify the record because it does not exist.
k_PO_DELIVER_DATE_ERROR	516	Error on the deliver date while creating a PO.
k_PO_CNTRY_VENDOR_ITEM_ERROR	517	PO record exists, cannot delete Vendor.
k_PO_OTHER_ERROR	521	Error validating PO detail required fields.
k_PO_STATUS_CANNOT_CLOSE_ERROR	524	Error trying to Close a PO where an unreceived appointment exists.
k_PO_STATUS_CHECKING_ERROR	525	Error checking appointment information.
k_ATTRIBUTE_FOUND_ERROR	554	Cannot create record, record already exists.
k_ATTRIBUTE_MISSING_ERROR	555	Cannot delete or modify the record because it does not exist.
k_ATTRIBUTE_OTHER_ERROR	556	Unanticipated error occurred while validating the key.
k_ATTRIBUTE_TYPE_PK_ERROR	559	Primary Key Violation.
k_ATTRIBUTE_TYPE_FK_ERROR	560	Referential Integrity error.
k_ATTRIBUTE_DETAIL_FOUND_ERROR	600	Attribute record already exists.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_ATTRIBUTE_DETAIL_MISS_ERROR	601	Cannot delete or modify the record because it does not exist.
k_ATTRIBUTE_DETAIL_PK_ERROR	603	Primary Key Violation.
k_ATTRIBUTE_DET_ITEM_FK_ERROR	604	Referential Integrity error.
k_ATTRIBUTE_DET_WIP_FK_ERROR	605	Referential Integrity error.
k_SHIP_OVERWRITE_STATUS_ERROR	650	Error retrieving ship destination overwrite status information.
k_SHIP_DEST_TYPE_NOT_VAL_ERROR	651	An error occurred checking the ship destination type.
k_SHIP_OWNING_DC_ERROR	652	Owning DC not found.
k_SHIP_DEST_FOUND_ERROR	653	Cannot create record, record already exists.
k_SHIP_DEST_MISSING_ERROR	654	Cannot delete or modify the record because it does not exist.
k_SHIP_DEST_REF_CONT_TYP_ERROR	655	Referential Integrity error.
k_SHIP_DEST_REF_UNIT_PCK_ERROR	656	Referential Integrity error.
k_SHIP_DEST_REF_ST_RDM_ERROR	657	Referential Integrity error.
k_SHIP_DEST_REF_PRIM_KEY_ERROR	658	Primary Key Violation.
k_SHIP_DEST_REF_DEF_CSR_ERROR	659	Referential Integrity error.
k_SHIP_DEST_REF_EXP_CSR_ERROR	660	Referential Integrity error.
k_SHIP_DEST_REF_CUR_CODE_ERROR	661	Referential Integrity error.
k_SHIP_DEST_ROUTE_ERROR	662	Referential Integrity error.
k_SHIP_INVALID_DEF_CSR_ERROR	663	Default_Service_Code, Default_ Carrier_Code and/or Default_ Route values are NULL.
k_SHIP_INVALID_EXP_CSR_ERROR	664	Expedite_Service_Code, Expedite_ Carrier_Code and/or Expedite_ Route values are NULL.
k_SHIP_MLD_FK_ERROR	665	Referential Integrity error.
k_SHIP_DEST_SEQ_NBR_ERROR	668	Error validating sequence number.
k_ASN_PK_ERROR	700	Primary Key Violation.
k_ASN_ITEM_PK_ERROR	701	Primary Key Violation.
k_ASN_ITEM_ASN_FK_ERROR	702	Referential Integrity error.
k_ASN_ITEM_SD_FK_ERROR	703	Referential Integrity error.
k_ASN_ITEM_POD_FK_ERROR	704	Referential Integrity error.
k_ASN_MISSING_ERROR	705	Cannot delete or modify the record because it does not exist.
k_ASN_FOUND_ERROR	706	Cannot create record, record already exists.
k_ASN_HDR_MOD_OTHER_ERROR	707	Unanticipated error while checking ASN type.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_ASN_HDR_DEL_OTHER_ERROR	708	Unanticipated Error while checking appointment status for a delete.
k_ASN_ITEM_INVALID_QTY_ERROR	709	Change in unit quantity is less than zero.
k_ASN_ITEM_APPT_ERROR	710	Error, cannot deleted an already appointed ASN.
k_ASN_CNTR_MOD_OTHER_ERROR	711	Unanticipated error while attempting to modify the container.
k_ASN_CNTR_ITEM_CRE_OTH_ERROR	712	Unanticipated error while setting the distributed unit quantity.
k_ASN_CNTR_ITEM_MOD_OTH_ERROR	713	Unanticipated error while setting the distributed unit quantity.
k_ASN_MOD_WRONG_ASN_ERROR	714	Error, ASN type is incorrect.
k_ASN_DEL_NOT_ALLOWED_ERROR	715	Error, status is not received.
k_ASN_PO_DTL_COUNTRY_ERROR	716	Error, country not found in item supplier country.
k_ASN_APPOINT_OPEN_ERROR	717	Error, status in not received or null.
k_ASN_DATA_TRACKING_ERROR	718	Error occurred in ASN processing procedure.
k_ASN_NOZERO_APPT_ASNITM_ ERROR	719	Error while deleting ASN item records.
k_VERIFY_ASN_PO_DATE_ERROR	720	Error, the deliver not after date is invalid.
k_VERIFY_ASN_PO_OTHER_ERROR	721	Error occurred verifying ASN Purchase Order.
k_VERIFY_ASN_ITEM_OTHER_ERROR	722	Unanticipated error occurred verifying ASN item record.
k_VERIFY_ASN_OTHER_ERROR	723	Unanticipated error occurred verifying the ASN record.
k_VERIFY_CONTAINER_OTHER_ERROR	724	Unanticipated error occurred verifying the container record.
k_VERIFY_CNTR_ITEM_OTHER_ERROR	725	Unanticipated error occurred verifying the container item record.
k_ASN_POST_ITEM_CRE_OTH_ERROR	726	Unanticipated error occurred in the post processing of ASN items.
k_ASN_POST_WIP_CODE_ERROR	727	Error occurred in the combine WIP codes procedure.
k_ASN_PO_INVALID_PO_ERROR	728	The PO is invalid for this ASN.
k_ASN_INVALID_STORE_DATE_ERROR	730	The In Store Date is invalid.
k_ASN_CONT_INVALID_ASN_ERROR	735	The ASN is incorrect for this container.
k_SA_IN_DISTRIBUTION_ERROR	829	Stock Allocation is in distribution.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_SO_IN_DISTRIBUTION_ERROR	830	Stock Order has an Allocation in distribution.
k_STOCK_REQUIRED_PO_ERROR	831	Missing PO number.
k_SA_NOT_FOUND_DELETE_ERROR	832	Cannot create the Stock Order Info Upload record, Stock Allocation record does not exist.
k_CONT_PK_ERROR	750	Primary Key Violation.
k_CONT_SD_FK_ERROR	751	Referential Integrity error.
k_CONT_LOC_FK1_ERROR	752	Referential Integrity error.
k_CONT_LOC_FK2_ERROR	753	Referential Integrity error.
k_CONT_CT_FK_ERROR	754	Referential Integrity error.
k_CONT_LOC_FK3_ERROR	755	Referential Integrity error.
k_CONT_ITEM_PK_ERROR	756	Primary Key Violation.
k_CONT_ITEM_CONT_FK_ERROR	757	Referential Integrity error.
k_CONT_ITEM_IM_FK_ERROR	758	Referential Integrity error.
k_CONT_MISSING_ERROR	759	Cannot delete or modify the record because it does not exist.
k_CONT_FOUND_ERROR	760	Cannot create record, record already exists.
k_CONT_ITEM_MISSING_ERROR	761	Cannot delete or modify the record because it does not exist.
k_CONT_ITEM_FOUND_ERROR	762	Cannot create record, record already exists.
k_STOCKO_PK_ERROR	800	Primary Key Violation.
k_STOCKO_STATE_FK1_ERROR	801	Referential Integrity error.
k_STOCKO_STATE_FK2_ERROR	802	Referential Integrity error.
k_STOCKO_PO_FK_ERROR	803	Referential Integrity error.
k_STOCK_NULL_SHIP_FIELD_ERROR	804	Error in ship field(s) when creating a stock order. One of the field(s) is null.
k_STOCK_PICK_DATE_ERROR	805	Error in the pick date when creating a stock order.
k_STOCK_MOD_CRE_OTHER_ERROR	806	Unanticipated error while modifying a stock order.
k_STOCK_ORDER_CRE_OTHER_ERROR	807	Unanticipated error while creating a stock order.
k_STOCKA_UP_REF1_ERROR	808	Referential Integrity error.
k_STOCKA_STOCKO_FK_ERROR	809	Referential Integrity error.
k_STOCKA_SHIPD_FK_ERROR	810	Referential Integrity error.
k_STOCK_INV_CARR_SERV_ERROR	811	Invalid carrier service when creating a stock order.
k_STOCK_INV_CARRIER_ERROR	812	Invalid carrier when creating a stock order.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_STOCK_INV_CSR_ERROR	813	Invalid carrier service route when creating a stock order.
k_STOCK_ORDER_MISSING_ERROR	814	Cannot delete or modify the record because it does not exist.
k_STOCK_ORDER_FOUND_ERROR	815	Cannot create record, record already exists.
k_STOCK_ALLOC_MISSING_ERROR	816	Cannot delete or modify the record because it does not exist.
k_STOCK_ALLOC_FOUND_ERROR	817	Cannot create record, record already exists.
k_STOCK_MODIFY_OTHER_ERROR	818	Unanticipated error while modifying a stock order.
k_STOCK_DISTRIBUTION_ERROR	819	Invalid stock distribution error while modifying a stock order.
k_STOCK_UNCARTONIZE_ERROR	820	Error during the uncartonize process when stock orders are modified. The error occurs during the call to the perform cartonization package.
k_STOCK_ALLOC_CRE_OTHER_ERROR	821	Unanticipated error in the standard UOM when creating a stock order.
k_ST_ALLOC_CRE_MOD_OTHER_ ERROR	822	Unanticipated error while creating a stock order.
k_ST_ALLOC_INSTORE_DATE_ERROR	823	In store date error while creating a stock order.
k_ST_ALLOC_MODIFY_OTHER_ERROR	824	Unanticipated error while modifying a stock allocation.
k_STOCK_DELETE_OTHER_ERROR	825	Unanticipated error while generating a SD stock order info status message when a stock allocation is deleted.
k_STOCK_CARTONIZATION_ERROR	826	Error in cartonization during the call to perform cartonization when a stock order is created.
k_SA_NOT_FOUND_DELETE_ERROR	832	Cannot create record, record already exists.
k_BOM_PK_ERROR	850	Primary Key Violation.
k_BOM_IM_FK1_ERROR	851	Referential Integrity error.
k_BOM_IM_FK2_ERROR	852	Referential Integrity error.
k_INBOUND_WO_PK_ERROR	900	Primary Key Violation.
k_INBOUND_WO_PO_FK_ERROR	901	Referential Integrity error.
k_INBOUND_WO_SD_FK_ERROR	902	Referential Integrity error.
k_INBOUND_WO_WIP_FK_ERROR	903	Referential Integrity error.
k_INBOUND_WO_FOUND_ERROR	904	Cannot create record, record already exists.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_INBOUND_WO_MISSING_ERROR	905	Cannot delete or modify the record because it does not exist.
k_INBOUND_DEST_XML_OTHER_ ERROR	906	Unanticipated
k_PENDING_RETURN_PK_ERROR	950	Primary Key Violation.
k_PENDING_RET_DET_PK_ERROR	952	Primary Key Violation.
k_PENDRET_DET_FK_PR_ERROR	953	Referential Integrity error.
k_PENDING_RETURN_FOUND_ERROR	954	Cannot create record, record already exists.
k_PENDING_RETURN_MISSING_ERROR	955	Cannot delete or modify the record because it does not exist.
k_PENDRET_DEST_XML_OTHER_ ERROR	958	Unanticipated
k_PENDRET_ITEM_FK_ERROR	959	Referential Integrity error.
k_OUTBOUND_DEST_XML_OTH_ ERROR	1001	Unanticipated
k_OBWO_STOCK_ALLOC_FK_ERROR	1002	Referential Integrity error.
k_OBWO_WIP_FK_ERROR	1003	Referential Integrity error.
k_OUTBOUND_WO_MISSING_ERROR	1004	Cannot delete or modify the record because it does not exist.
k_OUTBOUND_WO_FOUND_ERROR	1005	Cannot create record, record already exists.
k_SKU_ADD_OTHER_ERROR	1100	Unanticipated
k_SKU_MISSING_ERROR	1101	Cannot delete or modify the record because it does not exist.
k_SKU_FOUND_ERROR	1102	Task_Queue record already exists.
k_TASK_QUEUE_ACT_CODE_FK_ERROR	1103	Referential Integrity error.
k_TASK_QUEUE_WAVE_FK_ERROR	1104	Referential Integrity error.
k_TASK_QUEUE_ITEM_FK_ERROR	1105	Referential Integrity error.
k_STATE_NOT_FOUND_ERROR	10501	Cannot create record, record already exists.
k_COUNTRY_NOT_FOUND_ERROR	10502	Cannot create record, record already exists.
k_CURRENCY_NOT_FOUND_ERROR	10503	Cannot create record, record already exists.
k_CONTAINER_NOT_FOUND_ERROR	10504	Cannot create record, record already exists.
k_ITEM_UPDATE_COLUMNS_ERROR	10505	Cannot create record, record already exists.
k_PICK_DIR_SO_FK_ERROR	10506	Referential Integrity error.
k_COMP_TICK_STOCKO_ERROR	10507	Referential Integrity error.
k_KIT_BUILD_REF3_ERROR	10508	Referential Integrity error.
k_SORTED_ALLOC_REF1_ERROR	10510	Referential Integrity error.

Table 6–1 Error Codes in Numerical Order

Error Message	Status Code	Description
k_DISTRO_IS_REF1_ERROR	10511	Referential Integrity error.
k_STOCKA_CID_REF1	10512	Referential Integrity error.
k_SCHDULE_NBR_NULL	10515	Schedule Number is null.
k_PO_NULL_ERROR	10516	PO Number published by host system is null.
k_ITEM_NULL_ERROR	10517	Item ID published by host system is null.
k_PO_INVALID_ERROR	10518	PO does not exist in PO table.
k_ITEM_INVALID_ERROR	10519	Item does not exist in PO_Detail table.

Error Codes in Alphabetical Order

The following table includes error codes in alphabetical order.

Table 6–2 Error Codes in Alphabetical Order

Error Message	Status Code	Description
k_APPT_DETAIL_POD_FK	404	Referential Integrity error.
k_ASN_APPOINT_OPEN_ERROR	717	Error, status in not received or null.
k_ASN_CNTR_ITEM_CRE_OTH_ERROR	712	Unanticipated error while setting the distributed unit quantity.
k_ASN_CNTR_ITEM_MOD_OTH_ERROR	713	Unanticipated error while setting the distributed unit quantity.
k_ASN_CNTR_MOD_OTHER_ERROR	711	Unanticipated error while attempting to modify the container.
k_ASN_CONT_INVALID_ASN_ERROR	735	The ASN is incorrect for this container.
k_ASN_DATA_TRACKING_ERROR	718	Error occurred in ASN processing procedure.
k_ASN_DEL_NOT_ALLOWED_ERROR	715	Error, status is not received.
k_ASN_FOUND_ERROR	706	Cannot create record, record already exists.
k_ASN_HDR_DEL_OTHER_ERROR	708	Unanticipated Error while checking appointment status for a delete.
k_ASN_HDR_MOD_OTHER_ERROR	707	Unanticipated error while checking ASN type.
k_ASN_INVALID_STORE_DATE_ERROR	730	The In Store Date is invalid.
k_ASN_ITEM_APPT_ERROR	710	Error, cannot deleted an already appointed ASN.
k_ASN_ITEM_ASN_FK_ERROR	702	Referential Integrity error.
k_ASN_ITEM_INVALID_QTY_ERROR	709	Change in unit quantity is less than zero.

Table 6–2 Error Codes in Alphabetical Order

Error Message	Status Code	Description
k_ASN_ITEM_PK_ERROR	701	Primary Key Violation.
k_ASN_ITEM_POD_FK_ERROR	704	Referential Integrity error.
k_ASN_ITEM_SD_FK_ERROR	703	Referential Integrity error.
k_ASN_MISSING_ERROR	705	Cannot delete or modify the record because it does not exist.
k_ASN_MOD_WRONG_ASN_ERROR	714	Error, ASN type is incorrect.
k_ASN_NOZERO_APPT_ASNITM_ ERROR	719	Error while deleting ASN item records.
k_ASN_PK_ERROR	700	Primary Key Violation.
k_ASN_PO_DTL_COUNTRY_ERROR	716	Error, country not found in item supplier country.
k_ASN_PO_INVALID_PO_ERROR	728	The PO is invalid for this ASN.
k_ASN_POST_ITEM_CRE_OTH_ERROR	726	Unanticipated error occurred in the post processing of ASN items.
k_ASN_POST_WIP_CODE_ERROR	727	Error occurred in the combine WIP codes procedure.
k_ATTRIBUTE_DET_ITEM_FK_ERROR	604	Referential Integrity error.
k_ATTRIBUTE_DET_WIP_FK_ERROR	605	Referential Integrity error.
k_ATTRIBUTE_DETAIL_FOUND_ERROR	600	Attribute record already exists.
k_ATTRIBUTE_DETAIL_MISS_ERROR	601	Cannot delete or modify the record because it does not exist.
k_ATTRIBUTE_DETAIL_PK_ERROR	603	Primary Key Violation.
k_ATTRIBUTE_FOUND_ERROR	554	Cannot create record, record already exists.
k_ATTRIBUTE_MISSING_ERROR	555	Cannot delete or modify the record because it does not exist.
k_ATTRIBUTE_OTHER_ERROR	556	Unanticipated error occurred while validating the key.
k_ATTRIBUTE_TYPE_FK_ERROR	560	Referential Integrity error.
k_ATTRIBUTE_TYPE_PK_ERROR	559	Primary Key Violation.
k_BOM_IM_FK1_ERROR	851	Referential Integrity error.
k_BOM_IM_FK2_ERROR	852	Referential Integrity error.
k_BOM_PK_ERROR	850	Primary Key Violation.
k_COMP_TICK_STOCKO_ERROR	10507	Referential Integrity error.
k_CONT_CT_FK_ERROR	754	Referential Integrity error.
k_CONT_FOUND_ERROR	760	Cannot create record, record already exists.
k_CONT_ITEM_CONT_FK_ERROR	757	Referential Integrity error.
k_CONT_ITEM_FOUND_ERROR	762	Cannot create record, record already exists.
k_CONT_ITEM_IM_FK_ERROR	758	Referential Integrity error.

Table 6–2 Error Codes in Alphabetical Order

Error Message	Status Code	Description
k_CONT_ITEM_MISSING_ERROR	761	Cannot delete or modify the record because it does not exist.
k_CONT_ITEM_PK_ERROR	756	Primary Key Violation.
k_CONT_LOC_FK1_ERROR	752	Referential Integrity error.
k_CONT_LOC_FK2_ERROR	753	Referential Integrity error.
k_CONT_LOC_FK3_ERROR	755	Referential Integrity error.
k_CONT_MISSING_ERROR	759	Cannot delete or modify the record because it does not exist.
k_CONT_PK_ERROR	750	Primary Key Violation.
k_CONT_SD_FK_ERROR	751	Referential Integrity error.
k_CONTAINER_NOT_FOUND_ERROR	10504	Cannot create record, record already exists.
k_COUNTRY_NOT_FOUND_ERROR	10502	Cannot create record, record already exists.
k_CURRENCY_NOT_FOUND_ERROR	10503	Cannot create record, record already exists.
k_DIFF_DELETE_DIFF_GROUP_ERROR	304	An error occurred deleting from the Diff Group Detail table.
k_DIFF_GROUP_DET_DG_FK_ERROR	353	Referential Integrity error.
k_DIFF_GROUP_DET_DI_FK_ERROR	354	Referential Integrity error.
k_DIFF_GROUP_DET_PRI_KEY_ERROR	352	Primary Key Violation.
k_DIFF_GROUP_INSERT_ERROR	301	A Diff Group already exists.
k_DIFF_GROUP_OTHER_ERROR	303	An error occurred evaluating the Diff Group ID.
k_DIFF_GROUP_PRIMARY_KEY_ERROR	302	Primary Key Violation.
k_DIFF_GRP_DET_FOUND_ERROR	351	Cannot create record, record already exists.
k_DIFF_GRP_DET_MISSING_ERROR	350	Cannot delete or modify the record because it does not exist.
k_DIFF_GRP_ID_FOUND_ERROR	306	Cannot create record, record already exists.
k_DIFF_GRP_ID_MISSING_ERROR	300	Cannot delete or modify the record because it does not exist.
k_DIFF_ID_FOUND_ERROR	254	Cannot create record, record already exists.
k_DIFF_ID_MISSING_ERROR	250	Cannot delete or modify the record because it does not exist.
k_DIFF_INSERT_ERROR	251	Diff ID is already being used as a Diff Group ID.
k_DIFF_OTHER_ERROR	253	Unanticipated Differentiator error.
k_DIFF_PRIMARY_KEY_ERROR	252	Primary Key Violation.
k_DISTRO_IS_REF1_ERROR	10511	Referential Integrity error.

Table 6–2 Error Codes in Alphabetical Order

Error Message	Status Code	Description
k_GENERAL_API_FAILURE	E	A fatal error occurred in the procedure.
k_GENERAL_FACILITY_NOT_FOUND	105	Facility does not exist in the transshipment_setup table.
k_GENERAL_INVALID_FACILITY	102	Facility does not exist in the transshipment_setup table.
k_GENERAL_INVALID_ROUTING	103	An invalid destination was passed.
k_GENERAL_PRE_ADDL_PROCESSING	104	An error occurred in pre-additional processing.
k_GENERAL_SUCCESS	S	A message was consumed.
k_INBOUND_DEST_XML_OTHER_ ERROR	906	Unanticipated
k_INBOUND_WO_FOUND_ERROR	904	Cannot create record, record already exists.
k_INBOUND_WO_MISSING_ERROR	905	Cannot delete or modify the record because it does not exist.
k_INBOUND_WO_PK_ERROR	900	Primary Key Violation.
k_INBOUND_WO_PO_FK_ERROR	901	Referential Integrity error.
k_INBOUND_WO_SD_FK_ERROR	902	Referential Integrity error.
k_INBOUND_WO_WIP_FK_ERROR	903	Referential Integrity error.
k_ISC_IS_FK_ERROR	420	Referential Integrity error.
k_ISC_PK_ERROR	419	Primary Key Violation.
k_ISCD_ISC_FK_ERROR	422	Referential Integrity error.
k_ISCD_PK_ERROR	421	Primary Key Violation.
k_ITEM_ATTR_DEFAULTS_ERROR	452	Error when creating item and processing the attributes.
k_ITEM_BOM_FOUND_ERROR	449	Cannot create record, record already exists.
k_ITEM_BOM_MISSING_ERROR	448	Cannot delete or modify the record because it does not exist.
k_ITEM_CLASS_ERROR	457	Error applying Item Download class.
k_ITEM_COUNTRY_IND_UPD_ERROR	402	Error updating item_supp_ country primary country indicator.
k_ITEM_CREATE_OTHER_ERROR	432	Unanticipated error while creating an item.
k_ITEM_DIFF_FOUND_ERROR	451	Cannot create record, record already exists.
k_ITEM_DIFF_PK_ERROR	415	Primary Key Violation.
k_ITEM_FOUND_ERROR	437	Error when item is created. Item already exists.

Table 6–2 Error Codes in Alphabetical Order

Error Message	Status Code	Description
k_ITEM_INVALID_ERROR	10519	Item does not exist in PO_Detail table.
k_ITEM_MISSING_ERROR	436	Cannot delete or modify the record because it does not exist.
k_ITEM_MOD_MSG_OTHER_ERROR	435	Unanticipated error when modifying an item, item differentiator.
k_ITEM_NULL_ERROR	10517	Item ID published by host system is null.
k_ITEM_OVERWRITE_STATUS_ERROR	403	Error when checking if a column can be overwritten.
k_ITEM_SCD_OTHER_ERROR	431	Error while updating the dimensions of an item.
k_ITEM_SUPP_CTR_DIM_FND_ERROR	443	Cannot create record, record already exists.
k_ITEM_SUPP_CTR_DIM_MISS_ERROR	442	Cannot delete or modify the record because it does not exist.
k_ITEM_SUPP_CTR_FOUND_ERROR	441	Cannot create record, record already exists.
k_ITEM_SUPP_CTR_MISSING_ERROR	440	Cannot delete or modify the record because it does not exist.
k_ITEM_SUPP_IM_FK_ERROR	417	Referential Integrity error.
k_ITEM_SUPP_IND_UPDATE_ERROR	401	An error occurred updating the item_supplier or item_master tables.
k_ITEM_SUPP_ITEM_CRE_OTH_ERROR	434	Unanticipated error while modifying the item.
k_ITEM_SUPP_MOD_OTHER_ERROR	433	Unanticipated error while modifying an item.
k_ITEM_SUPP_PK_ERROR	416	Primary Key Violation.
k_ITEM_SUPP_VDR_FK_ERROR	418	Referential Integrity error.
k_ITEM_SUPPLIER_FOUND_ERROR	439	Cannot create record, record already exists.
k_ITEM_SUPPLIER_MISSING_ERROR	438	Cannot delete or modify the record because it does not exist.
k_ITEM_UDA_FOUND_ERROR	447	Cannot create record, record already exists.
k_ITEM_UDA_MISSING_ERROR	446	Cannot delete or modify the record because it does not exist.
k_ITEM_UPC_FOUND_ERROR	445	Cannot create record, record already exists.
k_ITEM_UPC_IND_UPDATE_ERROR	400	An error occurred in updating the primary UPC indicator in item_ upc.
k_ITEM_UPC_MISSING_ERROR	444	Cannot delete or modify the record because it does not exist.

Table 6–2 Error Codes in Alphabetical Order

Error Message	Status Code	Description
k_ITEM_UPDATE_COLUMNS_ERROR	10505	Cannot create record, record already exists.
k_ITEM_VENDOR_REF_ERROR	405	Foreign key error for vendor when creating an item.
k_ITEMA_ATTR_FK_ERROR	424	Referential Integrity error.
k_ITEMA_IM_FK_ERROR	425	Referential Integrity error.
k_ITEMA_PK_ERROR	423	Primary Key Violation.
k_ITEMBOM_CHECKING_ERROR	454	Error occurred checks to see if the MasterItemID is the same as the ComponentItemID.
k_ITEMBOM_COMP_MSTR_SAME_ ERROR	453	MasterItemID is the same as the ComponentItemID.
k_ITEMCP_CURR_FK_ERROR	430	Referential Integrity error.
k_ITEMCP_IM_FK_ERROR	429	Referential Integrity error.
k_ITEMM_CT_FK_ERROR	409	Referential Integrity error.
k_ITEMM_PK_ERROR	406	Primary Key Violation.
k_ITEMM_UOM_FK_ERROR	407	Referential Integrity error.
k_ITEMM_UPS_FK_ERROR	410	Referential Integrity error.
k_ITEMM_VDR_FK_ERROR	408	Referential Integrity error.
k_ITEMM_WC_FK_ERROR	411	Referential Integrity error.
k_ITEMUPC_IM_FK_ERROR	413	Referential Integrity error.
k_ITEMUPC_PK_ERROR	412	Primary Key Violation.
k_ITEMUPC_UNIQUE_ERROR	414	Unique error on item_upc UPC number when modifying a record.
k_KIT_BUILD_REF3_ERROR	10508	Referential Integrity error.
k_OBWO_STOCK_ALLOC_FK_ERROR	1002	Referential Integrity error.
k_OBWO_WIP_FK_ERROR	1003	Referential Integrity error.
k_OUTBOUND_DEST_XML_OTH_ ERROR	1001	Unanticipated
k_OUTBOUND_WO_FOUND_ERROR	1005	Cannot create record, record already exists.
k_OUTBOUND_WO_MISSING_ERROR	1004	Cannot delete or modify the record because it does not exist.
k_PENDING_RET_DET_PK_ERROR	952	Primary Key Violation.
k_PENDING_RETURN_FOUND_ERROR	954	Cannot create record, record already exists.
k_PENDING_RETURN_MISSING_ERROR	955	Cannot delete or modify the record because it does not exist.
k_PENDING_RETURN_PK_ERROR	950	Primary Key Violation.
k_PENDRET_DEST_XML_OTHER_ ERROR	958	Unanticipated
k_PENDRET_DET_FK_PR_ERROR	953	Referential Integrity error.

Table 6–2 Error Codes in Alphabetical Order

Error Message	Status Code	Description
k_PENDRET_ITEM_FK_ERROR	959	Referential Integrity error.
k_PICK_DIR_SO_FK_ERROR	10506	Referential Integrity error.
k_PICKFROMLOC_ITEMM_FK_ERROR	426	Referential Integrity error.
k_PICKFROMLOC_LOC_FK_ERROR	427	Referential Integrity error.
k_PO_CNTRY_VENDOR_ITEM_ERROR	517	PO record exists, cannot delete Vendor.
k_PO_CRE_MOD_OTHER_ERROR	509	Unanticipated error while creating a PO.
k_PO_DELIVER_DATE_ERROR	516	Error on the deliver date while creating a PO.
k_PO_DETAIL_FOUND_ERROR	514	Cannot create record, record already exists.
k_PO_DETAIL_ITEM_ERROR	507	Error on the foreign key reference to item from PO details when creating a PO detail.
k_PO_DETAIL_MISSING_ERROR	515	Cannot delete or modify the record because it does not exist.
k_PO_DETAIL_PK_ERROR	505	Primary Key Violation.
k_PO_DETAIL_PO_ERROR	506	Error on the foreign key reference to PO from PO details when creating a PO detail.
k_PO_FOUND_ERROR	512	Cannot create record, record already exists.
k_PO_INVALID_ERROR	10518	PO does not exist in PO table.
k_PO_MISSING_ERROR	513	Cannot delete or modify the record because it does not exist.
k_PO_NULL_ERROR	10516	PO Number published by host system is null.
k_PO_OTHER_ERROR	521	Error validating PO detail required fields.
k_PO_PK_ERROR	504	Primary Key Violation.
k_PO_RECEIPT_FK_ERROR	508	Referential Integrity error.
k_PO_STATUS_CANNOT_CLOSE_ERROR	524	Error trying to Close a PO where an unreceived appointment exists.
k_PO_STATUS_CHECKING_ERROR	525	Error checking appointment information.
k_PO_VENDOR_REF_ERROR	503	Error on the vendor foreign key reference when creating a record.
k_SA_IN_DISTRIBUTION_ERROR	829	Stock Allocation is in distribution.
k_SA_NOT_FOUND_DELETE_ERROR	832	Cannot create the Stock Order Info Upload record, Stock Allocation record does not exist.
k_SA_NOT_FOUND_DELETE_ERROR	832	Cannot create record, record already exists.
k_SCHDULE_NBR_NULL	10515	Schedule Number is null.

Table 6–2 Error Codes in Alphabetical Order

Error Message	Status Code	Description
k_SHIP_DEST_FOUND_ERROR	653	Cannot create record, record already exists.
k_SHIP_DEST_MISSING_ERROR	654	Cannot delete or modify the record because it does not exist.
k_SHIP_DEST_REF_CONT_TYP_ERROR	655	Referential Integrity error.
k_SHIP_DEST_REF_CUR_CODE_ERROR	661	Referential Integrity error.
k_SHIP_DEST_REF_DEF_CSR_ERROR	659	Referential Integrity error.
k_SHIP_DEST_REF_EXP_CSR_ERROR	660	Referential Integrity error.
k_SHIP_DEST_REF_PRIM_KEY_ERROR	658	Primary Key Violation.
k_SHIP_DEST_REF_ST_RDM_ERROR	657	Referential Integrity error.
k_SHIP_DEST_REF_UNIT_PCK_ERROR	656	Referential Integrity error.
k_SHIP_DEST_ROUTE_ERROR	662	Referential Integrity error.
k_SHIP_DEST_SEQ_NBR_ERROR	668	Error validating sequence number.
k_SHIP_DEST_TYPE_NOT_VAL_ERROR	651	An error occurred checking the ship destination type.
k_SHIP_INVALID_DEF_CSR_ERROR	663	Default_Service_Code, Default_ Carrier_Code and/or Default_ Route values are NULL.
k_SHIP_INVALID_EXP_CSR_ERROR	664	Expedite_Service_Code, Expedite_ Carrier_Code and/or Expedite_ Route values are NULL.
k_SHIP_MLD_FK_ERROR	665	Referential Integrity error.
k_SHIP_OVERWRITE_STATUS_ERROR	650	Error retrieving ship destination overwrite status information.
k_SHIP_OWNING_DC_ERROR	652	Owning DC not found.
k_SKU_ADD_OTHER_ERROR	1100	Unanticipated
k_SKU_FOUND_ERROR	1102	Task_Queue record already exists.
k_SKU_MISSING_ERROR	1101	Cannot delete or modify the record because it does not exist.
k_SO_IN_DISTRIBUTION_ERROR	830	Stock Order has an Allocation in distribution.
k_SORTED_ALLOC_REF1_ERROR	10510	Referential Integrity error.
k_ST_ALLOC_CRE_MOD_OTHER_ ERROR	822	Unanticipated error while creating a stock order.
k_ST_ALLOC_INSTORE_DATE_ERROR	823	In store date error while creating a stock order.
k_ST_ALLOC_MODIFY_OTHER_ERROR	824	Unanticipated error while modifying a stock allocation.
k_STATE_NOT_FOUND_ERROR	10501	Cannot create record, record already exists.
k_STOCK_ALLOC_CRE_OTHER_ERROR	821	Unanticipated error in the standard UOM when creating a stock order.

Table 6–2 Error Codes in Alphabetical Order

Error Message	Status Code	Description
k_STOCK_ALLOC_FOUND_ERROR	817	Cannot create record, record already exists.
k_STOCK_ALLOC_MISSING_ERROR	816	Cannot delete or modify the record because it does not exist.
k_STOCK_CARTONIZATION_ERROR	826	Error in cartonization during the call to perform cartonization when a stock order is created.
k_STOCK_DELETE_OTHER_ERROR	825	Unanticipated error while generating a SD stock order info status message when a stock allocation is deleted.
k_STOCK_DISTRIBUTION_ERROR	819	Invalid stock distribution error while modifying a stock order.
k_STOCK_INV_CARR_SERV_ERROR	811	Invalid carrier service when creating a stock order.
k_STOCK_INV_CARRIER_ERROR	812	Invalid carrier when creating a stock order.
k_STOCK_INV_CSR_ERROR	813	Invalid carrier service route when creating a stock order.
k_STOCK_MOD_CRE_OTHER_ERROR	806	Unanticipated error while modifying a stock order.
k_STOCK_MODIFY_OTHER_ERROR	818	Unanticipated error while modifying a stock order.
k_STOCK_NULL_SHIP_FIELD_ERROR	804	Error in ship field(s) when creating a stock order. One of the field(s) is null.
k_STOCK_ORDER_CRE_OTHER_ERROR	807	Unanticipated error while creating a stock order.
k_STOCK_ORDER_FOUND_ERROR	815	Cannot create record, record already exists.
k_STOCK_ORDER_MISSING_ERROR	814	Cannot delete or modify the record because it does not exist.
k_STOCK_PICK_DATE_ERROR	805	Error in the pick date when creating a stock order.
k_STOCK_REQUIRED_PO_ERROR	831	Missing PO number.
k_STOCK_UNCARTONIZE_ERROR	820	Error during the uncartonize process when stock orders are modified. The error occurs during the call to the perform cartonization package.
k_STOCKA_CID_REF1	10512	Referential Integrity error.
k_STOCKA_ITEMM_FK_ERROR	428	Referential Integrity error.
k_STOCKA_SHIPD_FK_ERROR	810	Referential Integrity error.
k_STOCKA_STOCKO_FK_ERROR	809	Referential Integrity error.
k_STOCKA_UP_REF1_ERROR	808	Referential Integrity error.
k_STOCKO_PK_ERROR	800	Primary Key Violation.

Table 6–2 Error Codes in Alphabetical Order

Error Message	Status Code	Description
k_STOCKO_PO_FK_ERROR	803	Referential Integrity error.
k_STOCKO_STATE_FK1_ERROR	801	Referential Integrity error.
k_STOCKO_STATE_FK2_ERROR	802	Referential Integrity error.
k_TASK_QUEUE_ACT_CODE_FK_ERROR	1103	Referential Integrity error.
k_TASK_QUEUE_ITEM_FK_ERROR	1105	Referential Integrity error.
k_TASK_QUEUE_WAVE_FK_ERROR	1104	Referential Integrity error.
k_VENDOR_ADDR_FOUND_ERROR	211	Cannot create record, record already exists.
k_VENDOR_ADDR_IND_UPDATE_ ERROR	204	An error occurred updating the primary address indicator.
k_VENDOR_ADDR_MISSING_ERROR	210	Cannot delete or modify the record because it does not exist.
k_VENDOR_ADDR_PRIM_KEY_ERROR	206	Primary Key Violation.
k_VENDOR_ADDR_TYPE_UPD_ERROR	208	Unable to update the Vendor Address description.
k_VENDOR_DELETE_ERROR	200	Error while deleting a vendor.
k_VENDOR_FK_ERROR	207	Referential Integrity error.
k_VENDOR_FOUND_ERROR	203	Cannot create record, record already exists.
k_VENDOR_MISSING_ERROR	202	Cannot delete or modify the record because it does not exist.
k_VENDOR_OVERWRIT_STATUS_ ERROR	201	Errors while retrieving overwrite status values.
k_VENDOR_PRIMARY_KEY_ERROR	205	Primary Key Violation.
k_VENDOR_STATE_FK_ERROR	209	Referential Integrity error.
k_VERIFY_ASN_ITEM_OTHER_ERROR	722	Unanticipated error occurred verifying ASN item record.
k_VERIFY_ASN_OTHER_ERROR	723	Unanticipated error occurred verifying the ASN record.
k_VERIFY_ASN_PO_DATE_ERROR	720	Error, the deliver not after date is invalid.
k_VERIFY_ASN_PO_OTHER_ERROR	721	Error occurred verifying ASN Purchase Order.
k_VERIFY_CNTR_ITEM_OTHER_ERROR	725	Unanticipated error occurred verifying the container item record.
k_VERIFY_CONTAINER_OTHER_ERROR	724	Unanticipated error occurred verifying the container record.

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