Aptean

WCS Maintenance Guide

WCS - 3.4

30th October 2025 - 4.01
Reference: UG 106181

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1 INTRODUCTION

This document is intended to show the series of steps required to install all parts of Calidus 3PL-Mobile (the WCS) on a server and client PCs. This covers the following areas:

- Installation of the full system on a WCS Server
- Installation of the WCS on a WCS server
- Installation of the above for the Oracle FSCE.
- Installation of the RDT on an RDT or Test server
- Installation of administrative functions of Client PCs
- Installation of patches
- Backup and Resilience Guidelines

Appendices are provided to show the main programs installed on the target PC and also the Start menu items created.

Also provided are appendices detailing:

- How to choose languages for the RDT application
- How to use the RDT Debug process to simplify testing of the WCS
- How to install and configure Wavelink servers and clients.
- Other WCS applications and their uses.

2 Installation of full Calidus 3PL-Mobile

2.1 Run Installer

Run the full WCS installer and follow the on-screen instructions.

Default working directory for the install is:

```
C:\Program Files\Warehouse Control Server
```

For a list of programs installed see 8.4.3

For a list of shortcuts created for the installer see 8.4.3

2.2 Authorising the WCS

Note: Some versions of the WCS do not require an authorisation code to be entered. If this is the case, this step can be skipped.

Authorise the WCS following the instructions in 8.4.3

2.3 Shares

If the WCS Server PC is being connected to from an external machine, or the WCS Server has several disks, you may wish to define certain share areas on the machine and use those when accessing the system. Those shares are:

Share	Description
WCS$	The main directory {Installation Path}\Warehouse Control Server
WCSDB$	The main database directory {Installation Path}\Warehouse Control Server\database
WCSRPT$	The reports directory {Installation Path}\Warehouse Control Server\bin\reports
WCSL$	Logging database path (if different to main database path.
WCSI$	The WCS installer and documents directory, copied from the CD.

Alternatively, you could set up network drives pointing to these shares.

2.4 Initialise Database

On the Start Menu, under the WCS Utilities group will be an item ?Initialise database?. This program will ask you questions about how the system is set up, and how you want it to run.

Initially, the program should ask you to identify the database you are using. This should automatically show you the database ?rdt1.mdb?, in the ??/database? area. You should choose this database.

Page 1 - WMS Communication settings:

On this page, you are prompted for IP addresses and port numbers for the WCS connectivity. The IP address should be that of your WMS. The port numbers should be those set up in the WMS interface programs (usually available in ?$RDT_LOCATION/start_int?).

You are also prompted for a retry count. This is best set at 3.

Page 2 - WCS Communication settings:

On this page, you are prompted for settings that directly affect the WCS communications. The WCS IP address should already be set, as the IP address of the machine on which you are running. The RDT to WCS port the communication

channel for RDT processes to talk to the WCS server, and is best left at the default, 15002. The next parameter is the maximum wait time for a response from the WCS server. This may be left at the default value.

Page 3 - WCS Database settings 1

This page prompts for 2 flags for how the WCS database will work. The first item (delete records) should be checked, to keep the database size down. The second flag (Use Hold Status) may be checked or un-checked, but the functionality is useful.

Page 4 - Default Company Code

This page prompts you for a default company code for the WCS. This is a mandatory, 3-character field.

Page 5 - Default Warehouse ID

This page prompts you for a mandatory 3-character Warehouse ID. The WCS is a multi-warehouse system, this is simply a default to set one warehouse up for you first.

Page 6 - System Settings

This page prompts you for some system settings. The field ?Check Digits? controls whether the RDT prompts for a 3-character check digit for confirmation of location. The field ?Block Stack? controls whether the system allows users to exchange pallets for other, similar pallets. The field ?Customer Pallet ID? controls whether the system moves pallets by a WMS-generated pallet ID or by a customer-generated pallet ID.

Page 7 - Receipt Settings 1

This page prompts you for whether catch weights and measure quantities are prompted for by the RDTs. Commonly, these flags are not set.

Page 8 - Receipt Settings 2

This page prompts you for some generic receipt settings. The first set of radio buttons govern the type of receipt you run. The first (Check) receipt allows pallets to be preadvised to a pallet level. Blind receipt receives against the stock code preadvice. The second radio buttons decide how you identify Goods receipts *by default*. This can always be changed when in the receipt module on an RDT.

Page 9 - Pick Settings

This page contains some default settings for Pick (Picker Replenishments and Pick Check). Both should be disabled at present, and can be enabled later if required.

Page 10 - Default Admin user

This page prompts whether a default user will be set up for you, called ADM with the same password (encrypted in the database). This will allow you to log on to WCS Maintenance without having sent any further data from the WMS, allowing you to complete set-up. This should be checked.

Note: This user is set up with access to the Maintenance functions ONLY. RDT users can be enabled using the maintenance functions. This is described in other documents.

Page 11 - WCS Database Settings 2

Default clear-down folder - accept default

Default reports folder - accept default

External database - This allows all logging information to be stored in a separate database, allowing more data to be stored. For testing, this should be disabled, for simplicity. For live, this should be set up to be in the same area as the normal WCS database (rdt1.mdb), normally called ?logX.mdb?, where X is a version number.

On completing the form, the program should update all tables, and the system will be ready to log on to.

2.5 Run WCS Maintenance

Start WCS maintenance from the shortcut on the start menu under the group ?Warehouse Control Server?.

Choose the appropriate database from the file list or the Browser.

The database should be available from the ?Warehouse Control Server/Database? area. It should be called ?rdt1.mdb?. Browse for this, using the ?More Files?? option of the file list. Once you have selected the database once, the database will remain on the file list for you to select.

Log in using the ADM user set up for you by the ?Initialiser? process. **Note:** The password is case-sensitive.

Once in, go to the System Settings screen, using either the toolbar or the menus (*System Tools/System Settings*).

Click Apply, then OK in this form. That sets the settings for Maintenance up, as well as an ?INI? file for the maintenance functions.

Also available from this form is the ability to configure the WCS system settings (from the ?WCS? tab. In here, the name displayed on the WCS Server form can be modified to show something more suitable (such as ?WCS Test?, ?WCS Live - DO NOT STOP?, etc).

2.6 Install Wavelink StudioCOM

The installation instructions for this process are available in 8.4.3

2.7 Start WCS Server

The system is now set up on the server. To start the WCS Server, choose the relevant option from the *?Warehouse Control Server?* group on the Start menu. For testing, an option is included that writes full communication logging to files in the default directory area.

Note: If the WCS requires authorisation, but this authorisation is invalid, the WCS-Server process will inform you of the problem at this point.

The program should start, and show you a simple form, showing the connection status of the WMS (should start as ?Idle?), and the connection status of any RDTs (should start as ?Idle?). The title of the WCS Server form is set to ?Warehouse Control Server? by default. However, this can be changed using WCS Maintenance as shown in 2.5above.

WMS Connections	Description
Idle	No connection from the WMS. Probably the WMS interface is not started.
Connected	Fully Connected - normal.
No WMS - WCS	The WCS is connected to send, but no connection exists from the WMS for receiving tasks into the WCS. This can occur quite often. The next time the WMS has something to send, it may connect automatically.
No WCS-WMS	The WCS is connected to receive tasks, but no connection exists to send completed tasks to the WMS. This is serious, and is usually a problem with the connection settings in the WCS, or the interface settings on the WMS.

Table 1 - WMS connection statuses

RDT Connections	Description
Idle	No RDTs are currently connected.

RDT Connections	Description
Connected (X)	Shows (X) RDTs are connected,

Table 2 - RDT Connection statuses

2.8 WCS Server Options

WCS Server has some options available from the file menu:

- Launch Maintenance Program - this option launches WCS Maintenance, if installed on the PC (It should be for this installation). Maintenance will not require you to choose the database - it will be started with the database that the WCS Server is currently using.
- New Password - Change the password required for the WCS Server to be stopped.
- Compact Database - Clean up the WCS database. This will only be successful if there are no maintenance users using the database.
- Clear Out Pre-advice Tables - This should no longer be required.
- Exit - Quit WCS Server. A password is required to stop the WCS Server application. This is pre-set to ?password?, but can be changed using the appropriate option above.

There is also a logging menu, which allows the logging options of the WCS to be set.

The first two options toggle the way the WCS logs its incoming and outgoing logs for the system. If the system is logging to Table, the data is placed in the main or logging databases. If the system is logging to File, the data is placed in text files located in the main program directory. This is normally C:\Program Files\Warehouse Control Server\Comms Logs. New logs will be created every day.

The File logging options should be enabled if the system is live, stable and the quantity of incoming and outgoing messages is high. Otherwise, the Table logging method should be used.

The final option turns logging on for communication messages between the WCS and specific RDTs. The log is a text file, placed in the Comms Logs directory, as above.

With all the above switches, the WCS remembers the values last set.

2.9 Start WMS Interface

Several documents already exist describing the set-up and starting of the WMS interface programs.

Once running, however, the status on the WCS should change to ?Connected?.

3 Installing WCS-Server

This installer is required if you are running lots of RDTs for one system, or if you require geographically separate sites running on the same WCS. In the former case, a limitation of Windows PCs is that there are a finite number of processes that can be run on the machine at one time. In the latter case, having a local RDT server and separate WCS Server reduces network traffic over the WAN.

3.1 Run Installer

Run the WCSS installer and follow the on-screen instructions.

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3.6 Start WMS Interface

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Once running, however, the status on the WCS should change to ?Connected?.

4 Oracle set-up

In the previous 2 sections, we have shown how to install the WCS for access to the C-ISAM version of FSCE, version 4.14. In this section, we explore and define the differences in this to installing for connection to the Oracle version of FSCE, version 7.X.

The set-up consists of several steps above and beyond the steps outlined above:

1. Install Oracle 9i Client
2. Install Oracle 9i Windows Objects
3. Update Oracle 9i Visual Basic objects (OO4O)
4. Update the registry for Oracle
5. Install WCS
6. Set up WCS
7. Set up WMS

4.1 Oracle 9i Set-up

Ensure the machine is logged in as the user that will be running the system.

Start the Oracle Client Installation process from the CD.

Choose **Install/Deinstall Products**

Choose the **Runtime Install Only** option. This will require about 180Mb of space on the PC. Allow to finish, accepting any defaults.

The process will start the **Net Configuration Assistant**. This needs to be completed at some stage, either now or later, from the **Start** menu.

Items required for this stage:

Item Required	Your Value
Oracle Service Name	
Oracle Server IP Address	
Oracle Server Port number	
Oracle User	
Oracle Password	

Choose option **Local Net Service Name Configuration**

Choose **Add**.

Choose **8i or later**

Enter *Oracle Service Name**.***

Choose **TCP**

Enter *Oracle Server IP Address*.

Enter *Oracle Server Port number* (1521 is the default)

Choose to **Test the Connection**

When prompted, change the *Oracle User* and *Oracle Password.*

This should then be set up correctly.

4.2 Oracle Windows Components

Choose to install more products, this time choosing **Custom Install**.

Choose to install the **Oracle Windows Interfaces**

Allow to finish, accepting any defaults.

Exit the installer.

4.3 OO4O Update

Now, we need to update the version of OO4O on the machine. Oracle should be updated to 9.2.0.4.8 for OO4O, however, a previous compatible version, 9.2.0.4.5 has also been included.

To install 9.2.0.4.5 upgrade:

Double-click on the **OO4O92045.exe**. This will extract the upgrade to a directory of your choice. This executable is found on your WCS installation disk, in the area:

CD Contents\Other Exes\Misc

It has also been extracted for you on the disk, under this area.

Run **{Your Directory}\Disk1\install\win32\setup.exe**.

This will run the Oracle installer as before, installing the upgrade. Simply follow the defaults.

To install 9.2.0.4.8 upgrade:

Double-click on the **OraWin9204.exe**. This will extract the upgrade to a directory of your choice. This executable is found on your WCS installation disk, in the area:

CD Contents\Other Exes\Misc

It has also been extracted for you on the disk, under this area.

Run

{Your Directory}\Disk1\install\win32\setup.exe or

{Your Directory}\Disk1\setup.exe

This will run the Oracle installer as before, installing the upgrade. Simply follow the defaults for installing Oracle Objects for OLE version 9.2.0.4.8.

A further patch has been provided by Oracle. Full instructions for installing the file are in the directory on the CD. This is:

CD Contents\Other Exes\Misc\Oracle 3568386 patch

4.4 Update Registry

In order to run the Oracle WCS, the registry must be modified for Oracle. This can be done simply by double-clicking a registry file provided with the installer. This file is:

CD Contents\Other Exes\Regutils\VB6-OO40.reg

This will add the required registry entries for you.

Alternatively, the registry entry can be added manually, as below:

Choose **Run** from the **Start** menu. Run **Regedit** from here. If this can?t be run or you are entirely unfamiliar or uncomfortable with this step, check with your system administrator.

Check the key:

HKEY_CURRENT_USER/Software/Microsoft/Visual Basic/6.0/AllowUnsafeObjectPassing.

It should be set to a string value **1**. If it is not, change it to **1**.

4.5 Install WCS

Now, WCS can be installed in the normal way, as shown in the previous two sections.

4.6 Set up WCS

In addition to the steps taken to set up the WCS in the previous sections, some other values also need to be entered.

Set up Ora settings on the WCS database table System Parameters. These values need to be found now, and entered in the table below. The first three values were found for the Oracle installation, above.

Field	Description	Your Value
Ora Database	Oracle Service Name	
Ora User	Oracle User	
Ora Password	Oracle Password	
Ora Incoming Queue Name	Queue used by WMS to send data to WCS	
Queue Listener Agent	Agent used to identify which WCS is sending the messages.	

The Queue Listener Agent should be the same as that set up on APP_QUEUE.AGENT in the following section.

Agent is normally AG_<COMPANY><WAREHOUSE>, by convention.

WMS Outgoing queues (on table Ora Type Queues) should be:

Message Type	Queue
601	QCM1
611	QCM2
621	QCM3
631	QCM5
641	QCM5
651	QCM5
661	QCM5
671	QCM5
681	QCM5
691	QCM4
701	QCM5

Message Type	Queue
711	QCM5
721	QCM5
731	QCM5
741	QCM5
751	QCM5

Both of these tables can be set up from System Parameters screen in WCS Maintenance.

4.7 Set up WMS

Ensure queues are set up on the normal Oracle database. There should be at least the queues shown above:

- QMC
- QCM1
- QCM2
- QCM3
- QCM4
- QCM5

Speak to your system administrator to ensure that these queues have been set up correctly.

The FSCE table APP_REC must be set up:

REC_TYPE	REC_NAME	QUEUE_ID
101	TY_WMS_PREADV	QMC
111	TY_WMS_PMVDREQ	QMC
121	TY_WMS_PICKRQ	QMC
151	TY_WMS_PREADVDEL	QMC
161	TY_WMS_PALDET	QMC
171	TY_WMS_WHSMAP	QMC
181	TY_WMS_RECTYPUPD	QMC
191	TY_WMS_STOCK_TAKE	QMC
201	TY_WMS_EMPUPD	QMC
221	TY_WMS_LTRKUPD	QMC
231	TY_WMS_TRKTYPUPD	QMC
241	TY_WCS_LOC_CD	QMC
251	TY_WMS_REASONUPD	QMC
271	TY_WCS_PALTYPEUPD	QMC
281	TY_WMS_AISLESTATUS	QMC
291	TY_WMS_OWNDET	QMC
341	TY_WMS_PICKRQ	QMC
601	TY_WCS_PALCRE	QCM1
611	TY_WCS_PALMVMNT	QCM1
621	TY_WCS_PICKUPD	QCM3
631	TY_WCS_AISLEUPD	QCM5
641	TY_WCS_WHRECON	QCM5
651	TY_WCS_STKENQ	QCM5
661	TY_WCS_STLORTS	QCM5
671	TY_WCS_STOCK_ADJ	QCM4
681	TY_WCS_DESPUPD	QCM5
691	TY_WCS_LOCCHECK	QCM5
701	TY_WCS_LOADUPD	QCM5
711	TY_WCS_LOCENQ	QCM5

REC_TYPE	REC_NAME	QUEUE_ID
721	TY_WCS_OWNCHECK	QCM5
731	TY_WCS_PRODENQ	QCM5
741	TY_WCS_SERIALUPD	QCM5
751		QCM5

The FSCE table APP_QUEUE must also be set up

One set of these records for each Agent required.

An Agent defines an instance of the WCS, passing and receiving messages from FSCE. Each WCS

Agent must be unique for each WCS connecting to the system. It must be the same value entered in the WCS set-up section above.

Agent is normally AG_<COMPANY><WAREHOUSE>, by convention.

ID	AGENT	RECEIVER
QCM1		WMS
QCM2		WMS
QCM3		WMS
QCM4		WMS
QCM5		WMS
QMC		WCS

The FSCE table APP_WAREHOUSE_Q_SCHEMA_AGENT must also be set up.

One record is required here, for each company/warehouse combination.

Q_SCHEMA is the schema in which the queues have been declared. This is normally schema SCE in default installations of the FSCE system.

COMPANY	WAREHOUSE	AGENT	Q_SCHEMA

5 Installing an RDT Server

This installer is required if you are running lots of RDTs for one system, or if you require geographically separate sites running on the same WCS. In the former case, a limitation of Windows PCs is that there are a finite number of processes that can be run on the machine at one time. In the latter case, having a local RDT server reduces network traffic over the WAN.

Another reason for installing a separate RDT server would be to support multiple languages for the RDT users. The method for changing the language can be seen in 8.4.3

5.1 Run Installer

Run the RDT installer and follow the on-screen instructions.

Default working directory for the install is:

C:\Program Files\Warehouse Control Server

For a list of programs installed see 8.4.3

For a list of shortcuts created for the installer see 8.4.3

5.2 Enter the Server IP required

So that the RDT application can connect remotely, the file ?SERVER_IP.INI? must be modified to contain the WCS Server?s IP address and WCS-RDT port number. This port number can be found through WCS Maintenance from the ?System Settings? option, or alternatively through the Initialise Database application.

This file is used to store the connection settings the RDTs need. If the file is not created, a default version of the file will be created on initial start-up of an RDT application, defaulting the values to those most commonly used, as follows:

Local Machine?s IP Address

15002

The file should have contents similar to the following:

?1.0.0.127?

?15002?

Because the RDT process has not yet run, you must create the file yourself.

The first item in the file should be the WCS Server PC?s IP address.

The second item should be the WCS-RDT port number.

Both items should be in quotes (?).

Once created, save the file.

Alternatively, this step could be completed later, after attempting to run an RDT process through Wavelink. You will get an error on the RDT initially, saying it couldn?t connect to the WCS. Once this has happened, exit the RDT process, and check for the SERVER_IP file then. There should now be one created, and this can be modified rather than created from scratch.

5.3 Install Wavelink StudioCOM

The installation instructions for this process are available in 8.4.3

After this is installed, the RDT Server should be available for use.

6 Installing Client WCS Maintenance

In this instance, it is assumed that the WCS has been set up on a WCS Server PC, and that the user has access to this PC over the network. The PC should have some shared folders, as specified in section 2.3:

- ?*{Installation Path}*\Database? shared as ?*{WCS Server}*\WCSDB$? (required)
- ?*{Installation Path}*\Bin\Reports? shared as ?*{WCS Server}*\WCSRPT$? (optional)
- ?*{Installation Path}*\? shared as ?*{WCS Server}*\WCS$? (optional)

It is further assumed that all required standing data has been set up on the WCS and that the user has been provided a valid username and password for access to the WCS.

6.1 Run Installer

Run the WCSM installer and follow the on-screen instructions.

Default working directory for the install is:

C:\Program Files\Warehouse Control Server

For a list of programs installed see 8.4.3

For a list of shortcuts created for the installer see 8.4.3

6.2 Run WCS Maintenance

Start WCS maintenance from the shortcut on the start menu under the group ?Warehouse Control Server?.

Choose the appropriate database from the file list or the Browser.

You will be accessing the central WCS database remotely. There are several ways to do this:

- Browse for the appropriate database using the ?More Files? option on the File List. You should be browsing through your Network, looking for the machine on which the WCS has been installed, and choosing the shared Database folder ?*{WCS Server}*\WCSDB$?;
- Set up a network drive (for our example, we will choose the driver letter ?W?), pointing to the ?Database? shared folder on the WCS Server PC. Use this driver letter to find the database (rdt1.mdb) in the Browser.

Once you have selected the database once, the database will remain on the file list for you to select.

Log in using the ADM user set up for you by the ?Initialiser? process. **Note:** The password is case-sensitive and will be provided to you by OBS.

Once in, go to the System Settings screen, using either the toolbar or the menus (*System Tools/System Settings*).

Click Apply, then OK in this form. That sets the settings for Maintenance up, as well as an ?INI? file for the maintenance functions, with the normal default values for certain areas.

6.3 Network Installation (Optional)

If the site want the users to use the central installation of WCS Maintenance (for ease of release and support), the following steps must be taken:

1. Install WCS Maintenance on the local PC (see previous sections).

2. Optionally create a new shortcut to the local WCS Maintenance on the desktop.
3. Delete the local WCSMaintenance.exe file.
4. Delete ?.../Bin/Reports? folders.
5. Open the Properties window for the WCS Maintenance shortcut (created in step 6.3 above or the shortcut on the ?*Start/Programs/Warehouse Control Server?* menu) by right clicking on the shortcut icon and selecting ?Properties? from the drop down list.
6. Change the ?Target? field to point to the network shared WCSMaintenance.exe file in the format ?\\xxx\yyy\WCSMaintenance.exe? where ?xxx? is the network name of the WCS PC and ?yyy? is the shared name of Warehouse Control Server directory on the WCS PC which is usually set to ?WCS$?.
7. Start WCS Maintenance and point the *?Default Report Files Folder?* location (found from the menu *System Tools/System Settings*, Maintenance settings tab) to the shared name of the WCS Reports folder on the WCS PC which is usually ?\\{WCS Server}\WCSRPT$?.

The local PC should now be setup to run a remote version of the programs and remote versions of the reports but using the local maintenance settings file (?Maintenance.ini?) which will allow the user to customise the use of some of the screens without affecting other network users.

7 Updating the WCS

There are two mechanisms for upgrading the WCS installation:

1. Manual
2. Semi-automatic

If the Upgrade area of the WCS installation contains the file WCS_Upgrade_Install, then the semi-automatic upgrade path can be followed. Instructions for installing the Semi-Automatic Upgrade modules can be seen in 8.4.3

7.1 Manual Upgrade

7.1.1 Preparations for Upgrade

Initially, the WCS-Server must be stopped and any WCS Maintenance users must log off the database. RF users must log off the system. If the WCS is to be fully upgraded via an installer, or the RDT processes themselves are being patched, *all* RDT users must log off.

When this is completed, it is normal to create a backup of all the files. This would include renaming the old database. Normally, this would be ?rdtX.mdb?, where ?X? is an incrementing number. For this example, let use say that the database is renamed from ?rdt1.mdb? to ?rdt2.mdb?.

If updating via patch, the patch should be placed into the Upgrade area in the Warehouse Control Server folder. This is normally one of the following or similar:

\Database\Update

\Database\Upgrade

\Database\Release

If updating via an installer, the processes can now be uninstalled, then re-installed from the provided installer CD.

7.1.2 Performing the Upgrade

Go to the Upgrade area and extract the patch. This is normally achieved by double-clicking the file and extracting the data using the unzip application that the server starts for you. You should extract the programs to a directory on the same name as the patch.

For example:

If the patch is called UP060708.zip, you should create a directory UP060708 in the Upgrade area.

Once the patch is extracted, copy all the files from this area to their correct folders:

File Type	Area
Rpt*.exe	\\{Machine}\WCSRPT$ (normally X:\Program Files\Warehouse Control Server\Bin\Reports)
UpdateDB.exe	WCSDB$ (normally X:\Program Files\Warehouse Control Server\Database
*.RPX	WCSRPT$ (normally

File Type	Area
	X:\Program Files\Warehouse Control Server\Bin\Reports
*.exe	WCS$ (normally X:\Program Files\Warehouse Control Server
*.mdb	WCSDB$ (normally X:\Program Files\Warehouse Control Server\Database

{Machine} is the network name of the WCS Server and can be found from your system administrators.

7.1.3 Updating a Database Format

The WCS database sometimes changes structure, when new functionality has been added to it. In this instance, the database must be updated to be usable by the new WCS programs. The OBS team provides a utility to achieve this.

The utility is available from the shortcut group WCS Utilities, and is called Update Database. The actual program run from this menu item can be seen in 8.4.3

The program only need be used when either the WCS upgrade has been provided in patch form, or the client requires that the data be preserved during the upgrade.

The newly provided database structure will usually be called ?rdt1_struct.mdb?. The instructions in the previous section should ensure that this structure has already been copied to the database area.

When the program is started, it presents you with a screen to identify the old database, the new structure, and the new database. Browse buttons are provided to find the databases. All databases should be stored in the \Warehouse Control Server\Database area. The browse buttons should start in this area, showing you all the databases available. Should this not be the case, the process should start in the main program folder, and you should first navigate to the Database folder.

The old database, in our example, is called ?rdt2.mdb?. This should be selected from the browser.

The new structure, in our example, is called ?rdt1_struct.mdb?. This should be selected from the browser.

The new database should always be called ?rdt1.mdb?. This should be entered in the browser.

Note: any data in the new database will be deleted. If you have not copied your database to a new name, as shown in this example, you will lose your data. For this reason, the program allows you to enter a different database name, other than ?rdt1.mdb?. Check this carefully.

Once you have selected your new database, click the Update button. The program will take the data from the old database, and create it in the new database in the format of the structure database. Any errors will be shown in the window in the form. The errors will also be saved to a log file, indicated in the window.

Errors should only occur if a major re-structuring of the database has taken place. In this instance, you should already have been provided details of what corrective steps to take. If now, the error log should be saved for reference.

Once this process is completed, you should have a database in the correct area, named as you chose. In our example, this would be ?rdt1.mdb?.

Once this is completed, the upgrade is completed. The WCS-Server can be re-started as normal. No re-boot will be required. All users, both Maintenance and RDT, can log back on to the system.

7.2 Semi-Automatic Upgrade

7.2.1 Preparations for Upgrade

An email will be received from OBS, detailing the available patches that have been delivered.

Log on to the WCS Server and use Windows Explorer to navigate to the upgrades area in the Warehouse Control Server folder. This is normally one of the following or similar:

\Database\Update

\Database\Upgrade

\Database\Release

Retrieve the patch from the delivery area specified in the email. Use an FTP client to retrieve the patch. Alternatively, OBS will normally have created a shortcut to a command-line FTP program in the releases area. The following are instructions on the retrieval of patches from a UNIX Server:

- If there is no OBS-created shortcut:
  - Once you have started the FTP client, log on to the machine specified. Your technical support team should have supplied you with a user name and password.
  - Type ?bin?.
  - Type ?cd <release area>?, where <release area> is the place on the UNIX server where the email said the patch was released. For example, ?cd /home/fwlsup01/mbx?
- Type ?get <patch>.zip?, where <patch> is the upgrade file you have been informed to retrieve.
- When this is completed, type ?bye?.

If you used the shortcut to get the patch, the patch should already be placed into the Upgrade area in the Warehouse Control Server folder.

If you are manually FTP?ing the patch, or retrieving it through some other mechanism, you should copy the patch to this area.

7.2.2 Performing the Upgrade

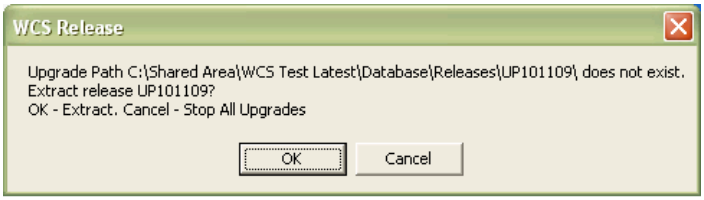
Earlier versions of the Upgrade script require the patch to be extracted first. Go to the Upgrade area and extract the patch. This is normally achieved by double-clicking the file and extracting the data using the unzip application that the server starts for you or right-clicking the file and choosing ?*Extract to {directory}/*?. You should extract the programs to a directory on the same name as the patch.

For example:

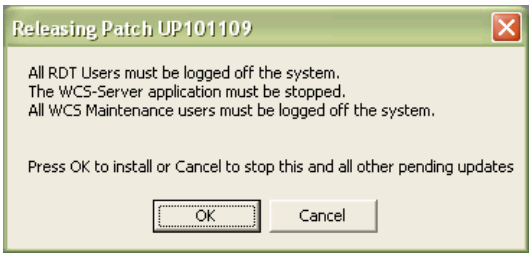
If the patch is called UP060708.zip, you should create a directory UP060708 in the Upgrade area.

Once the patch is extracted (without, if you have the latest version of the Update Script), run the WCS_Upgrade_Install program, normally by double-clicking.

If this is the latest version and you haven't yet extracted the release, the script will ask you if it's OK to do so.



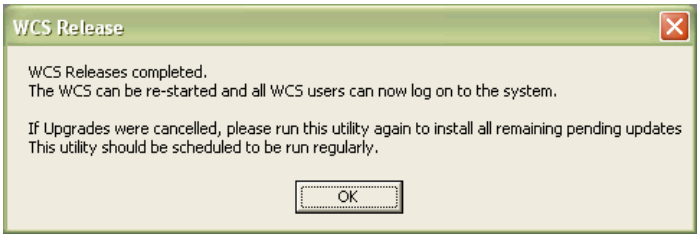
The program will inform you of what pre-release steps must be taken before you begin the installation, such as shutting down the WCS or logging of all users.



- To stop the WCS, click on the X in the top corner of the application. Be careful that the correct WCS Server is being stopped, if you have multiple WCS Servers installed on the same hardware. The program will require you to enter the password to stop the program. If any RF users are still connected, the WCS Server will inform you of this at this stage - you can set a timer to give them time to log out, or you can stop the application immediately by entering '0' here. Once confirmed, the WCS Server will stop.
- To check whether RF users are logged out, you can start the Wavelink Studio Administrator and check the users connected. Again, be careful to choose the right Wavelink monitor if you are running multiple systems. If there are users connected, they will be shown under the Wavelink Monitor on the left of the application window. You can disconnect a user by double-clicking on the user and clicking the **Shutdown** button. You can also use the Windows Task Manager to check that there are no running copies of the programs 'Debug.exe' and 'RDTMenu1.exe' on the machine. If there are, stop the processes.
- Ensure that there are no administrative users on the database. Any users using the applications Database Utilities, VisData or WCS Maintenance must exit their programs. Ensure that there are none on the server machine (using Windows Task Manager). Once you are sure all database connections are closed, check the Database folder. If no file 'rdt1.ldb' exists, the database is clear. Note that the Upgrade Install script will not allow installations if this file exists.

The program will then install all outstanding patches in sequence, will handle back-ups of the current installation files and allow a roll-back to the last release completed.

If any database changes have been made or new rules added, the program will also automatically update the database for you, whilst taking a backup copy of the original database.



Should there be any issues when installing, the process will automatically roll-back the current release and write a log file. Report the problem to OBS, who will investigate the issue immediately.

Once the script informs you that the installation is complete, you can re-start the WCS Server application

7.2.3 Rollback

Should the patch not be acceptable for some reason, the *previous release only* can be rolled back.

As each patch is installed, the Upgrade script makes backup copies of all the programs and data updated. Should the patch not be required, simply click on the WCS_Upgrade_Rollback shortcut. This will put the programs back to the previous settings. Additionally, if the database structure was updated in the last patch, the structure will be put back to the previous release state, but the current data will be maintained.

If you are running the latest version of the Update script, several patches can be rolled back at once, *if those patches were all installed at the same time*. If this is the case, the rollback process will take the WCS back to the point *before* any of the patches were installed.

8 Backup and Resilience Guidelines

8.1 Introduction

Like any system, in order to provide a resilient system, backups are normally maintained. A full image backup of the WCS server is always recommended, for the case of a full server failure. In that case, the server can be rebuilt from the backup. A regular full backup is less appropriate for the WCS, for the following reasons.

- The WCS database is a proxy database, and therefore holds (mainly) transactional data, which can be re-sent from the WMS.
- The majority of the standing data can also be re-sent from the WMS.
- The program set is relatively small and doesn?t require a large-scale back up system.

However, many other steps can be taken to increase the resilience of the WCS servers. For example:

- Versions of Windows may be used to generate a ?hot swap? - an identical PC that is activated immediately when problems occur.

- Network backups of the WCS database and programs can be done, for easy replacement if required.
- A UPS may be installed to increase resilience of the WCS server.
- Mirrored disks (of many different RAID architectures) may be put in place to reduce the possibility of disk corruption and make full system backups easier.
- Hot-swap disks may be used - when identical machine configurations are in use and the disks are swapped into the new machine directly.
- IP switching or swapping.
- DNS Naming - Although this doesn?t really affect resilience, this can speed up the recovery process by simply pointing the DNS name of the old WCS to the new WCS server and then starting the interface.

Some assumptions are made in the following sections:

- Direct IP or Host connection is used rather than DNS naming.
- The Backup machine has installed WCS and the latest up-to-date versions of each WCS program are in place.
- All network shares and drives are in place, with the same names (see section 2.3 for details).

The two most common backup and resilience set-ups are discussed in the following sections. They cover regular backups of the database rather than the full program set.

OBS also provides scripts to backup the application and database - a discussion of these scripts is appended.

8.2 Network Backup

The easiest backup solution is to copy the database regularly to a common shared drive on your network. This will ensure that you have a copy of the latest configuration at all times. This can also be kept on a backed up drive. The key programs of the WCS installation could also be copied as part of this backup. This would not be strictly necessary, as the installation process keeps copies of the installed programs, as does the OBS release process.

OBS can provide scripts for the copying of the database to a safe area of your choice. Script can also be created for the backup of the program set as well, if required. These jobs can be scheduled to run on the WCS server at prescribed intervals. OBS also provides a scheduler if one is not available.

8.3 Warm Swap

The most popular backup and resilience solution is the Warm-swap, where another server PC is available to be used if necessary. The following sections outline the steps required to activate the backup WCS server in various possible situations.

8.3.1 With Current Database

When:

- Scheduled or unscheduled server maintenance
- Scheduled swap-over
- Non-intrusive hardware fault.

Steps:

- Ensure no users of WCS Maintenance are connected on to live or backup database.
- Ensure no remote desktop users are connected on to live or backup WCS Maintenance.
- Ensure all RDT users have logged off.
- Stop WCS Server on live machine.
- Copy the current WCS Database (and logging database, if present) to the backup machine?s database area.
- Contact OBS support to change the live WMS interface connectivity settings for the new WCS Server IP address.
- If you have external RDT Servers:
    - ♦ Change the file SERVER_IP.INI to point to the new WCS Server IP address.

- Start the WMS Interfaces.
- Start the WCS Server Process on new live server.
- Ensure the shares on any Satellite PC?s (RDT Servers or external users of WCS Maintenance) have their share information changes to point to the new WCS Server.

Note: Ensure that the WCS database on the old live server is no longer capable of connecting to the live WMS, or connectivity issues may occur. This can be achieved by re-naming the old WCS database to a new name, or blanking the WCS connectivity parameters in the database.

8.3.2 Without Current Database

When:

- Intrusive hardware fault

It is assumed that the WCS Server on current live machine is stopped.

Assumes a valid database (possibly from a regular copy or from initial installation) is available.

Steps

- Ensure no users of WCS Maintenance are connected on to backup database.
- Ensure no remote desktop users are connected on to backup WCS Maintenance.
- Ensure all RDT users have logged off.
- Contact OBS support to change the live WMS interface connectivity settings for the new WCS Server IP address, to put the WCS backup database in place and to clear down the transactional data in this new WCS database.

- If you have external RDT Servers:
    - ♦ Change the file SERVER_IP.INI to point to the new WCS Server IP address.

- Start the WMS Interfaces.
- Start the WCS Server Process on new live server.

- Re-send and re-set-up all standing data, if necessary. For details, see the WCS Set-up guide, referenced as item 8.4.3 in 8.4.3
- Re-send all transactional data from WMS (or manually complete all transactional data in WMS, then start fresh).

- Ensure the shares on any Satellite PC?s (RDT Servers or external users of WCS Maintenance) have their share information changes to point to the new WCS Server.

Note: Ensure that the WCS database on the old live server is no longer capable of connecting to the live WMS, or connectivity issues may occur. This can be achieved by re-naming the old WCS database to a new name, or blanking the WCS connectivity parameters in the database. Although this process assumes that the old WCS live server is not working, this should be noted for when the machine is recovered.

8.3.3 Without Any Database

Effectively, this is the same as the standard installation process (section 3). However, for completeness, a summary of the steps is shown below.

- Contact OBS support to change the live WMS interface connectivity settings for the new WCS Server IP address and to create and initialize the WCS database.
- If you have external RDT Servers:
    - ♦ Change the file SERVER_IP.INI to point to the new WCS Server IP address.
- Start the WMS Interfaces.
- Start the WCS Server Process on new live server.
- Send and set-up all standing data. For details, see the WCS Set-up guide, referenced as item 8.4.3 in 8.4.3
- Re-send all transactional data from WMS (or manually complete all transactional data in WMS, then start fresh).
- Ensure the shares on any Satellite PC?s (RDT Servers or external users of WCS Maintenance) have their share information changes to point to the new WCS Server.

Note: Ensure that the WCS database on the old live server is no longer capable of connecting to the live WMS, or connectivity issues may occur. This can be achieved by re-naming the old WCS database to a new name, or blanking the WCS connectivity parameters in the database. Although this process assumes that the old WCS live server is not working, this should be noted for when the machine is recovered.

8.4 Backup Scripts

OBS also provides scripts to backup the application and database - a discussion of these scripts follows.

8.4.1 WCS_Backup

This script backs up the WCS database to a defined area.

The script comes in two varieties:

1 - the parameters for the script are contained as constants within the script.

2 - the parameters for the script are obtained from the command line.

The parameters are:

drvDBPath: Original Database path (1st parameter)

drvBUPath: Backup database path (2nd parameter)

strBUname: Backup Database Name (3rd parameter)

8.4.2 WCS_App_Backup

This script backs up the WCS Application files.

This script backs up the WCS database to a defined area.

The script comes in two varieties:

1 - the parameters for the script are contained as constants within the script.

2 - the parameters for the script are obtained from the command line.

The parameters are:

drvAppPath: Original App path (1st parameter)

drvBUPath: Backup path (2nd parameter)

8.4.3 Instructions for use:

If the requirement is simply to back up to the same defined directory each time, the '1' scripts may be simpler to use - simply edit the constants at the top of the script and schedule for the time required.

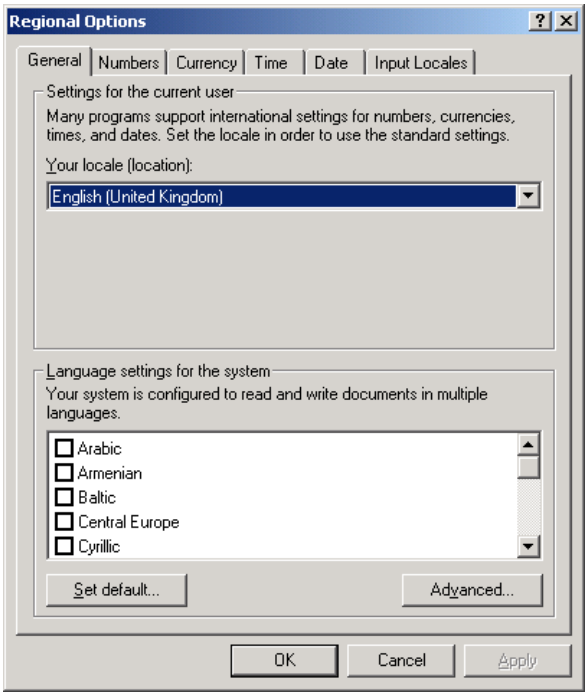
If the requirement is to back up to rolling directories, the '2' scripts are more applicable. Define the parameters for each script as per the schedule required. Alternatively, call the '2' scripts from another script or process which defines the required parameters.

When scheduling these scripts, the scheduled command is as follows:

"{full path}\{scriptname}" "{parm1}" "{parm2}" ...

9 Appendix A: Multi-Lingual RDT Support

The RDT application has the ability to display the screens in multiple languages. This is controlled by the regional settings on the RDT or WCS server.



Simply set the locale to the language you want.

For each language to be supported, a language file must be translated for the application, and the application recompiled for this language. OBS can provide a message file to be translated upon request.

The current languages supported are:

- English
- Turkish

10 Appendix B: Installer Contents

Installers:

1. Full WCS
2. WCS-Server
3. WCS Maintenance
4. RDT
5. DBUtils
6. VisData
7. Scheduler

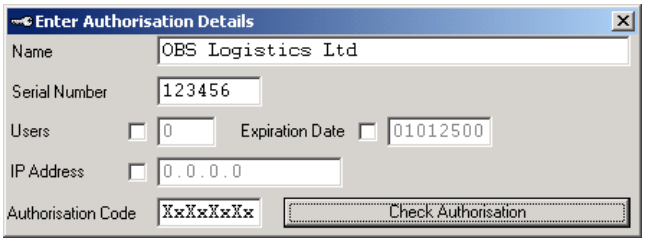
		Installer						
File	Location	1	2	3	4	5	6	7
Cleardown.exe	{}	Y		Y				
Compactor.exe	{}	Y						
DBUtils.exe	{}	Y	Y			Y		
Debug.exe	{}	Y			Y			
DoSQL.exe	{}	Y						
HowDoI2.hlp/cnt	{}	Y						
Initialise.exe	{}	Y	Y					
Rdt1.mdb	{}\database	Y	Y					
RDTMenu1.exe	{}	Y			Y			
RptAislesTaskTimes.exe	{}\bin\reports	Y		Y				
RptAislesTaskTimes.rpx	{}\bin\reports	Y		Y				
RptAislesWithPNDList.exe	{}\bin\reports	Y		Y				
RptAislesWithPNDList.rpx	{}\bin\reports	Y		Y				
RptEmpList.exe	{}\bin\reports	Y		Y				
RptEmpList.rpx	{}\bin\reports	Y		Y				
RptErrLog.exe	{}\bin\reports	Y		Y				
RptErrLog.rpx	{}\bin\reports	Y		Y				
RptExnsByDate.exe	{}\bin\reports	Y		Y				
RptExnsByDate.rpx	{}\bin\reports	Y		Y				
RptExnsByDateDS.rpx	{}\bin\reports	Y		Y				
RptExnsByEmp.exe	{}\bin\reports	Y		Y				
RptExnsByEmp.rpx	{}\bin\reports	Y		Y				
RptIncomingLog.exe	{}\bin\reports	Y		Y				
RptIncomingLog.rpx	{}\bin\reports	Y		Y				
RptLocnTruckTypes.exe	{}\bin\reports	Y		Y				
RptLocnTruckTypes.rpx	{}\bin\reports	Y		Y				
RptOutgoingLog.exe	{}\bin\reports	Y		Y				
RptOutgoingLog.rpx	{}\bin\reports	Y		Y				
RptPalletTypes.exe	{}\bin\reports	Y		Y				
RptPalletTypes.rpx	{}\bin\reports	Y		Y				
RptRDTActsByDate.exe	{}\bin\reports	Y		Y				
RptRDTActsByDate.rpx	{}\bin\reports	Y		Y				
RptRDTActsByDateDS.rpx	{}\bin\reports	Y		Y				
RptRDTActsByEmp.exe	{}\bin\reports	Y		Y				
RptRDTActsByEmp.rpx	{}\bin\reports	Y		Y				
ScheduleEdit	{}	Y						Y
Scheduler	{}	Y						Y
UpdateDB.exe	{}\database	Y	Y					
VisData.exe	{}						Y	
WCS.hlp	{}	Y	Y					

		Installer				
WCS_Async.exe	{}	Y	Y			
WCS_SCHED.hlp/cnt	{}	Y				Y
WCSM3.hlp/cnt	{}	Y		Y		
WCSMaintenance	{}	Y		Y		
WCS-Server	{}	Y	Y			
WCS-Server_log	{}	Y	Y			
WLEsque.dll	{System}	Y			Y	

Table 5 - Installer Contents Table

11 Appendix C: Authorising the WCS

Start the authorisation program (from *Start/Programs/WCS Utilities/WCS Authorisation*).



If you have been provided an authorisation code, this should be entered now. This can be achieved by using the program provided above.

When this program is started, it will display any authorisation codes already entered for the Server machine.

You should enter your provided authorisation code now. If any part of the code is invalid, you will be informed as you enter it.

If your code shows 0 users, un-check the Users checkbox - there is no limitation on the number of users.

If your code shows an IP address of 0.0.0.0, un-check the IP Address checkbox - there is no limitation on the machine the WCS can run on.

If your code shows an Expiration Date of 01012500, un-check the Expiration Date checkbox - there is no limitation on how long the WCS can be run.

When you have completed entering it, press the ?**Check Authorisation**? button. If any part of the code is invalid, you will be informed of all the problems here.

If the code is valid, the program will duly authorise the WCS for you.

Note: The Authorisation code may be valid, and the program may authorise for you. However, if the code has a limiting factor (for example, Expiration Date), the program will not highlight this, but the WCS will not start.

12 Appendix D: Installing Wavelink StudioCOM

This step must be followed if the PC is running RDT processes on the machine. In the case where multiple RDT servers are being used, the Wavelink programs must be installed and authorised on each RDT Server.

12.1 Install Wavelink

Start the Wavelink Installer package and follow the instructions.

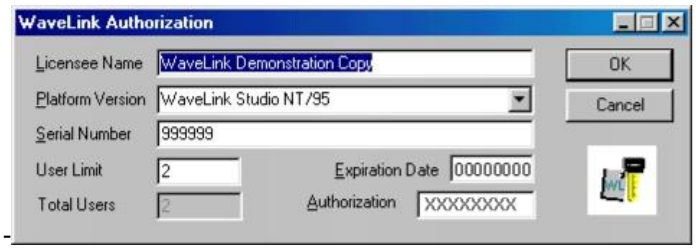
At the end of the installer, choose the option to start the Wavelink Administrator.

12.2 Authorise Wavelink

Full instructions on authorising Wavelink are included in the Wavelink on-line help. Below is an extract from the help:

1 Open the Administrator. 2 Select Authorization from the **Utilities** menu.

-The Authorization dialog box appears.



-

3 Make sure the name in the **Licensee Name** field contains the name of the organization licensing Wavelink Studio COM.

-If this name is incorrect, type the new name in the field.

4 Select an authorization version from the **Platform Version** list.

-There are three authorization versions available:

- **Wavelink Studio NT/95**. Select this version if you are installing Wavelink Studio for the first time.
- **Wavelink Studio User Pack**. Select this version if you are adding to your current Wavelink Studio user base.
- **Wavelink Studio Roaming 10-day User Pack**. Select this version if you are only temporarily adding to your current Wavelink Studio COM user base.

5 Type the serial number for your copy of Wavelink Studio COM in the **Serial Number** field. 6 Type the total number of authorized Wavelink Studio COM users in the **User Limit** field. 7 Type the authorization code in the **Authorization** field. 8 Type the expiration date for the authorization code in the **Expiration Date** field. 9 Click OK.

Note: Once you click OK, the Total Users field displays the total number of concurrent Wavelink Studio COM users your system supports.

Once the authorisation has been entered, the Wavelink programs are ready to use.

12.3 Check Services

Ensure that the Wavelink services have been added (on NT-based machines - 95-based machines will add to start-up items in the Start menu)

Ensure that the services are started. By default, the services will not have started, as they will not work without a valid authorisation code. To start the services either:

- Use the Services option of the Administrative tools on the Start menu;
- Re-boot the machine
- Start them manually by double-clicking on the Services themselves. They can be found (by default) at

```
C:\Program Files\Wavelink\StudioCOM\bin and are called WLServer.exe and WLStartup.exe.
```

The 2 services are called:

- WavelinkServer
- WavelinkStartupSrvc

12.4 Configure Wavelink

Complete instructions for configuring Wavelink are available in the on-line help on the Wavelink start menu group.

For our purposes, the set-up can be quite simple.

1. First, ensure Wavelink Administrator is started.
2. Click on *New Server Connection*.
3. From the popup window, choose to connect to the local host. If a popup box appears asking you to start the service, some of the previous steps have not been completed successfully. Check again.
4. If the connection is successful, the administrator should show a TCP/IP network item in the explorer.
5. In order to run RDT applications on Wavelink, a Wavelink Monitor must be set up. To do this, click the *?New Wavelink Monitor?* button on the toolbar, or choose the appropriate option from the *?Network Configuration?* menu. You will be shown a ?New Wavelink Monitor? wizard.
6. On the first screen, choose *?TCP/IP Network?* and then click the ?Next? button.
7. On the second screen, choose a port number for the monitor. This can be randomly chosen, but Wavelink suggests numbers for you. Normally 1000 or 2000 are good numbers to choose, but anything above 1000 and less than 30000 will probably be acceptable. Click the ?Next? button.
8. On the third screen, choose the application to be run using the browse button. You should choose the main RDT application RDTMenu1.exe. This is by default in the folder ?C:\Program Files\Warehouse Control Server?. Ensure that the ?Reset monitor upon server startup? option is checked. Click the ?Next? button.
9. On the final screen, you have an opportunity to enter Discovery Tokens for the monitor. These are for use when several Wavelink monitors are available on your network. In most normal situations, at least two will be enabled (a test server and a live server), so you should ensure you enter some recognisable (but short) text here.
10. A fuller explanation of Wavelink Discovery Tokens is available in the Wavelink online help.
11. Click the ?Finish? button. This will create the new monitor.

At this point, any RDTs loaded with the Wavelink client application will be able to choose the Wavelink monitor from a pop-up menu on the RDT when they connect. When they do, the RDT will then load the WCS RDT application. Instructions on how to load the Wavelink client are in the next appendix.

12.5 Optional Set-up

If the RDT/WCS server PC is set up so that the password changes rarely, a further modification to the Services can be done. This is to allow the PC to interact better with the services, and allow external users to stop rogue processes.

To do this, you need access to the Administrative tools section of the Settings Start menu item. The Services option should be chosen.

Once chosen, find the two services, named:

- WavelinkServer
- WavelinkStartupSrvc

For each of them, right-click on them and choose properties, or choose the appropriate option from the *?Action?* menu. A Properties screen should be displayed.

On this screen, click the *?Log On?* tab.

Choose the option *?Log on as this account?*.

Enter the required user-name and password in the appropriate boxes. The username should be set up as {workgroup}\{username}. Click the ?OK? button on this form.

Note: If you do not get this set-up correct, the Wavelink services will not start properly. If the password is changed, the

Wavelink services will not start properly. This will result in an inability to use the RDTs in the warehouse.

13 Appendix E: Installing Wavelink Client

In order to use the WCS on an RDT, the RDT must have the Wavelink client loaded onto it. This is achieved in many ways, depending on the type of unit.

13.1 DOS-based UNITS

This is achieved using the Wavelink Avalanche software. Full instructions on how to use this software are included with the software itself. However, the following is a reasonably simple list of instructions that should help guide you through the necessary steps to configure an RDT.

The first step is to load and configure Wavelink Avalanche.

1. Load Avalanche on the PC - simply follow the instructions in the installer, accepting any defaults.
2. Start the Avalanche Manager.
3. Start the Avalanche monitors/services (by clicking the green button).
4. Open out the file list part of the display so you can see 'Software Collections' and 'Network Profiles'.
5. Create new software collection by right-clicking on the appropriate item. Give it a meaningful name.
6. Choose *Software Management/Install Software Package* from the menu. Find your *.AVA file. The WCS installation CD contains the zip file for Symbol 3000-variant terminals - this is the recommended one for PDT68XX terminals.
7. Right-click on new file list item 'Symbol 3K' (if using the AVA file provided - if another is used, this text description will be different). Choose *Configure Package/Client* from the menu. Enter your Wavelink settings here, and use the File menu to save. The Wavelink settings entered here will consist of the Discovery settings set up in the previous section. Right click on the same item and choose 'Enable'.
8. Right-click on ?Network Profiles' and choose to create a new one. Give it a meaningful name.
9. Right-click on new network profile, and choose *Settings*. Set up your wireless and wired network settings here. Assign an IP address to the IP Address pool for each RDT you want using the system.
10. Right-click and choose *Enable profile.*
11. Right-click and choose *Set as Default Profile*.

Now that Avalanche has been prepared, each terminal must now be configured individually, by first loading the Avalanche client, then letting Avalanche configure the terminal automatically.

1. Plug your cable into the PC and comms cradle. Put the RDT in the cradle.
2. Boot the RDT into command mode (a list of common boot sequences for RDTs is provided in the Wavelink documentation), and choose *Program Loader*. Erase the current EPROM (What is on the terminal will be lost)
3. Choose *Tools/Download HEX files* from the menu.
4. Choose the hex file 'WLEnabler_S3K_DO_8B_1_63_00.hex' from the explorer window.
5. Set the RDT settings to those defaulted on the PC screen. Hit ENTER on the RDT unit. Click Download on the PC.
6. When finished, the RDT should display status '00'. If not, something has gone wrong - try again.
7. Once loaded, leave the unit in the cradle and cold-boot the terminal. Follow all instructions on the RDT and the Wavelink Studio client should be automatically installed for you.

A 3000 series mobile device is any Symbol mobile device which relies on a hex image for its initial software download. The actual model numbers are 1xxx, 3xxx, and 6xxx, where each x denotes a digit in the model number. Some example model numbers are 1040, 3840, and 6940.

To install the Enabler on a Series 3000 device:

1 Boot the mobile device into Command Mode, according to the directions in table 2.

Table 2: Command Mode Boot Sequences

Device Type	Command Mode Boot Sequence
46-key LRT 3840	Power off the mobile device.
46-key PDT 3140	Hold F+I.

Table 2: Command Mode Boot Sequences	
47-key PDT 3540 46-key PDT 6840 46-key PDT 6140	Press and release PWR. Release F+I.
54-key VRC 3940 54-key VRC 6940	Power off the mobile device. Hold A+D. Press and release ON/OFF. Release A+D.
35-key PDT 6140 35-key PDT 3140	Power off the mobile device. Hold BKSP+SHIFT. Press and release ON/OFF. Release BKSP+SHIFT.
27-key WSS 1040	Power off the mobile device. Hold FUNC+ENTER. Press and release PWR. Release FUNC+ENTER.

2 Use the up arrow and down arrow keys to select the Program loader function. 3 Place the mobile device in the cradle. 4 Press ENTER. The Program Loader screen appears.

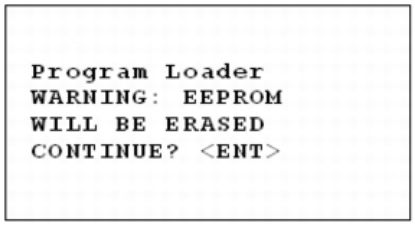


Figure 20. Program Loader EEPROM Erase

5 Press ENTER to erase the non-volatile memory. The Comm Parameters screen appears.

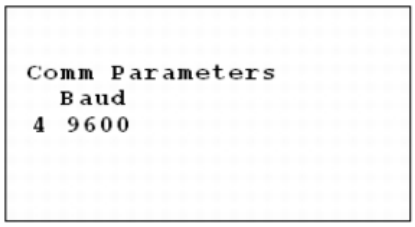


Figure 21. Program Loader Baud Parameter

6 Use the Up Arrow/Down Arrow to select the communication parameters. Press ENTER at the end of the selection to accept the parameters.

Table 3: Download Communication Parameters	
Parameter	**Value**
Baud	38400

Table 3: Download Communication Parameters	
Data Bits	8
Parity	None
Flow Control	None

The Comm Parameters screen appears.

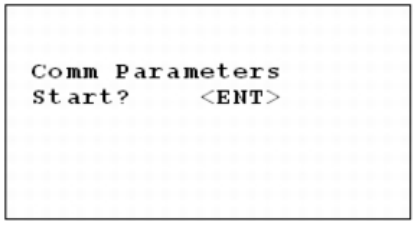


Figure 22. Program Loader - Comm Parameters

Note: If the cradle supports multiple mobile devices, prepare each in the same manner.

7 Press ENTER on the mobile device.

The Program Loader-Receiving screen appears and the mobile device is now ready to download the Enabler.

8 Verify that a COM port is available for use.

To check the status on a COM port, double-click the COM port in the Tree View and read the information that appears in the Status branch. The status for an available COM port is Listening.

If the Avalanche Manager Agent did not automatically detect the COM ports during the installation, see [../../../../../Program%20Files/Wavelink/Avalanche/Help/Configuring_Serial_Ports.html#wp1080508 Managing Serial Ports]before attempting a serial download.

Note: COM ports used by other software programs or hardware peripherals should be removed from the list of available serial ports.

Note: The Avalanche Manager Agent must reside on the system with the serial port connections. However, you can manage the Agent either from a local or remote Management Console. To manage the Agent from a remote console, you must connect to the Agent from the console using a routable IP address.

9 Download the Enabler using the HEX file download utility included with the Avalanche Manager. See [../../../../../Program%20Files/Wavelink/Avalanche/Help/Downloading_Hex_Files.html#wp1044776 Downloading Hex Files]for more instructions.

After the files have been downloaded, a 3000 Series device indicates a successful file transfer with status code 0000.

13.2 Windows Mobile/CE/PocketPC

This is achieved using the Microsoft ActiveSync software and a communications cradle for your RF unit.

First, the Wavelink Client ActiveSync installer should be available, either provided by OBS or downloaded from the Wavelink website.

Full instructions for installing and using the latest client are available from the Wavelink website. However, the following is a simplified extract of the document.

Note: Before you can install the client, verify that you are connected to the mobile device with Microsoft ActiveSync.

To install the Wavelink Client:

1 Place the mobile device in its docking cradle.

2 Download the correct installation file to your host computer.

The name of the file is wlc_s90_cenet_all_5<*xxxx*>_us_n_as.exe, where *xxxx* is the client version number.

This file is a self-extracting ZIP file that contains all the necessary files for the Wavelink Client.

3 Extract the ZIP file to a directory of your choice. Double-click the ZIP file to extract it.

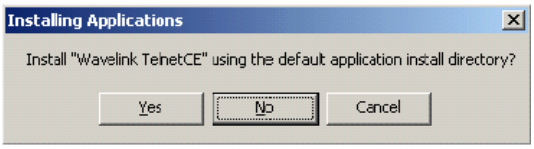
4 Within the extracted files, locate the file named wlc_s9k_soft_5xxxx_wce410_armv4_Install.exe.

5 Double-click the specified file.

A *Welcome* dialog box appears, introducing you to the Wavelink Client installation process.

6 Click Next.

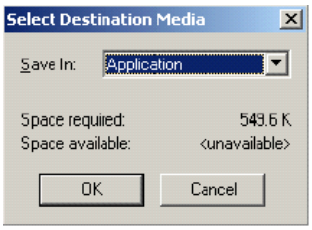
The setup program installs the Wavelink Client to the desktop. A message box appears (Figure 1) asking whether you want to install the client to the default application install directory.



7 Click **No**.

Note: If you click **Yes** in this dialog box, you can immediately install the Wavelink Client, but the client will not persist on the device after the next cold boot.

After you click **No**, the Select Destination Media dialog box appears, as shown in Figure 2.



8 Select Application from the **Save In** drop-down list.

9 Click OK.

Microsoft ActiveSync automatically begins to download the Wavelink Client to the device. After the download is complete, a dialog box appears, requesting that you check your mobile device to see whether additional steps are necessary to install the Wavelink Client.

10 On the mobile device, perform any additional installation steps, if required.

11 In ActiveSync, click OK to complete the download process.

The *Setup Complete* dialog box appears.

12 In ActiveSync, click **Finish** to complete the installation process.

14 Appendix F: Start Menu Shortcut tables

Menu Item	Program
WCS Server	wcs-server.exe
WCS Server (Full Logging)	wcs-server_log.exe
WCS Help	WCS.HLP
WCS Maintenance	WCSmaintenance.exe
WCS Maintenance Help	WCSM3.HLP
Scheduler	ScheduleEdit.exe
Scheduler Help	WCS_SCHED.HLP
How Do I... Help	HOWDOI2.HLP

Menu Item	Program
Database Utilities	DBUtils.exe
RDT Debug Process	Debug.exe
Update Database	UpdateDB.exe
Compact Database	Compactor.exe
Initialise Database	Initialise.exe
WCS Authorisation	WCSAuthorisation.exe
VisData	VisData.exe
Help	Help.txt

15 Appendix G: Using Debug RDT system

The WCS comes with a testing tool that allows you to run RDT users from your PC, rather than changing the configuration of the RDTs themselves. This program is called Debug, and can be found on the WCS Utilities Start menu group.

15.1 Running the Debug process

First, ensure that the Debug option is installed on your PC.

Start the Debug process (using the Start menu option *?RDT Debug Process?* on the ?WCS Utilities? group).

You will be shown a dialogue box, asking you to select an RDT. All RDTs have an in-build RDT Code. For normal RDTs, that would be the IP Address. This feature allows you to emulate this by entering IP addresses here. Alternatively, you can enter any unique reference you like.

RDT Codes you have entered before will be available, along with any settings you have set up for them.

Once you have entered or chosen an RDT, you will be shown a settings screen, containing the following elements:

- Screen Size - the most common screen sizes are set up for you here in an option box. Simply select the one you want. 21*16 is the most common RDT screen size.
- Colours - this allows you to choose the foreground and background colours the debug process uses to render the RDT screen window.
- Font Size - defines the ultimate size of the window by allowing you to change the size of the fixed-width font used to display the RDT screen. Font size 18 gives you a very readable window.

Once you have set up the process how you like it, click OK. All settings will be saved against the RDT code you selected earlier.

15.2 Using the Debug process

The debug process can now be used much like an RDT. However, you do not have a scanner attached to the device. The Debug process allows you to emulate a scanner using the menu item labelled initially as *?Keyboard?*

This option changes your entry-mode from keyboard to scanner emulation. Choose the barcode type you require from the expandable menu. When you next key in data, it will be as if you scanned the items instead.

You can switch between keyboard and scanner emulation by pressing CTRL-K at any time. You can change the emulated barcode type at any time by selecting a different code type from the menu. Pressing CTRL-K without picking a barcode type will do nothing.

The debug process displays errors and message boxes in a pop-up box on the PC screen. This is simply to allow the process to pause at this point. Boxes can be cleared by pressing Escape or Enter or clicking the OK button on the pop-up box.

You can?t exit the Debug process by closing the PC window - you must exit the application normally, exiting from the main menu by pressing the Escape key, followed by the Enter key. In the RDT Debug application, the Escape key is the equivalent of the Clear key on an RDT.

Further documentation about the exact functions available in the OBS RDT Application is available elsewhere, referenced as item 8.4.3 in 8.4.3

15.3 Advanced Options

The Debug process can be used remotely, in the same way that RDT processes can be installed remotely (see section 5). The file ?SERVER_IP.INI? must be modified to contain the WCS Server?s IP address and WCS-RDT port number. This port number can be found through WCS Maintenance from the ?System Settings? option, or alternatively through the Initialise Database application.

The file should have contents similar to the following:

?127.0.0.1?

?15002?

The first item in the file should be the WCS Server PC?s IP address.

The second item should be the WCS-RDT port number.

16 Appendix H: Other Options

16.1 Scheduler

Some processes are available in the WCS for Scheduling. As certain versions of Windows have easily usable scheduler, or was written. The installer is available on the disk, along with the help required to use it. Scheduler is also installed as part of the Full WCS Installation.

Schedulable items are:

- Compactor - requests the WCS Server to compact the database. This can only occur if the WCS Server has exclusive access to the WCS database. If there are Maintenance users connected to the WCS database, the database will not be compacted.
- Cleardown - starts a process to clear historical data from the WCS. This can be started with many parameters. However, if Maintenance is installed on the PC, the item can use the settings set up from there.

16.2 DBUtils

This is a data manipulation utility, allowing OBS to manipulate the data directly on the database. This tool should not be used unless trained in its use. There is a separate installer for DBUtils on the installation disk.

Note: WCSS and Full WCS installers all install the DBUtils application. Although set-up of each individual user can stop the use of this process through the Maintenance application, there is no way to stop the users simply clicking on the application itself. If this is seen as a security risk, DBUtils should be removed from the application directory, the default for this being ?C:\Program Files\Warehouse Control Server?.

If a WCS Maintenance user requires access to DBUtils from Maintenance, simply install the program using the appropriate installation program.

16.3 VisData

VisData is a sophisticated database management utility. It is for support only. It may be installed on the WCS Server machine only, for OBS support purposes. As a support tool, VisData is being modified constantly to provide us with more tools to help support you. The installer is included here in the event that this program is required.

17 Appendix I: Upgrade Install Package

17.1 Installation and Setup Instructions

The following are instructions on the set-up of the Semi-Automatic Upgrade Install package.

1 Create a directory under the WCS Database area (\\{server}\WCSDB$ or {Install Directory}\Database), called Upgrades. 2 Extract the files in the zip here. 3 Copy the file UpdateDB.exe to the WCS Database area. 4 Edit the Install.DAT file so that the logical areas point to the right place on the machine:

-Upgrade- the directory created above.

-WCSDB- {Install Directory}\Database

-WCSAPP- {Install Directory}

-WCSRPT- {Install Directory}\bin\Reports

-WCSRDT- {Install Directory}

5 Create a shortcut (or change the provided one) for WCS_Upgrade_Rollback. This should point to the WCS_Upgrade_Install VB script, and should start in the same directory. 6 Ensure that there are NO zip files in this directory, other than those that you want installing by the script.

17.2 Sample Install.DAT File

```
Upgrade=C:\Program Files\Warehouse Control Server\Database\Upgrades
WCSDB=C:\Program Files\Warehouse Control Server\Database\
WCSAPP=C:\Program Files\Warehouse Control Server\
WCSRPT=C:\Program Files\Warehouse Control Server\Bin\Reports\
WCSRDT=C:\Program Files\Warehouse Control Server\
```

This can be extended with several WCSRDT entries, to support multiple RDT servers, if necessary.

18 INTRODUCTION

This document is intended to show the further set-up possibilities on the WCS. This guide should be used by super-users and testing teams during initial set-up. An alphabetical list of all rules and their values is also included.

This document assumes that the installation has taken place (as described in the document WCS Installation Guide) and that set-up has occurred and a connection established in the WMS.

Note: A familiarity is required of the use of the WMS with respect to the WCS (as described in the document RDT Training Guide WMS), as well as a reasonable knowledge of the WCS Maintenance functions (as described in the document WCS Maintenance User Guide). See References for more details of the referred documents

19 Data sent from WMS

There are several tables on the WCS that are used to control basic functions. As this data is available on the WMS as well, drip-feed interfaces have been enabled to send this data from the WMS to the WCS. The following section describes which of these tables are set up like this, and for what purpose the information in used.

19.1 Reason Codes

Reason codes are sent from the WMS to the WCS from a maintenance screen in the WMS. Instructions on how to do this and what is sent are in the WMS Training guide

Reason codes are used in a variety of places in the RDT application, for example when picks are cancelled or short-picked, or damaged or additional pallets are received.

The data stored on the WCS is simply the Reason code itself, along with which company and warehouse the codes are associated.

The data stored on the WCS can be seen by running the Reason Codes Enquiry from the Standing Data menu.

19.2 Pallet Types

Pallet types are sent from the WMS to the WCS from a maintenance screen in the WMS. Instructions on how to do this and what is sent are in the WMS Training guide

Pallet Types are used mainly when entering the details of pallets, for example in goods receipt. Normally, however, the pallet type can be left blank, as the WMS will default the pallet type to that normally received for the stock.

The data stored on the WCS is simply the pallet type itself, along with which company and warehouse the types are associated.

The data stored on the WCS can be seen by running the Pallet Types Enquiry from the Standing Data menu. If a more permanent copy is required, a report can be run from the Reports menu (Pallet Types List)

19.3 Truck Types

Truck Types are sent from the WMS to the WCS from a maintenance screen in the WMS. Instructions on how to do this and what is sent are in the WMS Training guide

Truck Types are used when logging on to the WCS. The type used defines in which areas the driver is allowed.

The data stored on the WCS is simply the truck type itself, along with which company the trucks are associated and whether the truck type is considered intrinsically safe.

The data stored on the WCS can be seen by running the Truck Type Enquiry from the Standing Data menu.

19.4 Location Types/Truck Types

Location types/Truck types are sent from the WMS to the WCS from a maintenance screen in the WMS. Instructions on how to do this and what is sent are in the WMS Training guide

Location types (and their associated truck types) are used in nearly every enquiry in the WCS. Every task, to move a pallet from one point to another, defines which location type the associated location is. The data received from the WMS defines which truck types are allowed access to that particular location. This, coupled with the truck type the RDT user enters at log-on, defines where exactly that user is allowed to operate.

The data stored on the WCS is the location type, with all associated truck types, along with which company and warehouse the types are associated.

The data stored on the WCS can be checked by running the Location Truck Type Checker from the Standing Data menu. This is used by entering the location types you want to check in the appropriate combo boxes in the form, the clicking the 'Check' button. The form will show you all the trucks associated with each location types, and which trucks have access to both.

If a permanent copy of the data is required, a report can be run from the Reports menu (Location Type/Truck Types List).

19.5 Receipt Types

Receipt Types are sent from the WMS to the WCS from a maintenance screen in the WMS. Instructions on how to do this and what is sent are in the WMS Training guide

Receipt types are used only in the goods receipt RDT module, and only if they have been enabled. This allows RDT users to define the receipt type that will be passed back and stored on the WMS.

The data stored on the WCS is simply the receipt type itself, along with which company and warehouse the codes are associated.

The data stored on the WCS can be seen by running the Receipt Types Enquiry from the Standing Data menu.

19.6 Employees

Employees (Users) are sent from the WMS to the WCS from a maintenance screen in the WMS. Instructions on how to do this and what is sent are in the WMS Training guide

Employees are used mainly at log-on on the RDT. They can also be used to authorise events on the RDT, if required. The entered employees are stamped as completing their tasks, and this information is stored on the WMS for analysis later.

The data stored on the WCS consists of elements passed from the WMS and also elements that the WCS requires itself.

The Employees will be set up when received as follows:

- Company Code - from WMS
- Warehouse Id - from WMS
- Employee Code - from WMS
- Employee Name - from WMS
- Password - None
- Access Type - RDT
- Group - None

Additionally, one row in this table is created during the initialisation procedure of the database (the user initial admin user ADM is created). This can be seen in the WCS Installation Guide

The data stored on the WCS can be seen by running the Users Maintenance screen from the Standing Data menu. If a more permanent copy is required, a report can be run from the Reports menu (Employees List)

See section 4.1 for details of how to further configure the Employees table.

19.7 Aisles

Aisle codes are sent from the WMS to the WCS from a validation process in the WMS. This depends on some very specific system set-up in both the WMS and WCS. However, if this happens, the aisle data is set up as follows:

- Aisle Code - from the WMS tables.
- Availability - Y, N or P
- Company code and Warehouse ID.

Aisle codes are used for two main reasons in the WCS:

- To give the closest next task to an operative
- To allow or disallow putaway in certain aisles.

The data sent automatically above accounts for the operation of the second piece of functionality. Other items on the WCS Aisles table control the first piece.

Apart from these parameters, there is also the option to send over extra aisle information if needed from the Aisles Maintenance screen.

This extra information is as follows:

- Aisle Sequence Code
- Linked Aisle Code, Locs In Aisle and High End Access
- PD Out Location, Type, Check Digits and Max Pallets
- PD In Location, Type, Check Digits and Max Pallets

The data stored on the WCS can be seen by running the Aisles Maintenance screen from the Standing Data menu. If a more permanent copy is required, a report can be run from the Reports menu (Aisles/P&D List). This report, however, links more closely into the further configuration of aisles utilising P&D locations (see sections 3.5 and 4.2)

See section 4.2 for details of how to further configure the Aisles table.

19.8 Stock Parameters and Barcodes

Stock configuration and barcode information is sent from the WMS to the WCS from the stock maintenance screen in the WMS and from EDI.

When stock codes are added or changed and updated, the messages are sent to the WCS. These are not visible within the WCS Maintenance program.

The data sent includes validation items and barcode information, as follows:

Item	Type	Length	Description
Owner Code	Text	3	Owner Code
Stock Code	Text	20	Stock Code
Description	Text	40	Description, for display
Standard Pallet Qty	Long Integer	4	For validation in Goods Receipt and Stock Take
Layer Qty	Long Integer	4	For layer quantity entry in Goods Receipt
Shelf Life	Long Integer	4	For validation of sell-by dates in Goods Receipt and Stock Take
Manu Date Required	Text	1	Whether the stock requires Manufacture dates to be entered. Used in Goods Receipt and Stock Take.
Sell By Date Required	Text	1	Whether the stock requires Sell-by dates to be entered. Used in Goods Receipt and Stock Take.
	Text	1	

Item	Type	Length	Description
Cust Batch Required			Whether the stock requires Customer Batches to be entered. Used in Goods Receipt and Stock Take.
Seals Required	Text	1	Whether the stock requires a seal to be entered at Goods Receipt. (Bespoke. Oracle Only.)
Hazardous	Text	1	Whether the stock is hazardous. Used in Shipment Pallet functionality. (Bespoke. Oracle Only.)
Chill	Text	1	Whether the stock is chill. Used in Shipment Pallet functionality. (Bespoke. Oracle Only.)
Factor_1_2	Long Integer	4	The factor used by WMS to determine the number of units in a case, usually. Used for Multi UOM functionality. (C-ISAM only)
Factor_2_3	Long Integer	4	The factor used by WMS to determine the number of cases on a pallet, usually. Used for Multi UOM functionality. (C-ISAM only)
Description 2	Text	30	Second description line, for display
Pack Size	Text	10	Pack Size, for display

The barcode information is used to determine the elements within a barcode that can be scanned for identification of the stock code. This is usually EAN codes and UCC-EAN codes. When set up in the WMS, this information is sent through to the WCS.

20 WCS Internal Data

Further information is required by the WCS to run. This data is not available from the WMS and must be set up on the WCS itself. This section shows the data that needs to be entered directly.

In all these cases, further details on how to use this screen can be found in the WCSM Users Guide, referenced in 4.2

20.1 Groups

This table is used to configure the options individual users can have when accessing RDT or Maintenance functions.

One row in this table is created during the initialisation procedure of the database (the group ADM is created when the initial admin user is created). This can be seen in the WCS Installation Guide

The data can be seen and modified from the Groups Maintenance screen, found on the Standing Data menu.

Users are partially maintained by the WMS, sending data records when an employee is added or deleted. You can add system settings to a user, using the Group ID reference field. This links to records you can maintain in this screen.

The group contains switches to show which users are allowed to use which functions. As such, the screen allows you to enter a unique group id, and a description of the group. You are then given a list of all available functions on the WCS and RDTs. Simply click which functions you require from one list to the other.

The RDT items that can be set up (and their descriptions) are:

Name	Description
Enable RDT Receipt	Allow Blind (Stock level) and Check (Pallet level) Goods Receipt.
Enable RDT Putaway	Allow Full-Pallet Putaway.
Enable RDT Pallet Move	Allow the user to complete Full-Pallet Movements generated from the WMS.
Enable RDT Ad Hoc Move	Allow instigation of a housekeeping Move from the RDT.
Enable RDT Picking	Allow the user to complete Full-pallet Picks.
Enable RDT Part Picking	Allow the user to complete Case and Unit picks from the RDT.
Enable RDT Stock Take	Allow Full (Blind) and Partial (Check) Stock Check.
Enable RDT Bulk PI	Allow Perpetual Inventory (ad hoc stock check).
Enable RDT Shipment Pallet Building	Allow Shipment Pallet Building. Bespoke.
Enable RDT Shipment Pallet Despatch	Allow Shipment Pallet Despatch. Bespoke.
Enable RDT Shipment Pallet Moves	Allow Shipment Pallet Moves. Bespoke.
Enable RDT Pallet Enquiry	Allow the RDT user to enquire on the contents of a pallet from the WMS.
Enable RDT Location Enquiry	Allow the RDT user to enquire on the contents of a location from the WMS.
Enable RDT Move Enquiry	Allow the RDT to see where a pallet is going.
Enable RDT Move Select	Allow cherry-picking of an individual Move task.
Enable RDT Select Replenishment	Allow Select Replenishment. Bespoke.
Enable RDT Replenishment	Allow completion (and/or generation) of a Replenishment. Bespoke.
Enable RDT Stock Move	Allow Stock Moves (request replenishment of pick face). Bespoke.
Enable RDT Ad Hoc Putaway	Allow Ad Hoc Putaway for shelving locations. Bespoke.
Enable RDT Receipt Serial No Scanning	Allow entering serial numbers for received items. Bespoke.
Enable RDT Despatch Serial No Scanning	Allow entering serial numbers for picked items. Bespoke.
Enable RDT Loading	Allow Loading ojnto a vehicle.
Enable RDT Reject Spur	

Name	Description
	Allow Reject Spur Processing. Bespoke to automated conveyor and P&D systems. Bespoke.
Enable RDT Cherry Picking	Choose an order to pick from
Enable RDT Combined Split	Bespoke: Ad hoc movements of small quantities of stock to other locations
Enable RDT Stock Enquiry	Bespoke: Enquire on Stock code
Enable RDT Mail	Allow receipt of messages from Maintenance administrators. (Generally, this should always be enabled).
Enable RDT Reposition	Allow a task to be repositioned to a different destination location.
Enable RDT Cancellation	Allow Moves and Picks to be cancelled, causing the reversion of data on the WMS.
Enable RDT Damages	Allow Damage quantity entry during Goods Receipt.
Enable RDT Receive Additional Pallets	Allow receipt of extra pallets in Check Goods Receipt.
Enable RDT Pick Location Error	Allow a Pick to be cancelled at the initial location stage (for example, if the pick face is unavailable).
Enable RDT Continuous Part Picking	Is this module enabled by default for RDT users?
Enable RDT DC Aisles	when using Dual Cycling (Interleaving) in Narrow Aisles, allow RDT user to select range of aisles to operate in.
Enable RDT Marshall	Not Yet Implemented.
User Select Pick Location	Is the user allowed to specify the location from which picking to start?
Enable RDT Deconsolidation	Allow deconsolidation of consolidated orders.
Enable RDT Despatch	Allow despatch of deconsolidated orders.
Enable RDT Weighing	Allow the RDT user to Weight Shipment Packages.
Enable RDT Daily Cycle Check	The Daily Cycle Check functionality will be available to the users if this rule is enabled
Enable RDT Part Replenishments	Allow completion of Part Replenishment tasks
Trolley IDs	Allow loading of orders into trolleys
Pre-Receipt Sort (Bespoke)	Allow Pre-Receipt Sortation (Bespoke)
Blind Receipt (Bespoke)	Allow pallets to be received and putaway at the same time (Bespoke)
Blind Return (Bespoke)	Allow pallets to be returned and putaway at the same time (Bespoke)
Enable RDT Stock Adjustment	Enable RDT users to perform Adhoc adjustments (ORA Only)
Ad Hoc Stock Move	Allow Ad Hoc Stock Movements via RF
Enable Stock Transfers	Allow completion of Stock Transfer tasks
Enable Packing	Allow the RDT user to pack orders
Enable Stock Putaway	Allow the RDT user to Stock Putaway
Ad Hoc Location Move	Allow Ad Hoc Location Movements via RF
Update CPID	Allow the user to update the customer pallet id value. Bespoke
Picking Container Adjustment	Allow the user to adjust Picking Containers. Bespoke

The Admin items that can be set up (and their descriptions) are:

Name	Description
Enable Admin Change Warehouse	Allows the user to change the default warehouse they can see
Enable Admin Comms	Allows the user full access to the RDT Comms menu. If this is enabled, the following option need not be.
Enable Admin Comms Enquiry	Allows the user Enquiry-only access to the top 2 items on the RDT Comms menu.
Enable Admin Logs	Allows the user access to the Logs Enquiry screens in the System Tools menu
Enable Admin Report	Allows the user access to the Reports menu
Enable Admin Settings System	Allows the user access to the System Settings option on the System Tools menu. NOTE: This option should only be enabled for super-users, and even then should only be enabled sparingly.
Enable Admin Standing Data	Allows the user full access to all items on the Standing Data menu. If this is enabled, the following option need not be. NOTE: This option will allow users to see other users' passwords, and should therefore be limited only to those users who require it.
	Allows the user access to the Enquiry screens only on the Standing Data menu

Name	Description
Enable Admin Standing Data Enquiry	
Enable Admin Task Edit	Allows the user full access to all the screens on the Tasks menu. If this is enabled, the following option need not be.
Enable Admin Task Enquiry	Allows the user access to all the screens on the Tasks menu, but for enquiry purposes only.
Enable Admin Utilities Clear Out	Allows the user access to the Clear-Out options on the System Tools menu. NOTE: This should only be available for super-users.
Enable Admin Utilities DB Utils	Allows the user access to the Database Utilities options on the System Tools menu (this is currently being phased out).
Enable Admin Utilities Repair and Compact	Allows the user access to the Compact Database option on the System Tools menu.
OBS Menu	Controls access to the OBS Support Menu

20.2 System Parameters

The values in this table are created during the initialisation procedure of the database. This can be seen in the WCS Installation Guide

Configuration items are grouped into 4 sections. Each is described in detail in the following sections.

20.2.1 Rules

20.2.1.1 WCS Settings

This allows you to modify the communication settings of the WCS, plus settings which directly affect how the system communicates.

Note 1: Changing these settings may affect the running of the WCS server. If you are not sure of the consequences of your actions, telephone the support team.

Note 2: These settings will be enabled during system configuration and in normal circumstances should never be changed. Changes to WCS configuration settings will not take place until after the next stop and start of the WCS Server process.

Settings common to both connection systems (C-ISAM and Oracle) that may be modified are:

Name	Description
Default Company Code	This is the default company code that the RDT will log on to.
Delete Records	When this option is checked, completed tasks are deleted from the WCS database. All logging is still in place. When un-checked, the completed tasks are marked for deletion by the cleardown process.
Enable Hold Priority	This allows the lowest priority in the WCS to be used as a Held status. When this option is checked, and tasks on priority 9 will not be allocated to RDTs to complete. To release the tasks, re-prioritise the task to a higher level.
RDT Wait Time	This is the amount of time that the RDT will wait before re-trying communications.
Window Caption	This field changes the displayed name of the WCS Server process, when running. This is useful when running multiple systems on one site or one server.
RDT_WCS LocalPort	This is the port that the WCS listens to for communications from RDTs.
Log Path	WCS Logging database - When this option is checked, you will be prompted to enter a location for the logging database. THIS OPTION MUST NOT BE CHANGED IF THE WCS SERVER IS RUNNING. When this is done, the logging files in the normal database are no longer used - a new database will be created in the defined area and the WCS server will begin all logging to this database instead. All options in the WCS that use these logging files will now use the new database instead. The logging files are: Error log;

Name	Description
	Incoming log; Outgoing log; RDT Activities and; Exceptions.
WMS System	Version of WMS that the WCS is connecting to.

If the system is connecting using socket connections, the following details can be modified:

Name	Description
WMS HostName	This is the IP address or host/DNS name of the WMS machine.
WMS_WCS LocalPort	This is the port that the WCS listens to for communications from the WMS.
WCS_WMS RemotePort	This is the port that the WMS listens to for communications from the WCS.
WMS to WCS Try Limit	This is the amount of times the WCS will try to send a message to the WMS, if the message has been refused, before logging the error and trying the next.
Use Dummy Checksum	Used to terminate the interface messages with a dummy checksum value (??)
Connection Logging	Level of logging for System Connections (OBS USE ONLY)

If the system being linked to is using Oracle Advanced Queues, the following options will be available:

Name	Description
Ora Database	The database the WCS connects to for the messages.
Ora User	The username for the connection to the Oracle database
Ora Password	The password of the user for the connection to the Oracle database.
Ora Incoming Queue Name	The Oracle queue on which Incoming messages are stored. Outgoing messages are stored by messages type on the queues defined in the table ORA Type Queues.
Queue Listener Agent	The Oracle agent defines which messages to take from the Oracle database queues, and what Agent to write them as. Each instance of the WCS has a unique Agent name, usually per warehouse.
Ora Priority Incoming Queue	The Oracle queue on which high priority messages are stored.

There are also settings for links to an FTP Server. This is a bespoke modification, for the connection to a batch delivery system. The settings are:

Name	Description
Flat File FTP Server	Bespoke: The server where flat files are sent.
Flat File FTP User	Bespoke: The user for logging into the FTP server.
Flat File FTP Password	Bespoke: The password for logging into the FTP server.
Flat File FTP Location	Bespoke: The location where files are to be found on the FTP server.
Flat File Location	Bespoke: The location where files are to be located on the FTP server.

There are also settings for the RDT client. These settings are:

Name	Description
RDT Wait Time	This is the amount of time that the RDT application will wait before re-trying communications to the WCS.
RDT Box Drawing	What style of box-drawing the RDT's connected to this WCS will use.
RDT Logging	Whether the RDT's connected to this system log messages sent to and received from the server, for diagnostic purposes.
RDT Non Fatal Retry Count	When the RDT application encounters a non-fatal Wavelink error this number specifies how many times it will retry before bombing out. A value set too low could result in application failures where they would normally be recoverable. CHANGE WITH CAUTION.

20.2.1.2 Admin Defaults

If a user hasn't been assigned a Group, they have access to Admin functions in the way set up here.

The Admin items that can be set up (and their descriptions) are:

Name	Description
Enable Admin Change Warehouse	Allows the user to change the default warehouse they can see
Enable Admin Comms	Allows the user full access to the RDT Comms menu. If this is enabled, the following option need not be.
Enable Admin Comms Enquiry	Allows the user Enquiry-only access to the top 2 items on the RDT Comms menu.
Enable Admin Logs	Allows the user access to the Logs Enquiry screens in the System Tools menu
Enable Admin Report	Allows the user access to the Reports menu
Enable Admin Settings System	Allows the user access to the System Settings option on the System Tools menu. NOTE: This option should only be enabled for super-users, and even then should only be enabled sparingly.
Enable Admin Standing Data	Allows the user full access to all items on the Standing Data menu. If this is enabled, the following option need not be. NOTE: This option will allow users to see other users's passwords, and should therefore be limited only to those users who require it.
Enable Admin Standing Data Enquiry	Allows the user access to the Enquiry screens only on the Standing Data menu
Enable Admin Task Edit	Allows the user full access to all the screens on the Tasks menu. If this is enabled, the following option need not be.
Enable Admin Task Enquiry	Allows the user access to all the screens on the Tasks menu, but for enquiry purposes only.
Enable Admin Utilities Clear Out	Allows the user access to the Clear-Out options on the System Tools menu. NOTE: This should only be available for super-users.
Enable Admin Utilities DB Utils	Allows the user access to the Database Utilities options on the System Tools menu (this is currently being phased out).
Enable Admin Utilities Repair and Compact	Allows the user access to the Compact Database option on the System Tools menu.
OBS Menu	Controls access to the OBS Support Menu

20.2.2 Bespoke

This is bespoke functionality and should only be enabled by your Aptean system implementation team.

Name	Description
Regroup Order by Stock	Allow WCS Maintenance users to re-group an order's picks by the number of stock picks on the order, then by location.
Dummy Loc Enq Location	Controls whether the WCS sends a dummy location enquiry to the WMS
Dummy Loc Enq Duration	Sets the duration of time in minutes without a message before a dummy location enquiry is sent to the WMS. Default is 30 min.
Dummy Loc Timer Duration	Sets the duration of time for the dummy location check in minutes. Default is every 2 min.
Dummy Loc Trigger	Controls the trigger checks of the dummy location enquiry to the WMS. Default is Incoming only.
Priority Change Audit	Controls whether an Exceptions record is created to capture when a user changes the priority of a task

20.2.3 Message Types

This tab allows the user to maintain remote queue names for connection to the Oracle WMS. These are not required if the user is running the WCS connected to the C-ISAM WMS.

20.2.4 Maintenance Settings

This tab controls settings that affect the operation of the WCS Maintenance program directly.

Name	Description
Default Criteria Templates Folder	This is the folder where criteria files for the selection of data in certain screens are held. More details on these reprioritisation screens can be found in the WCSM User Guide
Default Report Files Folder	This is the folder where the reports run from the Maintenance program are held. These can be local or remote.

Name	Description
Default Reports Folder	This is the default folder where the output from reports (if requested) is saved.
Recent Files	This is a simple list of the databases opened recently. A button (Clear List) can be clicked to remove all these files from the list.
Show File List at Startup	This controls whether the file list is shown on start-up, or a simple file browser.

20.2.5 Clear Down

These parameters control how data is cleared from the WCS database.

Name	Description
Location of Log Files	This specifies where the log archive is kept. The Log archive is the area where cleared data is stored.
Clear Database	If checked, any data older than the period entered is removed from the current database and placed in a new archive database.
Clear Log Archive	If checked, and log archives stored are deleted if they are older than the period specified.
Clear Exceptions	If checked, any exceptions older than the period specified is removed from the current database and placed in a new archive database.
Clear Activities	If checked, any Activities records older than the period specified is removed from the current database and placed in a new archive database.
Clear Deleted Records	If checked, any records marked for deletion older than the period specified are removed from the current database and placed in a new archive database. See section 3.2.1.1 for details of how data can be marked for deletion.
Clear Incoming Log / Outgoing Log /Clear Error Log	If checked, any interface log records older than the period specified are removed from the current database and placed in a new archive database.

These settings should be enabled on the WCS Server PC only, as this is the place where any scheduled cleardown procedure would be run from.

20.3 Warehouses

The values in this table are created during the initialisation procedure of the database. This can be seen in the WCS Installation Guide

Note: The values in this section govern how the WCS Server and RDT processes work. Generally, these items have been set up for you in the way that is most conducive to the way you operate in the warehouse. These values should not be changed unless you know how these will change the way the system operates. Changing the values may not have an immediate effect on the operation of the WCS. The safest way to change parameters is to log out all RDTs, the stop the WCS Server before making the changes.

Barcode configuration for the warehouse is available from a button on the form. Configuration items are grouped into seven sections. Each of the above is described in detail in the following sections.

20.3.1 General

This tab controls the basic operation of the warehouse selected.

Name	Description
Action Password	The password required when RDT functions are password-protected
Aisle Length	The length of the Aisle portion of the Location code.
Bay Length	The length of the Bay portion of the Location code
Level Length	The length of the Level portion of the Location code.
Task Identifier	How the RDT identifies pallets in the warehouse. Normally, this would be set to 'By System Pallet'.
Check Digits?	Whether and how check digits are used on the locations in the warehouse.

Name	Description
Move Efficient	How tasks are assigned to RDT users. This defaults to 'By Priority' and may only be altered if no stock or pallet ID's are used in the pick face.
Block Stack	Whether pallet exchanges operate in the warehouse. Should only be enabled if the warehouse contains Block Stack, Drive-in or Multi-deep locations.
Exchange Replen	If the Warehouse is Block Stack, allow Replens to be exchanged as well. NOTE: This should only be enabled if no stock or pallet ID's are used in the pick face.
Allow Task Exchange	WCS checks for outstanding tasks to give to the user before asking WMS whether the pallet is available for exchange
Seamless Exchange	If this rule is set, the RDT will check whether an exchange can be done immediately, without requiring the user to press the Error function key first.
Mixed Stock	whether pallets are allowed to have mixed stock on them in the warehouse.
WCS Generate Replenishment	Controls whether the WCS generates the replenishment from Select Replen. For Calidus 3pl, this should always be enabled.
RDT Pop Up Description	Whether the RDT automatically pops up the stock description in the main RDT modules.
Enable RDT Measure Qty	Allow Measure Quantity to be entered on the RDT
Enable RDT Weights	Allow Weight to be entered on the RDT
Enable Multi UOM processing	Whether the WCS deals with multiple UOMs
Pallet Enquiry Print Labels	Controls if pallet label can be printed from a pallet enquiry
Pallet Enquiry Label Format	Format of pallet enquiry label
Vendor Managed Inventory	If this flag is enabled, supplier will be displayed and entered during standard rf modules
Display UOM	Display UOM on RDT when user prompted to enter a quantity value.
Zero Negative Quantities	Zero negative values on enquiries. Default Enabled

20.3.2 RDT Modules

For all users that haven't been assigned to a Group, this section configures the options these users can have when accessing RDT or Maintenance functions.

The RDT modules that can be set up (and their descriptions) are:

Name	Description
Enable RDT Receipt	Allow Blind (Stock level) and Check (Pallet level) Goods Receipt.
Enable RDT Putaway	Allow Full-Pallet Putaway.
Enable RDT Pallet Move	Allow the user to complete Full-Pallet Movements generated from the WMS.
Enable RDT Ad Hoc Move	Allow instigation of a housekeeping Move from the RDT.
Enable RDT Picking	Allow the user to complete Full-pallet Picks.
Enable RDT Part Picking	Allow the user to complete Case and Unit picks from the RDT.
Enable RDT Stock Take	Allow Full (Blind) and Partial (Check) Stock Check.
Enable RDT Bulk PI	Allow Perpetual Inventory (ad hoc stock check).
Enable RDT Shipment Pallet Building	Allow Shipment Pallet Building. Bespoke.
Enable RDT Shipment Pallet Despatch	Allow Shipment Pallet Despatch. Bespoke.
Enable RDT Shipment Pallet Moves	Allow Shipment Pallet Moves. Bespoke.
Enable RDT Pallet Enquiry	Allow the RDT user to enquire on the contents of a pallet from the WMS.
Enable RDT Location Enquiry	Allow the RDT user to enquire on the contents of a location from the WMS.
Enable RDT Move Enquiry	Allow the RDT to see where a pallet is going.
Enable RDT Move Select	Allow cherry-picking of an individual Move task.
Enable RDT Select Replenishment	Allow Select Replenishment. Bespoke.
Enable RDT Replenishment	Allow completion (and/or generation) of a Replenishment. Bespoke.

Name	Description
Enable RDT Stock Move	Allow Stock Moves (request replenishment of pick face). Bespoke.
Enable RDT Ad Hoc Putaway	Allow Ad Hoc Putaway for shelving locations. Bespoke.
Enable RDT Receipt Serial No Scanning	Allow entering serial numbers for received items. Bespoke.
Enable RDT Despatch Serial No Scanning	Allow entering serial numbers for picked items. Bespoke.
Enable RDT Loading	Allow Loading ojnto a vehicle.
Enable RDT Reject Spur	Allow Reject Spur Processing. Bespoke to automated conveyor and P&D systems. Bespoke.
Enable RDT Cherry Picking	Choose an order to pick from
Enable RDT Combined Split	Bespoke: Ad hoc movements of small quantities of stock to other locations
Enable RDT Stock Enquiry	Bespoke: Enquire on Stock code
Enable RDT Mail	Allow receipt of messages from Maintenance administrators. (Generally, this should always be enabled).
Enable RDT Marshall	Not Yet Implemented.
Enable RDT Deconsolidation	Allow deconsolidation of consolidated orders.
Enable RDT Despatch	Allow despatch of deconsolidated orders.
Enable RDT Weighing	Allow the RDT user to Weight Shipment Packages.
Enable RDT Part Replenishments	Allow completion of Part Replenishment tasks
Enable RDT Stock Adjustment	Enable RDT users to perform Adhoc adjustments (ORA Only)
Trolley IDs	Allow loading of orders into trolleys
Pre-Receipt Sort (Bespoke)	Allow Pre-Receipt Sortation (Bespoke)
Blind Receipt (Bespoke)	Allow pallets to be received and putaway at the same time (Bespoke)
Blind Return (Bespoke)	Allow pallets to be returned and putaway at the same time (Bespoke)
Ad Hoc Stock Move	Allow Ad Hoc Stock Movements via RF
Enable Stock Transfers	Allow completion of Stock Transfer tasks
Enable Packing	Allow the RDT user to pack orders
Enable Stock Putaway	Allow the RDT user to Stock Putaway
Ad Hoc Location Move	Allow Ad Hoc Location Movements via RF
Update CPID	Allow the user to update the customer pallet id value. Bespoke
Picking Container Adjustment	Allow the user to adjust Picking Containers. Bespoke

20.3.3 Receipt

The parameters on this tab control how receipt works on the RDT.

Name	Description
Receipt Type	How the RDT actions the Receipt process - either Blind (stock-level advice) or Check (Pallet-level advice)
Selection Type	How to find the receipt on the RDT - via Advice Note or GRN no.
Damages	Allow Damage quantity entry during Goods Receipt
Enter WMS Rotation	Allow the user to enter Rotation during Goods Receipt
Default Pallet Type	during Goods Receipt, whether the RDT user is prompted for a valid Pallet Type at the start of the receipt. This will then be the default for all pallets subsequently received during that session for that user. Without this item being enabled, pressing 'RETURN' in the pallet type field against a received pallet will tell WMS to default to its Default Pallet Type.
Enter Receipt Type	Allow the user to enter the receipt type in RDT Goods Receipt
RDT Echo Putaway Location	If enabled, this parameter makes the RDT Receiving process display the suggested putaway location after successfully receiving a pallet.
Print Labels	Controls where/if pallet labels are printed during the receipt process
WCS Receipt Label Format	Format of the receipt label printed, if printed from the WCS.
Additional Pallets	Allow additional pallets to be received during the RDT receipt process
Single Scan Entry for Additional Pallets	Allow users to scan single barcode for entry of some required elements for adding additional pallets

Name	Description
Receipt Non-advised Stock Codes	Is the user allowed to receive stock codes that have not been preadvised for that receipt?
Receipt Pallet Count Check	If the number of pallets on a received stock item exceeds that preadvised, this parameter details the action the RDT is to take.
Receipt Total Qty Stock Check	If the quantity of a stock item exceeds the total preadvised, this parameter details the action the RDT is to take.
Receipt Pallet Qty Check (Pallet)	If the pallet quantity for a stock item is different to the pallet quantity preadvised, this parameter details the action the RDT is to take. Only for preadvices at a pallet level.
Receipt Standard Qty Check (Stock)	If the pallet quantity for a stock item is different to the standard pallet quantity, this parameter details the action the RDT is to take. Only for preadvices at stock level.
Enter Eurodate	Bespoke: Enter Eurodate rather than Manufacture Date
Enter Layers	Enter Layers and Bits at Goods Receipt
Enable Pack Size Entry	If this rule is enabled, pack size will be prompted for when entering pallet details for impression stock
Receipt Impressions Check	If the impressions quantity for a stock item is different to the impressions quantity preadvised, this parameter details the action the RDT is to take. Only for preadvices at pallet level.
Purchase Order Entry	Enable Purchase Order entry during RF goods receipt, if the receipt contains lines from multiple Purchase Orders.
Close GRN	Allow RDT users to close GRNs at the end of the receipt process, by asking them to confirm that the GRN is now complete.
Cross Docking	Is cross-docking enabled for this operation?
Enter Delivery Reference	Allow the user to enter a delivery reference in RDT Goods Receipt.
Change Damage Qty	If Damaged Pallet Receipt is allowed, is the quantity allowed to be changed from the full pallet quantity? Note: This functionality is supported in the Oracle WMS only.
Enter Putaway Location	Allow users to receive and putaway items in a single process
Receipt Expected Quantity Check	If enabled, this parameter makes the RDT compare the received quantity entered with the expected quantity pre-advised
Generate Customer Pallet Id	If enabled, this rule allows users to determine whether the WMS generates a customer pallet id value.
Weight Volume Check	Check stock dimensions and weight are populated during Goods Receipt.
Enter Vintage	Controls whether the Goods Receipt module prompts for a vintage value
Redundant Stock Check	If enabled, products marked as redundant are rejected when scanned at receipt
Temperature Recording	Controls whether Temperature Recording is required at Pre-Advice
Receipt Intake Stock Check	Controls Issue Life Check at Receipt
Allow Receipt Detail Backout	Controls whether user can back out of Receipt Detail
Latest Sell By Date Check	Controls whether input of SellByDate is checked against latest date
Minimum Pallet ID Length	Controls the minimum length of SSCC entered in Receipt
Customer Pallet Validation	Controls whether an enquiry message is sent to the WMS to validate if a customer pallet value can be received
Goods Receipt Vehicle Checks	Controls whether an enquiry message is sent to the WMS to validate if a GRN has been Vehicle Checked
Capture EAN	Controls whether users are allowed to enter EAN values for a stock code
Blind Receipt Data Format	Controls what the RDT displays in the Blind Receipt/Return modules when displaying the pallet details
Capture Original SSCC	Controls whether the Goods Receipt module prompts the user to enter the original SSCC value when generating a new SSCC value.

20.3.4 Putaway

The parameters on this tab control how putaway works on the RDT.

Name	Description
Multi-Pallet Putaway	Allow several pallets to be picked up during putaway
Extended Reposition Validation	Whether the WCS performs extended checks when a reposition location is chosen.
Request Putaway Details at Scan	Require the WMS to decide on a putaway location at the time of putaway scan, rather than at receipt
RDT Reposition	Allow reposition on the RDTs? This option can be over-ridden by the Group setting
RDT Cancellation	Allow cancellation on the RDTs? This option can be over-ridden by the Group setting
Print Part Replen Labels	Whether the RDT attempts to print labels for Part Replenishments
Part Replen Label Format	Format of the Part Replen label
Display Ad Hoc Putaway Locations	If enabled, this parameter ensures a location enquiry is sent to the WMS from Ad Hoc Putaway to find location assigned to the stock code
Print Ad Hoc Putaway Labels	Whether the RDT attempts to print labels for Ad Hoc Putaways
Ad Hoc Putaway Label Format	Format of the Ad Hoc Putaway label
Ad Hoc Putaway Case Scan	Controls whether the Ad Hoc Putaway module requires case scanning or accepts quantity entry
Print Ad Hoc Stock Move Labels	Controls whether the Ad Hoc Stock Move module prompts the user to print a label
Ad Hoc Stock Move Label Format	Format of the Ad Hoc Stock Move Label
Select Stock Move by Stock	Allow selection of stock moves by Stock before Pallet
Default Ad Hoc Pallet Move Reason	Controls the default reason code value for use with the Ad Hoc Pallet Move module
Multiple Putaway Tasks Prompt	Controls whether the RDT prompts the user to complete one or all of the putaway tasks when multiple putaway tasks exist for the customer pallet id
Ad Hoc Pallet Move Reason Prompt	Controls whether a reason code value is prompted within the Ad Hoc Pallet Move module
Ad Hoc Pallet Move Change Pallet Type	Controls whether the user is allowed to change the pallet type within the Ad Hoc Pallet Move module
Ad Hoc Pallet Move Suggest Location	Controls whether the WCS request a suggested location from the WMS within the Ad Hoc Pallet Move module

20.3.5 Picking/Post-Picking Activities

These parameters control how the RDT acts during the picking modules. Also, some of these flags control how the WCS receives picking tasks, and how it assigns them to RDT users.

Name	Description
Pick By	Controls what the RDT prompts for as confirmation that the correct item has been found for picking
Continuous Part Picking	When part picking, asks the user whether they want to continue part picking (i.e. build a despatch pallet from several pick lines).
Pick Into Containers	Controls whether RDT Part Picking prompts for Picking Container IDs
Lost Label	Controls whether a user is allowed to identify a pallet during picking from its stock information (stock code, batch, etc) rather than entering the pallet ID
Pick Location Error	Allow the RDT picker to cancel an pick at the point of confirming the location code.
Residual Stock Balance Enquiry	Controls whether the RDT user is prompted to enter the amount of remaining stock in the pick face after a part pick. The WCS requests the WMS to find the current quantity of stock in the pick face.
Use WMS Rotation	If this rule is set, wherever Customer Batch is displayed or entered during Picking or Deconsolidation, the RDT will display or request the entry of WMS Rotation instead.
Picker Replens	Allow pickers to perform their own replens at the point of picking the part picks.
Pick Dependencies	Ensure part picks are not released for picking until any outstanding replenishment has been completed first

Name	Description
Replen Dependencies	This rule controls whether the number of replenishment moves into a pick face are limited. Also, that the replen associated with the highest priority pick is released first, whilst all others are held.
Pick In Sequence	If picks have been placed on a Load, what sequence should orders be released for picking?
Pick Page Allocation	This controls how the WCS allocates picks to pickers.
Concurrent Picking	Allow loads to be picked concurrently with other loads, when picking by aisle. This stops new loads being started by pickers until the current load has been fully allocated to pickers.
Lock Pick Header	Lock the picking header record for full pallet picking/load building
Consolidation Group	For Consolidated picking: How to create groups of picks.
Force Sky Picking	Are part pick tasks from bulk treated as sky picks?
Print Despatch Labels	Whether the RDT attempts to print despatch labels for picked stock.
WCS Despatch Label Format	Format of the despatch label
Pick Label Prompt	Where should pick labels be prompted for?
User Select Pick Location	Is the user allowed to specify the location from which picking to start?
Deconsolidation Method	Whether Deconsolidation tasks are processed by the WCS
Ad Hoc Deconsolidation	Are deconsolidation tasks sequenced manually or by the system?
Loading Method	Loading Method in use for the warehouse
Loading Selection Type	Controls whether the RDT initially asks the user to load stock by Route/Load or Order Number. This can be changed by the user when loading.
PC Generation Algorithm	Algorithm to generate Picking Containers
PC Prefix	Prefix for automatically-generated Picking Container
Weigh Shipment Package	Allow the entry and validation of the Catch Weight during the Shipment Pallet Building process
Ship Pack Weight Check	If a weight entered during the Shipment Package Weight function is outside the tolerance value, what action should the RDT take?
Weight Tolerance	If weights are being checked by the Shipment Package functions, what tolerance is allowed (plus or minus, in kilograms)?
Display Order Summary	Defines when the order summary screen is displayed on the RDT during part picking.
Load before Pick Confirmation	Controls whether the WCS will allow loading to be done before the entire order has been Pick Confirmed in the WMS
Log Postponement	Whether pick postponements are recorded in the Exceptions Log
Pick for On-time Delivery	If enabled, this rule will ensure that picks are assigned to pickers in Priority, then OTD Date and Time sequence
Split Pick Quantities	If enabled, allows large picks to be split into more than one pack
Pick Multiple Containers	If enabled, allows creation of several containers in sequence
Num Picks before RSBE	The number of picks to elapse between residual stock balance enquiries
Choose Marshalling Location	Allow the pickers to choose a marshalling location when taking a picked pallet to marshalling
Cherry Picking Selection Type	Controls how Cherry Picked tasks are assigned to users
Default Short Pick Reason	Default reason code for short and zero picks (Bespoke)
Force Source Confirmation	Force the confirmation of the source picking location for each pick even if it is the same as the previous pick.
Full Pick Despatch Labels	If disabled, Despatch labels will not be printed for full pallet picks.
Authorise Pick Shortage	When enabled, this rule will ensure that, when part picks are cancelled or otherwise have their quantity changed, the user will be forced to obtain supervisor authorisation before continuing.
Calculate Packs	If enabled, the Pick Information screen displayed initially in the Part Picking module will display the required cartons for the volume of picks
Enhanced Pick Exchange	Allow pick exchanges from different locations and for part pallet pick tasks
Add Miscellaneous Charges	Allow users to add miscellaneous charges to orders

Name	Description
Shipment Pallet Build Validation	Controls what validation is followed when assigning shipment packages onto shipment pallets
Always Display Order	If enabled, the full pick screen will always display order number rather than route/load
Combined Part Pick Sequence	Controls whether full pallet picks are assigned to the RDT before part pallet picks when using the Part Picking module
Additional Pick Sequence	Controls whether additional conditions are required for sequencing pick tasks
Marshalling Method	Controls whether orders are to be marshalled or not
Additional Pick Instructions	Controls whether RDT users can view the additional pick instructions
Print Stock Despatch Label	Controls whether the Part Picking module allows stock level despatch labels to be produced
WCS Stock Despatch Label Format	Format of the stock despatch label
Single Picker Per Order	Assign related picks to user on first pick. Default Disabled
Pick Catch Weight Per Case	Controls whether Catch Weights are entered at Case instead of Stock/Pick level. Default Disabled.
Check Duplicate Serial Numbers	Controls whether Duplicate serials are checked during Pick. Default Disabled.
Pick By Order	Controls whether a picker is locked to task for a single order
Full Pallet Task Exchange	Controls whether Full Pallet TASK exchange is allowed between orders
Use WMS Pick Sequence	Controls whether pick tasks are assigned to a picker in WMS location pick sequence order
Display Multi UOM	Controls the display of Multiple UOM Descriptions when entering Pick Quantity
Largest Task Next Sequence	Set the sequence of picks after selection by Largest Qty
Check EAN on Case Serial	Controls whether an error is issued if an EAN barcode is scanned as a serial number
Serial Minimum Length	Controls the minimum length of a scanned case serial number in Picking. Default 0 (disabled)
Serial Maximum Length	Controls the maximum length of a scanned case serial number in Picking. Default 0 (disabled)
Default Pick Exchange Reason	Controls the default reason code value for use with pick exchanges
Enter Despatch Pallet Type	Controls whether pickers are prompted to enter the pallet being picked or picked onto
Part Pick Pallet Count	Controls whether Part Picking prompts users to enter a pallet count

20.3.6 Dual Cycling

This section controls how the RDT is allocated DC tasks, and how the RDT responds to the user requests.

Name	Description
Enable Dual Cycling	If this is enabled, the RDT logon procedure allows users to choose whether they work in Bulk (NA areas) or not. Depending on this choice, the RDT displays Dual Cycling options for the users.
NADC Crossover Method	The method by which the RDT NA drivers are moved to another aisle in their range during Dual Cycling.
NADC Threshold Priority	If using the Threshold crossover method, this parameter details the level at which tasks are considered urgent, to be actioned immediately.
Send Aisle Status to WMS	For NA areas: Inform the WMS that the aisle has a truck in it.
NADC Aisle Lock	The point at which an aisle is locked to prevent other RDTs using the aisle
RDT DC Aisle Selection	If using Dual Cycling, this parameter controls whether the user is allowed to select a range of Aisles in which to work, or simply accept the default aisle range entered against the user.
NADC Skip Putaway	Allow full NADC users to skip putaways in aisles, and do the next pick immediately.
Exclude Blocked Moves from Priority Calc	Whilst calculating the priority of moves within an aisle, exclude moves which cannot currently be completed, due to blocked P&D locations.
Exclude Source to Dest	Ensures WA DC (interleaving) focuses more on emptying P&D locations rather than

Name	Description
moves from WA DC	completing housekeeping moves.
Multi-Pallet WADC	Determines whether the WADC modules allow multiple pallets to be picked at the same time
Multi-Pallet Picking Sequence	Controls whether the first pallet picked or last pallet picked via WA Dual Cycling is taken to marshalling first

20.3.7 Default Locations

This set of options is generally used with a conveyor system (bespoke). However, the first parameter (Default Receiving Location) also controls whether the RDT Receipt module prompts for a receiving location for a pallet. This can then be reflected on subsequent putaways.

Name	Description
Default Receiving Location	Default Receiving Location. If entered, the RDT Receipt Module allows the user to choose a receiving location, which defaults to this parameter.
Default Receiving Location CD	Default Receiving Location Check Digits
Default Receiving Location Type	Default Receiving Location Type
Conveyor Input Spur	Bespoke: Conveyor Input Spur Location. Required for RDT Reject Spur Processing
Conveyor Input Spur CD	Bespoke: Conveyor Input Spur Check Digits. Required for RDT Reject Spur Processing
Conveyor Input Spur Type	Bespoke: Conveyor Input Spur Type. Required for RDT Reject Spur Processing
Conveyor Reject Spur	Bespoke: Conveyor Reject Spur Location. Required for RDT Reject Spur Processing
Conveyor Reject Spur CD	Bespoke: Conveyor Reject Spur Check Digits. Required for RDT Reject Spur Processing
Conveyor Reject Spur Type	Bespoke: Conveyor Reject Spur Type. Required for RDT Reject Spur Processing
Default Putaway Location	
Default Putaway Location CD	
Default Putaway Location Type	
Default Problem Resolution Location	
Default Problem Resolution Location CD	
Default Problem Resolution Location Type	

20.3.8 Bespoke

This set of options controls what bespoke development can be enabled or disabled. **Note:** functionality in this section is generally very specific to a particular operation and should only be enabled with a system that is configured exactly as that operation.

Name	Description
Bespoke Site Rule	Site identity defining which bespoke rules are to apply
Bespoke Kraft Batch	Remove non-alphabetic characters from the start of the Batch
Pick By Carton	Pick a quantity of stock by scanning individual cartons.
Encoded Sell By Dates?	Use encoded sell by dates?
Allow Overpicking	Allow the RDT user to enter a picked quantity which is greater that that required by the order.
Batch Delivery Process	Enable creation of flat files for the Batch Carton Delivery process.
Bespoke BHS No Mixed Stock	Disables some of the generic Mixed Stock functionality in the warehouse
Picks by Quantity	Allocates pick tasks to the RDT users by quantity, largest first.
Enter Pick Station	Identify the picking station at the start of part picking
Enter Pack Type	Prompt for the pack type when picking. This is for the carton sizes when pack records are created.
Bespoke No Batch	If this rule is enabled, no customer's batch will be prompted when entering pallet details, even if

Name	Description
Prompt	the WMS has requested that one is entered.
Picker Replen by Quantity	Allow pickers, when doing their own replenishments, to replenish areas by stock moves, not pallet moves.
Nokia Barcodes	This rule controls whether the RDT will expect to scan Nokia barcode labels
Stock Take Enter GRN	When adding pallets during Stock Take or Perpetual Inventory, request the user to enter a GRN number
Bespoke Nokia Stock Take Imps	If this rule is enabled, only the impression quantity will be prompted for when checking impression stock
Force Default Manu Date	Bespoke: If this rule is enabled and manufacture dates are required at goods receipt, the RDT will not prompt for this but will instead default the value to the current date.
New Stock Take Message Layout	BESPOKE: Changes the Stock Take message to WMS to a different extended format. USE WITH CAUTION
Pre-Reposition	Bespoke: Pre-reposition all pending putaways for a stock code when a pallet of the same stock is repositioned
Display PO Number	Display the PO Number associated with the pick
Blind Receipt Label (Bespoke)	RDT label for the Blind Receipt module (Bespoke)
Blind Return Label (Bespoke)	RDT label for the Blind Returns module (Bespoke)
Maximum Putaway Quantity	Maximum quantity allowed to be received and putaway by UPC code (Bespoke)
BHS Short Picking	Bespoke:short picking mechanism that automatically creates a replacement pick
Goods Receipt Lookup	Allow Goods Receipt lookup in RDT Goods Receipt
Split Tote	Allow the user to choose to split a picked line over several totes.
Stock Take Batch Check	When checking pallets during Stock Take, request the user to check the customer batch value
Stock Take Sell By Date Check	When checking pallets during Stock Take, request the user to check the sell by date value
Display Default Receipt Values	Controls whether the RDT displays the pallet details of the previous pallet as the default values of the pallet being received
RF Use Estimated Pallets	If enabled, then the new estimated pallets message will be sent to the Calidus-3pl Mobile system
Tote to Carton Standardise	If enabled, the RDT screens will be amended to display Carton in place of Tote
Duration Measurement	Controls whether the duration value is sent to the WMS in seconds or minutes
Multi Stage Confirmation Message	Controls whether confirmation messages are sent to the WMS for multi stage tasks
Loose Item Serial Number	Controls whether serial number entry is required when picking loose cases and units
Confirm Take To Marshalling	Bespoke: Require Confirmation before Take To Marshalling
Buk PI By	Bespoke: Perform Bulk PI by Task Identifier or Stock/Sell-By-Date. Default is Task Identifier
Write RPM Logs	Bespoke: Write RPM record to Error Log. Default Disabled
GS1-128 Scan Sequence	Bespoke: Determines preferred sequence of fields on GS1-128 Scan
Split Face Sequence	Controls the sort sequence when Split Faces enabled
Ad Hoc Stock Move Multi Action	Controls what additional information is required for the Ad Hoc Stock Move functionality to identify individual pallets. Default Error.
Select Move Allow Held	Allow Select Move Function to include Held Movements
Pallet Case Label Threshold	Controls whether receipt labels are produced at pallet level or case level based on quantity
Original Priority Audit	Controls whether an Exceptions record is created to capture the original priority of the pick / movement task
Update CPID Print Labels	Controls if a pallet label can be printed from the Update CPID module
Update CPID Label Format	Format of Update CPID Label

20.3.9 Barcode Fields

In this screen, the fields the RDT will decode from UCC/EAN-128 barcodes can be defined. These items are used in Goods Receipt.

20.4 Owners

The values in this table are created when the user logs on to the RDT for the first time. The WCS will check for the existence of the WCS and create an owner record, indicating whether the owner requires customer pallet IDs to be entered.

The WCS can also create rules at an owner level, which will supersede the rules at the Warehouse level. This can be done by checking the Restricted box. At this point, the WCS will create rules for the Owner.

Note: The values in this section govern how the WCS Server and RDT processes work. Generally, these items have been set up for you in the way that is most conducive to the way you operate in the warehouse. These values should not be changed unless you know how these will change the way the system operates. Changing the values may not have an immediate effect on the operation of the WCS. The safest way to change parameters is to log out all RDTs, the stop the WCS Server before making the changes.

Barcode configuration for the warehouse is available from a button on the form. Configuration items are grouped into seven sections. In general, the rules at Owner level are the same as the rules at warehouse level. Each of the above is described in detail in the warehousing section.

20.5 P&Ds

P&D locations are staging areas or racks at the end of a narrow aisle to allow pallets to be dropped off mid-move, and then picked up by the next truck available to do that job.

Items that can be entered on this screen are:

- Location Code - The P&D Location Code.
- Location Type - This can be chosen from the drop-down list. This is only important if the client is using Reject Spur functionality in the warehouse, which is bespoke.
- Check Digits - As above. Can be left blank.
- PnD Type - Affects the order in which NA trucks pick up pallets from P&Ds in NADC. Choose from 3 types:
    - FIFO - First on to the P&D will be first suggested off the P&D
    - LIFO - Last on to the P&D will be first suggested off the P&D
    - Random - User scans pallet to take off P&D.
- Actual/Max Pallets - by setting the max pallets, you can limit the number of tasks that are allowed to each P&D.
- To recalculate the number of pallets actually at the P&D, click the Recalculate button. You will be asked to confirm your selection. There is no need to save the data once recalculated, as the program will do this automatically.

Company code and Warehouse ID will default from the user's default company and warehouse.

See section 4.2 for the use of P&D locations set up in the WCS.

20.6 RDT

This is an optional set-up item.

An RDT that make connections to the WCS create a record on this table. The WCS stores a unique key number and the RDT identifier, which is normally the IP address of the RDT. The data can be seen on the RDT ID Maintenance screen, found on the Standing Data menu.

The table also contains a description, and this screen can be used to change this to a more user-friendly description of the RDT. Additionally, this allows you to keep a list of all RDTs and their IP addresses.

When descriptions have been entered of the RDTs, this can be displayed against any activities or exceptions on the WCS.

The RDT can also be marked as "Intrinsically Safe" for use with flammable goods. This optional setup will then prevent users from logging on with truck types that are NOT intrinsically safe for use with flammable goods.

20.7 Printers

Printers can be either networked windows printers, or direct TCP/IP connections. The screen allows entry of either type.

A toolbar is included on the screen for ease of use.

To add new records, press the new button on the toolbar. Once you have entered your new printer, press the save button or OK button. Your data will be saved.

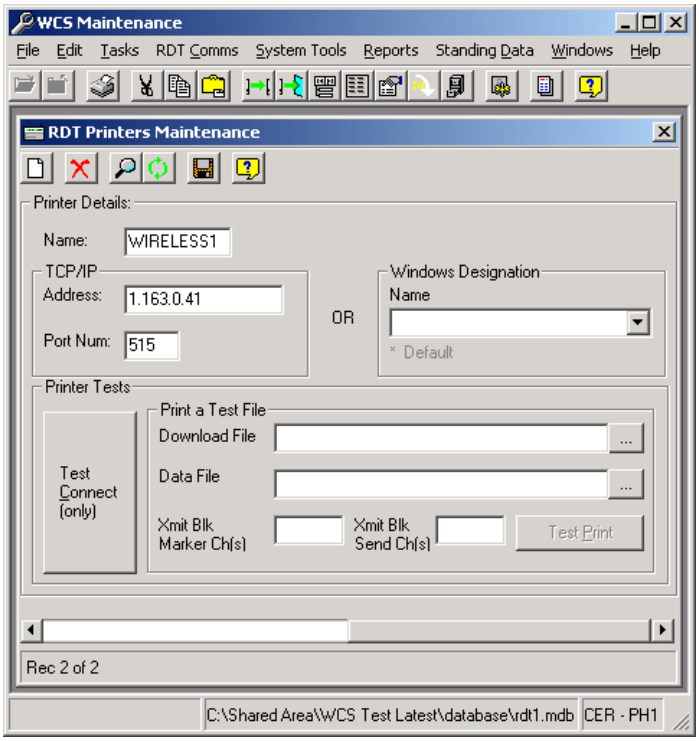
To find an existing record, press the find button on the toolbar. You will be taken to a lookup screen. Once you have selected your printer, the data will be displayed.

To navigate to other printers sequentially, use the scrollbar at the bottom of the screen. The status bar will show you which record you are on.

Once you have found a printer, you may wish to change some parts of it. Simply click on your chosen field and edit it. Once you have made all your changes, press the save or OK button to save your data.

To delete a record, press the delete button on the toolbar, then confirm through the popup dialogue.

To enter a wireless printer:



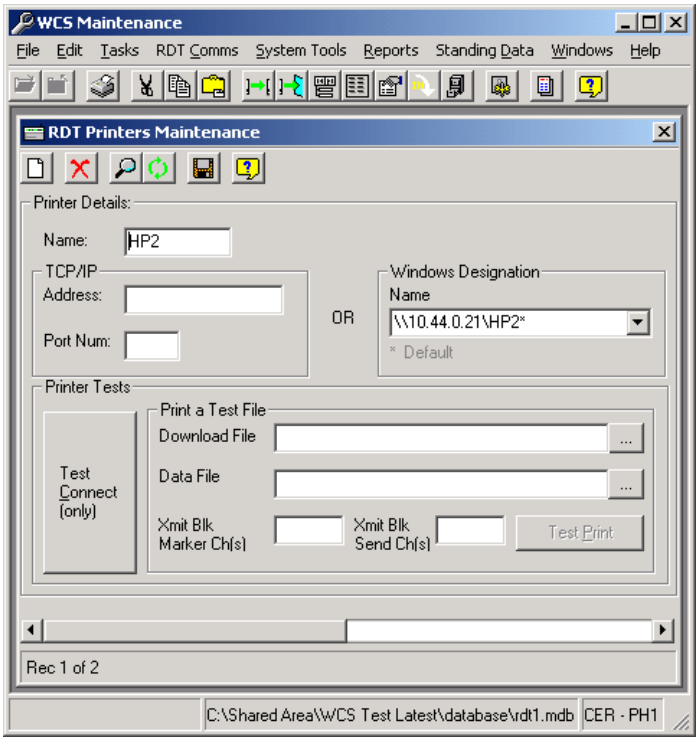
1. Press the New button.

2. Give the printer a name.
3. Enter the IP address and port number of the printer.

You can then use the Printer Tests section to send through sample print files directly to the printer to ensure that the IP address and port number are set correctly.

Note: For mobile printers, the port is usually 515, for Zebra printers the port is usually 9100. However, this is not guaranteed, and should be confirmed utilising the configuration options on your printer.

To enter a Windows printer or queue:



1. Press the New button.
2. Give the printer a name.
3. Choose the Windows printer from the drop-down box.

Note: The printers must be set up directly from the RDT or WCS Servers the RDT Applications are running from.

For details of how to set up Windows printers for the WCS, see 4.2

It is possible to print a test print to the printers from this screen, if you have a test print document. This can be achieved by putting the name of the test print document into the 'Data File' section on the form, or using the Browse (...) button to find the test print. Then click the Test Print button - the printer should then print the document.

21 Modification of Sent Data

In some instances, data that has been sent from the WMS doesn't have enough detail for the WCS. In this instance, further information must be entered on the WCS for records that already exist. This section describes the data that may need modifying, and what can be entered.

For these screen, further details on how to use this screen can be found in the WCSM Users Guide

21.1 Employees

As mentioned in section 2.6, the Employee data comes partially pre-populated from the WMS. The rest of the settings can be manipulated in the Users Maintenance screen in the Standing Data menu.

Data that can be amended in this screen:

- Password - this can be set here. The password is encrypted in the WCS database and can only be read from this screen. Only certain users have access to this screen, controlled by the user's assigned Group.
- Group ID - A group can be assigned, controlling the user's access to RDT and Admin modules. See section 3.1 for details

- Works Only in Aisle - These parameters effect the areas the user is given tasks, when operating System-directed tasks in the bulk areas. These will act as defaults for the user, or their defined range, depending on certain warehouse flags.
- Supervisor - Employees who are marked as Supervisor can use their username and password to unlock other RDT terminals. Locking occurs in some RDT modules as a result of some defined rule (for example, in Goods Receipt). See section 3.3 for details of some locking functions.
- Access Type - shows how the user is able to log on to the system - admin and/or RDT. This can be modified, and will take effect the next time the user logs on.
- Logged on shows how the user is currently logged on to the system. This can be reset using the reset button. N.B. this directly affects the users. USE WITH CARE.

21.2 Aisles

As mentioned in section 2.7, the Aisle data comes partially pre-populated from the WMS. The rest of the settings can be manipulated in the Aisles Maintenance screen in the Standing Data menu.

Data that can be amended in this screen:

- Sequence - This shows the order in which tasks from different aisles will be given to an RDT user, if moves are given in a location-efficient manner.
- Narrow Aisle - This controls whether this aisle can be selected in the NADC aisles selection.
- High End Access - This also controls the order in which tasks are given to users in DC. If set, tasks within an aisle are given in reverse order.
- Locs in Aisle - Future development.
- Linked Aisle Code - If this is populated, the WCS sees this aisle and the parent aisle code as one aisle, for NADC and aisle locking.
- Split Faces - If this is checked, the WCS splits tasks from odd and even bays separately.
- MHE-Fed - For Automated conveyor-fed aisles.
- PD Out/In - Controls whether the aisle utilises P&D locations for inbound and outbound tasks. The P&Ds can be chosen from a lookup.
- Display Info - This button displays some further information about the aisle:
    - Availability - Set from the WMS.
    - PD Weighting/Total Priority/IN/Out - Future development.
    - Truck In - If a truck is currently in the aisle, the RDT will be shown here.
- Reset Status - Clears the aisle of any locks, allowing other RDT users to work in the aisle. Included for support purposes.

Alternatively, the WMS has the ability to send some of these additional settings from the Aisles Maintenance screen.

22 Appexdices

22.1 Rules And Categories

Name	Type	Description	Category	Default
Action Password	WHSE, OWNER	The password required when RDT functions are password-protected	03	NOPASSWORD
Ad Hoc Deconsolidation	WHSE, OWNER	Are deconsolidation tasks sequenced manually or by the system?	01	N
Ad Hoc Location Move	WHSE, OWNER	Allow Ad Hoc Location Movements via RF	02	N
Ad Hoc Pallet Move Change Pallet Type	WHSE, OWNER	Controls whether the user is allowed to change the pallet type within the Ad Hoc Pallet Move module	01	N
Ad Hoc Pallet Move Reason Prompt	WHSE, OWNER	Controls whether a reason code value is prompted within the Ad Hoc Pallet Move module	01	Y
Ad Hoc Pallet Move Suggest Location	WHSE, OWNER	Controls whether the WCS request a suggested location from the WMS within the Ad Hoc Pallet Move module	01	N
Ad Hoc Putaway Case Scan	WHSE, OWNER	Controls whether the Ad Hoc Putaway module requires case scanning or accepts quantity entry	01	Y
Ad Hoc Putaway Label Format	WHSE, OWNER	Format of the Ad Hoc Putaway label	25	
Ad Hoc Stock Move	WHSE, OWNER, GRP	Allow Ad Hoc Stock Movements via RF	02	N
Ad Hoc Stock Move Label Format	WHSE, OWNER	Format of the Ad Hoc Stock Move Label	25	
Ad Hoc Stock Move Multi Action	WHSE, OWNER	Controls what additional information is required for the Ad Hoc Stock Move functionality to identify individual pallets. Default Error.	76	E
Add Miscellaneous Charges	WHSE, OWNER	Allow users to add miscellaneous charges to orders	01	N
Additional Pick Instructions	WHSE, OWNER	Controls whether RDT users can view the additional pick instructions	67	N
Additional Pick Sequence	WHSE, OWNER	Controls whether additional conditions are required for sequencing pick tasks	9003	B
Aisle Length	WHSE, OWNER	The length of the Aisle portion of the Location code.	33	2
Allow Exchange of Replens	WHSE, OWNER	If the Warehouse is Block Stack, allow Replens to be exchanged as well	01	N
Allow Overpicking	WHSE, OWNER	Allow the RDT user to enter a picked quantity which is greater than that required by the order.	02	N
Allow Receipt Detail Backout	WHSE, OWNER	Controls whether user can back out of Receipt Detail	01	N
Allow Task Exchange	WHSE, OWNER	WCS checks for outstanding tasks to give to the user before asking WMS whether the pallet is available for exchange	01	Y
Always Deconsolidate	WHSE, OWNER	When enabled, the system will always deconsolidate, even when not strictly necessary (i.e. for single orders)	55	N
Always Display Order	WHSE, OWNER	If enabled, the full pick screen will always display order number rather than route/load	01	N
Authorise Pick Shortage	WHSE, OWNER	When enabled, this rule will ensure that, when part picks are cancelled or otherwise have their quantity changed, the user will be forced to obtain supervisor authorisation before continuing.	01	N
Automatic Despatch	WHSE, OWNER	Automatically despatch confirm an order when it has been deconsolidated	01	N
Batch Delivery Process	WHSE, OWNER	Enable creation of flat files for the Batch Carton Delivery process.	01	N
Bay Length		The length of the Bay portion of the Location code	34	2

Name	Type	Description	Category	Default
	WHSE, OWNER			
Bespoke BHS No Mixed Stock	WHSE, OWNER	Disables some of the generic Mixed Stock functionality in the warehouse	01	N
Bespoke Kraft Batch	WHSE, OWNER	Remove non-alphabetic characters from the start of the Batch	01	N
Bespoke No Batch Prompt	WHSE, OWNER	If this rule is enabled, no customer?s batch will be prompted when entering pallet details, even if the WMS has requested that one is entered.	01	N
Bespoke Nokia Stock Take Imps	WHSE, OWNER	If this rule is enabled, only the impression quantity will be prompted for when checking impression stock	01	N
Bespoke Site Rule	WHSE, OWNER	Site identity defining which bespoke rules are to apply	9001	
BHS Short Picking	WHSE, OWNER	Bespoke:short picking mechanism that automatically creates a replacement pick	01	N
Blind Deconsolidation	WHSE, OWNER	When enabled, the user will be prompted to deconsolidate blind	55	N
Blind Receipt (Bespoke)	WHSE, OWNER, GRP	Allow pallets to be received and putaway at the same time (Bespoke)	01	N
Blind Receipt Data Format	WHSE, OWNER	Controls what the RDT displays in the Blind Receipt/Return modules when displaying the pallet details	82	Q
Blind Receipt Label (Bespoke)	WHSE, OWNER	RDT label for the Blind Receipt module (Bespoke)	49	B
Blind Return (Bespoke)	WHSE, OWNER, GRP	Allow pallets to be returned and putaway at the same time (Bespoke)	01	N
Blind Return Label (Bespoke)	WHSE, OWNER	RDT label for the Blind Returns module (Bespoke)	49	B
Block Stack	WHSE, OWNER	Enables some RDT functions to exchange pallets	01	N
Buk PI By	WHSE, OWNER	Bespoke: Perform Bulk PI by Task Identifier or Stock/Sell-By-Date. Default is Task Identifier	69	I
Calculate Packs	WHSE, OWNER	If enabled, the Pick Information screen displayed initially in the Part Picking module will display the required cartons for the volume of picks	61	N
Capture EAN	WHSE, OWNER	Controls whether users are allowed to enter EAN values for a stock code	01	N
Capture Original SSCC	WHSE, OWNER	Controls whether the Goods Receipt module prompts the user to enter the original SSCC value when generating a new SSCC value.	01	N
Change Damage Qty	WHSE, OWNER	If Damaged Pallet Receipt is allowed, is the quantity allowed to be changed from the full pallet quantity? Note: This functionality is supported in the Oracle WMS only.	01	Y
Check Duplicate Serial Numbers	WHSE, OWNER	Controls whether Duplicate serials are checked during Pick. Default Disabled.	74	N
Check EAN on Case Serial	WHSE, OWNER	Controls whether an error is issued if an EAN barcode is scanned as a serial number	01	N
Cherry Picking Selection Type	WHSE, OWNER	Controls how Cherry Picked tasks are assigned to users	51	R
Choose Deconsolidation	WHSE, OWNER	Allow the RDT user to choose which Marshalling lane to deconsolidate from	01	N
Choose Marshalling Location	WHSE, OWNER	Allow the pickers to choose a marshalling location when taking a picked pallet to marshalling	65	N
Close GRN	WHSE, OWNER	Allow RDT users to close GRNs at the end of the receipt process, by asking them to confirm that the GRN is now complete.	01	N
Combined Part Pick Sequence	WHSE, OWNER	Controls whether full pallet picks are assigned to the RDT before part pallet picks when using the Part Picking	64	M

Name	Type	Description	Category	Default
		module		
Concurrent Picking	WHSE, OWNER	Allow loads to be picked concurrently with other loads, when picking by aisle. This stops new loads being started by pickers until the current load has been fully allocated to pickers.	01	Y
Confirm Take To Marshalling	WHSE, OWNER	Bespoke: Require Confirmation before Take To Marshalling	01	N
Connection Logging	SYS	Level of logging for System Connections (OBS USE ONLY)	80	D
Conveyor Input Spur	WHSE, OWNER	Bespoke: Conveyor Input Spur Location. Required for RDT Reject Spur Processing	03	
Conveyor Input Spur CD	WHSE, OWNER	Bespoke: Conveyor Input Spur Check Digits. Required for RDT Reject Spur Processing	03	
Conveyor Input Spur Type	WHSE, OWNER	Bespoke: Conveyor Input Spur Type. Required for RDT Reject Spur Processing	28	
Conveyor Reject Spur	WHSE, OWNER	Bespoke: Conveyor Reject Spur Location. Required for RDT Reject Spur Processing	03	
Conveyor Reject Spur CD	WHSE, OWNER	Bespoke: Conveyor Reject Spur Check Digits. Required for RDT Reject Spur Processing	03	
Conveyor Reject Spur Type	WHSE, OWNER	Bespoke: Conveyor Reject Spur Type. Required for RDT Reject Spur Processing	28	
Cross Docking	WHSE, OWNER	Is cross-docking enabled for this operation?	01	N
Customer Pallet Validation	WHSE, OWNER	Controls whether an enquiry message is sent to the WMS to validate if a customer pallet value can be received	01	N
Decon Exceptions	WHSE, OWNER	If enabled, this will allow supervisors to immediately resolve discrepancies found at Deconsolidation	01	N
Deconsolidation Logging Level	WHSE, OWNER	This rule indicates the detail level of Deconsolidation activity logging	48	D
Deconsolidation Method	WHSE, OWNER	Whether Deconsolidation tasks are processed by the WCS	31	N
Deconsolidation Pack ID	WHSE, OWNER	This rule indicates which pack size identification field is displayed during deconsolidation	46	C
Deconsolidation Stock ID	WHSE, OWNER	This rule indicates which stock identification fields are displayed during deconsolidation	45	C
Default Ad Hoc Pallet Move Reason	WHSE, OWNER	Controls the default reason code value for use with the Ad Hoc Pallet Move module	53	
Default Company Code	SYS	This is the default company code that the RDT will log on to.	03	
Default Pack Type	WHSE, OWNER	Default Pack Type for Pick	9007	STD
Default Pick Exchange Reason	WHSE, OWNER	Controls the default reason code value for use with pick exchanges	53	
Default Problem Resolution Location	WHSE, OWNER		03	
Default Problem Resolution Location CD	WHSE, OWNER		03	
Default Problem Resolution Location Type	WHSE, OWNER		28	
Default Putaway Location	WHSE, OWNER		03	
Default Putaway Location CD	WHSE, OWNER		03	
Default Putaway Location Type	WHSE, OWNER		28	
Default Receiving	WHSE,	Default Receiving Location. If entered, the RDT Receipt	03	

Name	Type	Description	Category	Default
Location	OWNER	Module allows the user to choose a receiving location, which defaults to this parameter.		
Default Receiving Location CD	WHSE, OWNER	Default Receiving Location Check Digits	03	
Default Receiving Location Type	WHSE, OWNER	Default Receiving Location Type	28	
Default Short Pick Reason	WHSE, OWNER	Default reason code for short and zero picks (Bespoke)	53	
Delete Records	SYS	When this option is checked, completed tasks are deleted from the WCS database. All logging is still in place. When un-checked, the completed tasks are marked for deletion by the cleardown process.	01	N
Despatch Label Format	WHSE, OWNER	Format of the despatch label	25	
Despatch Note Printer	WHSE, OWNER	Where the Despatch Note Printer is defined	47	M
Display Ad Hoc Putaway Locations	WHSE, OWNER	If enabled, this parameter ensures a location enquiry is sent to the WMS from Ad Hoc Putaway to find locations assigned to the stock code	02	N
Display Decon Summary	WHSE, OWNER	This rule controls whether the deconsolidation process displays a summary screen with Order Information at the start of deconsolidating each order	01	Y
Display Default Receipt Values	WHSE, OWNER	Controls whether the RDT displays the pallet details of the previous pallet as the default values of the pallet being received	01	N
Display Multi UOM	WHSE, OWNER	Controls the display of Multiple UOM Descriptions when entering Pick Quantity	01	N
Display Order Summary	WHSE, OWNER	Defines when the order summary screen is displayed on the RDT during part picking.	42	S
Display PO Number	WHSE, OWNER	Display the PO Number associated with the pick	01	N
Display UOM	WHSE	Display UOM on RDT when user prompted to enter a quantity value.	01	N
Dummy Loc Enq Duration	SYS	Sets the duration of time in minutes without a message before a dummy location enquiry is sent to the WMS. Default is 30 min.	04	30
Dummy Loc Timer Duration	SYS	Sets the duration of time for the dummy location check in minutes. Default is every 2 min.	04	2
Dummy Loc Trigger	SYS	Controls the trigger checks of the dummy location enquiry to the WMS. Default is Incoming only.	70	I
Duration Measurement	WHSE, OWNER	Controls whether the duration value is sent to the WMS in seconds or minutes	66	M
Enable Admin Change Warehouse	SYS, GRP	Allows the user to change the default warehouse they can see	01	N
Enable Admin Comms	SYS, GRP	Allows the user full access to the RDT Comms menu. If this is enabled, the following option need not be.	01	N
Enable Admin Comms Enquiry	SYS, GRP	Allows the user Enquiry-only access to the top 2 items on the RDT Comms menu.	01	N
Enable Admin Logs	SYS, GRP	Allows the user access to the Logs Enquiry screens in the System Tools menu	01	N
Enable Admin Report	SYS, GRP	Allows the user access to the Reports menu	01	N
Enable Admin Settings System	SYS, GRP	Allows the user access to the System Settings option on the System Tools menu. NOTE: This option should only be enabled for super-users, and even then should only be enabled sparingly.	01	N
Enable Admin Standing Data	SYS, GRP	Allows the user full access to all items on the Standing Data menu. If this is enabled, the following option need not be. NOTE: This option will allow users to see other	01	N

Name	Type	Description	Category	Default
		users? passwords, and should therefore be limited only to those users who require it.		
Enable Admin Standing Data Enquiry	SYS, GRP	Allows the user access to the Enquiry screens only on the Standing Data menu	01	N
Enable Admin Task Edit	SYS, GRP	Allows the user full access to all the screens on the Tasks menu. If this is enabled, the following option need not be.	01	N
Enable Admin Task Enquiry	SYS, GRP	Allows the user access to all the screens on the Tasks menu, but for enquiry purposes only.	01	N
Enable Admin Utilities Clear Out	SYS, GRP	Allows the user access to the Clear-Out options on the System Tools menu. NOTE: This should only be available for super-users.	01	N
Enable Admin Utilities Repair and Compact	SYS, GRP	Allows the user access to the Compact Database option on the System Tools menu.	01	N
Enable Check Digits	WHSE, OWNER	Does the warehouse use check digits, or just location codes?	11	Y
Enable Customer Pallet No	WHSE, OWNER	Display customer pallet number on the RDT	01	N
Enable Dual Cycling	WHSE, OWNER	If this is enabled, the RDT logon procedure allows users to choose whether they work in Bulk (NA areas) or not. Depending on this choice, the RDT displays Dual Cycling options for the users.	01	N
Enable Encoded Sell By Date	WHSE, OWNER	Use encoded sell by dates?	01	N
Enable Full Pick Header Lock	WHSE, OWNER	Lock the picking header record for full pallet picking/load building	01	Y
Enable Hold Priority	SYS	This allows the lowest priority in the WCS to be used as a Held status. When this option is checked, and tasks on priority 9 will not be allocated to RDTs to complete. To release the tasks, re-prioritise the task to a higher level.	01	Y
Enable Mixed Stock	WHSE, OWNER	Do you have mixed-stock pallets?	01	N
Enable Multi Pallet Putaway	WHSE, OWNER	Allow several pallets to be picked up during putaway	02	N
Enable Multi UOM processing	WHSE, OWNER	Whether the WCS deals with multiple UOMs	01	N
Enable Pack Size Entry	WHSE, OWNER	If this rule is enabled, pack size will be prompted for when entering pallet details for impression stock	01	N
Enable Packing	WHSE, OWNER, GRP	Allow the RDT user to pack orders	02	N
Enable Pick Dependencies	WHSE, OWNER	Ensure part picks are not released for picking until any outstanding replenishment has been completed first	01	Y
Enable Picker Replens	WHSE, OWNER	Allow pickers to perform their own replens at the point of picking the part picks.	02	N
Enable RDT Ad Hoc Move	WHSE, OWNER, GRP	Allow instigation of a housekeeping Move from the RDT.	02	Y
Enable RDT Ad Hoc Putaway	WHSE, OWNER, GRP	Allow Ad Hoc Putaway for shelving locations. Bespoke.	02	N
Enable RDT Bulk PI	WHSE, OWNER, GRP	Allow Perpetual Inventory (ad hoc stock check).	02	Y
Enable RDT Cancellation	WHSE, OWNER, GRP	Allow cancellation on the RDTs? This option can be over-ridden by the Group setting	02	N
		Choose an order to pick from	01	N

Name	Type	Description	Category	Default
Enable RDT Cherry Picking	WHSE, OWNER, GRP			
Enable RDT Combined Split	WHSE, OWNER, GRP	Bespoke: Ad hoc movements of small quantities of stock to other locations	02	N
Enable RDT Continuous Part Picking	WHSE, OWNER, GRP	When part picking, asks the user whether they want to continue part picking (i.e. build a despatch pallet from several pick lines).	52	Y
Enable RDT Daily Cycle Check	WHSE, OWNER, GRP	The Daily Cycle Check functionality will be available to the users if this rule is enabled	02	N
Enable RDT Damages	WHSE, OWNER, GRP	Allow Damage quantity entry during Goods Receipt	01	N
Enable RDT DC Aisles	WHSE, OWNER, GRP	If using Dual Cycling, this parameter controls whether the user is allowed to select a range of Aisles in which to work, or simply accept the default aisle range entered against the user.	01	Y
Enable RDT Deconsolidation	WHSE, OWNER, GRP	Allow deconsolidation of consolidated orders.	02	N
Enable RDT Despatch	WHSE, OWNER, GRP	Allow despatch of deconsolidated orders.	02	N
Enable RDT Despatch Serial No Scanning	WHSE, OWNER, GRP	Allow entering serial numbers for picked items. Bespoke.	02	N
Enable RDT Echo Putaway	WHSE, OWNER	If enabled, this parameter makes the RDT Receiving process display the suggested putaway location after successfully receiving a pallet.	19	0
Enable RDT Eurodate	WHSE, OWNER	Bespoke: Enter Eurodate rather than Manufacture Date	01	N
Enable RDT Layers	WHSE, OWNER	Enter Layers and Bits at Goods Receipt	01	N
Enable RDT Loading	WHSE, OWNER, GRP	Allow Loading ojnto a vehicle.	02	N
Enable RDT Location Enquiry	WHSE, OWNER, GRP	Allow the RDT user to enquire on the contents of a location from the WMS.	02	Y
Enable RDT Mail	WHSE, OWNER, GRP	Allow receipt of messages from Maintenance administrators. (Generally, this should always be enabled).	02	Y
Enable RDT Marshall	WHSE, OWNER, GRP	Not Yet Implemented.	02	N
Enable RDT Measure Qty	WHSE, OWNER	Allow Measure Quantity to be entered on the RDT	01	N
Enable RDT Move Enquiry	WHSE, OWNER, GRP	Allow the RDT to see where a pallet is going.	02	Y
Enable RDT Move Select	WHSE, OWNER, GRP	Allow cherry-picking of an individual Move task.	02	Y
Enable RDT Pallet Enquiry	WHSE, OWNER, GRP	Allow the RDT user to enquire on the contents of a pallet from the WMS.	02	Y
Enable RDT Pallet Move	WHSE, OWNER,	Allow the user to complete Full-Pallet Movements generated from the WMS.	02	Y

Name	Type	Description	Category	Default
	GRP			
Enable RDT Part Picking	WHSE, OWNER, GRP	Allow the user to complete Case and Unit picks from the RDT.	02	Y
Enable RDT Part Replenishments	WHSE, OWNER, GRP	Allow completion of Part Replenishment tasks	02	N
Enable RDT Pick Extra Items	WHSE, OWNER	Controls whether a user is allowed to identify a pallet during picking from its stock information (stock code, batch, etc) rather than entering the pallet ID	02	Y
Enable RDT Pick Location Error	WHSE, OWNER, GRP	Allow the RDT picker to cancel a pick at the point of confirming the location code.	02	N
Enable RDT Picking	WHSE, OWNER, GRP	Allow the user to complete Full-pallet Picks.	02	Y
Enable RDT Pop Up Description	WHSE, OWNER	Pop up description of stock on RDT screen	38	N
Enable RDT Putaway	WHSE, OWNER, GRP	Allow Full-Pallet Putaway.	02	Y
Enable RDT Receipt	WHSE, OWNER, GRP	Allow Blind (Stock level) and Check (Pallet level) Goods Receipt.	02	Y
Enable RDT Receipt Serial No Scanning	WHSE, OWNER, GRP	Allow entering serial numbers for received items. Bespoke.	02	N
Enable RDT Receive Additional Pallets	WHSE, OWNER, GRP	Allow additional pallets to be received during the RDT receipt process	02	Y
Enable RDT Reject Spur	WHSE, OWNER, GRP	Allow Reject Spur Processing. Bespoke to automated conveyor and P&D systems. Bespoke.	02	N
Enable RDT Replenishment	WHSE, OWNER, GRP	Allow completion (and/or generation) of a Replenishment. Bespoke.	02	N
Enable RDT Reposition	WHSE, OWNER, GRP	Allow reposition on the RDTs? This option can be over-ridden by the Group setting	57	N
Enable RDT Select Replenishment	WHSE, OWNER, GRP	Allow Select Replenishment. Bespoke.	02	N
Enable RDT Shipment Pallet Building	WHSE, OWNER, GRP	Allow Shipment Pallet Building. Bespoke.	02	N
Enable RDT Shipment Pallet Despatch	WHSE, OWNER, GRP	Allow Shipment Pallet Despatch. Bespoke.	02	N
Enable RDT Shipment Pallet Moves	WHSE, OWNER, GRP	Allow Shipment Pallet Moves. Bespoke.	02	N
Enable RDT Stock Adjustment	WHSE, OWNER, GRP	Enable RDT users to perform Adhoc adjustments (ORA Only)	02	N
Enable RDT Stock Enquiry	WHSE, OWNER, GRP	Bespoke: Enquire on Stock code	02	N
Enable RDT Stock Move	WHSE, OWNER, GRP	Allow Stock Moves (request replenishment of pick face). Bespoke.	02	N

Name	Type	Description	Category	Default
Enable RDT Stock Take	WHSE, OWNER, GRP	Allow Full (Blind) and Partial (Check) Stock Check.	02	Y
Enable RDT Weighing	WHSE, OWNER, GRP	Allow the RDT user to Weight Shipment Packages.	02	N
Enable RDT Weights	WHSE, OWNER, GRP	Allow Weight to be entered on the RDT	58	N
Enable Replen Dependencies	WHSE, OWNER	This rule controls whether the number of replenishment moves into a pick face are limited. Also, that the replen associated with the highest priority pick is released first, whilst all others are held.	01	N
Enable Stock Putaway	WHSE, OWNER, GRP	Allow the RDT user to Stock Putaway	02	N
Enable Stock Transfers	WHSE, OWNER, GRP	Allow completion of Stock Transfer tasks	02	N
Enable WCS Gen Replen	WHSE, OWNER	Let WCS Generate Replenishments	01	Y
Enhanced Pick Exchange	WHSE, OWNER	Allow pick exchanges from different locations and for part pallet pick tasks	01	Y
Enter CIM Printer	WHSE, OWNER	Controls whether the RDT prompts the user to enter a printer during deconsolidation on which the CIM labels will be printed	55	N
Enter Delivery Reference	WHSE, OWNER	Allow the user to enter a delivery reference in RDT Goods Receipt.	01	N
Enter Despatch Pallet Type	WHSE, OWNER	Controls whether pickers are prompted to enter the pallet being picked or picked onto	83	D
Enter Despatch Printer	WHSE, OWNER	Controls whether the RDT prompts the user to enter a printer during deconsolidation on which the despatch note will be printed	55	N
Enter Media Type	WHSE, OWNER	When enabled, the user will be prompted to enter a media type for the final media	55	N
Enter Pack Type	WHSE, OWNER	Prompt for the pack type when picking. This is for the carton sizes when pack records are created.	41	N
Enter Pick Station	WHSE, OWNER	Identify the picking station at the start of part picking	01	N
Enter Putaway Location	WHSE, OWNER	Allow users to receive and putaway items in a single process	72	N
Enter Vintage	WHSE, OWNER	Controls whether the Goods Receipt module prompts for a vintage value	02	N
Enter WMS Rotation	WHSE, OWNER	Allow the user to enter Rotation during Goods Receipt	01	N
Exclude Blocked Moves from Priority Calc	WHSE, OWNER	Whilst calculating the priority of moves within an aisle, exclude moves which cannot currently be completed, due to blocked P&D locations.	01	Y
Extended Reposition Validation	WHSE, OWNER	Whether the WCS performs extended checks when a reposition location is chosen.	01	N
Flat File FTP Location	SYS	Bespoke: The location where files are to be found on the FTP server.	24	
Flat File FTP Password	SYS	Bespoke: The password for logging into the FTP server.	26	
Flat File FTP Server	SYS	Bespoke: The server where flat files are sent.	03	
Flat File FTP User	SYS	Bespoke: The user for logging into the FTP server.	03	
Flat File Location	SYS	Bespoke: The location where files are to be located on the FTP server.	24	

Name	Type	Description	Category	Default
Force Default Manu Date	WHSE, OWNER	Bespoke: If this rule is enabled and manufacture dates are required at goods receipt, the RDT will not prompt for this but will instead default the value to the current date.	01	N
Force Sky Picking	WHSE, OWNER	Are part pick tasks from bulk treated as sky picks?	59	N
Force Source Confirmation	WHSE, OWNER	Force the confirmation of the source picking location for each pick even if it is the same as the previous pick.	01	N
Full Pallet Task Exchange	WHSE, OWNER	Controls whether Full Pallet TASK exchange is allowed between orders	78	S
Full Pick Despatch Labels	WHSE, OWNER	If disabled, Despatch labels will not be printed for full pallet picks.	01	Y
Generate Customer Pallet Id	WHSE, OWNER	If enabled, this rule allows users to determine whether the WMS generates a customer pallet id value.	01	N
Goods Receipt Lookup	WHSE, OWNER	Allow Goods Receipt lookup in RDT Goods Receipt	01	N
Goods Receipt Vehicle Checks	WHSE, OWNER	Controls whether an enquiry message is sent to the WMS to validate if a GRN has been Vehicle Checked	01	N
GS1-128 Scan Sequence	WHSE, OWNER	Bespoke: Determines preferred sequence of fields on GS1-128 Scan	71	00
In Pick Check	WHSE, OWNER	Controls whether the RDT user is prompted to enter the amount of remaining stock in the pick face after a part pick. The WCS requests the WMS to find the current quantity of stock in the pick face.	54	N
Largest Task Next Sequence	WHSE, OWNER	Set the sequence of picks after selection by Largest Qty	79	N
Latest Sell By Date Check	WHSE, OWNER	Controls whether input of SellByDate is checked against latest date	73	N
Level Length	WHSE, OWNER	The length of the Level portion of the Location code.	35	2
Load before Pick Confirmation	WHSE, OWNER	Controls whether the WCS will allow loading to be done before the entire order has been Pick Confirmed in the WMS	01	N
Loading Despatch Note Printer	WHSE, OWNER	Controls whether the Loading module prompts for a printer for the despatch note	01	N
Loading Dock Door	WHSE, OWNER	Controls whether the Loading user is prompted for Dock Door and how this will be confirmed.	50	N
Loading Exceed Multiple Limit	WHSE, OWNER	Controls the action taken by the RDT when the Multiple Limit is exceeded.	14	W
Loading Lift Entry	WHSE, OWNER	Controls whether the Loading module prompts for the number of lifts and pallets	01	N
Loading Method	WHSE, OWNER	Loading Method in use for the warehouse	20	N
Loading Multiple Limit	WHSE, OWNER	This is the limit for how many items can be scanned onto a vehicle before Dock Door must be entered.		0
Loading Order Enquiry	WHSE, OWNER	Controls whether the Loading module allows the user to perform order status enquiry requests	01	N
Loading Scan Multiples	WHSE, OWNER	Controls whether the user is allowed to scan multiple loaded items before being prompted to take the items to the Dock Door.	01	N
Loading Selection Type	WHSE, OWNER	Controls whether the RDT initially asks the user to load stock by Route/Load or Order Number. This can be changed by the user when loading.	37	R
Loading Sequence	WHSE, OWNER	The sequence in which orders will be loaded within the load (affects Loading By Bay Door only)	36	N
Loading Trailer Number	WHSE, OWNER	Controls whether the Loading module prompts the user to enter a trailer number value	01	N
Log Path	SYS	WCS Logging database - When this option is checked, you will be prompted to enter a location for the logging database. THIS OPTION MUST NOT BE CHANGED IF	25	

Name	Type	Description	Category	Default
		THE WCS SERVER IS RUNNING. When this is done, the logging files in the normal database are no longer		
Log Postponement	WHSE, OWNER	Whether pick postponements are recorded in the Exceptions Log	01	N
Loose Item Serial Number	WHSE, OWNER	Controls whether serial number entry is required when picking loose cases and units	9006	N
Marshalling Method	WHSE, OWNER	Controls whether orders are to be marshalled or not	9004	B
Maximum Putaway Quantity	WHSE, OWNER	Maximum quantity allowed to be received and putaway by UPC code (Bespoke)	04	0
Minimum Pallet ID Length	WHSE, OWNER	Controls the minimum length of SSCC entered in Receipt	04	0
Move Efficient Flag	WHSE, OWNER	Location or priority efficiency	05	L
Multi Stage Confirmation Message	WHSE, OWNER	Controls whether confirmation messages are sent to the WMS for multi stage tasks	02	N
Multi-Pallet Picking Sequence	WHSE, OWNER	Controls whether the first pallet picked or last pallet picked via WA Dual Cycling is taken to marshalling first	63	L
Multi-Pallet WADC	WHSE, OWNER	Determines whether the WADC modules allow multiple pallets to be picked at the same time	62	N
Multiple Putaway Tasks Prompt	WHSE, OWNER	Controls whether the RDT prompts the user to complete one or all of the putaway tasks when multiple putaway tasks exist for the customer pallet id	01	N
NADC Aisle Lock	WHSE, OWNER	The point at which an aisle is locked to prevent other RDTs using the aisle	32	L
NADC Crossover Method	WHSE, OWNER	The method by which the RDT NA drivers are moved to another aisle in their range during Dual Cycling.	18	T
NADC Skip Putaway	WHSE, OWNER	Allow full NADC users to skip putaways in aisles, and do the next pick immediately.	02	Y
NADC Threshold Priority	WHSE, OWNER	If using the Threshold crossover method, this parameter details the level at which tasks are considered urgent, to be actioned immediately.	17	4
New Stock Take Message Layout	WHSE, OWNER	BESPOKE: Changes the Stock Take message to WMS to a different extended format. USE WITH CAUTION	01	N
Nokia Barcodes	WHSE, OWNER	This rule controls whether the RDT will expect to scan Nokia barcode labels	01	N
Num Picks before RSBE	WHSE, OWNER	The number of picks to elapse between residual stock balance enquiries	04	0
OBS Menu	SYS, GRP	Controls access to the OBS Support Menu	01	N
Ora Database	SYS	The database the WCS connects to for the messages.	03	
Ora Incoming Queue Name	SYS	The Oracle queue on which Incoming messages are stored. Outgoing messages are stored by messages type on the queues defined in the table ORA Type Queues.	03	QMC
Ora Password	SYS	The password of the user for the connection to the Oracle database.	26	
Ora Priority Incoming Queue	SYS	The Oracle queue on which high priority messages are stored	03	
Ora User	SYS	The username for the connection to the Oracle database	03	SCE
Original Priority Audit	WHSE, OWNER	Controls whether an Exceptions record is created to capture the original priority of the pick / movement task	01	N
Pallet Case Label Threshold	WHSE, OWNER	Controls whether receipt labels are produced at pallet level or case level based on quantity	04	1
Pallet Enquiry Label Format	WHSE, OWNER	Format of pallet enquiry label	25	
Pallet Enquiry Print Labels	WHSE, OWNER	Controls if pallet label can be printed from a pallet enquiry	01	N
			01	N

Name	Type	Description	Category	Default
Part Pick Pallet Count	WHSE, OWNER	Controls whether Part Picking prompts users to enter a pallet count		
Part Replen Label Format	WHSE, OWNER	Format of the Part Replen label	25	
PC Generation Algorithm	WHSE, OWNER	Algorithm to generate Picking Containers	9002	
PC Prefix	WHSE, OWNER	Prefix for automatically-generated Picking Container	03	
Pick By	WHSE, OWNER	Controls what the RDT prompts for as confirmation that the correct item has been found for picking	23	N
Pick By Carton	WHSE, OWNER	Pick a quantity of stock by scanning individual cartons.	01	N
Pick By Order	WHSE, OWNER	Controls whether a picker is locked to task for a single order	77	N
Pick Catch Weight Per Case	WHSE, OWNER	Controls whether Catch Weights are entered at Case instead of Stock/Pick level. Default Disabled.	01	N
Pick Consolidate Group	WHSE, OWNER	For Consolidated picking: How to create groups of picks.	10	N
Pick for On-time Delivery	WHSE, OWNER	If enabled, this rule will ensure that picks are assigned to pickers in Priority, then OTD Date and Time sequence	01	N
Pick In Sequence	WHSE, OWNER	If picks have been placed on a Load, what sequence should orders be released for picking?	36	N
Pick Into Containers	WHSE, OWNER	Controls whether RDT Part Picking prompts for Picking Container IDs	39	N
Pick Label Prompt	WHSE, OWNER	Where should pick labels be prompted for?	29	P
Pick Multiple Containers	WHSE, OWNER	If enabled, allows creation of several containers in sequence	01	N
Pick Page Allocation	WHSE, OWNER	This controls how the WCS allocates picks to pickers.	12	P
Picker Replen by Quantity	WHSE, OWNER	Allow pickers, when doing their own replenishments, to replenish areas by stock moves, not pallet moves.	01	N
Picking Container Adjustment	WHSE, OWNER, GRP	Allow the user to adjust Picking Containers. Bespoke	02	N
Picks by Quantity	WHSE, OWNER	Allocates pick tasks to the RDT users by quantity, largest first.	01	N
Pre-Receipt Sort (Bespoke)	WHSE, OWNER, GRP	Allow Pre-Receipt Sortation (Bespoke)	01	N
Pre-Reposition	WHSE, OWNER	Bespoke: Pre-reposition all pending putaways for a stock code when a pallet of the same stock is repositioned	01	N
Print Ad Hoc Putaway Labels	WHSE, OWNER	Whether the RDT attempts to print labels for Ad Hoc Putaways	02	N
Print Ad Hoc Stock Move Labels	WHSE, OWNER	Controls whether the Ad Hoc Stock Move module prompts the user to print a label	43	N
Print Despatch Labels	WHSE, OWNER	Whether the RDT attempts to print despatch labels for picked stock.	30	N
Print Part Replen Labels	WHSE, OWNER	Whether the RDT attempts to print labels for Part Replenishments	43	N
Print Stock Despatch Label	WHSE, OWNER	Controls whether the Part Picking module allows stock level despatch labels to be produced	68	N
Priority Change Audit	SYS	Controls whether an Exceptions record is created to capture when a user changes the priority of a task	01	N
Purchase Order Entry	WHSE, OWNER	Enable Purchase Order entry during RF goods receipt, if the receipt contains lines from multiple Purchase Orders.	01	N
Queue Listener Agent	SYS	The Oracle agent defines which messages to take from the Oracle database queues, and what Agent to write	03	AG_CCWH

Name	Type	Description	Category	Default
		them as. Each instance of the WCS has a unique Agent name, usually per warehouse.		
Quick Pack	WHSE, OWNER	Allow Home Use orders not assigned to a route/load or assigned to a route/load individually to skip the deconsolidation process	01	N
RDT Box Drawing	SYS	What style of box-drawing the RDT's connected to this WCS will use.	44	1
RDT Wait Time	SYS	This is the amount of time that the RDT application will wait before re-trying communications to the WCS.	04	20
RDT_WCS LocalPort	SYS	This is the port that the WCS listens to for communications from RDTs.	04	15002
Receipt Default Pallet Type	WHSE, OWNER	During Goods Receipt, whether the RDT user is prompted for a valid Pallet Type at the start of the receipt. This will then be the default for all pallets subsequently received during that session for that user. Without this item being enabled, pressing ?R	01	N
Receipt Enter Type	WHSE, OWNER	Allow the user to enter the receipt type in RDT Goods Receipt	01	N
Receipt Expected Quantity Check	WHSE, OWNER	If enabled, this parameter makes the RDT compare the received quantity entered with the expected quantity pre-advised	02	N
Receipt Impressions Check	WHSE, OWNER	If the impressions quantity for a stock item is different to the impressions quantity preadvised, this parameter details the action the RDT is to take. Only for preadvices at pallet level.	22	N
Receipt Intake Stock Check	WHSE, OWNER	Controls Issue Life Check at Receipt	22	N
Receipt Label Format	WHSE, OWNER	Format of the receipt label printed, if printed from the WCS.	25	
Receipt Non-advised Stock Codes	WHSE, OWNER	Is the user allowed to receive stock codes that have not been preadvised for that receipt?	22	E
Receipt Pallet Count Check	WHSE, OWNER	If the number of pallets on a received stock item exceeds that preadvised, this parameter details the action the RDT is to take.	22	N
Receipt Pallet Qty Check (Pallet)	WHSE, OWNER	If the pallet quantity for a stock item is different to the pallet quantity preadvised, this parameter details the action the RDT is to take. Only for preadvices at a pallet level.	22	A
Receipt Print Labels	WHSE, OWNER	Controls where/if pallet labels are printed during the receipt process	21	N
Receipt Selection Type	WHSE, OWNER	How to find the receipt on the RDT - via Advice Note or GRN no.	08	A
Receipt Single Barcode	WHSE, OWNER	Allow users to scan single barcode for entry of some required elements for adding additional pallets	01	N
Receipt Standard Qty Check (Stock)	WHSE, OWNER	If the pallet quantity for a stock item is different to the standard pallet quantity, this parameter details the action the RDT is to take. Only for preadvices at stock level.	22	I
Receipt Total Qty Stock Check	WHSE, OWNER	If the quantity of a stock item exceeds the total preadvised, this parameter details the action the RDT is to take.	22	E
Receipt Type	WHSE, OWNER	How the RDT actions the Receipt process - either Blind (stock-level advice) or Check (Pallet-level advice)	07	B
Redundant Stock Check	WHSE, OWNER	If enabled, products marked as redundant are rejected when scanned at receipt	01	N
Regroup Order by Stock	SYS	Allow WCS Maintenance users to re-group an order's picks by the number of stock picks on the order, then by location.	01	N
Reprint Despatch	WHSE,	When enabled, the RDT will print despatch labels for	01	N

Name	Type	Description	Category	Default
Label at Decon	OWNER	orders when deconsolidated		
Request Putaway at Scan	WHSE, OWNER	Require the WMS to decide on a putaway location at the time of putaway scan, rather than at receipt	01	N
RF Use Estimated Pallets	WHSE, OWNER	If enabled, then the new estimated pallets message will be sent to the Calidus-3pl Mobile system	01	N
Seamless Exchange	WHSE, OWNER	If this rule is set, the RDT will check whether an exchange can be done immediately, without requiring the user to press the Error function key first.	01	N
Select Move Allow Held	WHSE, OWNER	Allow Select Move Function to include Held Movements	01	N
Select Stock Move by Stock	WHSE, OWNER	Allow selection of stock moves by Stock before Pallet	01	N
Send Aisle Status to WMS	WHSE, OWNER	For NA areas: Inform the WMS that the aisle has a truck in it.	01	N
Serial Maximum Length	WHSE, OWNER	Controls the maximum length of a scanned case serial number in Picking. Default 0 (disabled)	04	0
Serial Minimum Length	WHSE, OWNER	Controls the minimum length of a scanned case serial number in Picking. Default 0 (disabled)	04	0
Ship Pack Weight Check	WHSE, OWNER	If a weight entered during the Shipment Package Weight function is outside the tolerance value, what action should the RDT take?	22	N
Shipment Pallet Build Validation	WHSE, OWNER	Controls what validation is followed when assigning shipment packages onto shipment pallets	60	P
Single Picker Per Order	WHSE, OWNER	Assign related picks to user on first pick. Default Disabled	01	N
Split Face Sequence	WHSE, OWNER	Controls the sort sequence when Split Faces enabled	75	1
Split Pick Quantities	WHSE, OWNER	If enabled, allows large picks to be split into more than one pack	01	N
Split Tote	WHSE, OWNER	Allow the user to choose to split a picked line over several totes.	01	N
Stock Take Batch Check	WHSE, OWNER	When checking pallets during Stock Take, request the user to check the customer batch value	01	N
Stock Take Enter GRN	WHSE, OWNER	When adding pallets during Stock Take or Perpetual Inventory, request the user to enter a GRN number	01	N
Stock Take Sell By Date Check	WHSE, OWNER	When checking pallets during Stock Take, request the user to check the sell by date value	01	N
Task Identifier	WHSE, OWNER	Which field to use to identify pallets	06	P
Temperature Recording	WHSE, OWNER	Controls whether Temperature Recording is required at Pre-Advice	01	N
Tote to Carton Standardise	WHSE, OWNER	If enabled, the RDT screens will be amended to display Carton in place of Tote	01	N
Track Deconsolidation	WHSE, OWNER	When enabled, this rule will inform WMS when orders have been completely deconsolidated	01	N
Trolley IDs	WHSE, OWNER, GRP	Allow loading of orders into trolleys	02	N
Update CPID	WHSE, OWNER, GRP	Allow the user to update the customer pallet id value. Bespoke	02	N
Update CPID Label Format	WHSE, OWNER	Format of Update CPID Label	25	
Update CPID Print Labels	WHSE, OWNER	Controls if a pallet label can be printed from the Update CPID module	01	N
Use Dummy Checksum	SYS	Used to terminate the interface messages with a dummy checksum value (??)	01	N
Use WMS Pick	WHSE,	Controls whether pick tasks are assigned to a picker in	01	N

Name	Type	Description	Category	Default
Sequence	OWNER	WMS location pick sequence order		
Use WMS Rotation instead of Cust Batch	WHSE, OWNER	If this rule is set, wherever Customer Batch is displayed or entered during Picking or Deconsolidation, the RDT will display or request the entry of WMS Rotation instead.	01	N
User Select Pick Location	WHSE, OWNER	Is the user allowed to specify the location from which picking to start?	01	N
Vendor Managed Inventory	WHSE, OWNER	If this flag is enabled, supplier will be displayed and entered during standard rf modules	01	N
WA DC Exclude S to D moves	WHSE, OWNER	Ensures WA DC (interleaving) focuses more on emptying P&D locations rather than completing housekeeping moves.	01	Y
WCS Stock Despatch Label Format	WHSE, OWNER	Format of the stock despatch label	25	
WCS_WMS RemotePort	SYS	This is the port that the WMS listens to for communications from the WCS.	04	
Weigh Shipment Package	WHSE, OWNER	Allow the entry and validation of the Catch Weight during the Shipment Pallet Building process	01	N
Weight Tolerance	WHSE, OWNER	If weights are being checked by the Shipment Package functions, what tolerance is allowed (plus or minus, in kilograms)?	40	
Weight Volume Check	WHSE, OWNER	Check stock dimensions and weight are populated during Goods Receipt.	01	N
Window Caption	SYS	This field changes the displayed name of the WCS Server process, when running. This is useful when running multiple systems on one site or one server.	03	Warehouse Control Server
WMS HostName	SYS	This is the IP address or host/DNS name of the WMS machine.	03	*****
WMS System	SYS	Version of WMS that the WCS is connecting to.	56	O
WMS to WCS Try Limit	SYS	This is the amount of times the WCS will try to send a message to the WMS, if the message has been refused, before logging the error and trying the next.	04	3
WMS_WCS LocalPort	SYS	This is the port that the WCS listens to for communications from the WMS.	04	
Write RPM Logs	WHSE, OWNER	Bespoke: Write RPM record to Error Log. Default Disabled	01	N
Zero Negative Quantities	WHSE, OWNER	Zero negative values on enquiries. Default Enabled	01	Y

Categories:

Category	Value
01	N-Disabled
01	Y-Enabled
02	N-Disabled
02	P-Password-Protected
02	Y-Enabled
03	Plain Text
04	Plain Numeric
05	L-By Location
05	P-By Priority
06	C-By Cust Pallet ID
06	P-By Pallet ID
06	S-By Stock
07	B-Blind Receipt
07	C-Check Receipt
07	N-Non Pre-Advised Receipt

Category	Value
07	P-Non Pre-Advised Receipt & Putaway
08	A-By Advice No
08	C-By Cust Pallet Id
08	G-By GRN No
09	L-By Load Number
09	O-By Order Number
10	N-None
10	S-By Stock/Batch
11	C-Combo Check
11	N-Disabled
11	Y-Enabled
12	A-By Aisle
12	C-By Route/Load WMS Consolidation
12	L-By Load/Aisle
12	O-By Order Number
12	P-By Order Page
12	R-By Reference
12	Z-By Area/Zone
13	Date
14	A-Audit
14	E-Error
14	I-Information
14	W-Warning
15	F-Full/Blind
15	P-Preadvised/Partial
16	A-Area (m2)
16	I-Impressions
16	L-Length (m)
16	Q-Quantity
16	V-Volume (m3)
16	W-Weight (kg)
17	Priority Values
18	M-Manual
18	T-Threshold
18	W-Weighting
19	0-Disabled
19	1-Fetch Details
19	2-Display Location
20	B-By Bay Door
20	C-By Carton
20	F-By Final Media Number
20	I-By Picking Container
20	L-By Picking Container and Location
20	N-Disabled
20	P-By Pick
20	V-By Vehicle/Store/Picking Container
21	C-WCS
21	M-WMS
21	N-Neither
21	P-WMS - Prompt For Printer on WCS
21	Q-WCS - Quantity
21	R-WCS - Receipts Only
22	A-Authorisation Required

Category	Value
22	E-Error
22	I-Informational Message
22	N-None
23	B-By Stock and Batch
23	L-By Stock and Batch (Line Type)
23	N-No Id
23	P-By Pallet ID
23	S-By Stock Code
23	V-By Pallet/Stock/Supplier
23	X-By Pallet and Stock
24	Plain Text (with directory Browser)
25	Plain Text (with File browser)
26	Plain Text (password text)
27	Date (with Date Picker)
28	Plain Text (with Location Type lookup)
29	D-Printer Dependant
29	M-Marshalling
29	P-Pick
29	S-At Start Only
30	C-Per Case
30	D-Per Despatch Pallet
30	N-Disabled
30	P-Per Pick
30	R-Request Quantity
30	W-WMS
31	D-Deconsolidate Only
31	N-Disabled
31	P-Deconsolidate and Pack
32	A-At Allocation
32	L-At Location
33	Aisle Length
34	Bay Length
35	Level Length
36	A-By Drop Sequence
36	D-By Reverse Drop Sequence
36	N-Disabled
37	C-By Customer Order
37	O-By Order Number
37	P-By Picking Container's Order
37	R-By Route/Load
38	N-Disabled
38	P-Pick Only
38	R-Goods Receipt Only
38	Y-Enabled
39	E-Enter Tray Values
39	G-Generate
39	N-Disabled
39	O-Check Order
39	P-Password_Protected
39	S-Generate SSCC
39	T-Pre-Set Tray Values
39	Y-Enabled
40	Decimal

Category	Value
41	M-At Marshalling
41	N-Disabled
41	S-At Start
42	E-At Each Dispatch Pallet
42	L-At Location
42	N-Disabled
42	S-At Start Only
43	N-Disabled
43	R-Request Quantity
44	0-Single Line
44	1-Double Line
44	1024-Black (Reverse display)
44	256-Simple
44	512-Block
45	C-Stock Code
45	O-Stock Description ((Line 1 only)
45	T-Stock Description (Line 1 and 2)
46	C-Size Pack Text from Stock Code
46	I-Impressions Pack Size
47	C-WCS
47	M-WMS
48	D-Detail
48	S-Summary
49	B-Blind Receipt
49	P-Putaway
50	E-Enter first and confirm
50	N-Disabled
50	O-Enter and Validate
51	O-By Order Number
51	R-By Route/Load
52	C-Complete Entire Reference
52	N-Disabled
52	Y-Enabled
53	Plain text (with Reason Code lookup)
54	C-Check Order
54	L-Check Countback Level
54	N-Disabled
54	O-Check Order Password Protected
54	P-Password Protected
54	Y-Enabled
55	C-Check Order
55	N-Disabled
55	Y-Enabled
56	414-'414' - Powerhouse WMS
56	770-'770' - Oracle WMS
57	A-Automatic
57	N-Disabled
57	P-Password Protected
57	Y-Enabled
58	G-Goods Receipt Only
58	N-Disabled
58	P-Pick Only
58	Y-Enabled

Category	Value
59	N-Disabled
59	P-At PND
59	Y-Enabled
60	P-By Order Priority
60	S-By Order Priority/Store Code
61	E-Use Estimated Values
61	N-Disabled
61	Y-Enabled
62	I-Picking Only
62	N-Disabled
62	U-Putaway Only
62	Y-Enabled
63	F-First Pick First
63	L-Last Pick First
64	F-Full Before Part
64	M-Mixed Sequence
65	M-Multi Marshalling Locs
65	N-Disabled
65	R-Require new Location
65	S-Suggest new Location
65	Y-Enabled
66	M-Minutes
66	S-Seconds
67	A-Automatic
67	N-Disabled
67	Y-Enabled
68	D-Per Despatch Pallet
68	N-Disabled
69	I-Task Identifier
69	S-Stock/Sell-By-Date
70	B-Both
70	I-Incoming
70	O-Outgoing
71	00-Default Identifiers
71	01-Stock (240) Then GTIN (01)
72	N-Disabled
72	R-Returns Only
72	Y-Enabled
73	A-Authorisation Required
73	E-Error
73	N-None
73	W-Warning
74	C-Check Case scans only
74	N-Disabled
74	U-Check Unit scans only
74	Y-Check Case and Unit scans
75	1-Up Odd, Up Even
75	2-Up Odd, Down Even
75	3-Up Even, Up Odd
75	4-Up Even, Down Odd
75	5-Down Odd, Down Even
75	6-Down Odd, Up Even
75	7-Down Even, Down Odd

Category	Value
75	8-Down Even, Up Odd
76	C-Customer Batch
76	E-Error
76	P-Pallet ID
76	S-Sell By Date
77	F-Full Pallets
77	N-Disabled
78	M-Multiple Orders
78	S-Single Order
79	A-Ascending Aisle
79	B-Ascending Aisle/Bay
79	N-Default
80	D-Default
80	R-Reduced
81	Plain text (with Reason Code lookup & Blank)
82	C-Loc/Case/Unit/Rot
82	Q-Loc/Qty/Area
83	B-Part Picks and Full Pallet Picks
83	D-Disabled
83	F-Full Pallet Picks Only
83	P-Part Picks Only
9001	-Standard site (No bespoke rules)
9001	BIBBY-Bibby
9001	BRAC-Culina Brackmills (HOD)
9001	BRETT-Bretts Transport
9001	CENT-Century Logistics
9001	CERT-Culina Port Salford (PS)
9001	COV-DHL Coventry
9001	DHLSKM-DHL Skelmersdale
9001	ELLIS-Ellis Hanworth
9001	FURRY-DHL EXEL Furry Park
9001	FWLMA-XKO Sites
9001	HAN-Hanson
9001	HODD-Culina Hoddesdon (OCT)
9001	MOR-Moran
9001	NIJ-DHL EXEL Healthcare
9001	POD-Port Of Dover
9001	POT-Potter
9001	SCH-Schenker
9001	TBI-DHL EXEL Dublin RHR
9001	TBW-DHL EXEL Whitwood
9001	TNT-TNT
9002	JJD-JJD
9003	B-Blank
9003	C-Largest Case Qty First
9003	Q-Largest Quantity First
9003	S-Sort By Product Strength
9004	B-Disabled
9004	P-By Picking Container and Location
9006	N-Disabled
9006	S-Allow Shortages
9006	Y-Required
9007	Plain text (with Media Type lookup)

22.2 Printing from the WCS

There are many ways in which printers can be set up for WCS use.

- The printers can be fixed or wireless.
- They can be Windows printers (networked or direct connect), UNIX queues or Wireless (via TCP/IP settings).

For all except wireless, this requires the set-up of a Windows printer (or queue). The WCS is then informed of the printer???s existence using the WCS Maintenance Printers Maintenance form.

Note: Although these methods can be used for standard network printers, it is recommended that the printer then be used exclusively for WCS printing.

22.2.1 Setting Up Wired Windows Printers

The printer must first be set up on the RDT or WCS server. This should be done following your network administration policy.

Once this is completed in Windows, the printer must then be set up for the WCS to recognise. To do this, use the WCS Maintenance Printers Maintenance screen.

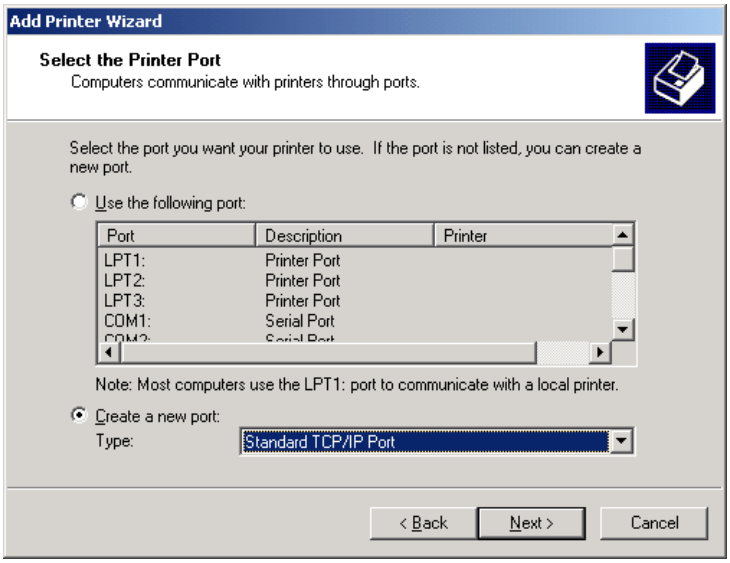
22.2.2 Wireless Printing

You can set up a Windows printer for the wireless printer, using the TCP/IP settings or, more commonly, the WCS can be set up for direct printing.

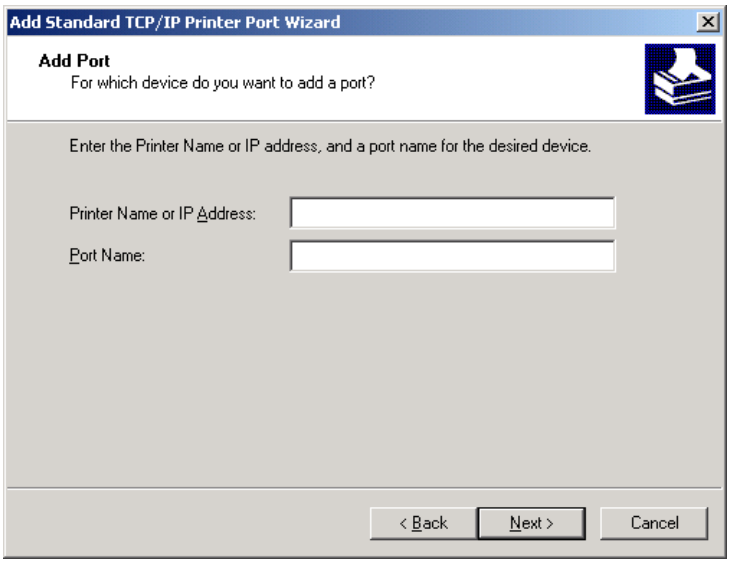
22.2.3 Windows Queue

This method is extremely similar to setting up Windows printers (see 4.2), but the method for setting up the Windows queue is different. You should follow your network administration policy for setting up printer queues. The following demonstrates how the printer would be set up:

Add a new printer from the Control Panel. Choose to set up a local printer, and choose the option to create a new port, as below:



Choose Standard TCP/IP port. At this point, you will be taken through the following wizard.



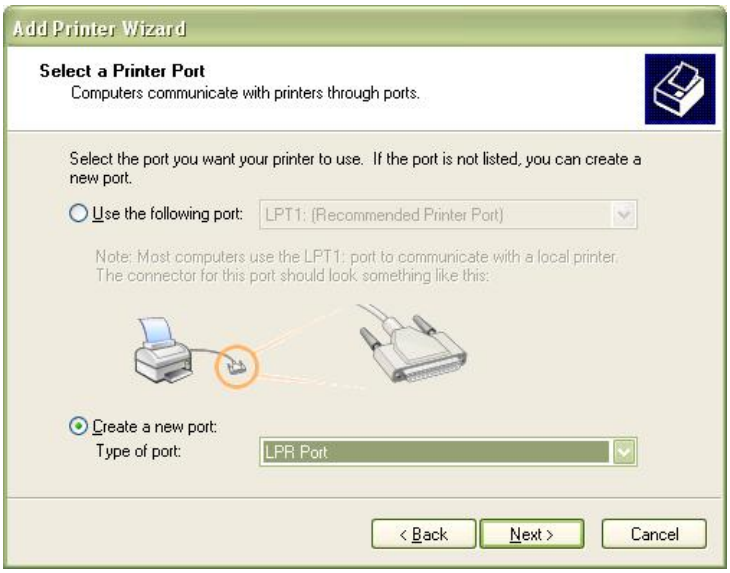
When this port is added, the first Windows Printer wizard will be completed, and allow you to test print.

Once this is completed in Windows, the printer must then be set up for the WCS to recognise. To do this, use the WCS Maintenance Printers Maintenance screen, choosing the queue from the drop-down list of Windows printer queues.

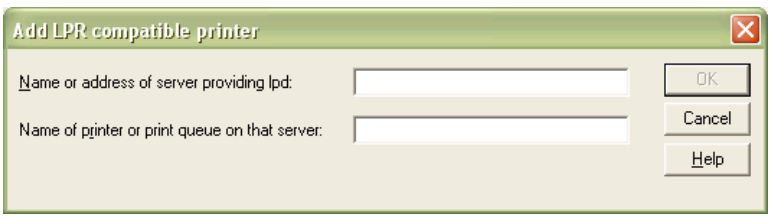
22.2.4 UNIX Queue

This is similar to the Windows Queue setup (above).

Add a new printer from the Control Panel. Choose to set up a local printer, and choose the option to create a new port, as below:



Choose LPR port. At this point, you will be taken through the following wizard.



Enter the name or IP address of the UNIX machine hosting the queue, followed by the name of the printer queue on that server. Click OK when this is completed.

You will then be prompted through the standard 'Install Printer Software' dialogue - choose 'Generic/Text Only' as the Manufacturer/Printer.

Once this is completed in Windows, the printer must then be set up for the WCS to recognise. To do this, use the WCS Maintenance Printers Maintenance screen, choosing the queue from the drop-down list of Windows printer queues.

22.2.5 Direct Connect

Note: This is the normal set-up for wireless printing in the WCS.

In this option, the printer merely needs to be set up within the WCS Maintenance Printers Maintenance screen.

23 Category:Technical Guides

All Technical Guides

24 Wavelink Client Support

The purpose of this document is to provide clients with instruction to maintain Wavelink Client on their Devices.

24.1 Creating a Host connection

1. Click Windows Button ( )

2. Launch the **Wavelink** Client.

The client main screen appears.

Figure 1. The Main Screen

3. Tap the **Add New** icon.

The Edit Connection dialog box appears.

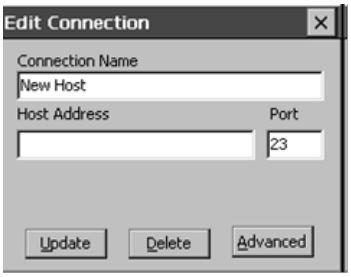


Figure 2. The Edit Connection Dialog Box

4. In the Connection Name text box, type the name of your connection e.g. **Larkhall Test 2** .

   This name appears beneath the host icon in the client main screen.

5. In the Host Address text box, type the IP address of your Wavelink server e.g. **10.162.132.105**

6. In the Port text box, type the port number of your Wavelink Server's port e.g. **2002**

7. Click **Update** to confirm the settings.

The Wavelink Client creates the new host connection. The name of the connection appears beneath the corresponding icon in the client main screen.

25 Android Setup Guide

25.1 Downloading the Android App

Side-load the Barcoders Android application on your device.

- Enter URL in Google Search or Chrome, or scan the barcode in above, or scan using Zebra Xing scanner app.

```
https://www.barcoders.com/app-release.apk
```

- Download APK (confirm if asked)
- Confirm name if asked.
- Open Downloaded APK (from open/install button or from notification drag down from top of screen or from Apps/Downloads or from Apps/Files).
- Confirm installing.
- If prompted confirm settings to allow installing unsafe apps, then return to * above.
- Install - confirm install location if requested (accept default)

The application will be named "Warehouse Terminal" and have a green Barcoders icon for its graphic. Drag to the home screen for easy access.

25.2 Configuring the Android App

- When you start the APK for the first time, it will display an IP address pointing to our RFServer here. You?ll need to change it to point to the IP address of your Android RFServer. To do this navigate to https://www.barcoders.com/make-server-barcode.php and generate a barcode PNG for the IP address of your Android RFServer. Print it out and scan it at the step above. You may have to exit and get back in for it to recognize the new IP address.
- When the menu come up, select the bottom option and test.

25.3 Zebra Enterprise Keyboard

Zebra provide a freely-downloadable enterprise keyboard that can be configured for function key presses.

https://www.zebra.com/gb/en/products/software/mobile-computers/enterprise-keyboard.html

https://www.zebra.com/us/en/support-downloads/software/productivity-apps/enterprise-keyboard.html

https://techdocs.zebra.com/enterprise-keyboard/4-1/guide/about/

https://www.zebra.com/us/en/support-downloads/software/productivity-apps/enterprise-keyboard-designer.html

There are two versions:

- Version 1.6 does not allow function keys. Only works on Android 5 below

- Version 4 allows function and special keys to be set up. Only works on Android 6 above.

Versions should be downloaded from the links above. Alternatively, these can be supplied by Aptean for sideloading.

25.3.1 General Configuration

After installation, the keyboard must be enabled.

- Go to Settings/System/Languages/On-screen Keyboard/Manage On Screen Keyboard.
- Enable Enterprise Keyboard.

On devices with a physical keyboard:

- Exit and return to any app that allows the popup keyboard and display it.
- Click the keyboard icon in the bottom right.
- Enable "Show Virtual Keyboard".

25.3.2 Zebra EKB v1.6

Guide: https://techdocs.zebra.com/enterprise-keyboard/2-0/guide/settings/

Function keys can be set up on this standard keyboard (on this or the later version).

- Go to Settings/System/Languages/On-screen Keyboard/Manage On Screen Keyboard.
- Click Enterprise Keyboard.
- Click Remapping
- Pick the key to be remapped on which layout - there are 4 on Numeric, 1 on Alpha and one on Symbol that can be remapped.
- Remap the key to output Unicode (U+24BB)

The remapped key will then display as an F on the keyboard.

You can then hit the F key - an F will appear, and then you can enter the number keys 1-9 and hit ENTER - this will enter the selected function key e.g. the remapped key, plus 8 plus ENTER will send F8.

25.3.3 Zebra EKB v4.x Configuration

Creation of full keyboard layouts can be completed through the Zebra EKB Designer. This tool allows creation of multiple keyboard layouts.

- Guide:
  - https://techdocs.zebra.com/enterprise-keyboard/latest/guide/settings/
  - https://techdocs.zebra.com/ekd/1-9/guide/about/
- Keycodes: https://techdocs.zebra.com/mx/keymappingmgr/
- Download:

https://www.zebra.com/us/en/support-downloads/software/productivity-apps/enterprise-keyboard-designer.html

You will need to deploy to each device. This can be through:

- The EKD application itself, device by device.
- Sideload, through ADB, device by device.
- Your chosen MDN software if it supports it.

The blow guide focusses on deploying a pre-created custom keyboard layout through the EKD software. You will need:

- The EKD software
- The keyboard layout
- A direct connection between the device and the PC running the software.

The sample SAP project works perfectly on supported devices - download from here:
https://techdocs.zebra.com/ekd/latest/samples/.

- Get the keyboard layout project from URL or pre-created (MC3x-FKeys)
- Start EKD
- Load the project
- Select a layout
- Connect the device to your computer
- Send to the device

Alternatively, this designer keyboard can be sideloaded onto the device into the following area:
/enterprise/device/settings/ekb/config

Once the keyboard is loaded, the layout must be enabled.

- Got to DataWedge
- Select the profile associated to your app (in this case BC-AndroidTerminal-v2)
- Click the Enterprise Keyboard section
- Ensure Enabled is checked.
- Click Select Layout
- Choose "qwertylayout" as the default under the loaded EKD layout project (MC3x-FKeys)

Now the standard keyboard will be the selected custom keyboard layout.

The keyboard supports

- Alpha uppercase and lowercase layouts
- Accessible numbers and symbols when long-pressing keys
- Symbols layout
- Numeric Only layout
- Functions layout, supporting
    - Numbers
    - Function Keys
    - ESC key
    - Cursor Keys
    - and more.

When displayed, the keyboard will start on alpha layout.

- Use the Caps or ABC key to switch between Alpha Uppercase and Lowercase.
- Use the 123 key to switch to numeric
- Use the FUNC key to switch to function and control keys (including cursor keys)
- Use the /*?# key to switch to symbol keys.

26 Android Usage

26.1 Downloading the Android App

Side-load the Barcoders Android application on your device.

- Enter URL in Google Search or Chrome, or scan the barcode in above, or scan using Zebra Xing scanner app.

```
https://www.barcoders.com/app-release.apk
```

- Download APK (confirm if asked)
- Confirm name if asked.
- Open Downloaded APK (from open/install button or from notification drag down from top of screen or from Apps/Downloads or from Apps/Files).
- Confirm installing.
- If prompted confirm settings to allow installing unsafe apps, then return to * above.
- Install - confirm install location if requested (accept default)

The application will be named "Warehouse Terminal" and have a green Barcoders icon for its graphic. Drag to the home screen for easy access.

26.2 Configuring the Android App

- When you start the APK for the first time, it will display an IP address pointing to our RFServer here. You?ll need to change it to point to the IP address of your Android RFServer. To do this navigate to https://www.barcoders.com/make-server-barcode.php and generate a barcode PNG for the IP address of your Android RFServer. Print it out and scan it at the step above. You may have to exit and get back in for it to recognize the new IP address.
- When the menu come up, select the bottom option and test.

26.3 Using the app

26.3.1 Main Screen

When the application starts, you will be presented with an initial connection screen, which will then display all installed systems, usually as follows:

- (Customer) TEST system
- (Customer) LIVE system
- (Customer) LIVE system - site 2

You can click the Cancel button to exit the menu, and the back button to exit the app completely.

26.3.2 Settings

Application settings can be accessed by long-pressing anywhere on the screen.

This will show you a menu allowing you to modify the media volume or access the settings.

The following settings are supported (also indicating recommended values):

- **Voice** settings:
  - *Enable Voice* - default Disabled. Can be enabled to read all dialogue and error messages.
  - *Reading speed* - default 5. Recommended: 6
- **Display** settings
  - *Enable Image Popups* - default Disabled. Recommended: Disabled.
  - *Image Popup Duration (seconds)* - default 2. Recommended: 2.
- **Network** settings
  - *Connection Timeout (seconds)* - default 10. Recommended: 10.
- **Monitoring** settings
  - *Log Outbound Data* - default to Off, can set to On.

26.3.3 Keyboard

You can use the device's keyboard and scanner to enter data. You can also call up a pop-up keyboard by pressing anywhere on the screen.

The application will ensure that you can see the data being entered on the screen.

Clicking the Android Back button, pressing anywhere on the screen or entering test with the tick or Enter key on the keyboard will hide the keyboard.

The application will use the configured Android system keyboard. Note that the default Android keyboard does not support the following:

- Function keys
- CLR/ESC button
- Cursor buttons.

Zebra provide a freely-downloadable enterprise keyboard that can be configured for function, control and cursor key presses (depending on your Android version). This may be used on any device, with or without a physical keyboard.

Where the application uses function keys, the function keys may be used on any physical or popup keyboard.

The Android Back button (either physical or on the screen) is used as the CLR or ESC button.

Note: On some devices, the physical cursor UP and DOWN keys do not work as expected. In this case, use the Zebra Enterprise Keyboard for the cursor keys.

26.4 Scanner

The scanner on your device will be enabled by default for all fields.

Long-pull the trigger to scan barcodes - the scanner will stop once it has red the barcode.

If Voice is enabled, a short-pull of the trigger will repeat the last phrase that the device spoke.

26.5 Troubleshooting

When using the app on a wireless device, the application being used is subject to the connectivity of the device to the network and to the application. If there are any issues with the network connectivity or the app cannot be accessed, the application will display the main screen, showing "Error Connecting". Ensure that you have a network connection, then hit any key on any physical or popup keyboard to reconnect

27 Forcing Additional Wavelink Licenses

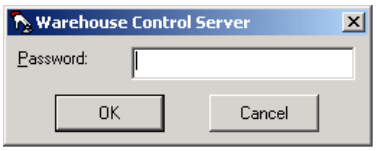
27.1 Preparation

Ensure that all RDT users are logged off the system.

27.1.1 Re-start WCS-Server application

Log on the WCS Server machine and locate the WCS-Server application:

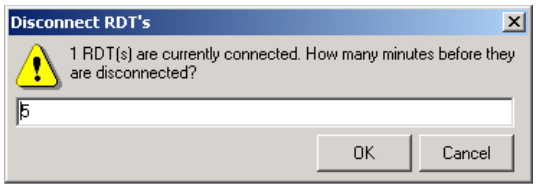
To stop, click the '**X**' in the corner:



Enter the password.

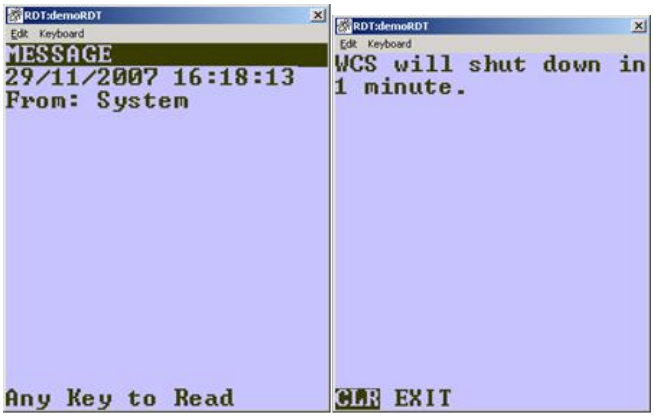
Click '**OK**'

If any RDT users are connected, you will be prompted how long to wait before logging them off:



If you enter 0, the WCS-Server application will exit immediately without informing any connected RF users.

If you leave a positive number of minutes in here, the WCS-Server will commence a countdown on the screen, and will send each connected RF user a message, to exit the system immediately.

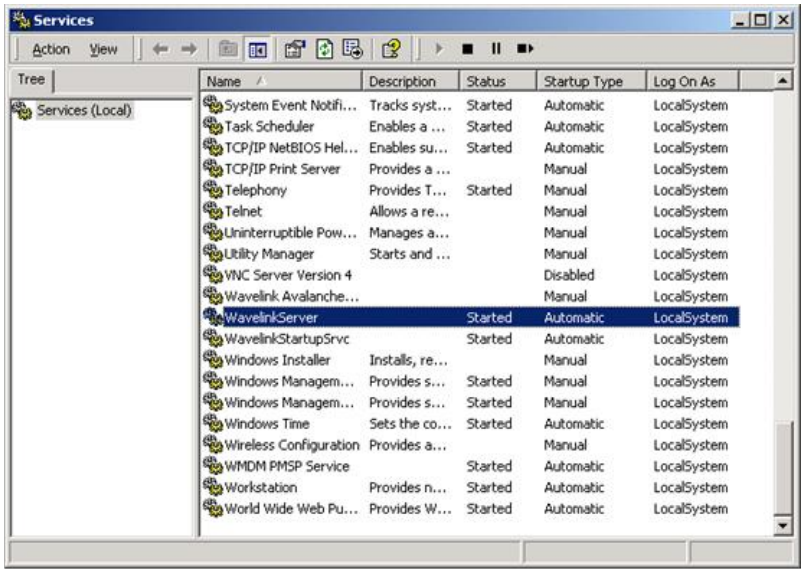


To restart the WCS-Server application, choose the application from the *Start menu/Programs/Warehouse Control Server/WCS Server* shortcut.

When the server restarts, the WCS will reconnect to any RDT users when they next press a key:

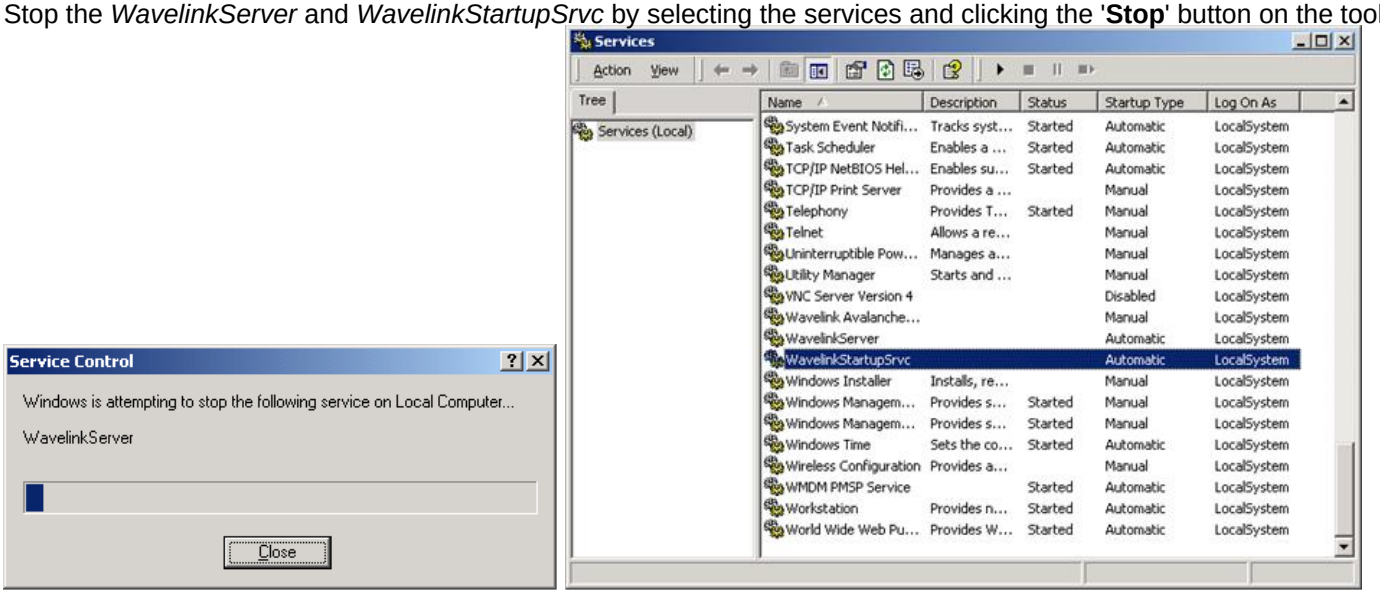
27.1.2 Stop and Start the Wavelink Services

Note: Restarting the Wavelink services will forcibly disconnect any users currently connected. Any users disconnected in this way may require their locks clearing through the WCS Maintenance application (if they were performing a task when forcibly disconnected). It is also possible that RF applications that have been forcibly disconnected in this way may not be killed efficiently by the operating system. Therefore these orphaned or 'spinning' processes may need to be killed manually - see Appendix A

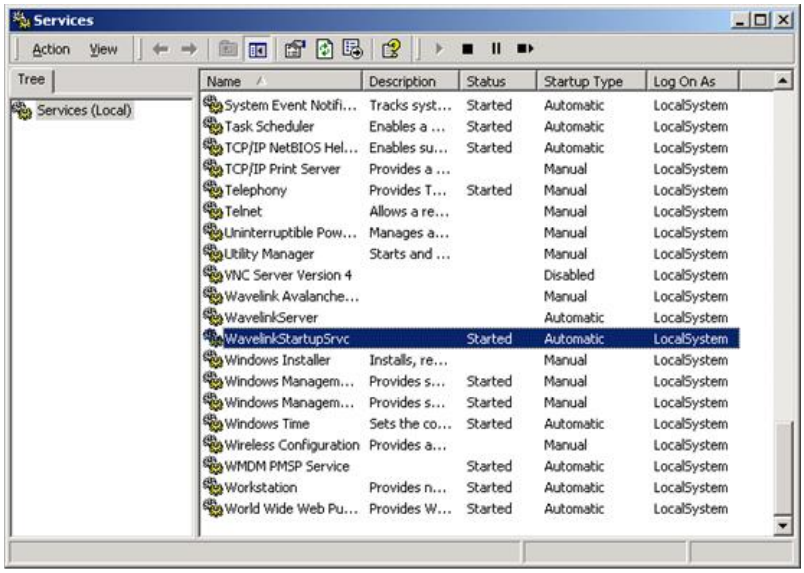


Start the Services control panel by clicking on *Start/Settings/Control Panel/Administrative Tools/Services*.

Stop the *WavelinkServer* and *WavelinkStartupSrvc* by selecting the services and clicking the '**Stop**' button on the toolbar:

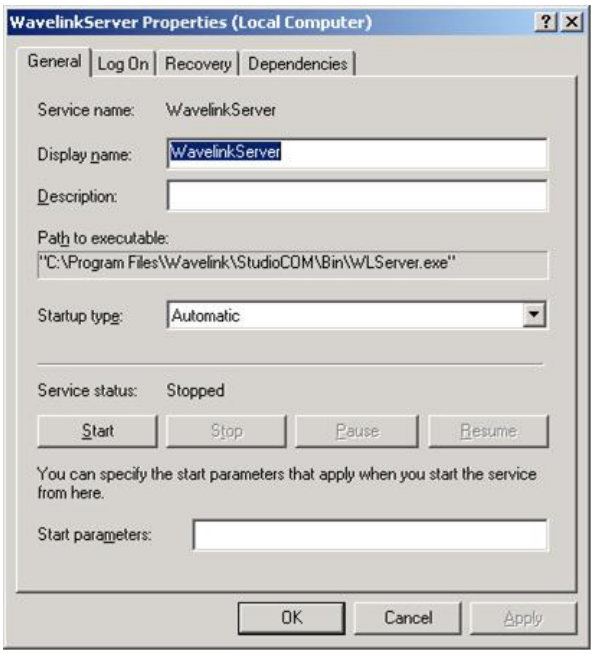


Start the *WavelinkStartupSrvc* Service by selecting the service and pressing the '**Start**' (play) button on the toolbar.

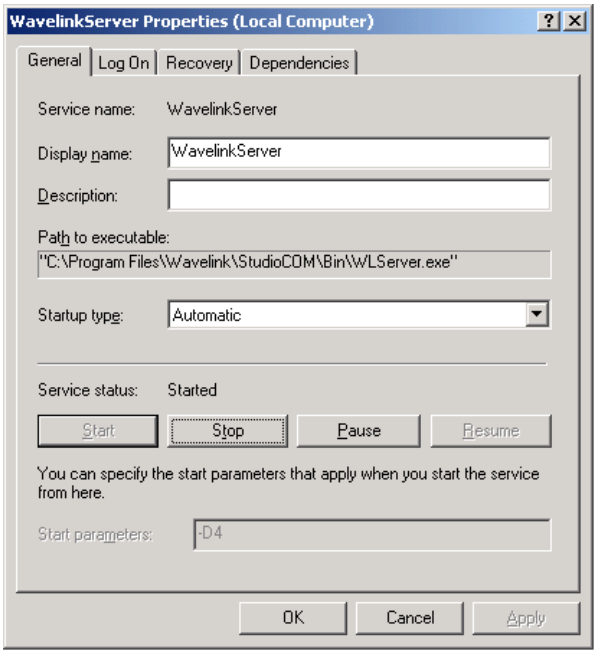


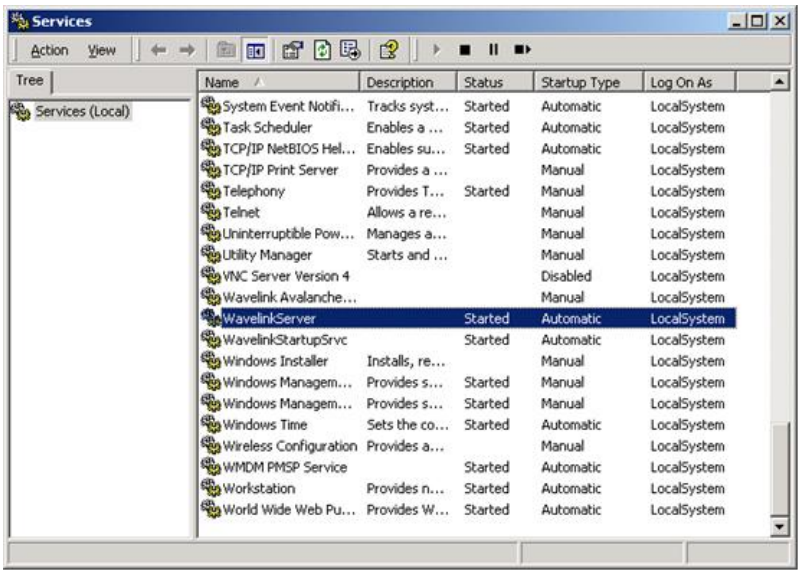
Start *WavelinkStartupSrvc* Service by selecting the service and pressing the '**Start**' (play) button on the toolbar.

Note: At this point, you may want to enable extra diagnostic messages in Wavelink, to help resolve the problem. If so, **do not** start the process this way, but right-click on the Wavelink service and choose *Properties* from the pop-up menu.



Enter -D4 in the Start parameters, then click '**Start**':





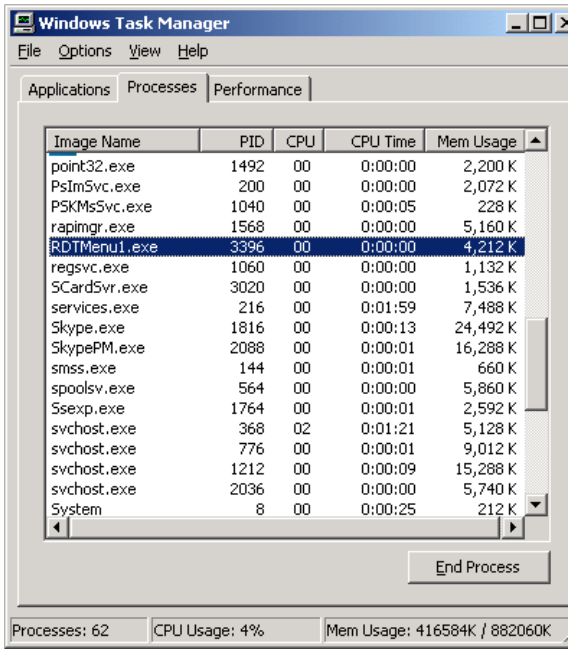
Note: The Debug levels for Wavelink Server are:

Debug Level	Purpose
0	No debug messaging at all
1	Notifies the event log and the WaveLink log files of the WaveLink server start-up and termination.
2	Level 1 messages plus major application errors
3	Level 2 messages plus minor application errors and warnings
4*	Level 3 messages plus current action messages.

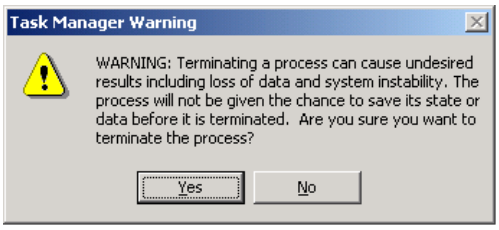
*Level 4 debugging also enables the WaveLink API debug messaging.

27.2 Appendix A: Killing Orphaned RDT Processes

Run Windows Task Manager:



Orphaned processes will be named 'RDTMenu1.exe' and will be constantly taking a large amount of CPU. Once these have been identified, click on the RDTMenu1 processes taking the CPU and click '**End Process**'.



Click '**Yes**' - this will kill the process.

If necessary, repeat this process to kill all the orphaned RDTMenu1 processes.

28 Introduction

This document is intended for the use of training users in the use of the Calidus 3*pl* system, when the Calidus 3*pl*-Mobile system is implemented. This guide should be used by super-users and testing teams during initial set-up.

This document assumes that the installation has taken place (as described in the document C3PL-M Installation Guide) and that set-up has occurred and a connection established to the Calidus 3*pl*.

A familiarity is required of the use of the Calidus 3*pl*.

29 System Overview

29.1 Operation

As can be seen from the diagram, Calidus 3*pl* runs on a UNIX server, while Calidus 3*pl*-Mobile runs on a Windows Server in this implementation.

In the diagram, Calidus 3*pl* has been split into three areas.

The non-shaded area is the manual Calidus 3*pl* system, being the screens and methods currently used to enter and confirm tasks.

The wavy shaded area shows the portion of Calidus 3*pl* that sends messages to the WMS interface. These are covered in great detail in following sections.

The dotted area contains Calidus 3*pl* RDT update programs that automatically do the work of the confirmation processes in manual Calidus 3*pl*. For example, one of these processes might confirm movements; another might confirm orders as picked. They work by receiving confirmation of tasks completed from Calidus 3*pl*-Mobile. Those messages (of tasks to be completed, and confirmation of tasks completed) are sent by the interface.

Both systems have an interface; Calidus 3*pl*'s is referred to as the WMS interface, Calidus 3*pl*-Mobile's as the WCS interface. Both need transmitters (to send their messages) and receivers to get messages back. As can be seen from the diagram, Calidus 3*pl* sends messages to Calidus 3*pl*-Mobile's receiver program, WCS Server through an Oracle Advance Queue. When messages are being sent back to Calidus 3*pl*, Calidus 3*pl*-Mobile's transmitter program, also WCS Server, sends messages to Calidus 3*pl* by enqueuing messages on Oracle Advance Queues in the WMS database.

The third part of the interface consists of the Merge processes. In Calidus 3*pl*, these consists of many processes which we route messages to using the Queue Reader processes. These route the messages to the Merge processes (dotted area of the RDT update programs).

So, let's look at the progression of tasks through this system from start to finish. For this example, we'll use a simple housekeeping pallet movement.

When the task (move pallet 1 from A to B) is raised, the message is passed to the WMS Interface Queue. The Queue passes the information to the WCS Server. Note: Only when the message is fully processed is this removed from the queue, ensuring messages are never lost).

Once WCS's receiver has the message, merges the message to the database. This identifies the type of message (a pallet movement), and checks that everything is OK about the message's contents. When satisfied of the contents, the task is put in the main WCS database, ready for use.

When an RDT user requests a task, and they are to be allocated movement tasks, WCS will allocate the closest movement to that user's location, or in priority order. In our example, this means they are given the movement we raised on Calidus 3*pl*. They are told to get the pallet 1 from location A and take it to location B, there scanning the check digits of the destination for confirmation.

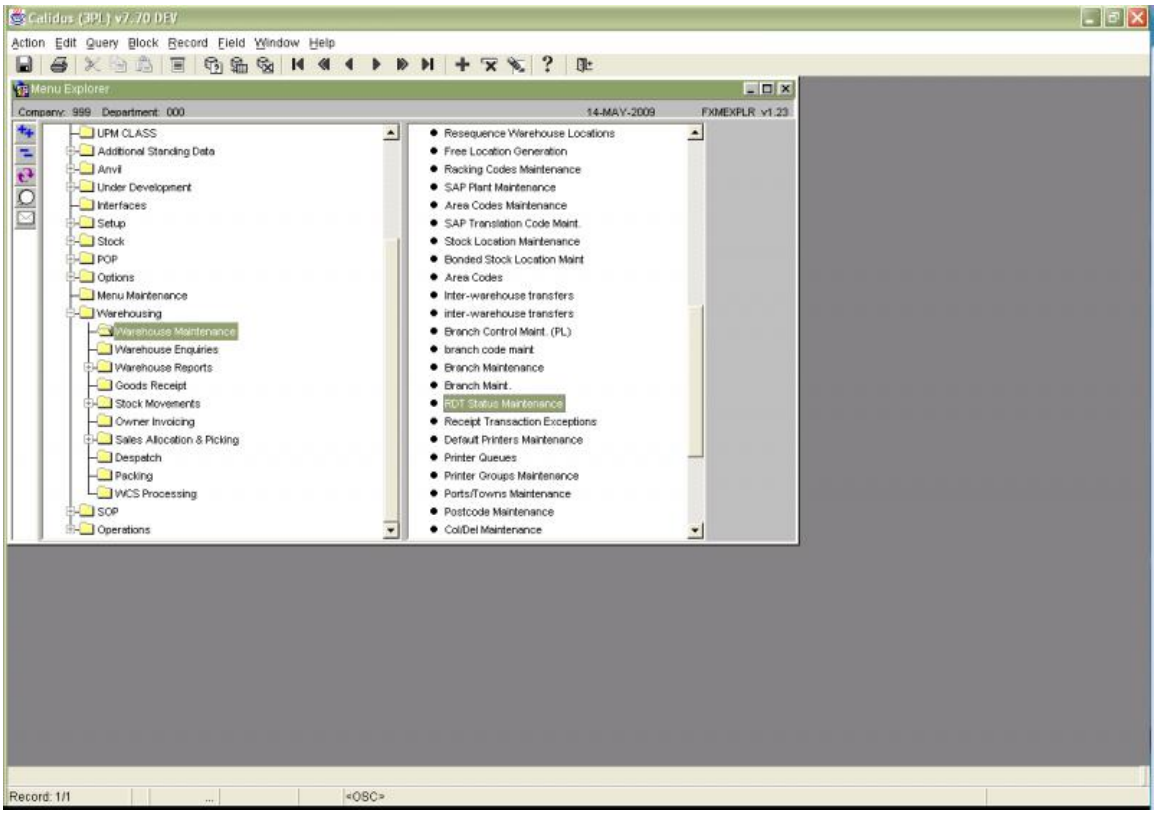
Once they have completed the task, Calidus 3*pl*-Mobile sends a completion message to the Calidus 3*pl* receiver queue.

The Queue Reader associated to the queue identifies the type of message, in our example, a movement completion message. The message is then routed to the correct RDT update process. Again, messages are only removed from the queue when correctly processed.

The RDT update process examines the contents of the message for validity, and then updates all the Calidus 3*pl* data files that you would expect if it was confirmed manually in the Pallet Move Confirmation screen.

30 RDT Control Processes

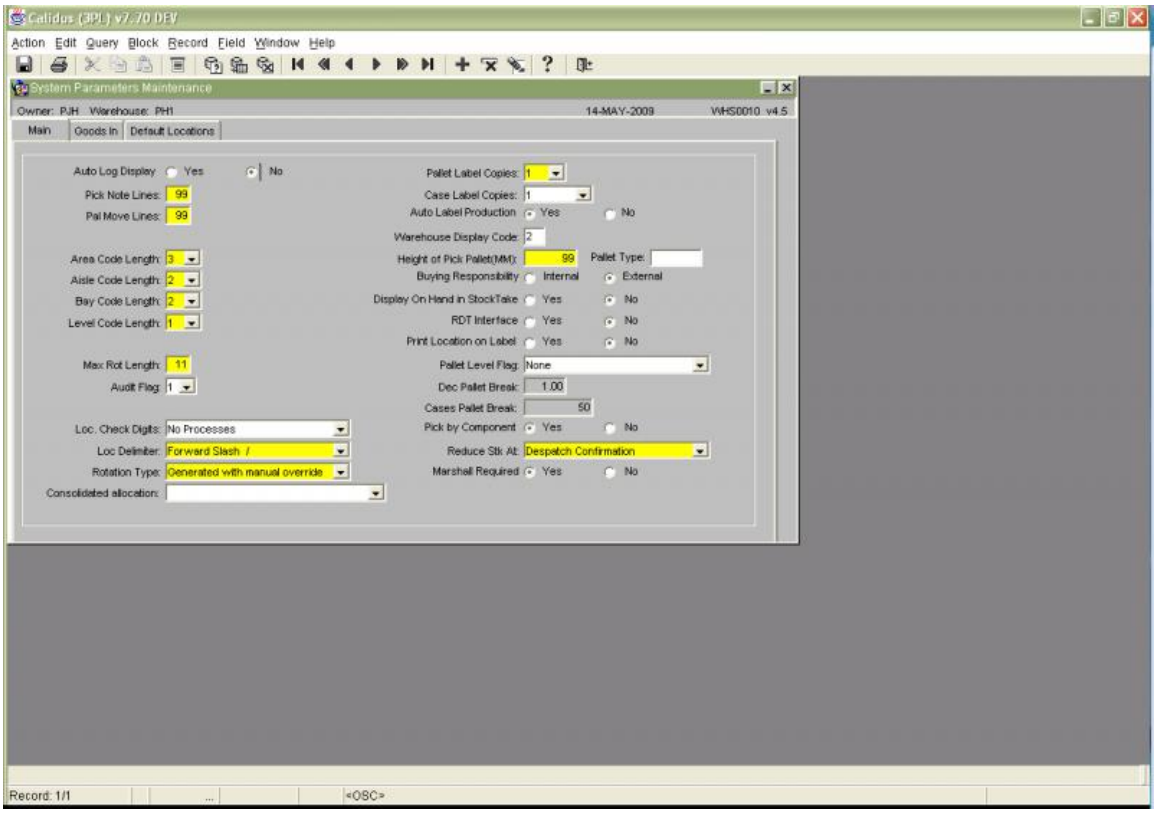
30.1 Menus



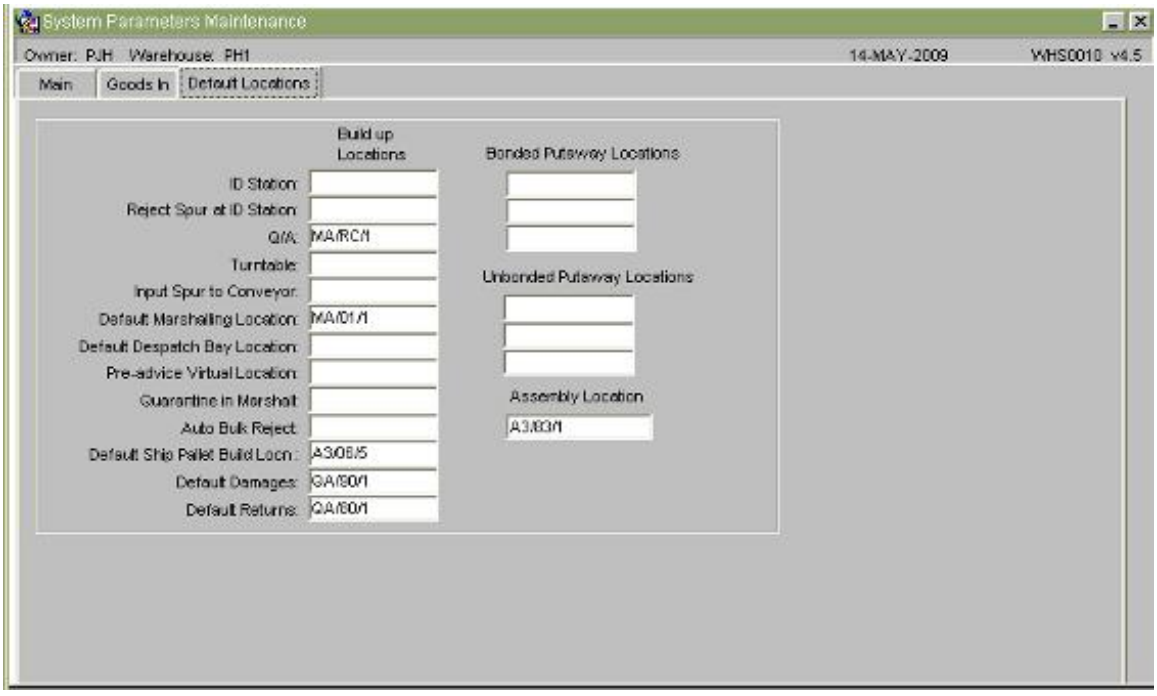
The menu is normally located on the top flexible menu.

30.2 System Parameters

In order to send RDT messages or tasks to Calidus 3*pl*-Mobile, the Calidus 3*pl* system must be informed that the Interface to Calidus 3*pl*-Mobile is present. This is enabled via the 'RDT Interface' flag on system parameters.



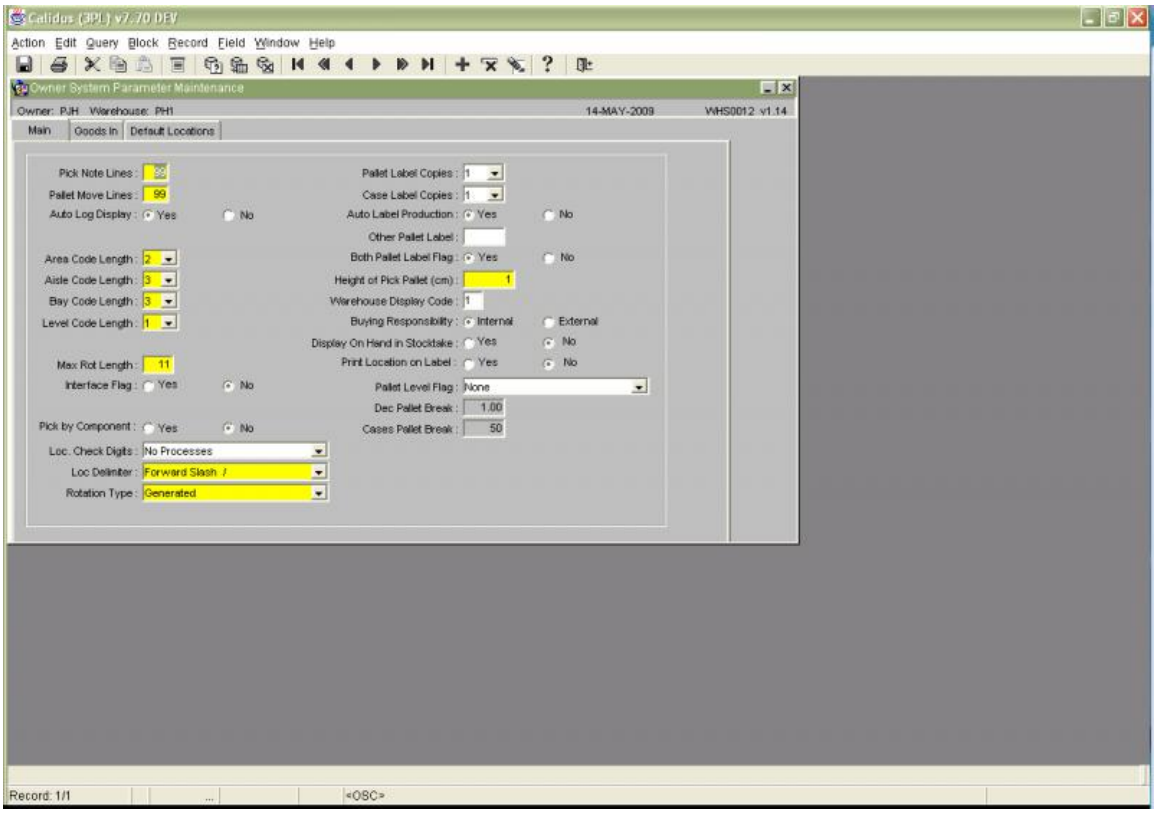
Click on the Default Locations tab to identify the default locations required.



Build up location 3 (Q/A) is the default putaway location, if the putaway algorithm finds no locations. Location 6 is a Default Marshalling Location, used by pick list and allocation.

30.3 Owner parameters

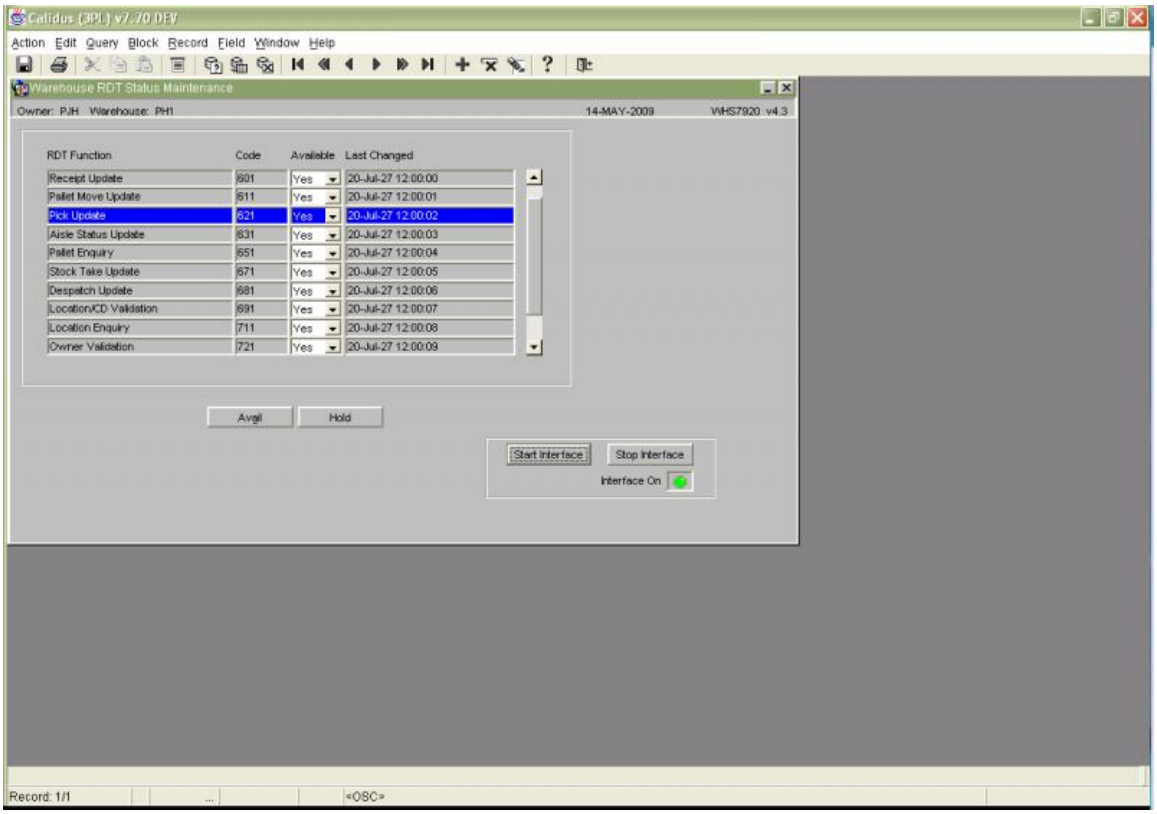
An RDT Interface flag also exists per Owner or Stockist. With this flag, we are able to determine whether, even if the warehouse allows RDT operations, the owner allows RDT operations.



In all ways, this bank of screens operates in the same way as the System parameters screens, described above.

30.4 RDT Status Maintenance Screen

This screen is the major control screen for RDTs in Calidus 3*pl*



Each line controls not only the running of the update process in Calidus 3*pl*, but also the availability of the functions to standard Calidus 3*pl* processing. So, for example, if the Pallet Receipt Update availability flag is 'Y', you have the ability to send receipt preadvice messages to WCS. If it is 'N', you can't send those messages.

The use of the availability flags in the system will be explained for each sending process described in the next section.

Use 'Start Interface' to start the RF interface programs.

Use 'Stop Interface' to stop the RF interface programs.

The light below these buttons indicates whether the interface is on or off.

The use of this screen should be limited to System Administrators only.

31 SENDING DATA

31.1 Standing Data tables

See the C3PL-M Setup guide, for details of how this data is used in the Calidus 3*pl*-Mobile.

Various data tables on Calidus 3*pl* need to be sent to Calidus 3*pl*-Mobile. These tables are:

- Employees
- Truck Types
- Pallet Types
- Location Types
- Reason Codes
- Receipt Types
- Aisles Status/Aisles
- Stock information

The maintenance screens for these tables can be found (by default) on the Warehouse maintenance menu. The exception to this is the Stock Maintenance screen, normally found on the Stock menu.

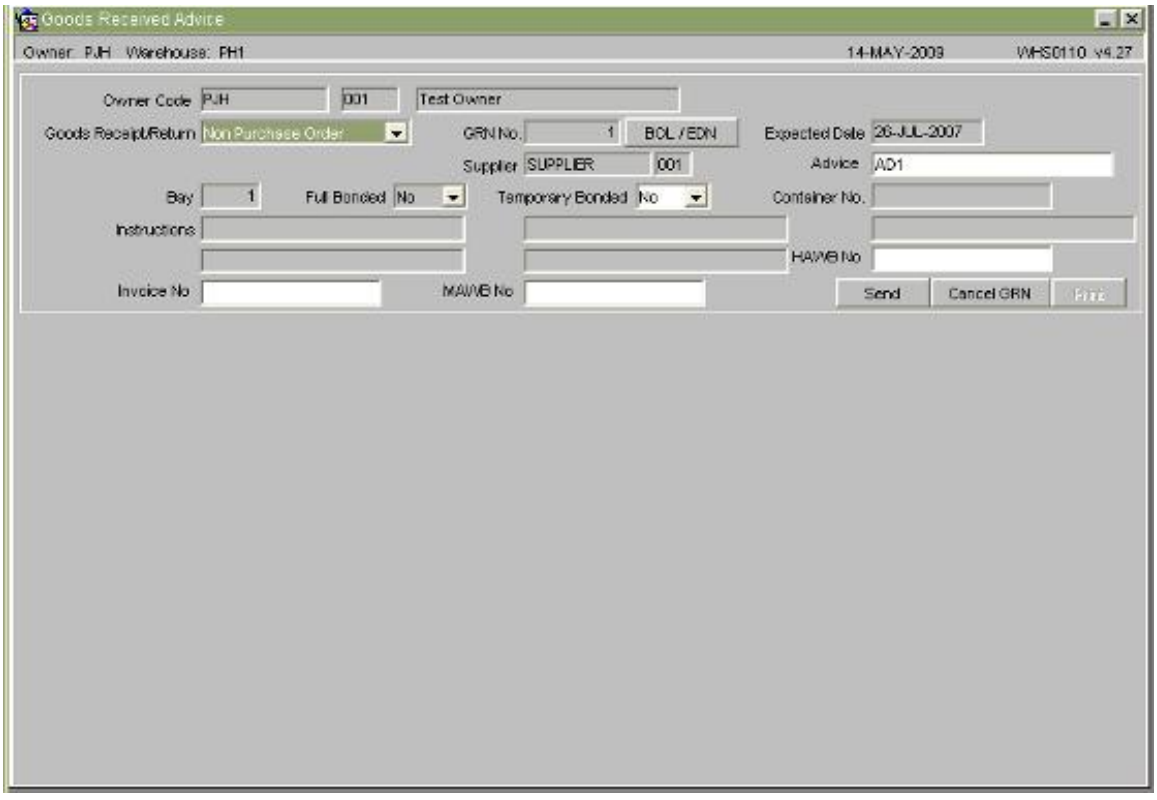
To perform an initial send of the data to Calidus 3*pl*-Mobile, enter the form and find data. Once found, click the Send button on the form, which will only be visible if the Interface flags for the owner and warehouse are enabled. The whole file will be sent.

Also, during normal use of the screens, any added or deleted data is sent to Calidus 3*pl*-Mobile, to keep the files accurate. Simply use the screen as normal, and the data will be sent, as long as the interface flags are turned on.

31.2 Preadvices

Enter the preadvice as normal, either with or without pallet details.

Once all details have been entered, click the 'Send' button on the main preadvice screen. Tasks per pallet will be sent to Calidus 3*pl*-Mobile. You can only send preadvice records this way if the availability flag of the Pallet Receipt Update process is set to 'Y'.



Sending the preadvices to Calidus 3*pl*-Mobile need only be done this way if the Goods had not been preadvised via EDI. In this process, all messages will be automatically sent to Calidus 3*pl*-Mobile on receipt of the EDI.

Once pallets have been received on Calidus 3*pl*-Mobile and sent back to Calidus 3*pl* they will automatically be updated.

Note: In unexpected scenarios (e.g. unexpectedly received pallets) the Goods Receipt Note will NOT be automatically confirmed as received. The pallets, which have processed correctly, will have been confirmed but no action will have been taken on other pallets. You will still be able to put the correctly processed pallets away. In order to confirm the GRN fully, you must access the GR Confirmation screen and use the Confirm process there. Until this action is taken, the GRN will continue to appear on diagnostic reports. See section 5.2 for more details.

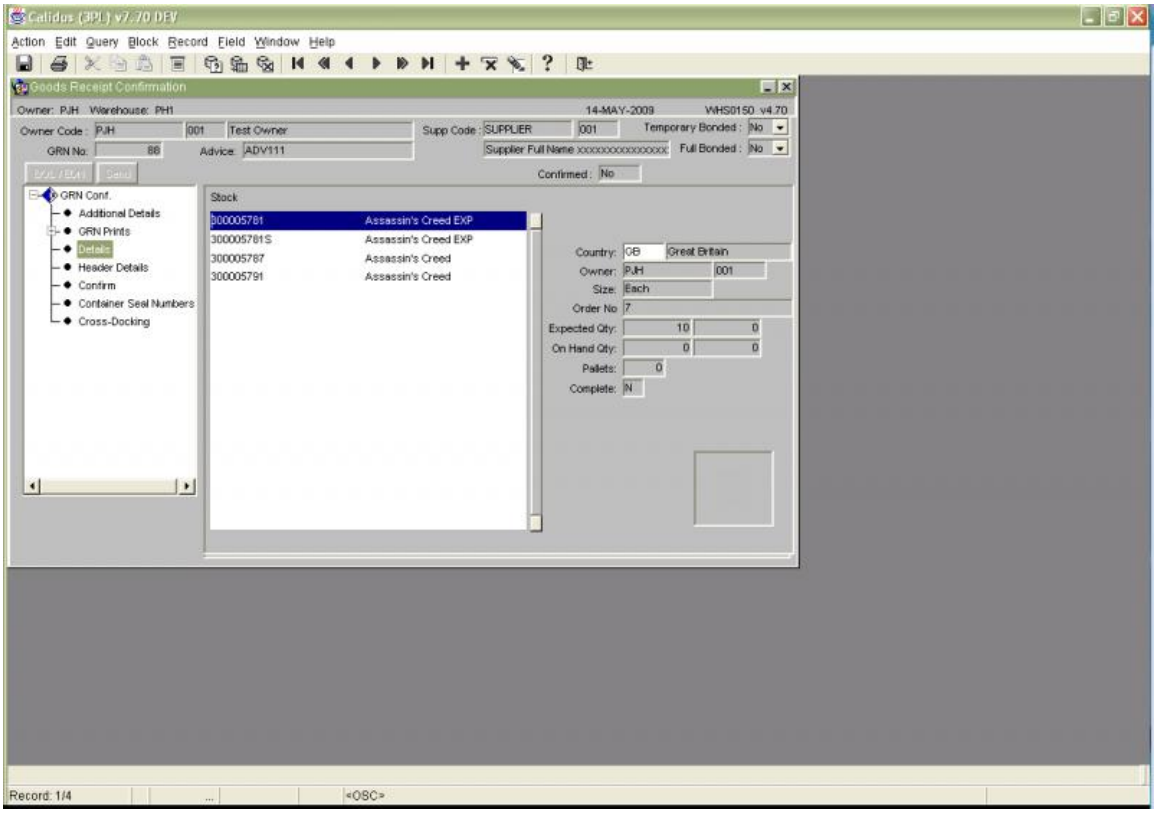
31.3 Putaways

When the Goods Receipt has been processed on Calidus 3*pl*-Mobile, update messages are sent back to Calidus 3*pl*. The Pallet Receipt Update program, controlled by the RDT Start/Stop screen processes these. When the program processes the receipt messages, it will generate a putaway location for the pallet automatically. This is sent through to Calidus 3*pl*-Mobile as a putaway task.

If a location cannot be found for the pallet, the putaway location will default to the third build-up location on system parameters, the Q/A location.

If, however, you have the availability flag of the Pallet Receipt Update process set to 'N' and the flag for Movement/Putaway Update process set to 'Y', you can send putaway messages a different way.

When the flags are set up this way, preadvice messages can't be sent to WCS, but putaway messages can. When you have created the goods receipt in Calidus 3*pl*, enter locations as normal in Goods receipt confirmation.

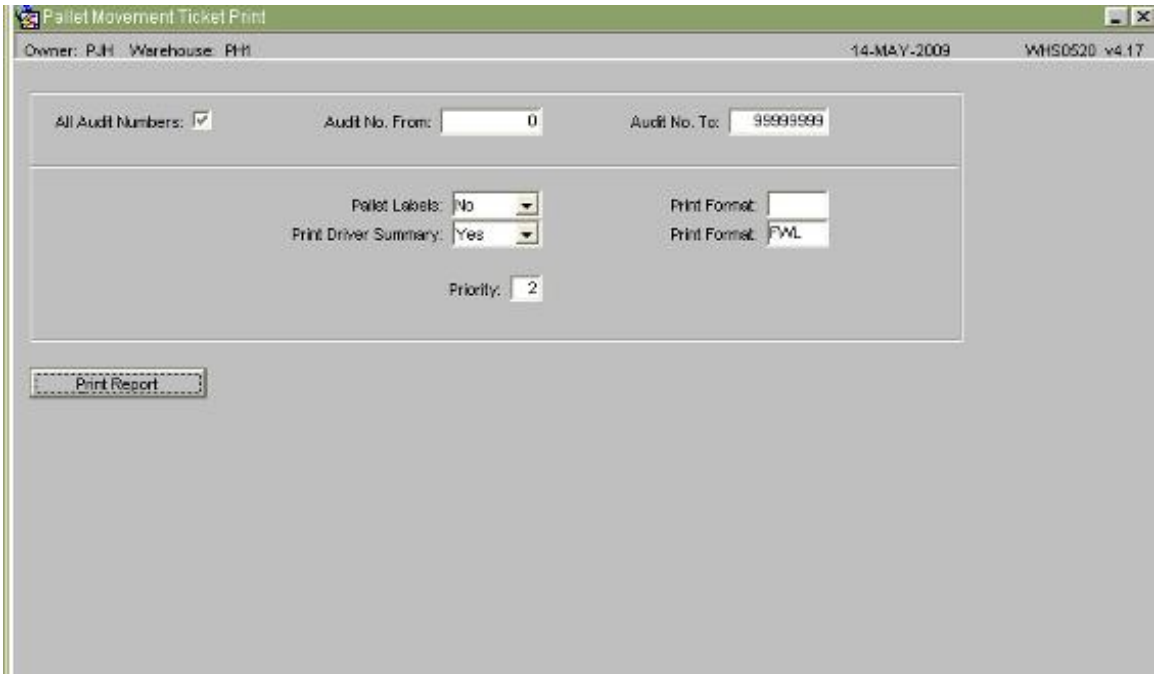


When the 'Confirm' option is chosen, the receipt is confirmed and then putaway messages are sent to Calidus 3*pl*-Mobile, with the locations that you specified.

Once the putaway messages have been processed, the pallets will be available in the system.

31.4 Pallet Moves

Pallet movements sent to Calidus 3*pl*-Mobile are processed in almost exactly the same way as normal. Pallet movements are raised via the Pallet Movement Request screen as normal. In the Ticket Print screen, you will be prompted for two extra items:



If you do not want to print the move ticket, enter 'No' at the appropriate prompt. You must then enter a priority for the messages. This priority will indicate how quickly the messages are processed in Calidus 3*pl*-Mobile. The values range from 2 (the highest) to 9 (the lowest).

After this entry, the request is processed as normal, but with movement messages being sent to Calidus 3*pl*-Mobile.

31.5 Replens

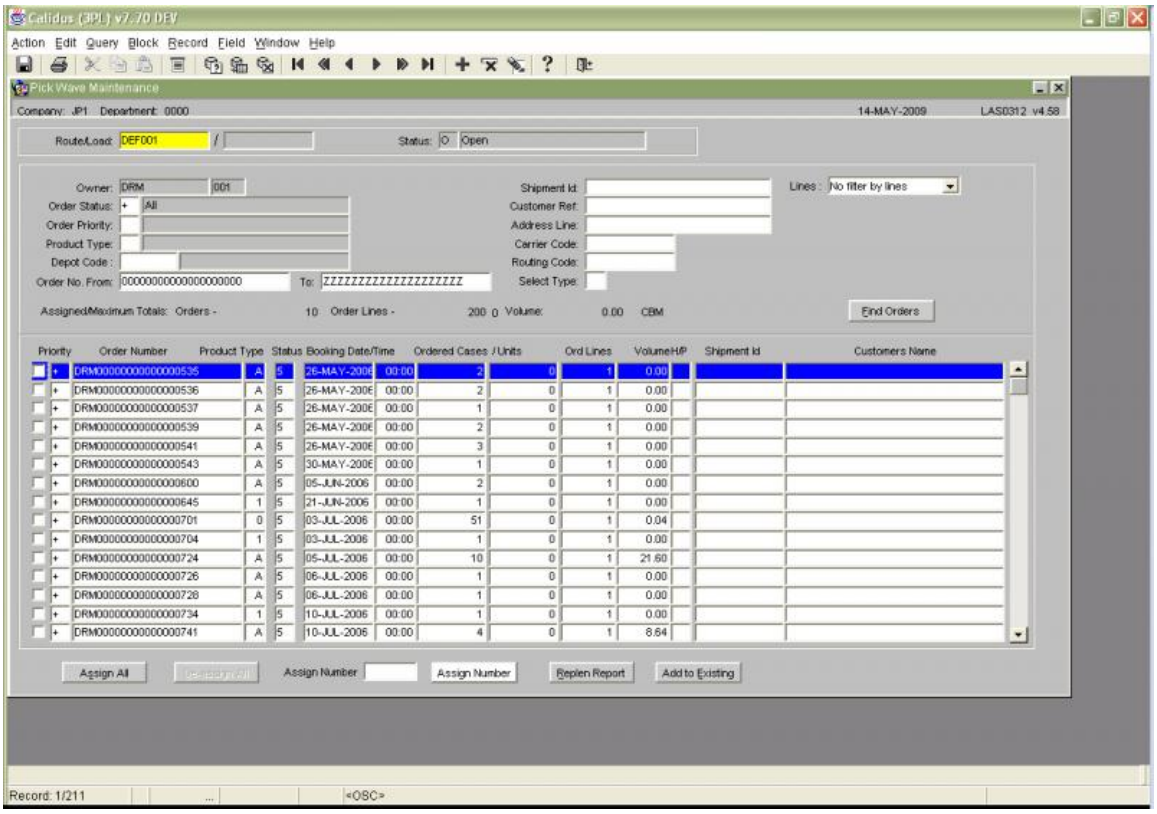
Replenishments are processed in the same way as pallet movements.

31.6 Picks

Pick tasks are sent to the RDTs at the normal pick list stage. This stage can be reached through a number of screens, the most common being the Pick Wave screen.

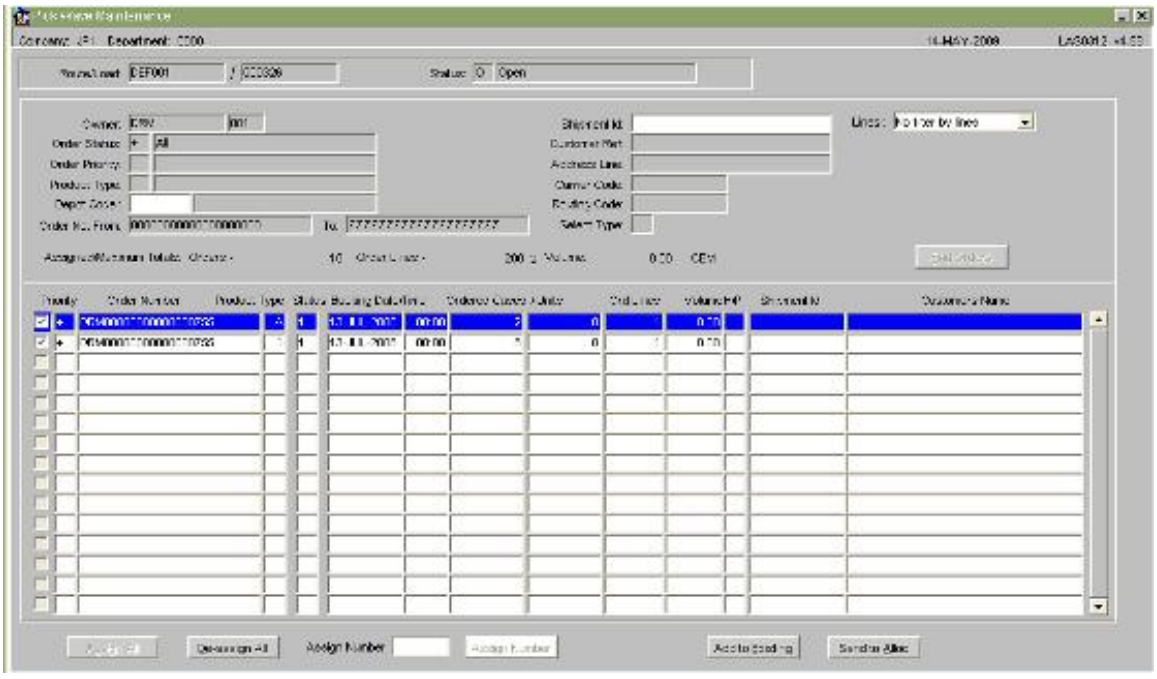
31.6.1 Pick Wave

Orders can be found and allocated to a Pick Wave, using this screen.



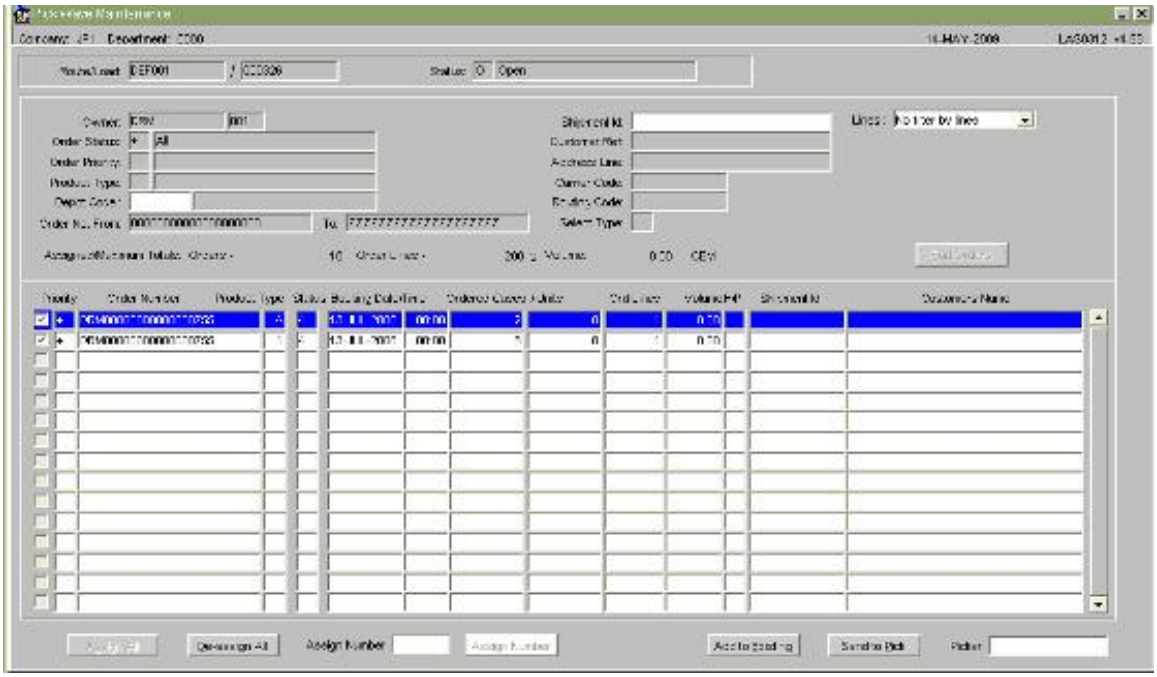
Enter a default load then click 'Find Orders' to display the orders. Criteria can be entered here to narrow down the orders to be found.

Once found, assign the orders to the Load using the check box next to the order, then save.

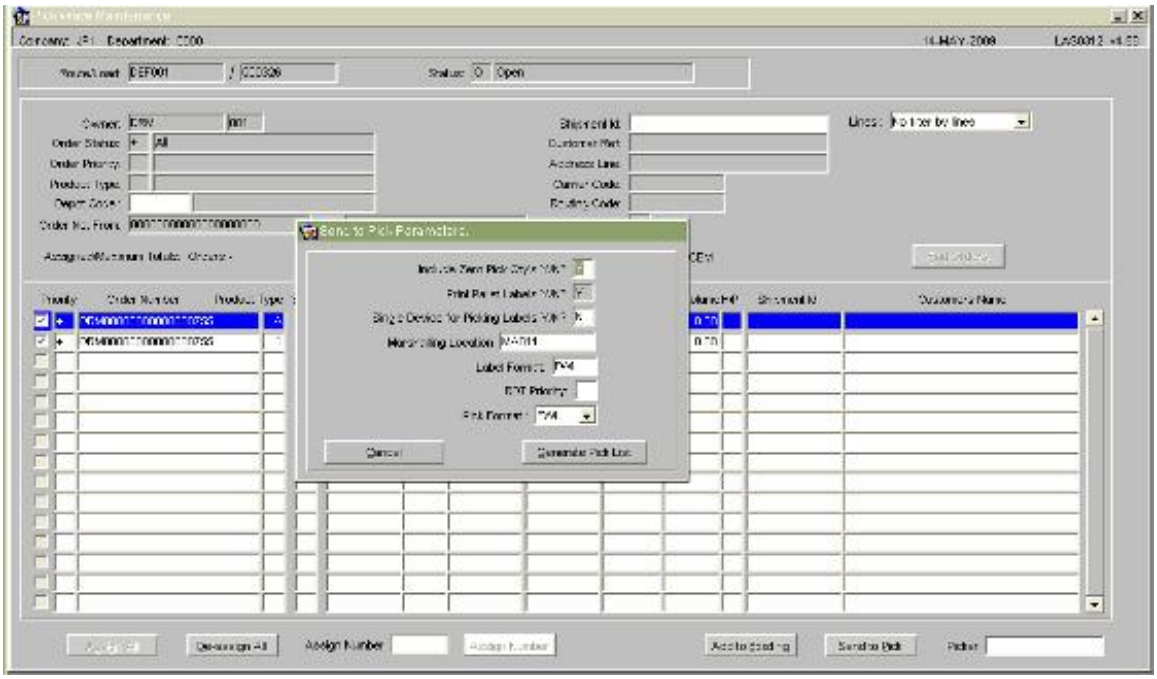


Click the 'Send to Alloc' button to allocate the load.

Once allocation is complete, the order can be pick listed using the 'Send To Pick' button.



If the load is to be pre-assigned to one picker, the employee ID of this picker can be entered in the Picker field before sending to pick.

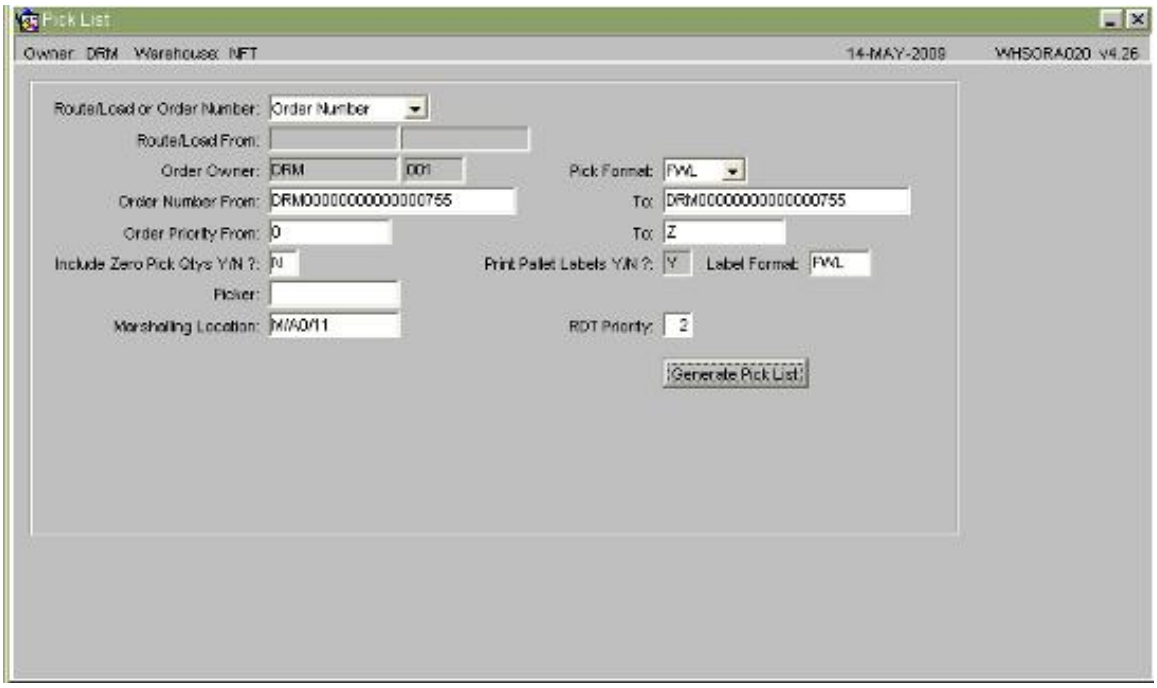


The Marshalling location is the lane to which you wish the picked pallets to go. If one is not entered, the system will default the location to the Default Marshalling Location in the system parameters screen. The RDT priority affects how quickly the pick tasks will be allocated to a picker. As with other RDT process priorities, this can be set from 2 to 9, 2 being the highest priority.

When you have chosen the parameters, click the 'Generate Pick List' button. This will produce a paper pick list if desired, and will also transfer the pick tasks to Calidus 3pl-Mobile for completion.

31.6.2 Pick List

If you allocate and pick list by separate processes in the menus, you will be prompted to enter the extra parameters at the Pick List stage:



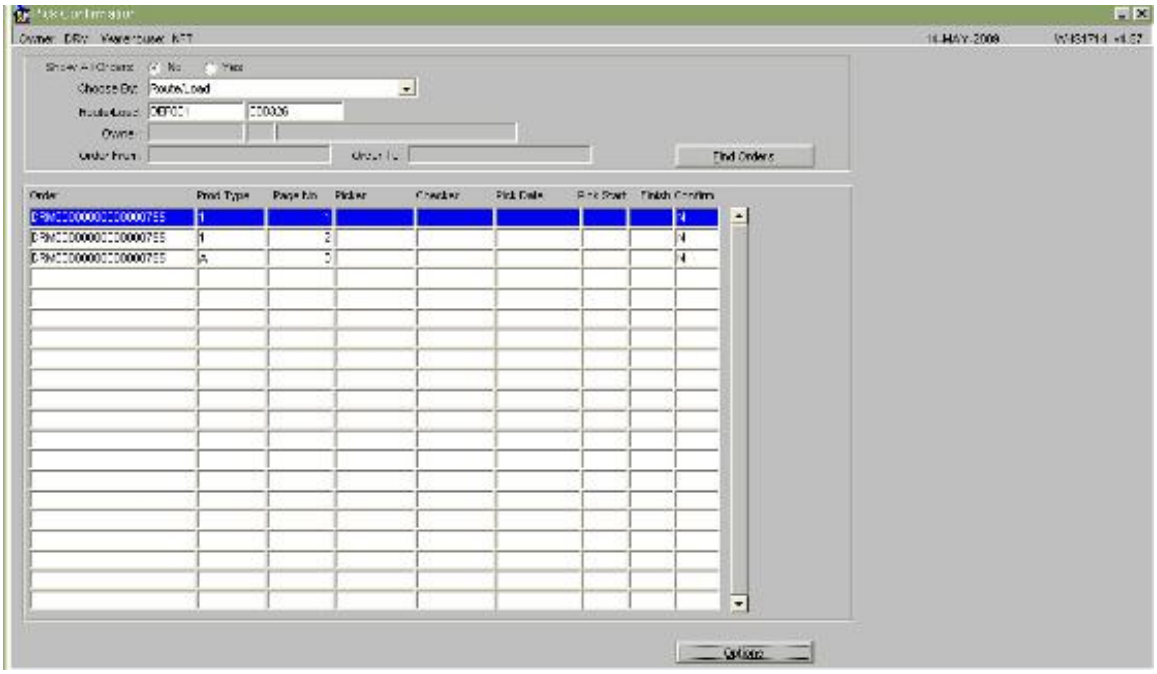
The Marshalling location is the lane to which you wish the picked pallets to go. If one is not entered, the system will default the location to the Default Marshalling Location in the system parameters screen. The RDT priority affects how quickly the pick tasks will be allocated to a picker. As with other RDT process priorities, this can be set from 2 to 9, 2 being the highest priority.

When you have chosen the parameters, click the 'Generate Pick List' button. This will produce a paper pick list if desired, and will also transfer the pick tasks to Calidus 3pl-Mobile for completion.

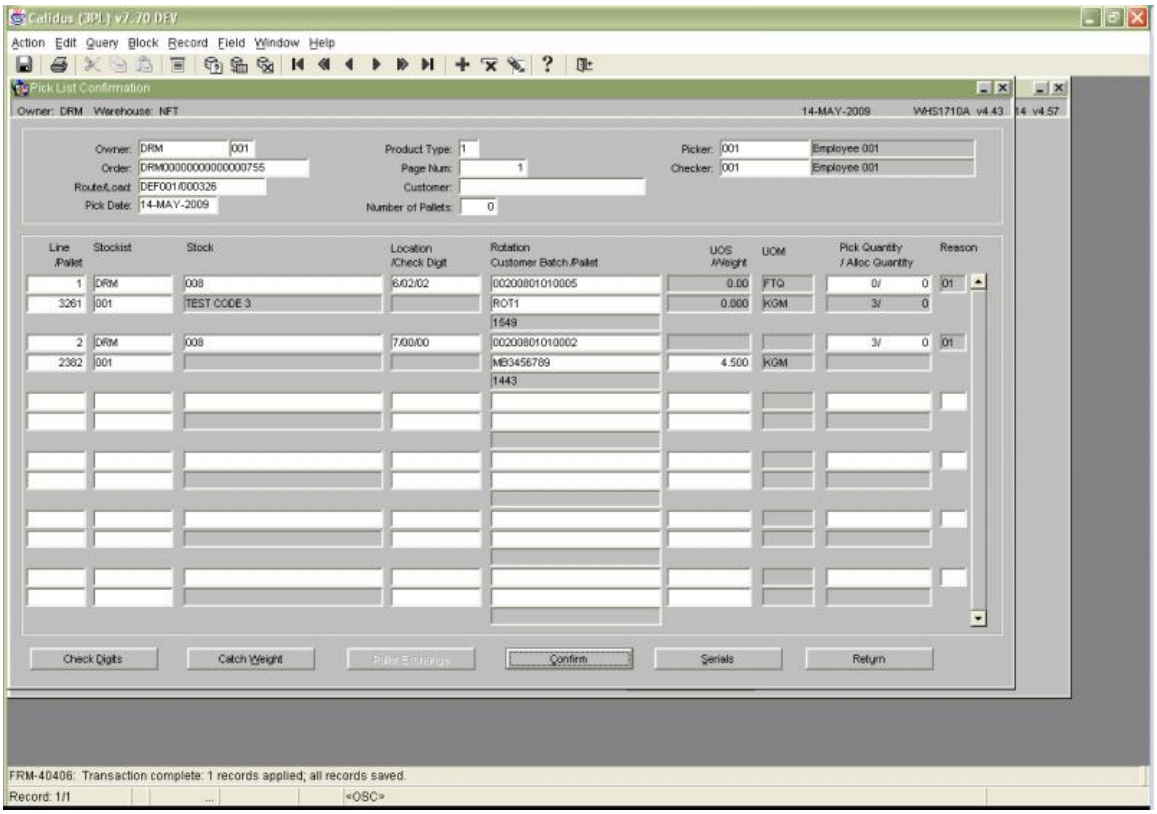
31.7 Pick Modifications

If you have short-picked an item or the pickers have not found some pallets, these tasks will be sent back to Calidus 3*pl*, and will reduce the amount picked. The shortfall must be appended onto the order. This is achieved by adding lines at pick confirmation, but without confirming the order.

First, find the order in the Pick confirmation by route/load/order screen:



Select the required page of the order. You will be taken to the confirm screen.

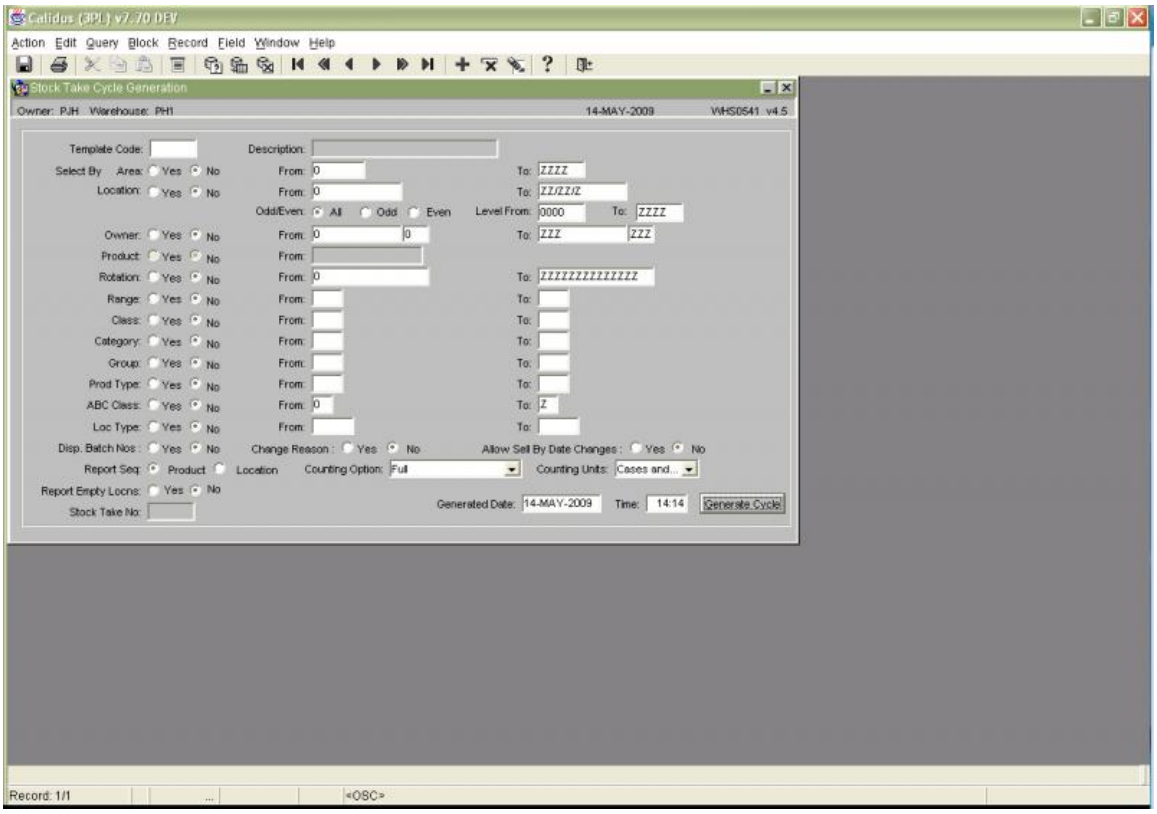


From here, append lines to the order as normal, but do not confirm the page. When saved, the appended pick task will be sent to Calidus 3*pl*-Mobile for processing. When completed, the task will be returned and updated automatically by Calidus 3*pl*.

Pick tasks that have been manually short-picked or confirmed will also be interfaced to Calidus 3pl-Mobile, to reduce or remove the pick tasks outstanding.

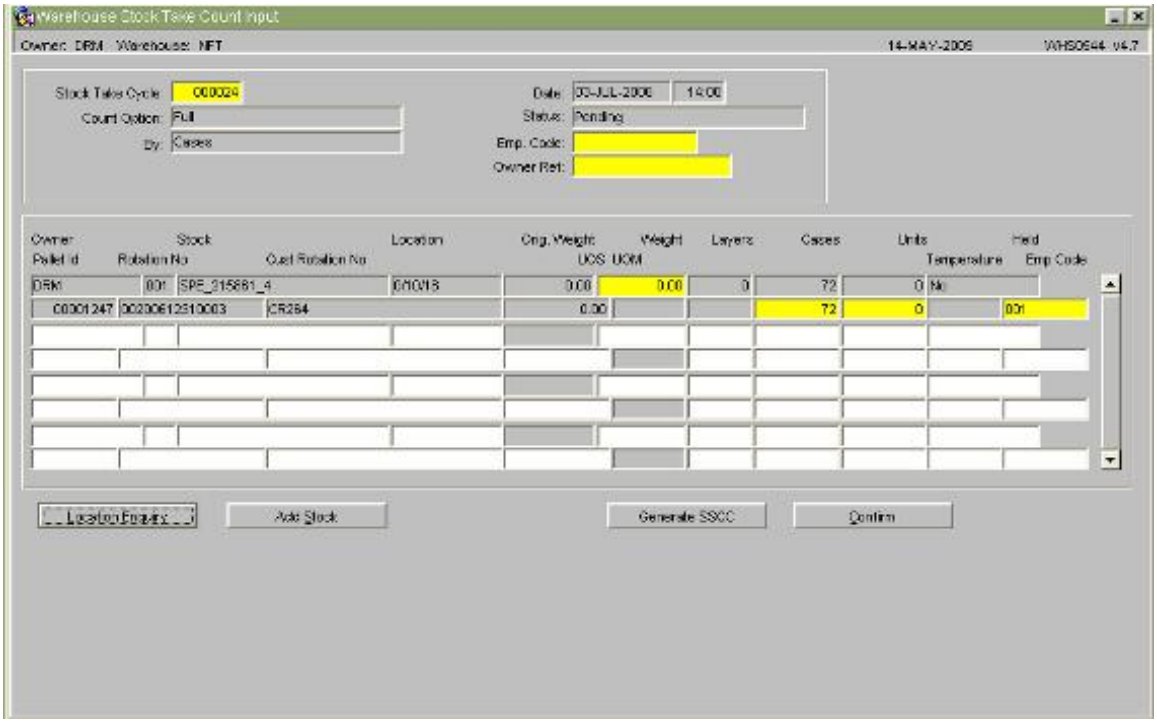
31.8 Stock Check

Generate the stock check cycle as normal in the generation screen. For messages to be sent to Calidus 3*pl*-Mobile, the interface flag (either from owner or system parameters) must be set, and the stock check availability flag and owner check flags must also be set in the RDT start/stop screen.

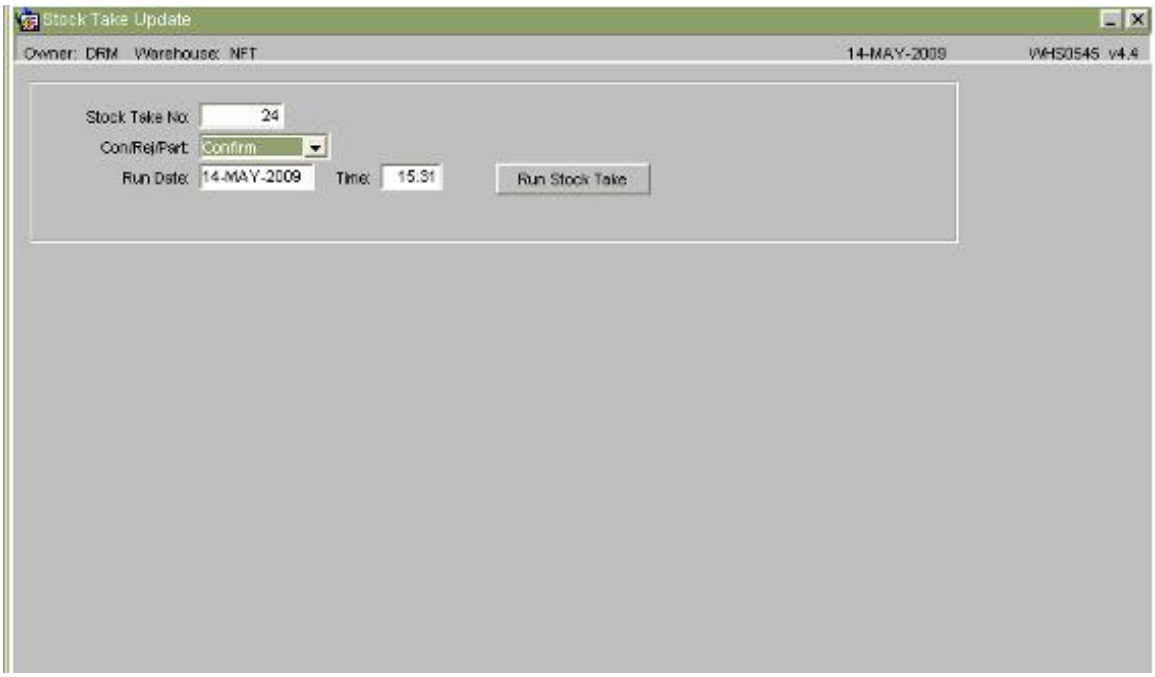


The cycle will either be a full stock check or a partial stock check. If neither, the stock check will be assumed to be a partial, or pre-advised, check.

Once stock details have been checked on the RDTs, the information is sent back to Calidus 3*pl* and updated into the stock take count input screen.



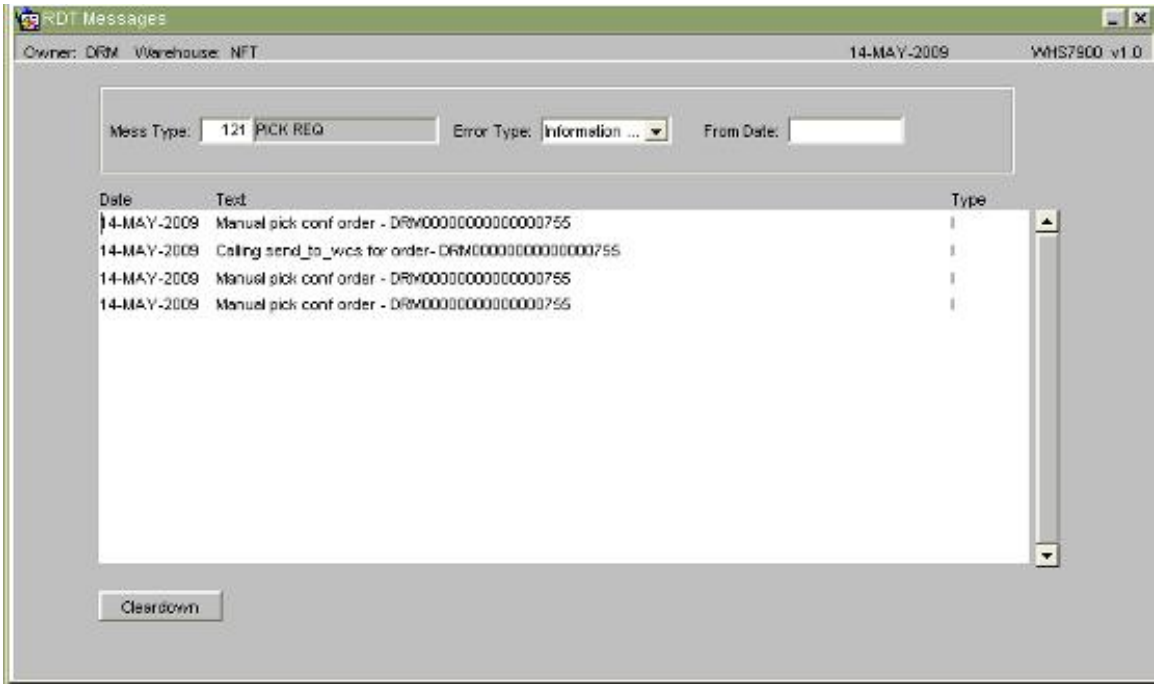
Once the data is checked for consistency, the cycle can be confirmed (using the 'Confirm' button), making it ready for updating, using the Stock Take Update screen.



Good counts should be confirmed. If unsure about the counts, the cycle can be rejected or partially confirmed. In a partial confirmation, any records that were correct are confirmed, and any with modifications are left on the stock cycle.

32 Receiving Procedures

32.1 Receipt Transaction Exceptions

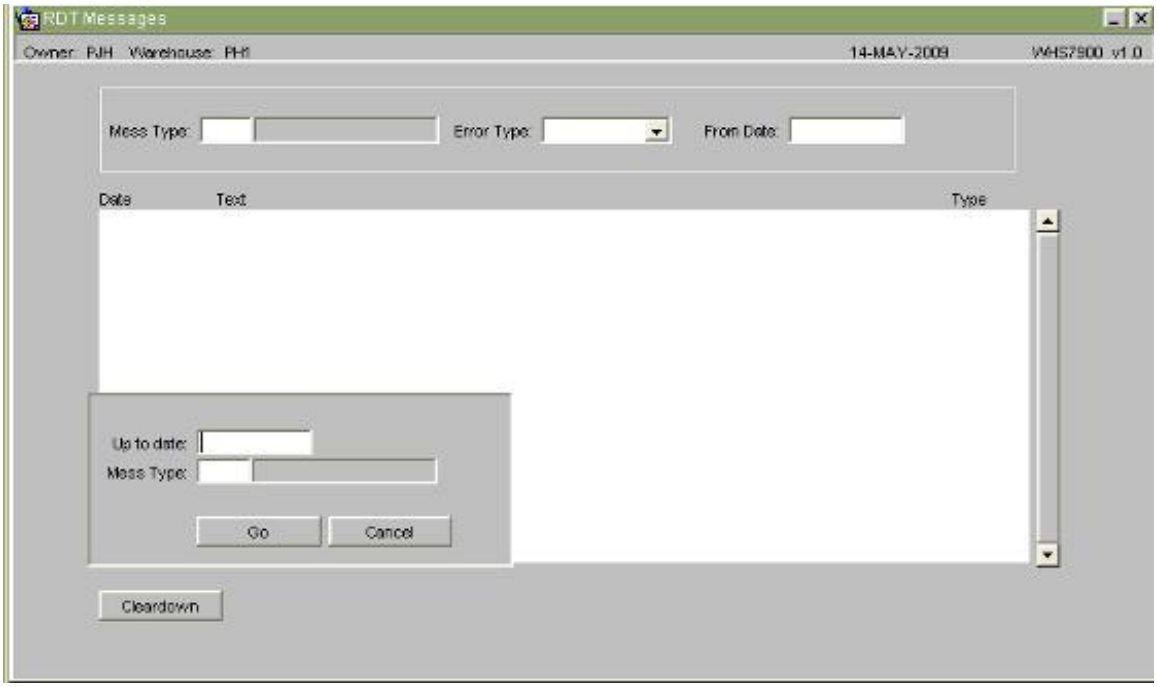


Message types allow you to choose which processes' messages you want to see on the report. A full list will be shown.

The error type allows you to choose from a range of message levels:

- Informational (type 'I') - Some processes write away messages to the report, showing successful completion of update. These are informational messages.
- Warning (type 'W') - Warnings show data that may need to be fixed, but the line has been updated anyway.
- Error (type 'E') - Errors show records that cannot be updated. The reason will be shown in the description. Data with errors must be entered and updated manually through the normal manual update screens.
- Debug messages (for support)
- All (type 'A') - All of the above.

You are prompted to choose a Date From. This will default to today's date.



The 'Cleardown' button shows the parameters required so that the exceptions log can be cleared. This should be done on a regular basis. By default, no clear-down is done. If you choose to do the clear-down, you are prompted to enter a date. All data before this data will be deleted. Take care using this function as, once deleted, the exceptions data cannot be recovered.

32.2 Diagnostics processes

In addition to the above report, several diagnostics reports exist that will aid in identifying possible problems:

- For GRNs:
- GRN's not putaway confirmed
- GR Discrepancies Report
- GRN's advised not confirmed
- For Orders:
- Order (status) report
- Unconfirmed Orders
- Unconfirmed Pick Pages Report
- For Moves:
- Unconfirmed Movements
- Outstanding Movements Report

Additionally, the Data Extraction Suite allows the user to design reports to examine all of this data.

Various enquiries exist in the system, which will also aid identification:

- All stock movements enquiries
- Customer Pallet ID Enquiry
- Pallet Enquiry
- Order Enquiry

33 Category:User Guides

34 Introduction

This document is intended to show many common activities within the WCS, with detailed instructions on how these extraneous tasks may be performed.

This document is intended for technical supervisors or IT staff.

Due to the nature of the subjects covered, this document is necessarily technical in nature.

35 Remote Data Reporting

The Calidus WCS database can be accessed for client reporting purposes using a Microsoft-standard ODBC data connection.

The suggested mechanism for accessing the data is:

1. Create a link database
2. Create an ODBC Data Source
3. Get the data from the ODBC data source with Microsoft Excel

35.1 Set-up Requirements

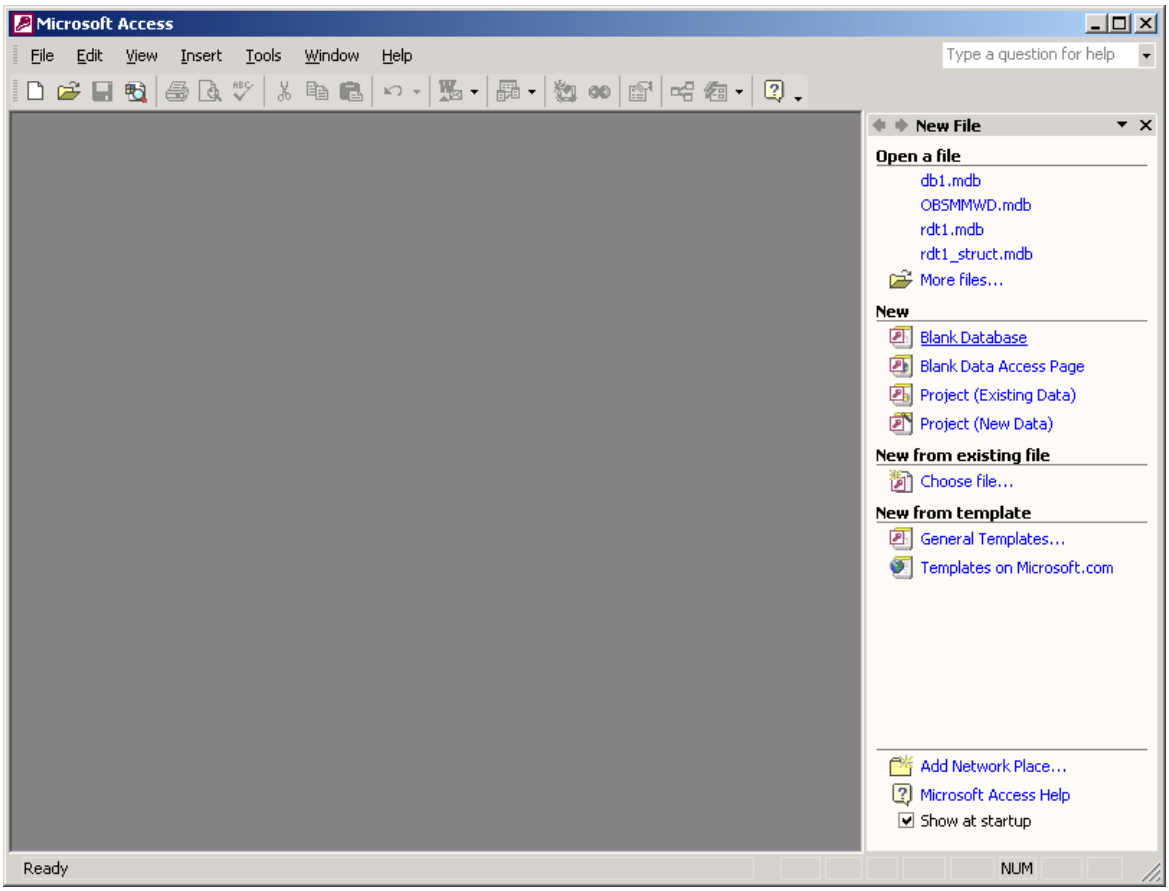
The Calidus WCS system must be set up for your data.

You must have access to the logging database. This document assumes that this has been created under a network drive X:

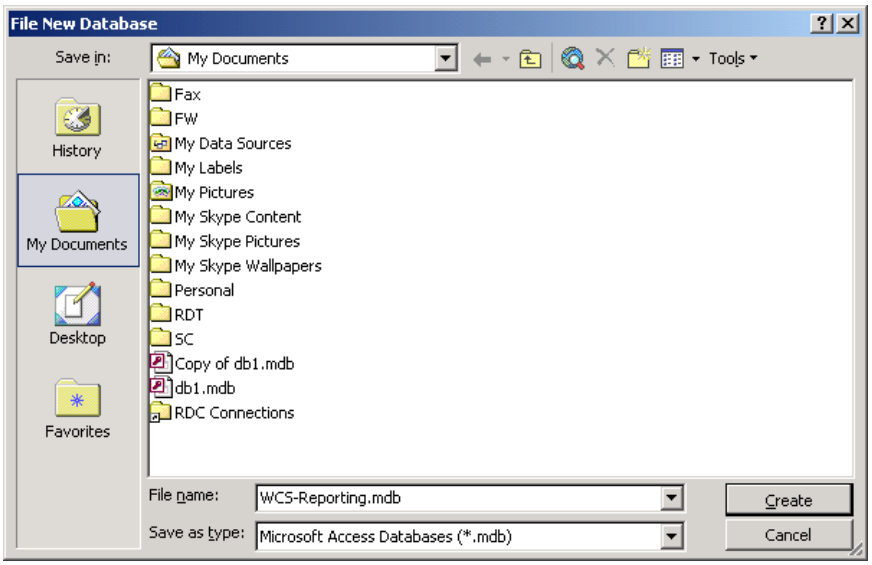
35.2 Create a Link Database

In order to minimise the impact of the query on the Calidus WCS system, this should be performed on a link database. It is possible to access the database directly, but this is **not** recommended by OBSL.

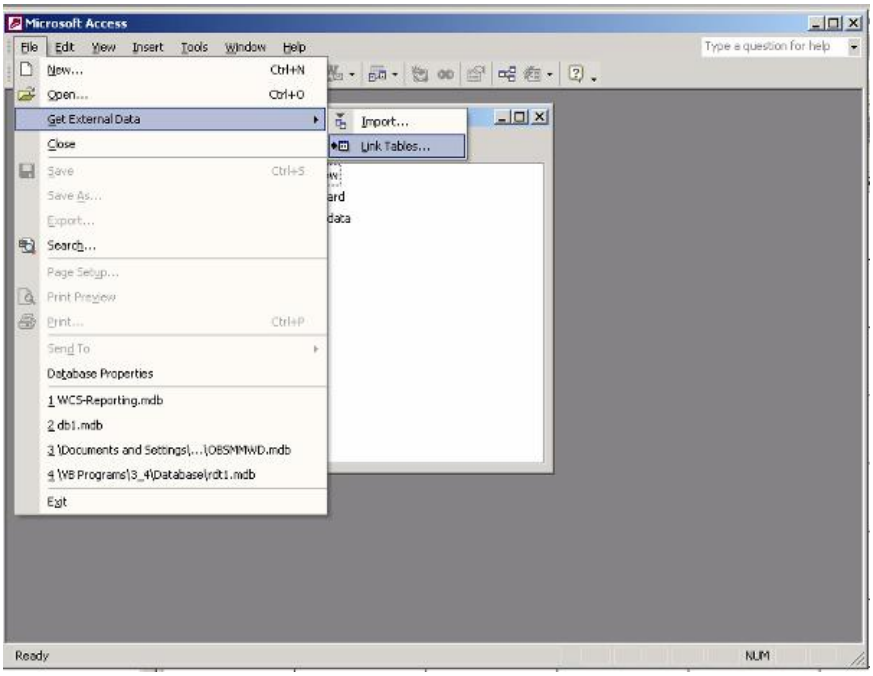
Create a new Access database.



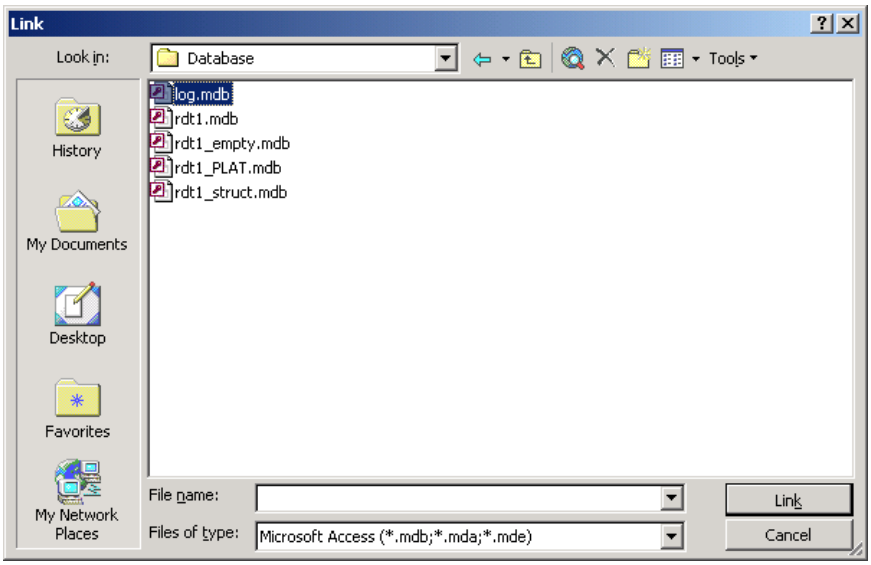
This database can be created locally (or your PC) if this is only being used by you, or can be created on any network machine (for example, the WCS Server) if used by many people.



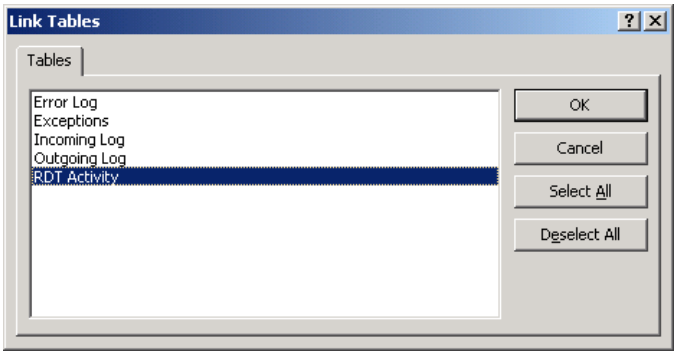
In this case this has been called WCS-Reporting.mdb, created in My Documents



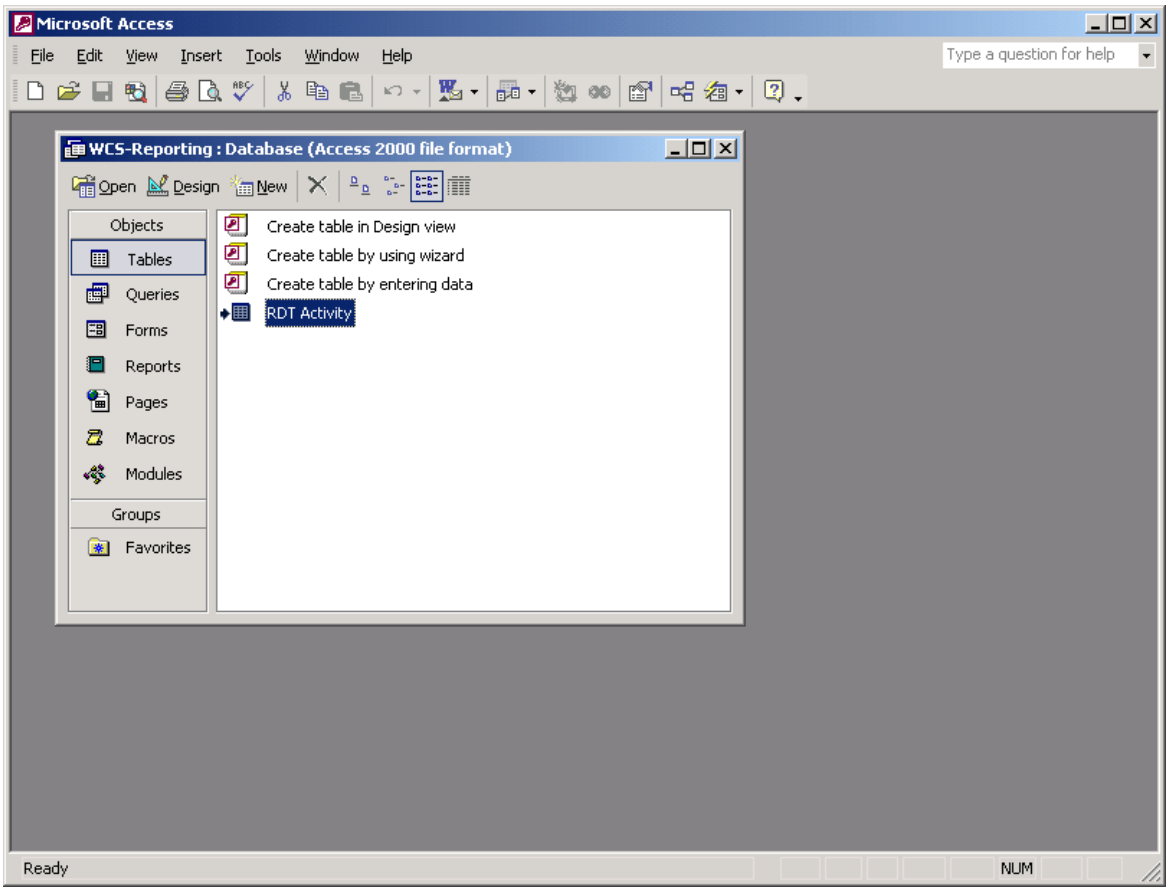
Choose Get External Data/Link Tables from the File menu.



Link to your Calidus WCS logging database. This is normally in X:\Log.mdb or X:\Log1.mdb.



Link the table 'RDT Activity'

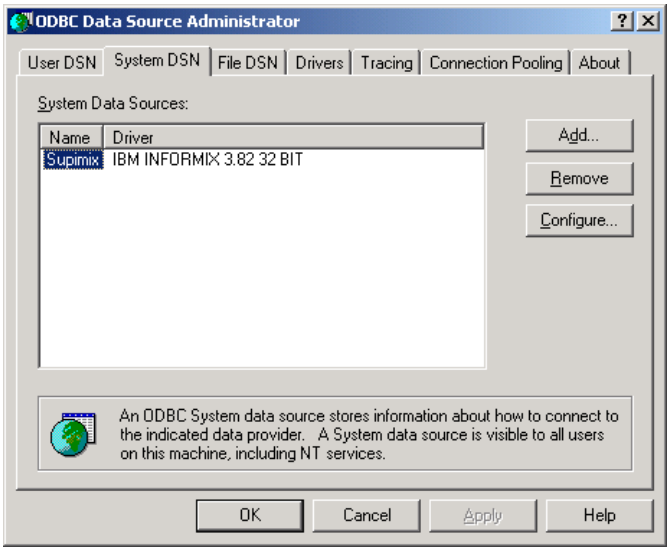


Save your new database by closing Access.

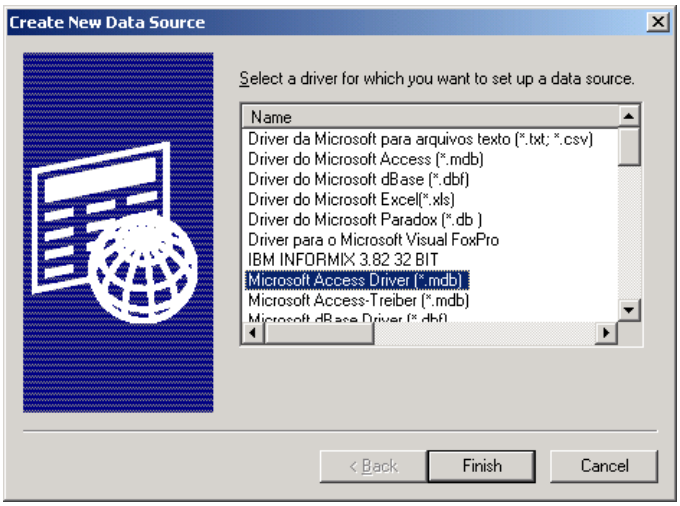
35.3 Create an ODBC Data Source

Choose Start/Settings/Control Panel/Administrative Tools/Data Sources (ODBC) from the Start menu.

If this option is unavailable on your PC, you must have an Administrator user do this for you.

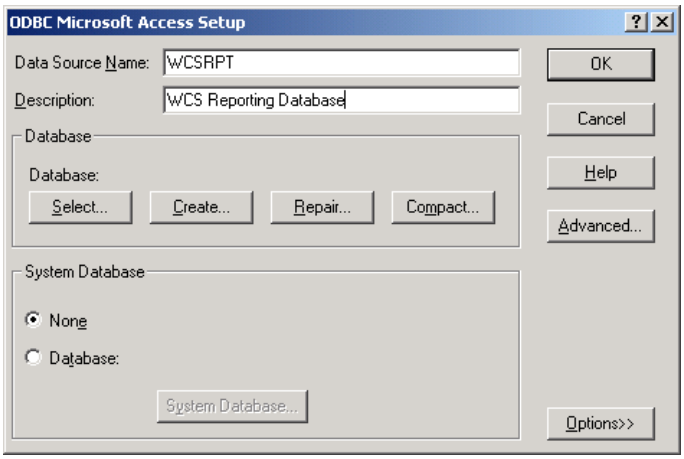


Create a new System DSN



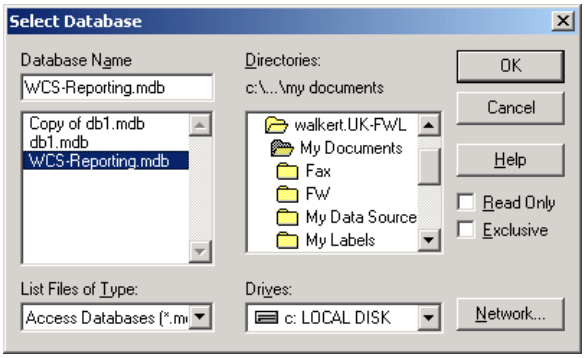
Choose 'Microsoft Access Driver (*.mdb)'.

If this option is unavailable on your PC, the Microsoft Data Access Components (MDAC) must be installed on your PC.

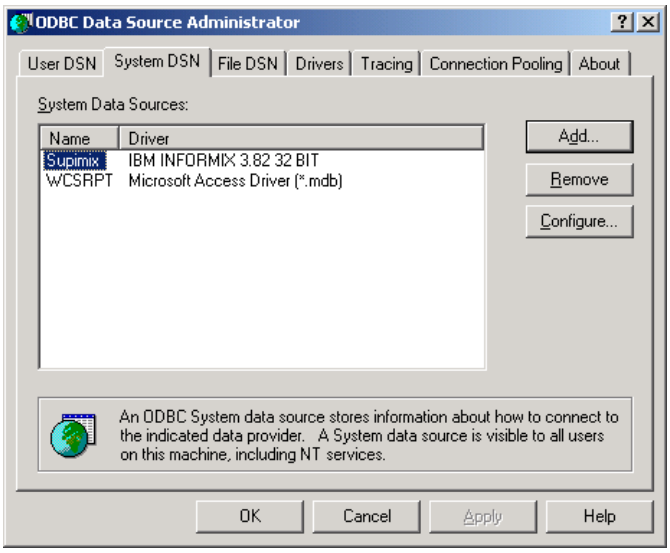


Ensure the Data Source Name is 8 characters or less.

Select your data source using the 'Select?' button.



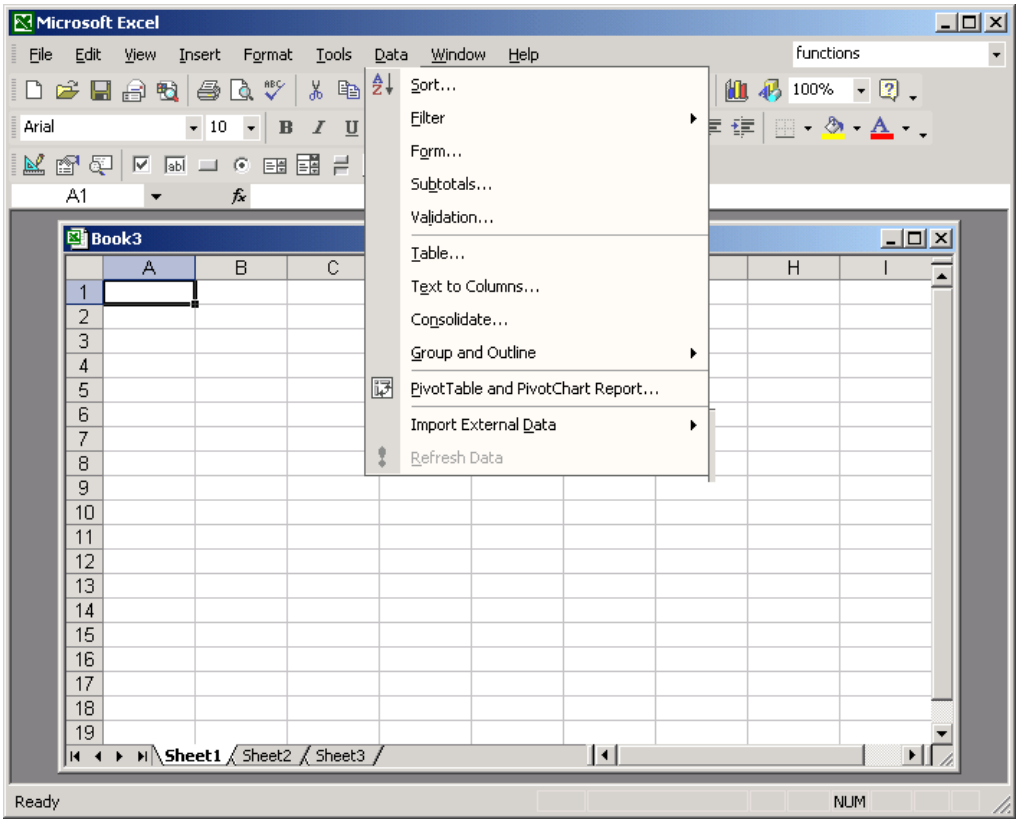
Click 'OK' to save the new data source



35.4 Access the Data in Microsoft Excel

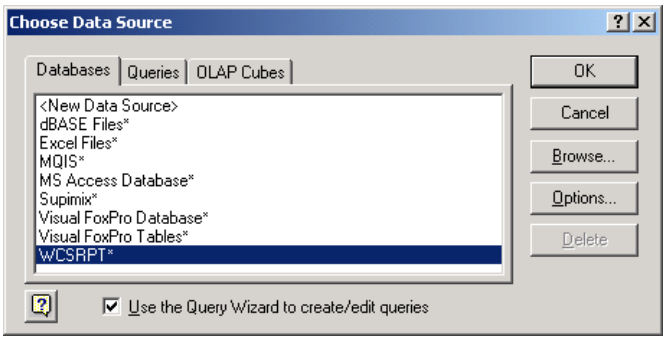
Now that this is set up, you can access the Calidus WCS logging data from external sources. In this example, this is from Microsoft Excel, but could just as easily be from any ODBC-compliant reporting tool, such as Crystal Reports or Cognos Impromtu.

Open Excel and create a new workbook.

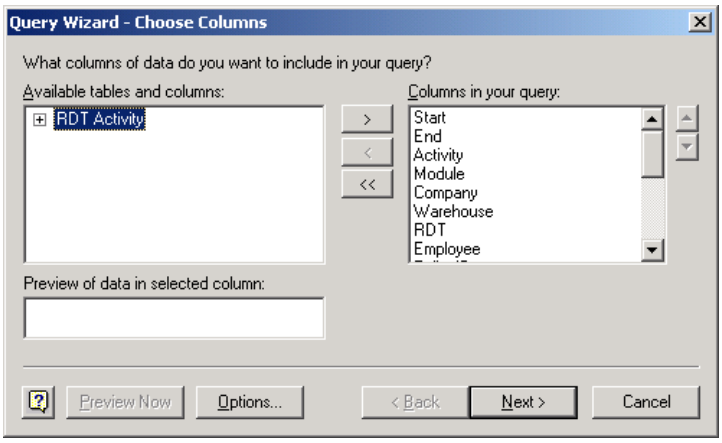


Choose Import External Data/New Database Query from the Data menu.

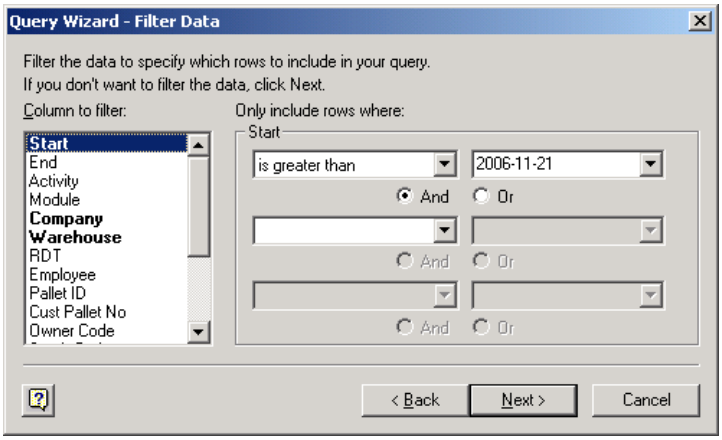
At this point, you may be prompted to install Microsoft Query for Excel. This may have to be completed by an Administrator.



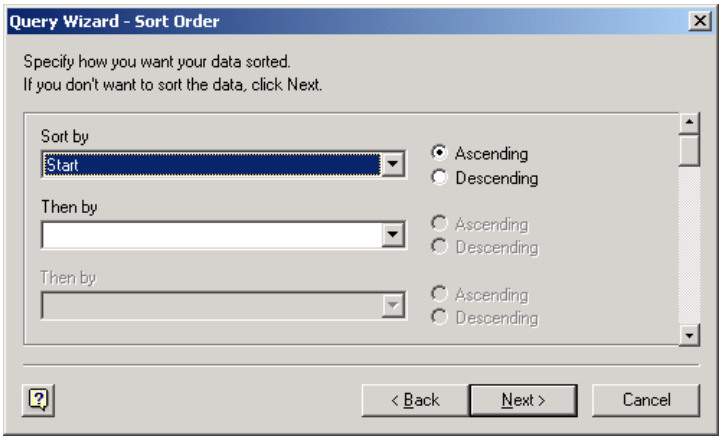
Choose the WCS Reporting Data Source we set up earlier.



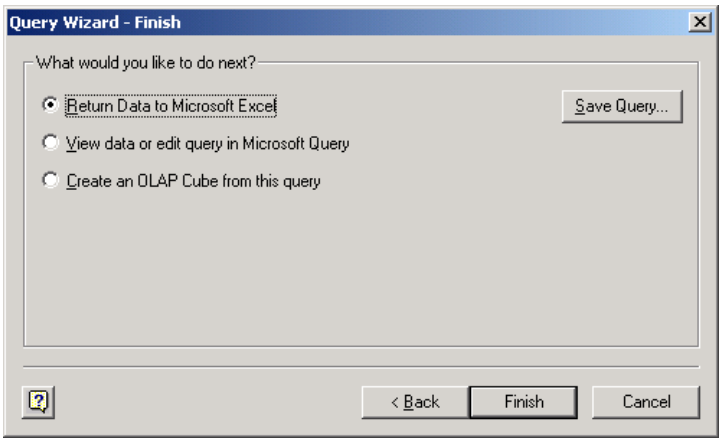
Choose the table to report. In this case, you will want the RDT Activity table.



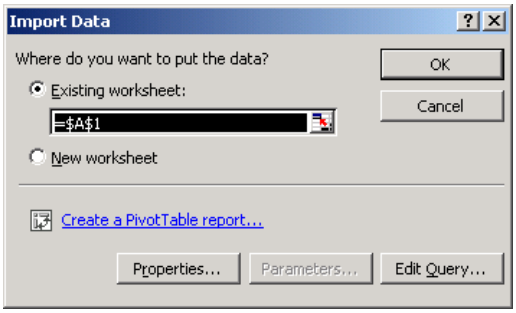
Choose the data you want to filter.



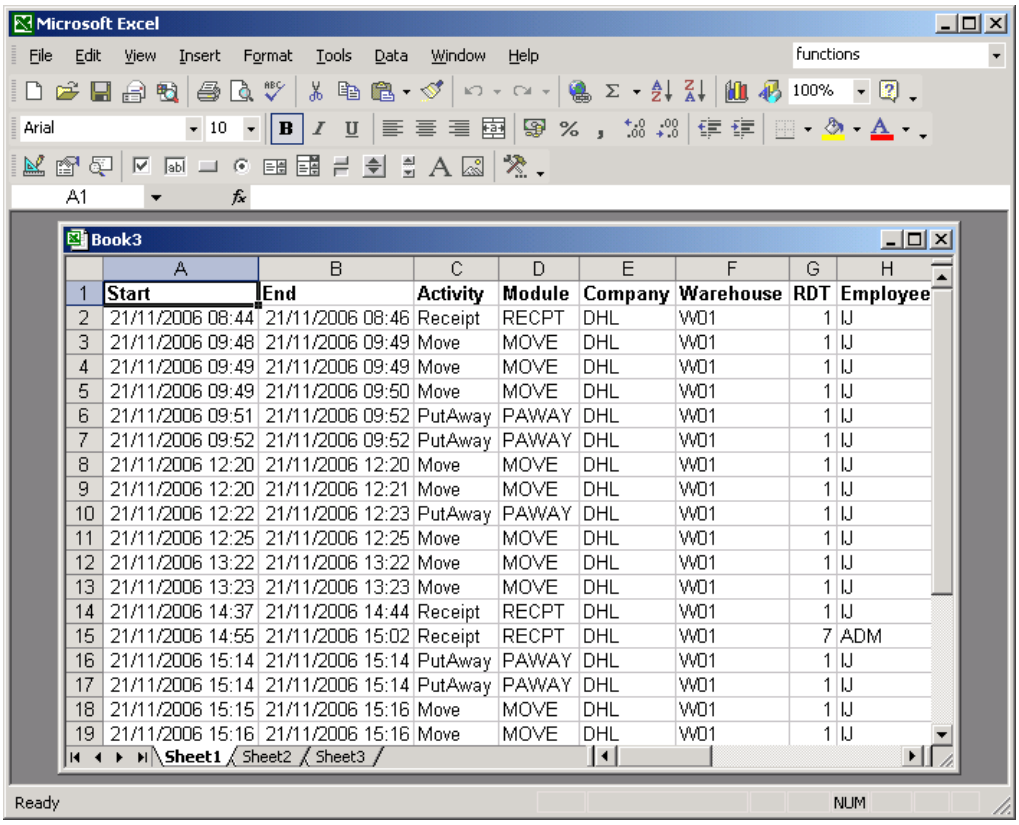
Choose the Sort Order



Return the data back into Excel.

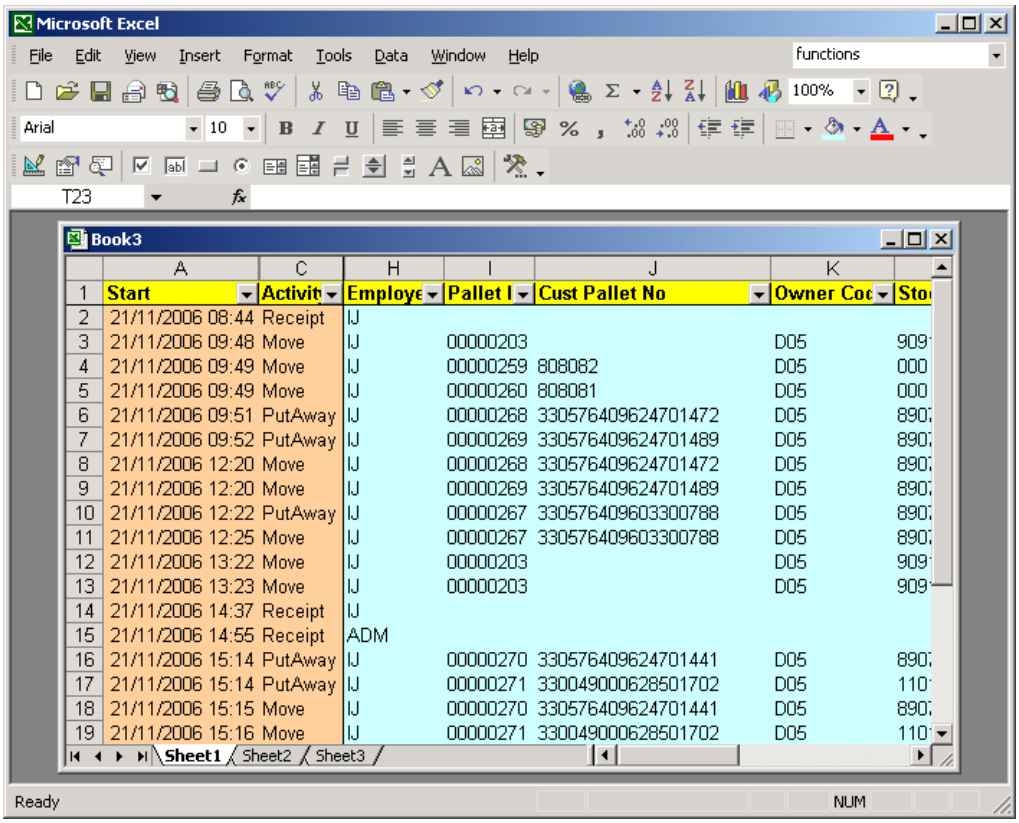


Choose the cell into which you want the data to be loaded.

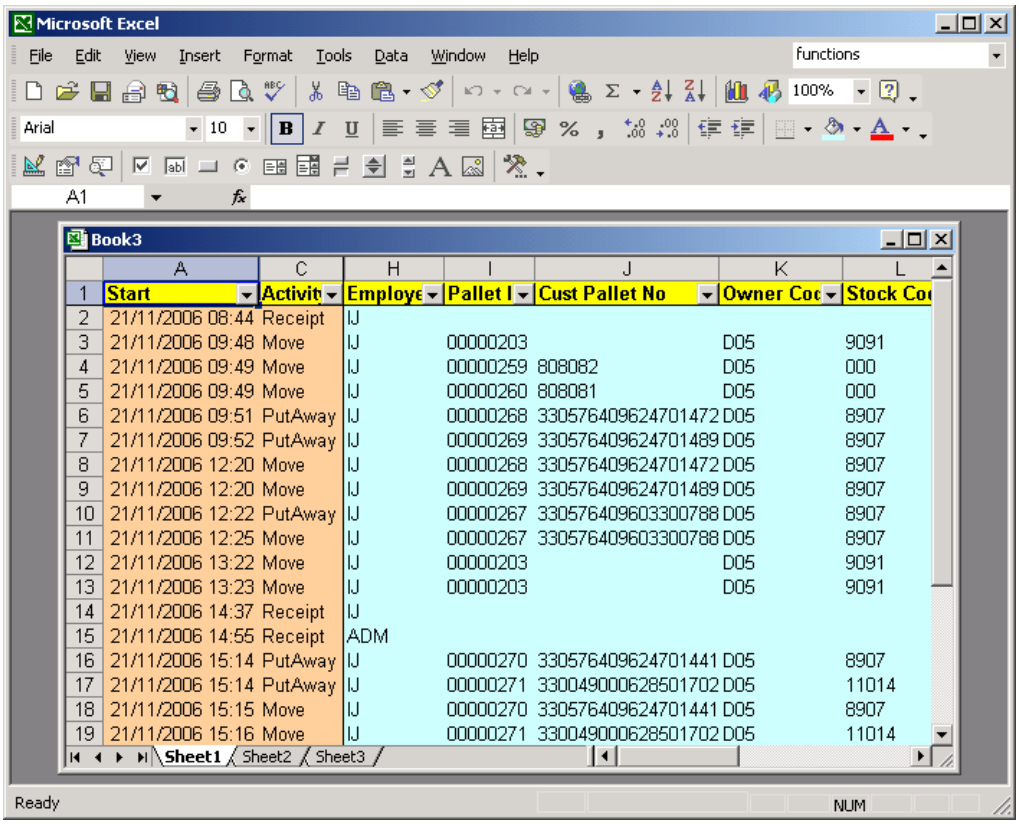


	A	B	C	D	E	F	G	H
1	Start	End	Activity	Module	Company	Warehouse	RDT	Employee
2	21/11/2006 08:44	21/11/2006 08:46	Receipt	RECPT	DHL	WD1	1	IJ
3	21/11/2006 09:48	21/11/2006 09:49	Move	MOVE	DHL	WD1	1	IJ
4	21/11/2006 09:49	21/11/2006 09:49	Move	MOVE	DHL	WD1	1	IJ
5	21/11/2006 09:49	21/11/2006 09:50	Move	MOVE	DHL	WD1	1	IJ
6	21/11/2006 09:51	21/11/2006 09:52	PutAway	PAWAY	DHL	WD1	1	IJ
7	21/11/2006 09:52	21/11/2006 09:52	PutAway	PAWAY	DHL	WD1	1	IJ
8	21/11/2006 12:20	21/11/2006 12:20	Move	MOVE	DHL	WD1	1	IJ
9	21/11/2006 12:20	21/11/2006 12:21	Move	MOVE	DHL	WD1	1	IJ
10	21/11/2006 12:22	21/11/2006 12:23	PutAway	PAWAY	DHL	WD1	1	IJ
11	21/11/2006 12:25	21/11/2006 12:25	Move	MOVE	DHL	WD1	1	IJ
12	21/11/2006 13:22	21/11/2006 13:22	Move	MOVE	DHL	WD1	1	IJ
13	21/11/2006 13:23	21/11/2006 13:23	Move	MOVE	DHL	WD1	1	IJ
14	21/11/2006 14:37	21/11/2006 14:44	Receipt	RECPT	DHL	WD1	1	IJ
15	21/11/2006 14:55	21/11/2006 15:02	Receipt	RECPT	DHL	WD1	7	ADM
16	21/11/2006 15:14	21/11/2006 15:14	PutAway	PAWAY	DHL	WD1	1	IJ
17	21/11/2006 15:14	21/11/2006 15:14	PutAway	PAWAY	DHL	WD1	1	IJ
18	21/11/2006 15:15	21/11/2006 15:16	Move	MOVE	DHL	WD1	1	IJ
19	21/11/2006 15:16	21/11/2006 15:16	Move	MOVE	DHL	WD1	1	IJ

Once the data is loaded in the form, you can filter and format the data in any way you want.



You can refresh the data by choosing Refresh Data from Data menu or the menu shown when right-clicking on the cells.



The sheet will retain its formatting.

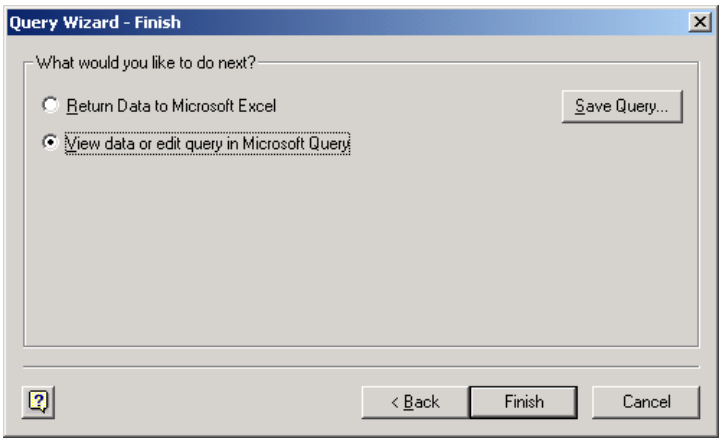
You can then save this worksheet for running in the future.

35.5 Adding Parameters

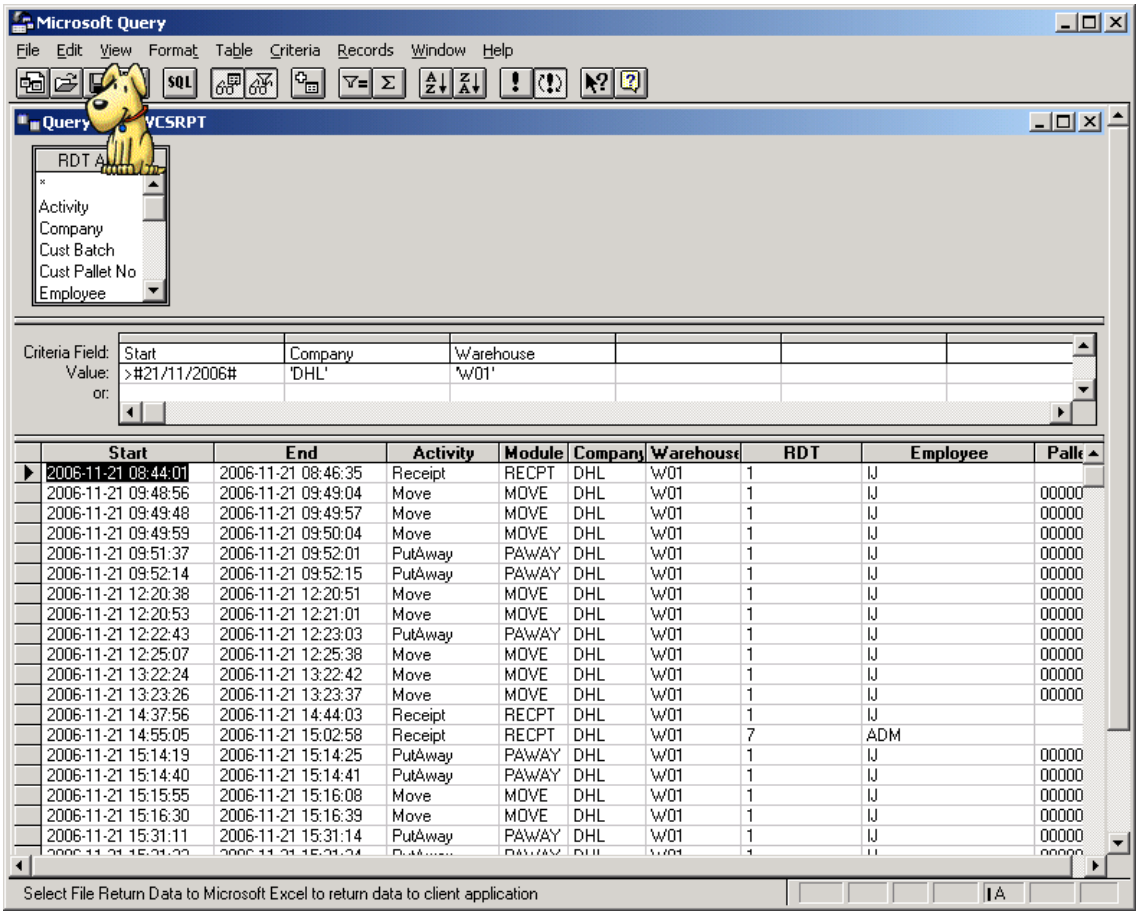
Parameters allow you to specify the data to be returned 'on the fly' by saying what you want it to match.

Choose Import External Data/Edit Query from the Data menu.

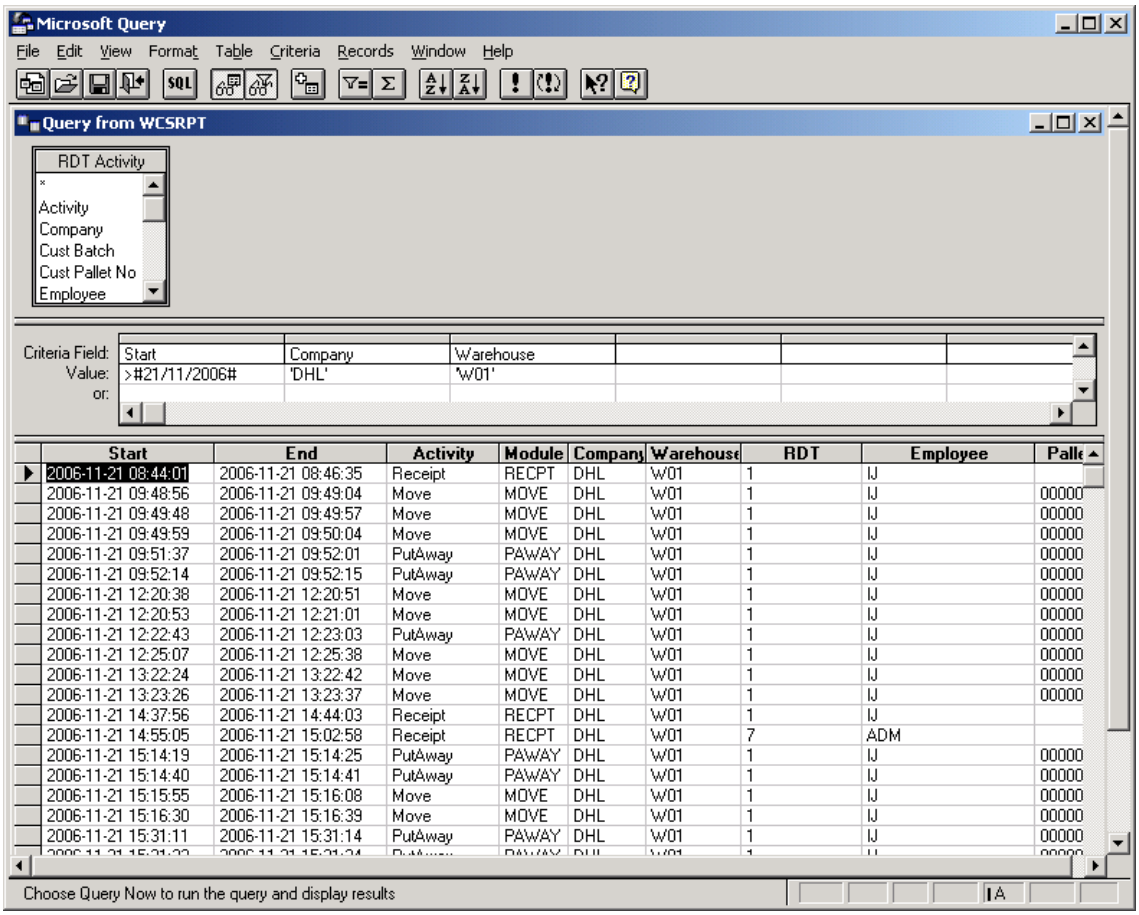
Keep hitting 'Next' until you get to the end of the query, then click on the 'View Data in Microsoft Query' option, before clicking Finish.



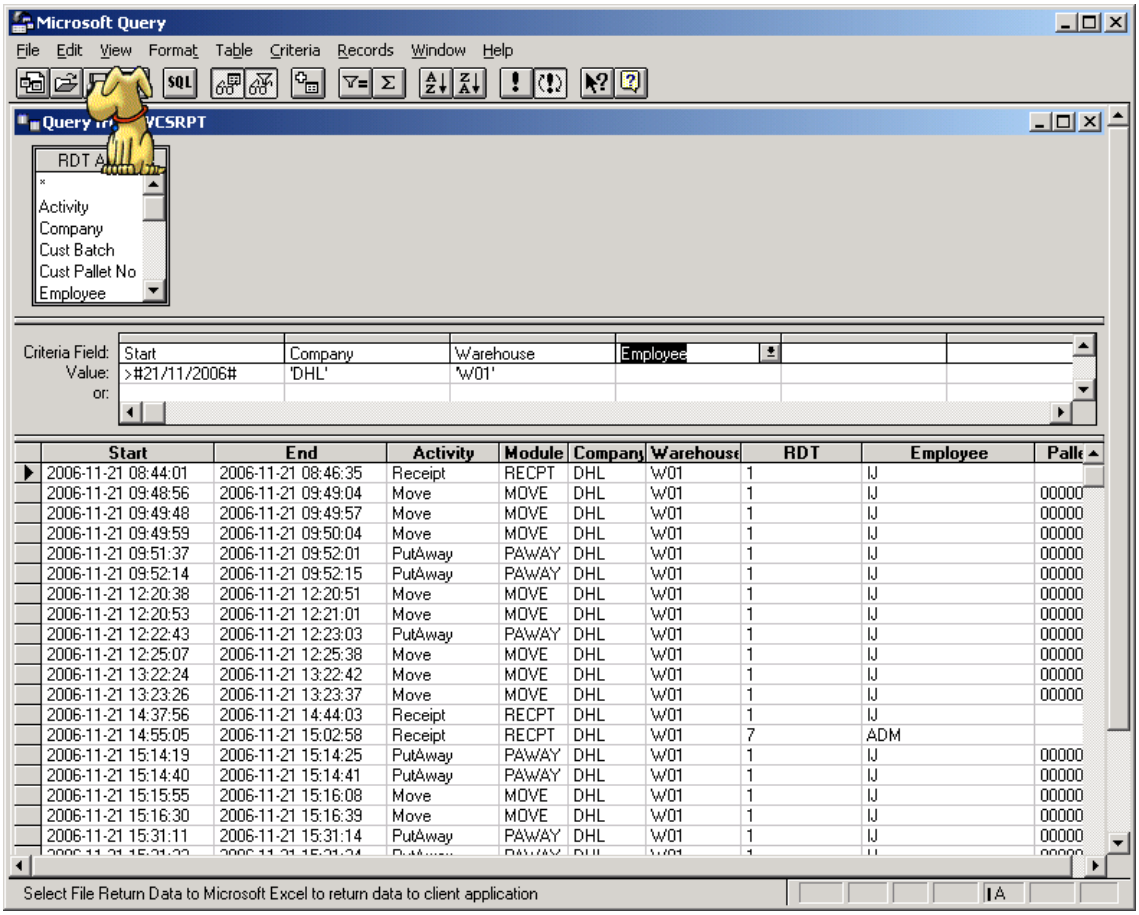
You will be taken into the Microsoft Query application.



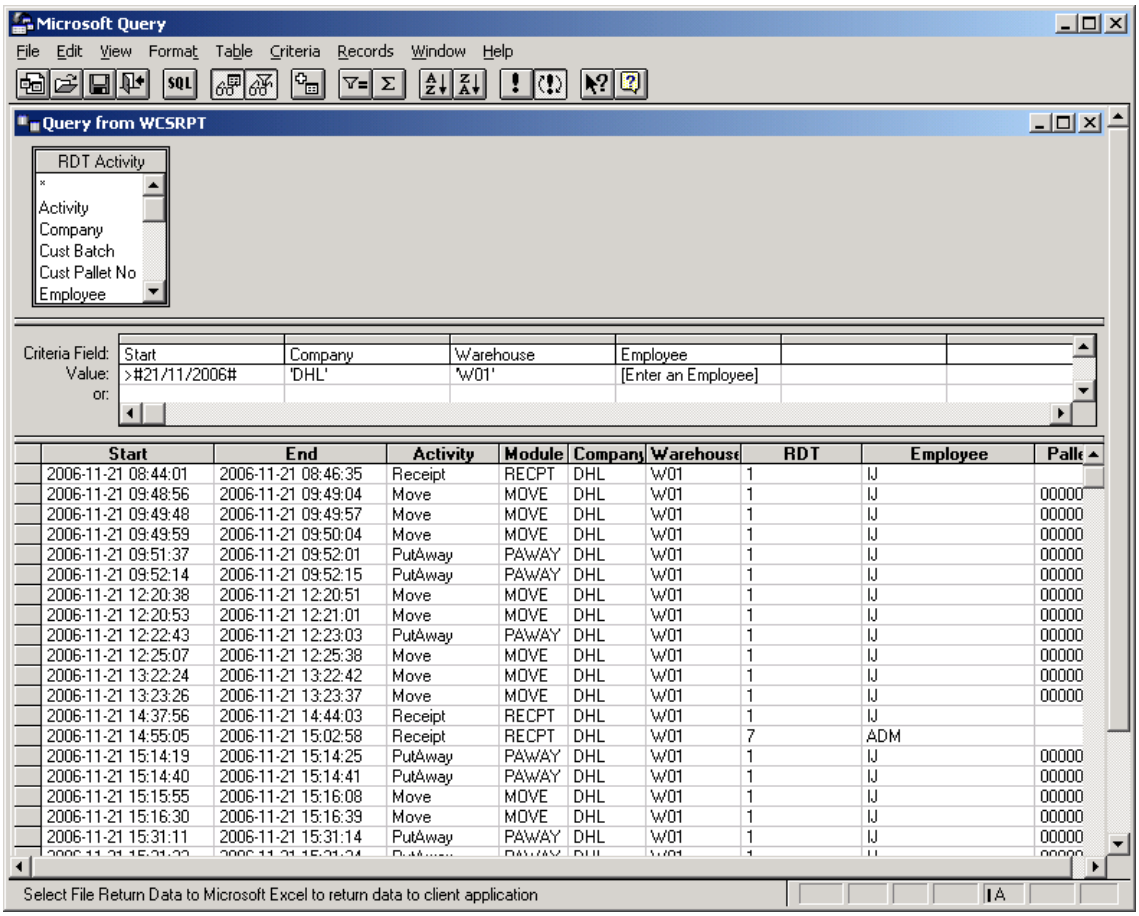
Make sure the Auto-Query button (!) is not pressed in.



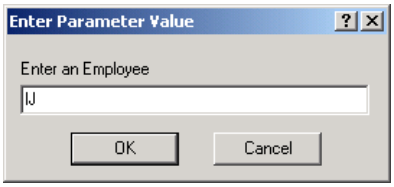
Choose the item you wish to parameterise.



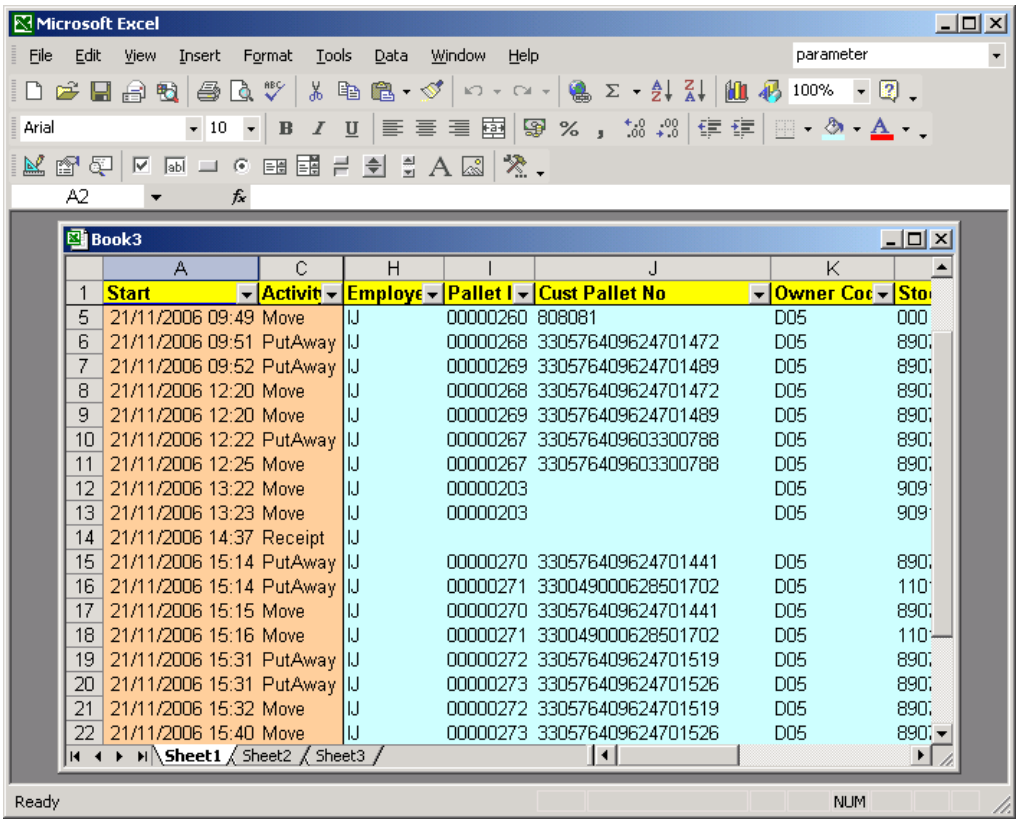
Enter a prompt for the value.



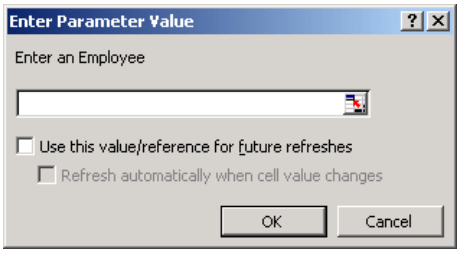
Hit Enter. You will be prompted for an employee code in a popup box. Enter one.



You can now exit Microsoft Query and return the data to the Excel spreadsheet by clicking the X in the top corner.

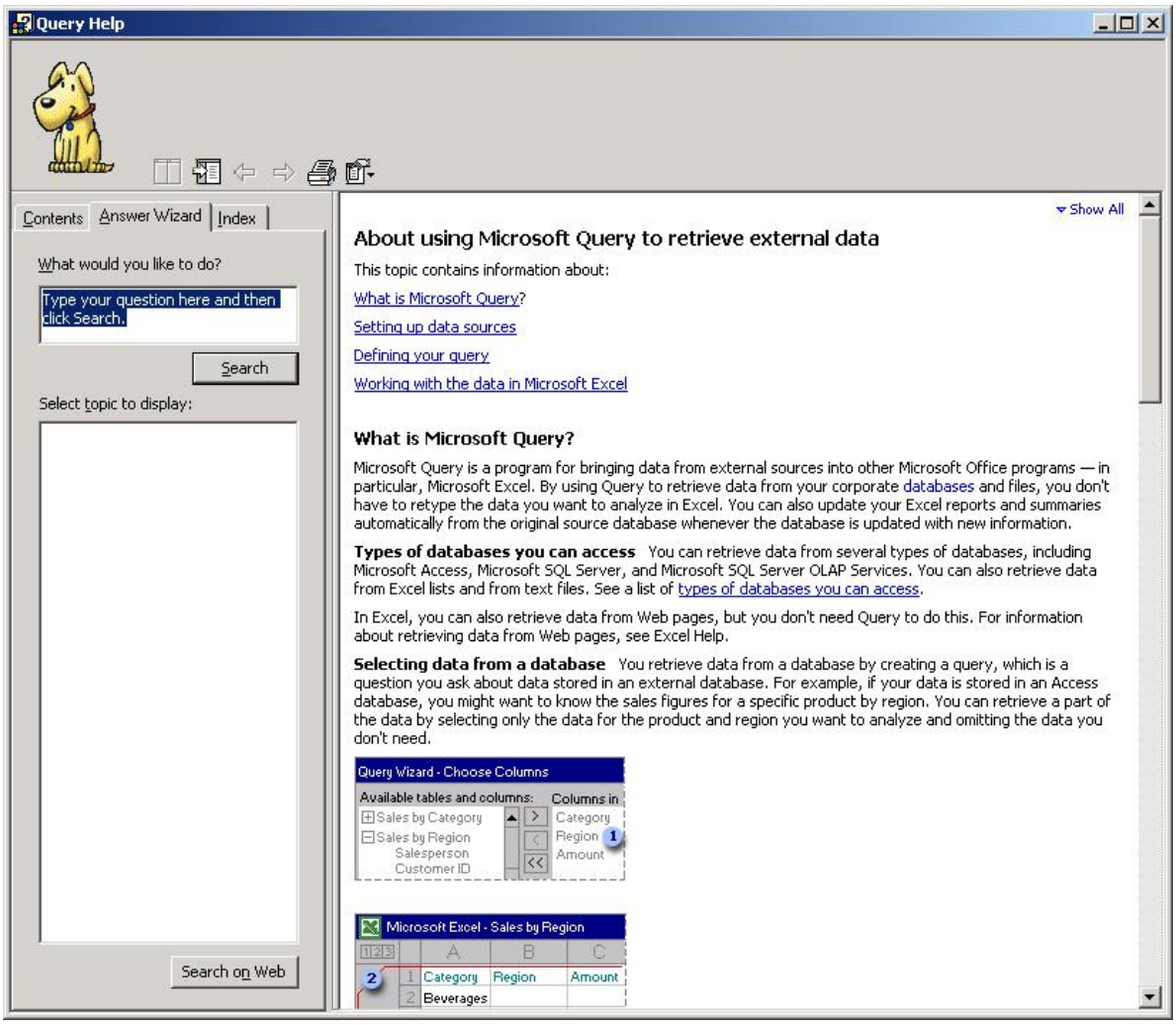


The data is now selecting only the tasks relevant to employee IJ. Whenever you refresh the data, the Employee will be prompted:



You can add multiple parameters to a query. Each will be prompted for in turn.

Note: You have full help on how Microsoft Query works, available using the Help button on the Query forms.



36 Clearing Down Data

After use for some time, data may need to be cleared down from the WCS databases.

The WCS generally has two databases:

- rdt1.mdb
- log1.mdb (optional)

As the Logging database contains details of all messages sent to and from the WCS, this is the most likely database to get very large.

You will be warned when starting WCS Maintenance whether the databases are getting close to their maximum size.

The WCS databases can only go to 2Gb in size. If they get to that size, the system will stop working as expected.

As mentioned, the most likely database to reach 2Gb is the Logging database, if the system has one. To find out where this is, check the WCS Maintenance form **System Settings** on the **System Tools** menu. Click the **WCS Settings** rule group, and check out the value of the last rule, **Log Path**. If it is set, the system uses a Logging database.

36.1 Clearing Logging Information

36.1.1 Renaming the Logging Database

The easiest was to reset the database size is to rename the Logging database, following the procedures below:

1. Ensure that all WCS Maintenance users are logged out.
2. Stop the WCS Server (RDT users do not necessarily have to be logged out, but it is best practice to do so).
3. Rename the logging database to a suitable name (for example, log2.mdb or log1_<date>.mdb).
4. Re-start the WCS Server. This will create a new, empty logging database as it starts.

36.1.2 Clear Logging Files

Alternatively, run the clear-down options on WCS Maintenance:

- *Clear Out Error Log*
- *Clear Out Incoming and Outgoing Logs*

Both of these are available on the System Tools menu. Full details of this Cleardown process can be seen in the following section.

Note: Once this is done, you need to compact and repair the logging database. Either:

- Stop and Start the WCS Server - it should compact the database automatically, if no WCS Maintenance users are logged on.

Or:

1. Ensure that all WCS Maintenance user are logged out.
2. Stop the WCS Server (again, RF users do not necessarily have to log out, but it is best practice to do so).
3. Run Database Utilities from the ***Start****/WCS Utilities* menu.
4. Choose **Compact Database** from the *Tools* menu. Find the database and wait.
5. When DBUtils comes back with a message that the database is compacted, re-start the WCS Server.

36.2 Cleardown

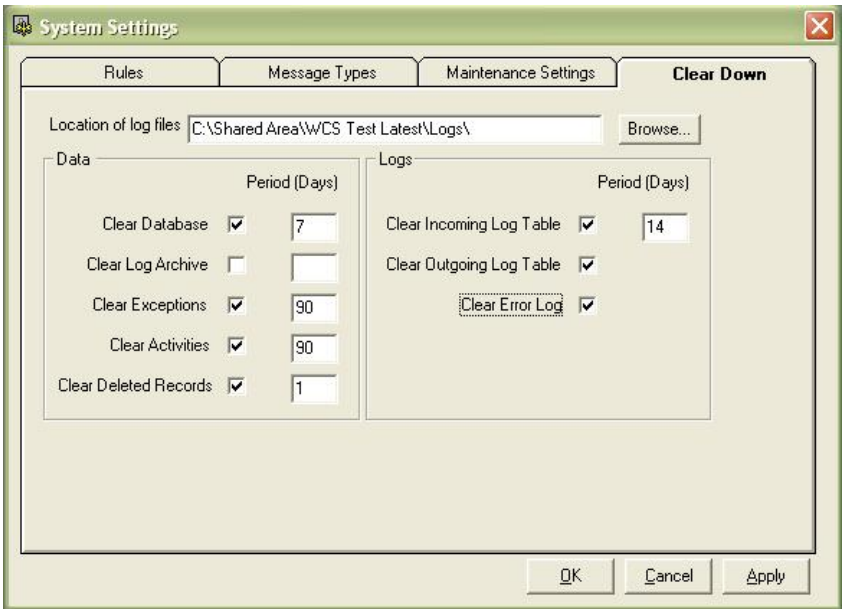
The cleardown settings control how the database is cleared of old or redundant data.

36.2.1 Cleardown Settings

In normal circumstances, the main WCS database will never accrue redundant data as, when it is completed, it is deleted from the database. The Log files (incoming, outgoing and Error) can be cleared down to a smaller time, as they are really only needed for support.

The Activities and Exceptions files are there for your analysis of the work done and exceptions made by employees. It would normally be expected to want to keep between 1 and 3 months of data in these files

Reasonable general cleardown settings are:



36.2.2 Running Cleardown

The cleardown process is a manually run process, as and when you want to run it.

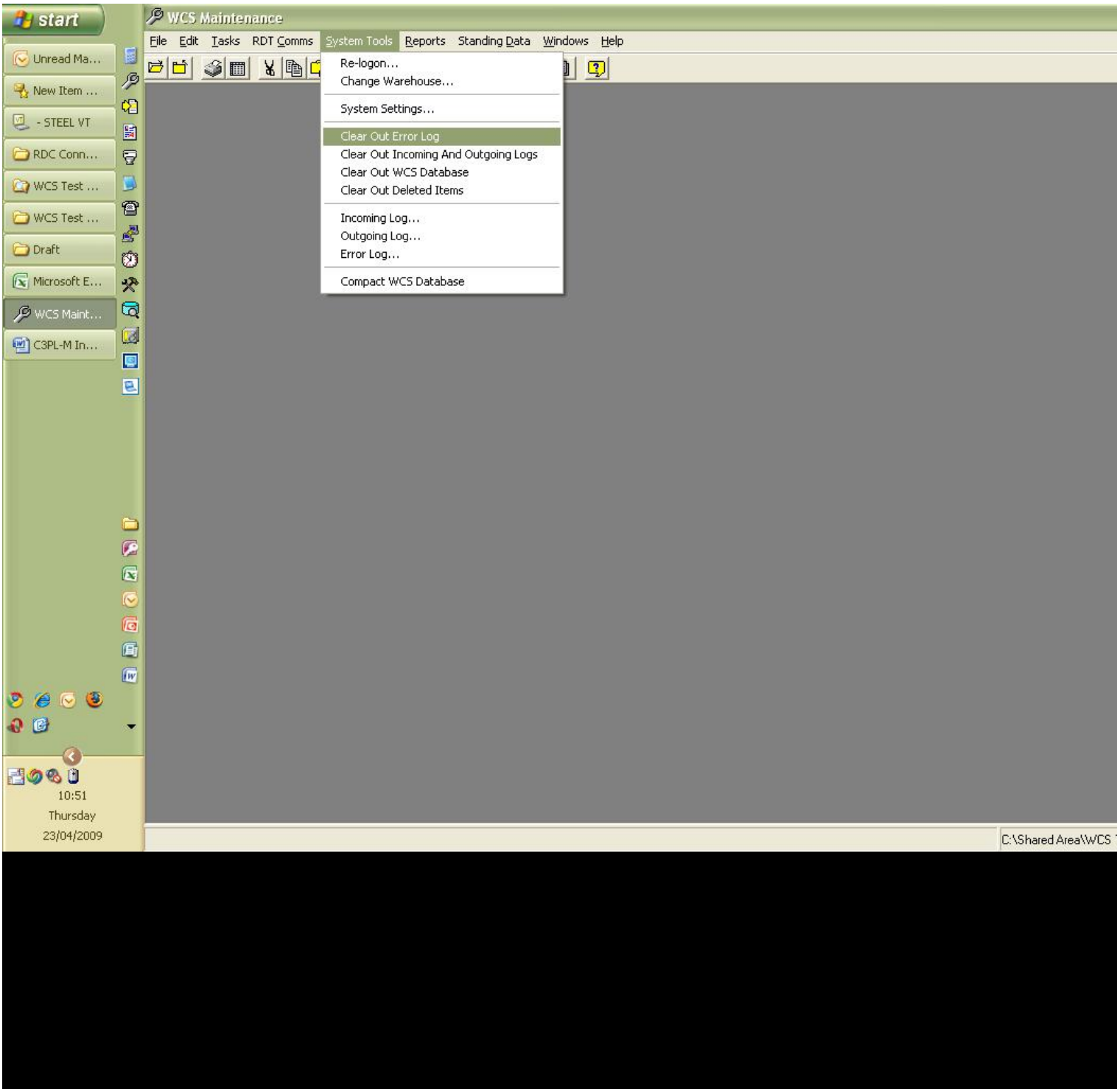
It leaves behind the days' amount of data in specified files according to the settings. The process can be scheduled instead, using the standard Windows scheduler.

When the process runs, it creates a new cleardown database in your Logs area (also a parameter set in this form), containing all the data that has been removed from the database. Each time cleardown is run, a new archive database is created, so I suggest that this process is run infrequently (perhaps once a month or less).

The data in from each cleardown run (in each archive database) is still accessible (for enquiry purposes) and the process for doing this can be seen later in this mail.

This process should **only** be set up and run on the Maintenance session that runs on the WCS Server machine, as the Cleardown database will be created on the machine that ran the process.

The process can be run in several ways:



- To clear down just the Error Log, choose the option Clear Out Error Log from the System Tools menu.
- To clear down just the Incoming and Outgoing logs, choose the option Clear Out Incoming and Outgoing Logs from the System Tools menu.
- To clear down just data marked for deletion in the database (i.e. data deleted by WCS Maintenance users), choose the option Clear Out Deleted Items from the System Tools menu.
- To clear down the all the WCS databases according to the Cleardown Settings, choose the option Clear Out WCS Database from the System Tools menu.

All space cleared in the database will be recovered the next time the WCS Server application is re-started.

37 Archive Database Queries

When you create a logging database copy or clear down data from the logging database, the users may need to enquire against it. The easiest way to set them up for this is to create an Archive database. This can be done by copying the existing WCS database rdt1 to a name like rdt1archive.

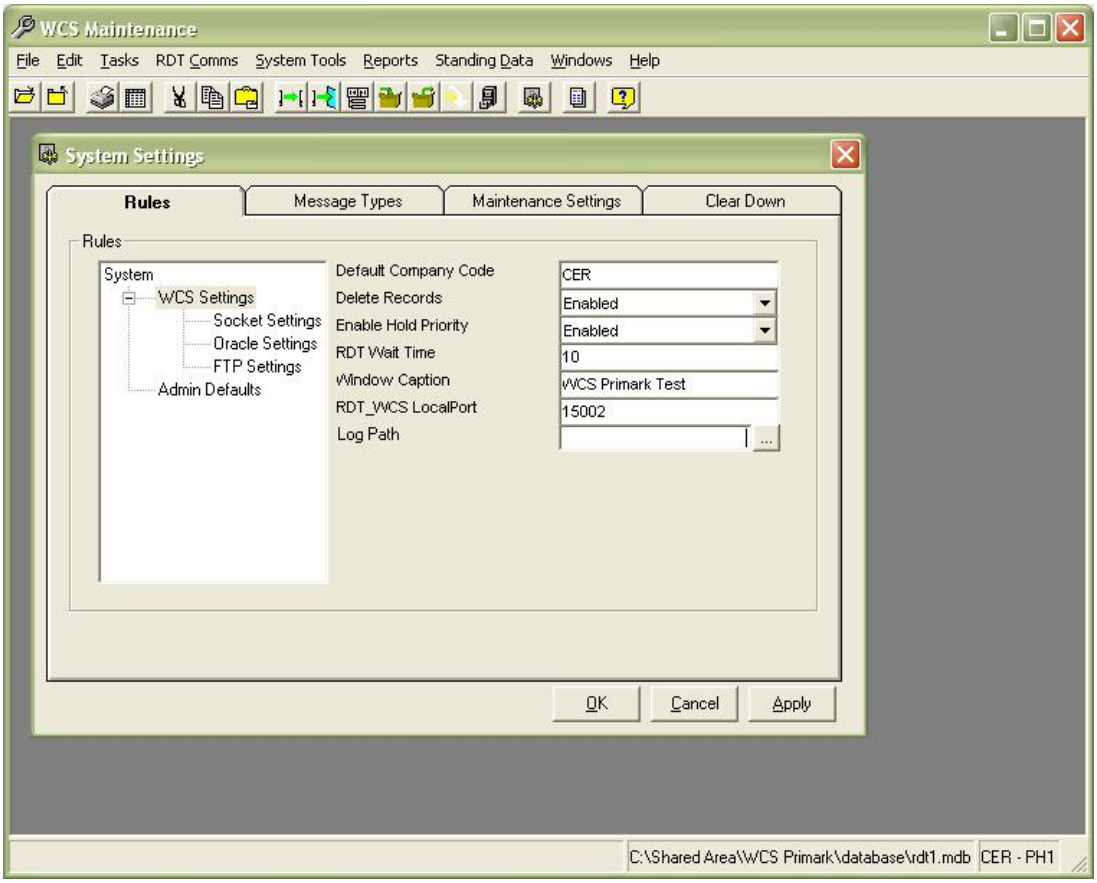
To access archive logging databases:

Start WCSMaintenance as normal.

Do not open the normal database (rdt1) but instead open the new database rdt1archive.

Log in as normal.

Click on **System Tools'/'System Settings** from the menu.



Click on the **Rules** tab and the **WCS Settings** group.

Click on the **Log Path** rule and enter the full file specification of the archive logging database you want to enquire on. Alternatively, use the Browse (...) button to the right of the **Log Path** rule to search for the archive logging database.

Click **Apply** and/or **OK** to close the form.

Close the database by choosing **Close WCS Database** from the **File** menu.

Open the Archive database again by choosing **Open WCS Database** from the **File** menu and choosing the archive database from the pop-up browser.

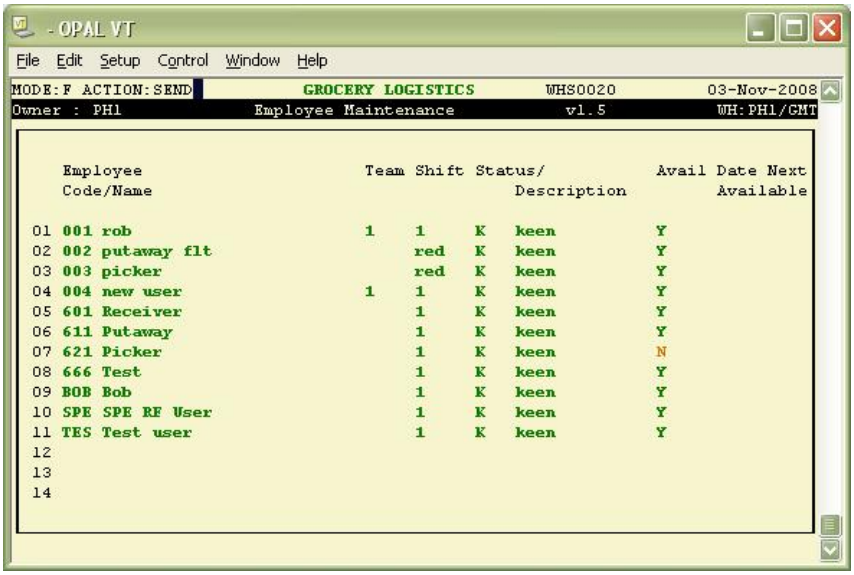
This Archive database will now show the logging data from the archive logging database chosen, allowing users to enquire and report against this information.

38 Restricting WCS Maintenance User Access

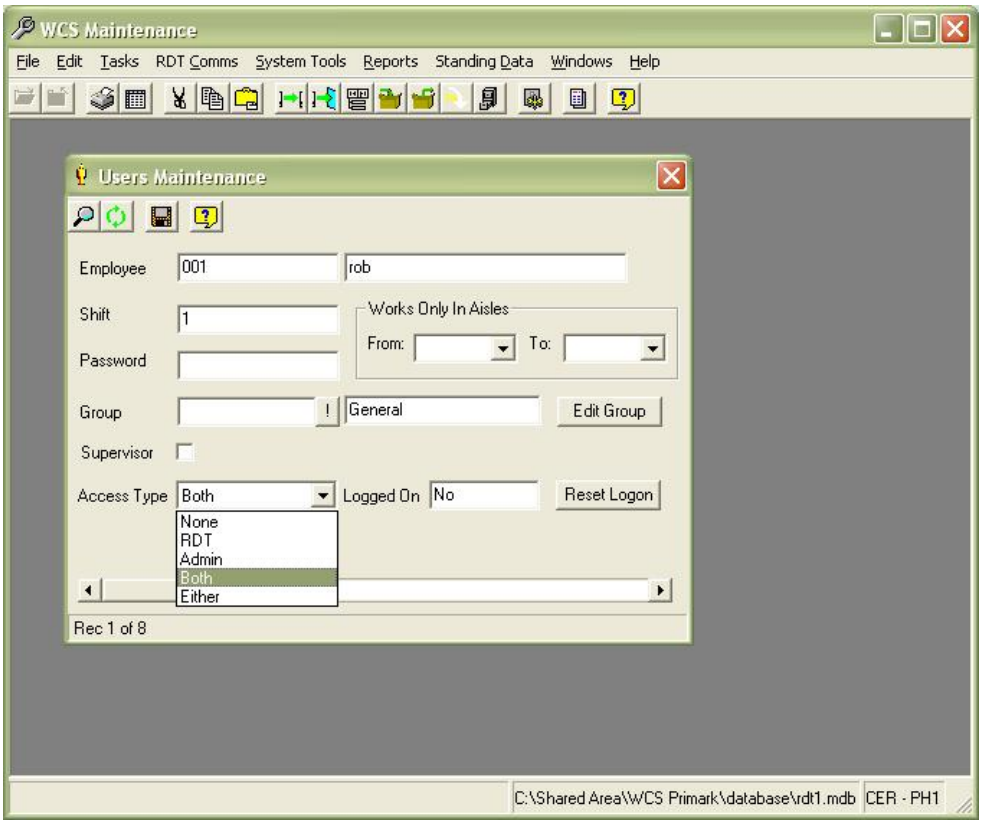
38.1 Setting User Access

The first stage is to ensure all employees are sent across to Calidus 3pl-Mobile from Calidus 3pl. The procedure for this can be seen in the RDT Training Guide WMS v4, section 4.1.

This basically comprises typing SEND from the Employees Maintenance screen in WMS:



Once sent across, all users will be set by default to be RDT users. For any users that require WCS Maintenance access, the access type of that user must be modified, as below:



For users who require access to WCS Maintenance ONLY, choose type "Admin".

For users who require access to WCS Maintenance OR RDT functions, choose type "Either".

For users who require access to WCS Maintenance AND RDT functions at the same time, choose type "Both".

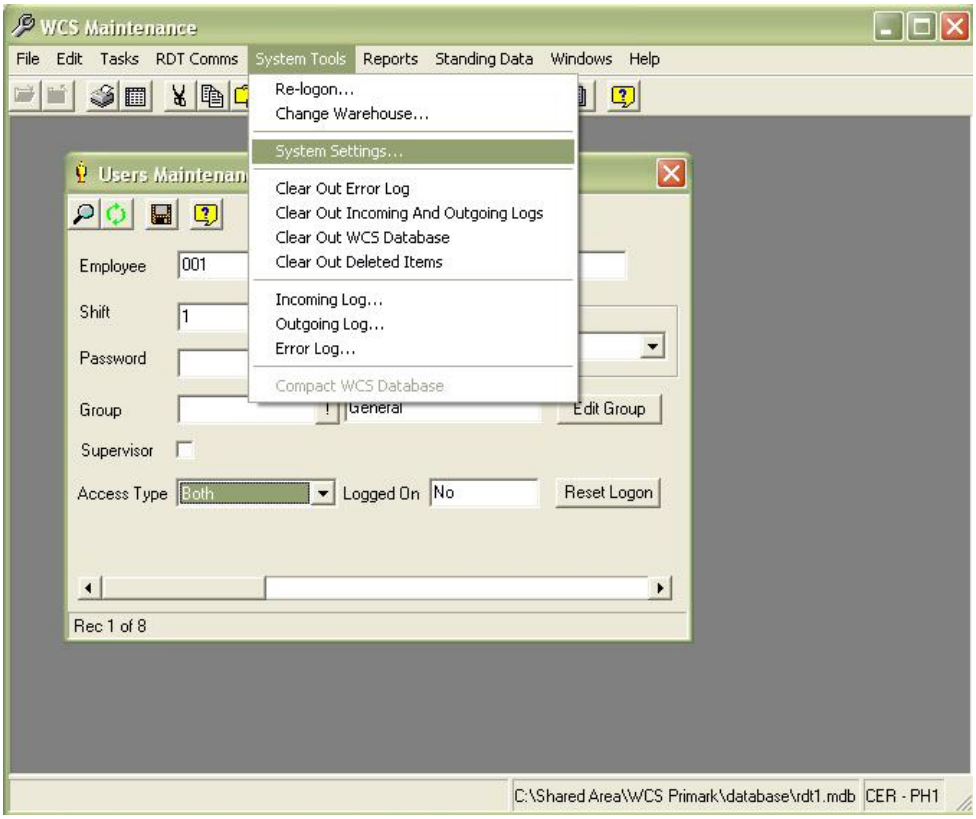
Click the save button when you are finished.

If a user is set to any of the options listed above, the menu options allowable for them are then limited by the group or, if they do not have one, by the system defaults (see section 5.2).

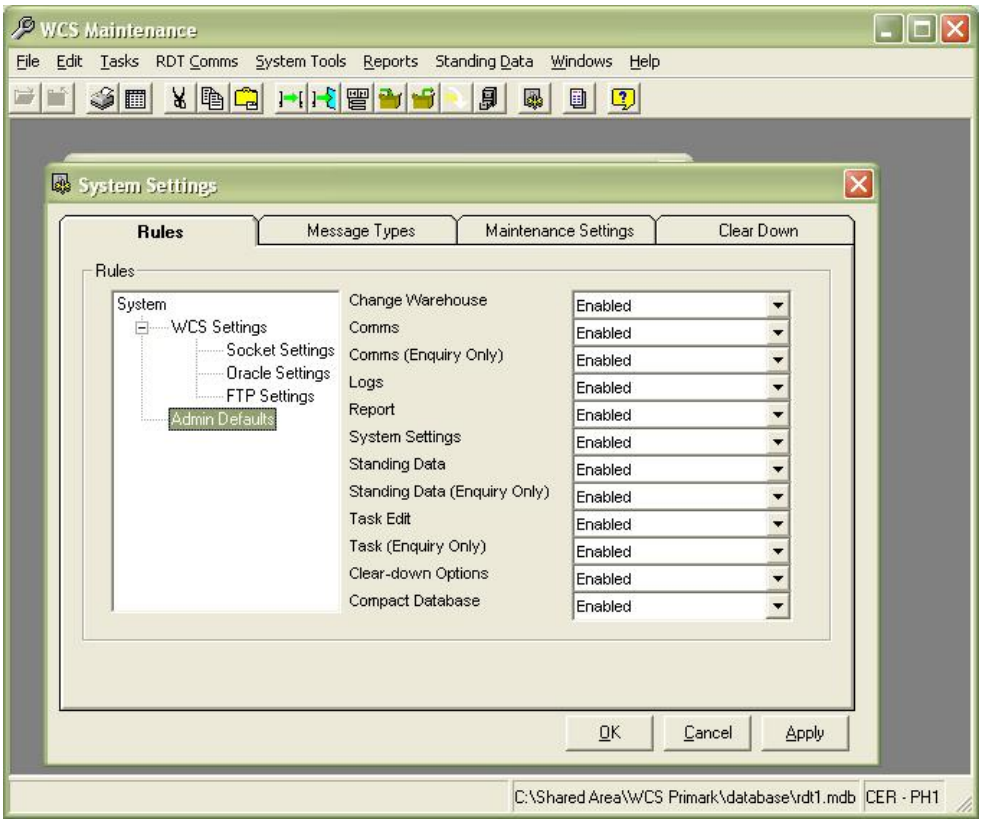
To set a Group, they must first be set up by the Groups Maintenance form (see section 5.3).

38.2 Setting System Defaults

The system defaults are maintained on System Tools/System Settings.



Click the Rules tab, and then the 'Admin Defaults' group.

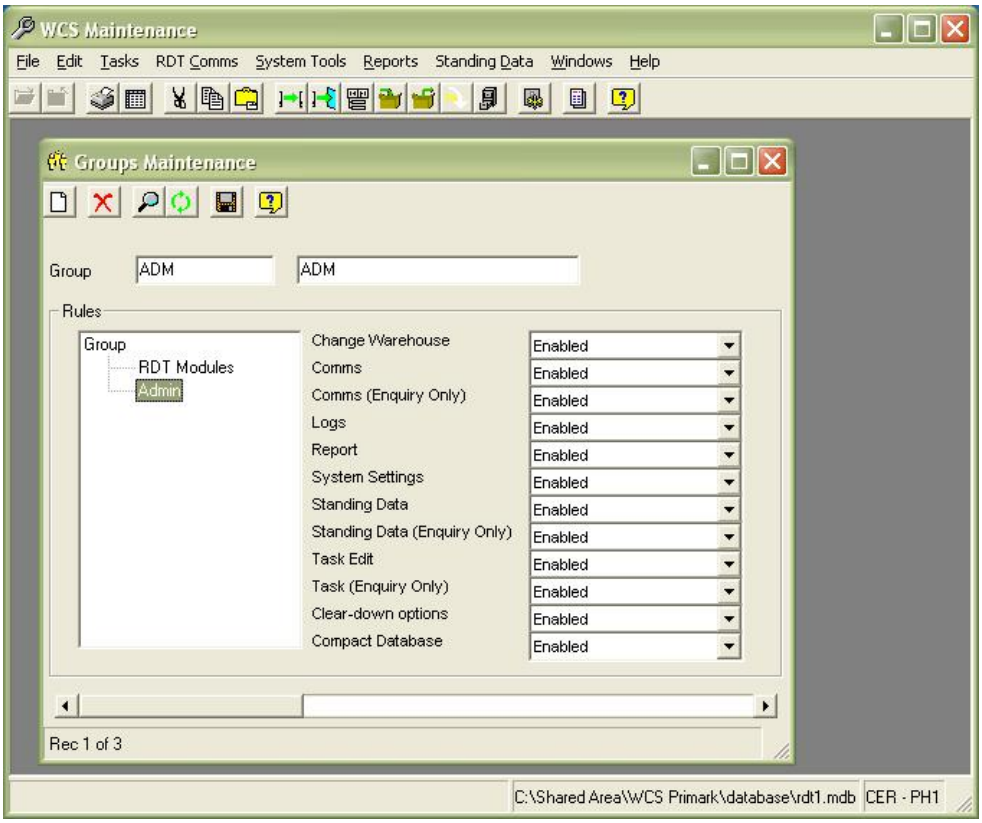


Each rule affects the menu items that can be seen and used within maintenance, if the user does not have a group.

Rule	Description
Change Warehouse	If enabled, allows the user to change the default warehouse they can see.
Comms	Allows the user full access to the RDT Comms menu. If this is enabled, the following option need not be.
Comms (Enquiry Only)	Allows the user Enquiry-only access to the top 2 items on the RDT Comms menu.
Logs	Allows the user access to the Logs Enquiry screens in the System Tools menu. That is: Incoming Log; Outgoing Log and; Error Log.
Report	Allows the user access to the Reports menu
System Settings	Allows the user access to the System Settings option on the System Tools menu. NOTE: This option should only be enabled for super-users, and even then should only be enabled sparingly.
Standing Data	Allows the user full access to all items on the Standing Data menu. If this is enabled, the following option need not be. NOTE: This option will allow users to see other users' passwords, and should therefore be limited only to those users who require it.
Standing Data (Enquiry Only)	Allows the user access to the Enquiry screens only on the Standing Data menu. That is all the items on the menu in the second group on the menu list. The top and bottom groups will not be enabled.
Task Edit	Allows the user full access to all the screens on the Tasks menu. If this is enabled, the following option need not be.
Task (Enquiry Only)	Allows the user access to all the screens on the Tasks menu, but for enquiry purposes only.
Clear-down Options	Allows the user access to the Clear-Out options on the System Tools menu. NOTE: This should only be available for super-users.
Compact Database	Allows the user access to the Compact Database option on the System Tools menu.

38.3 Setting Group Defaults

Groups are maintained by the Groups Maintenance screen, accessed from the Standing Data Maintenance menu.



Full help for maintaining and creating Groups can be found in the on-line help and the WCS Maintenance user Guide.

Click the Admin group to see the settings that affect the WCS Maintenance options available to users assigned to this group.

Each rule affects the menu items that can be seen and used within maintenance, if the user does not have a group.

Rule	Description
Change Warehouse	If enabled, allows the user to change the default warehouse they can see.
Comms	Allows the user full access to the RDT Comms menu. If this is enabled, the following option need not be.
Comms (Enquiry Only)	Allows the user Enquiry-only access to the top 2 items on the RDT Comms menu.
Logs	Allows the user access to the Logs Enquiry screens in the System Tools menu. That is: Incoming Log; Outgoing Log and; Error Log.
Report	Allows the user access to the Reports menu
System Settings	Allows the user access to the System Settings option on the System Tools menu. NOTE: This option should only be enabled for super-users, and even then should only be enabled sparingly.
Standing Data	Allows the user full access to all items on the Standing Data menu. If this is enabled, the following option need not be. NOTE: This option will allow users to see other users' passwords, and should therefore be limited only to those users who require it.
Standing Data (Enquiry Only)	Allows the user access to the Enquiry screens only on the Standing Data menu. That is all the items on the menu in the second group on the menu list. The top and bottom groups will not be enabled.
Task Edit	Allows the user full access to all the screens on the Tasks menu. If this is enabled, the following option need not be.
Task (Enquiry Only)	Allows the user access to all the screens on the Tasks menu, but for enquiry purposes only.
Clear-down Options	Allows the user access to the Clear-Out options on the System Tools menu. NOTE: This should only be available for super-users.
Compact Database	Allows the user access to the Compact Database option on the System Tools menu.

39 Failsafe WMS/WCS Recovery Process

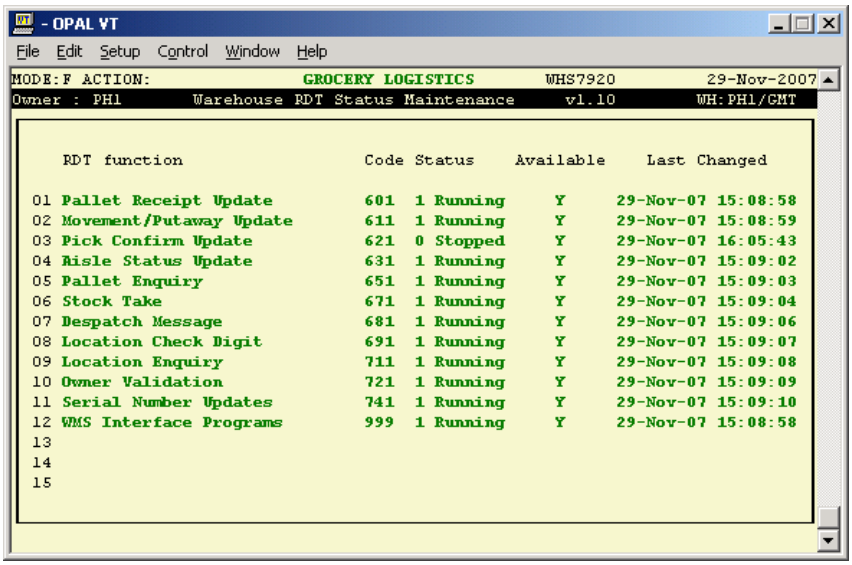
In the event of failure of any portion of the systems, a full-restart of all processes associated to RF processes will normally resolve the problem. The full process normally takes less than 15 minutes.

39.1 Summary of Steps

- Check running WMS Update Processes
- Check WMS Interfaces
- Re-start all WMS Update processes
- Re-start WCS-Server application
- Re-start WCS Server machine

39.1.1 Check running WMS Update processes

On the UNISON RDT Menu, run the RDT Start/Stop screen:

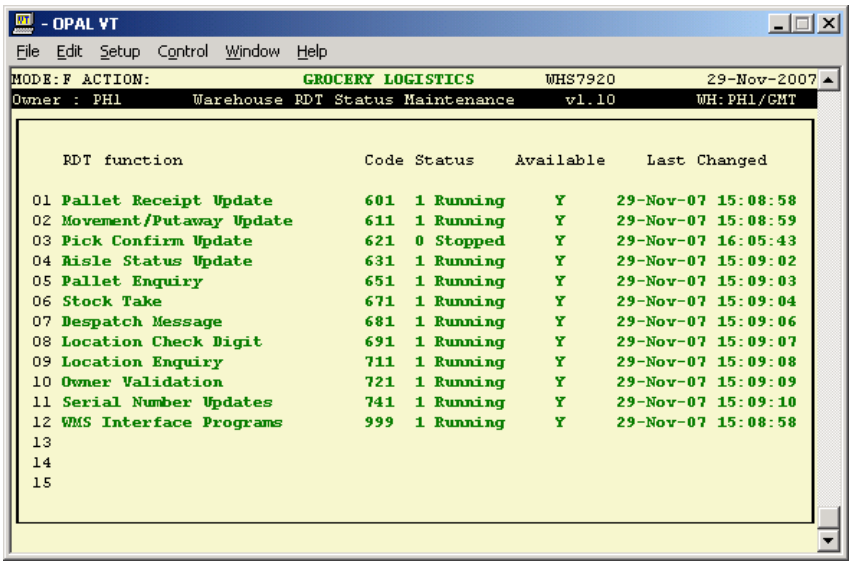


Should any of the processes be stopped, start them by entering START from the action prompt.

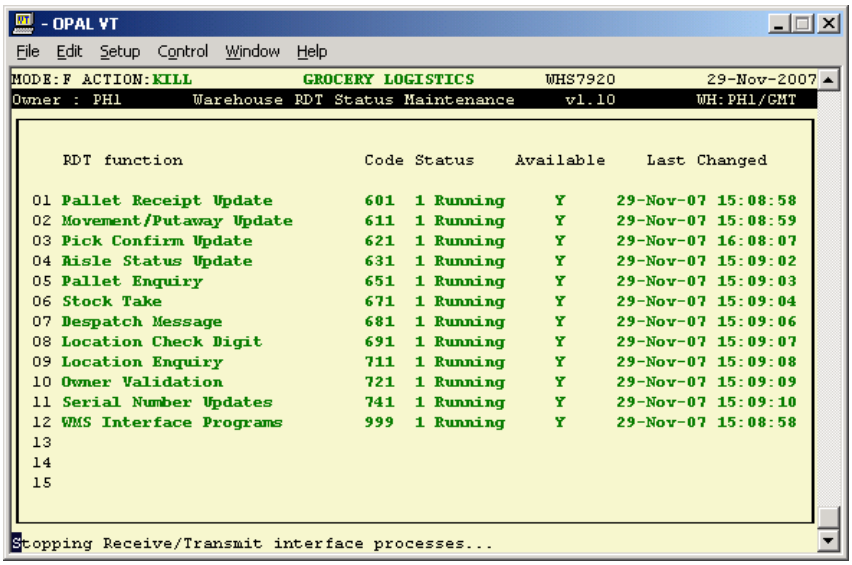
At this point, check with the operation that the problem has resolved. If not, move on to the next stage.

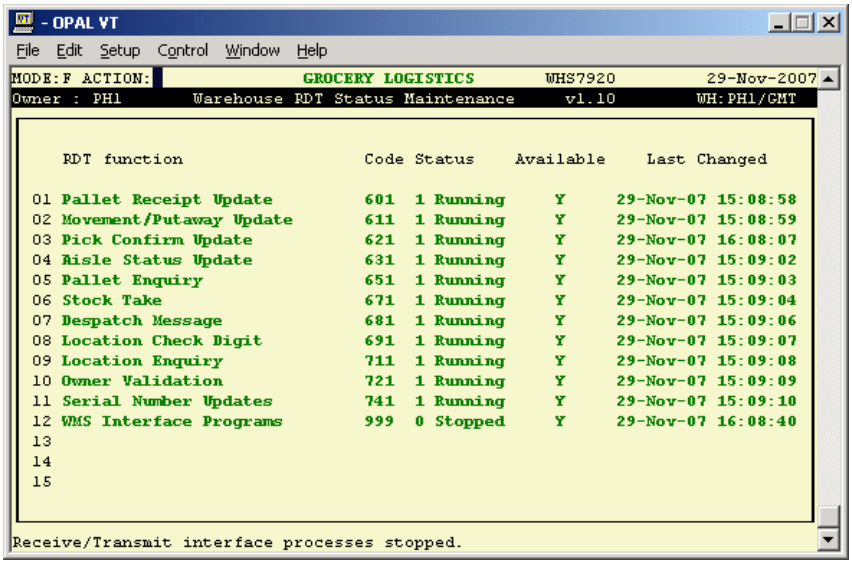
39.1.2 Check WMS Interfaces

On the UNISON RDT Menu, run the RDT Start/Stop screen:

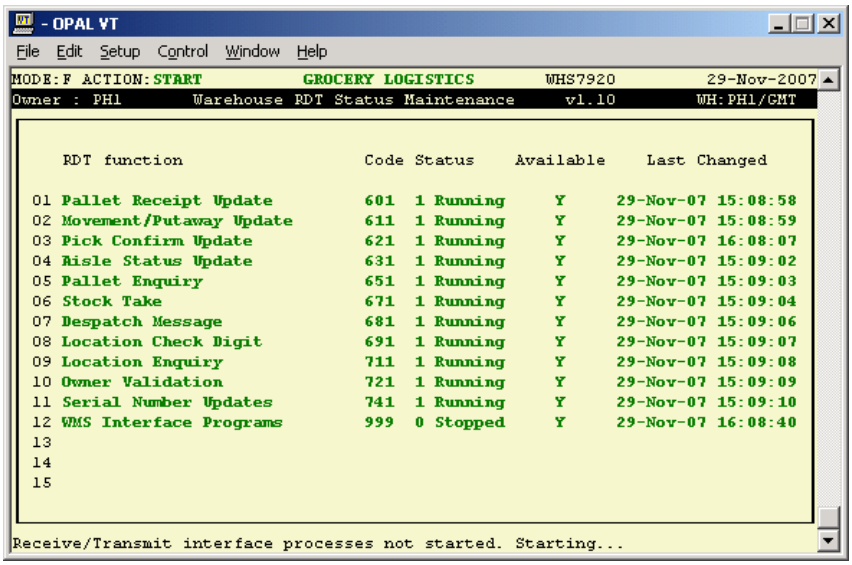


Stop and start the WMS Interface processes by first entering KILL:





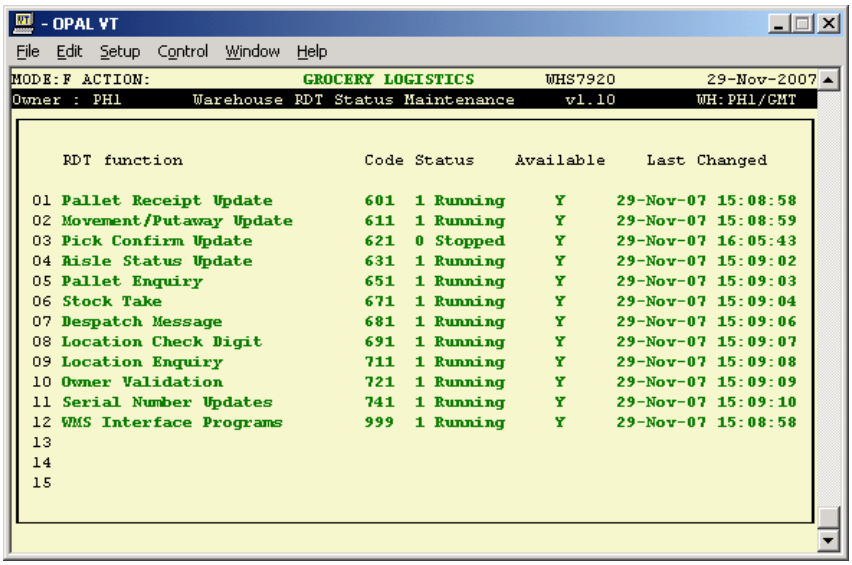
Re-start them by typing START.



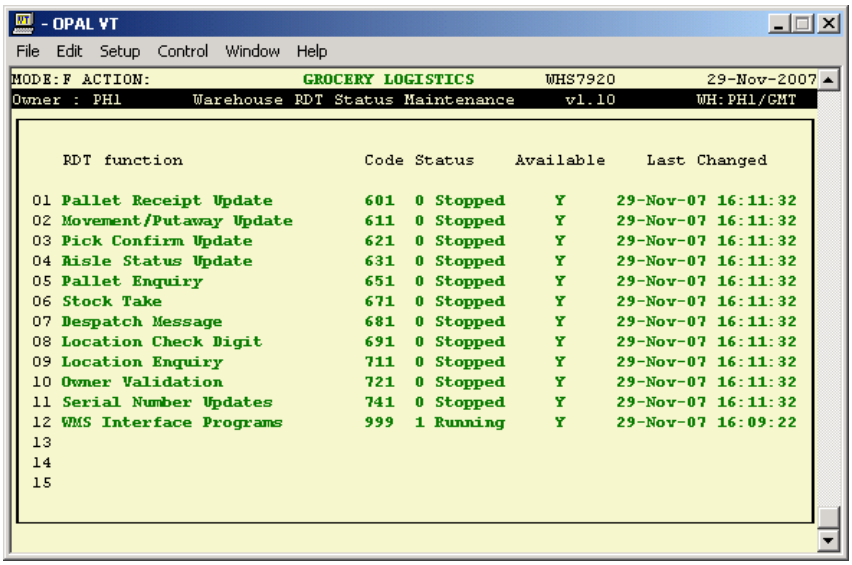
At this point, check with the operation that the problem has resolved. If not, move on to the next stage.

39.1.3 Re-start all WMS Update processes

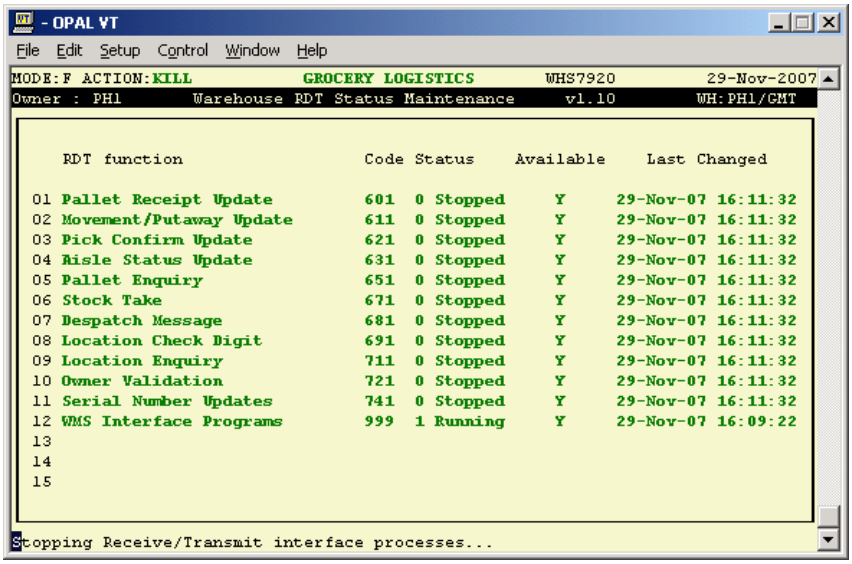
On the UNISON RDT Menu, run the RDT Start/Stop screen:

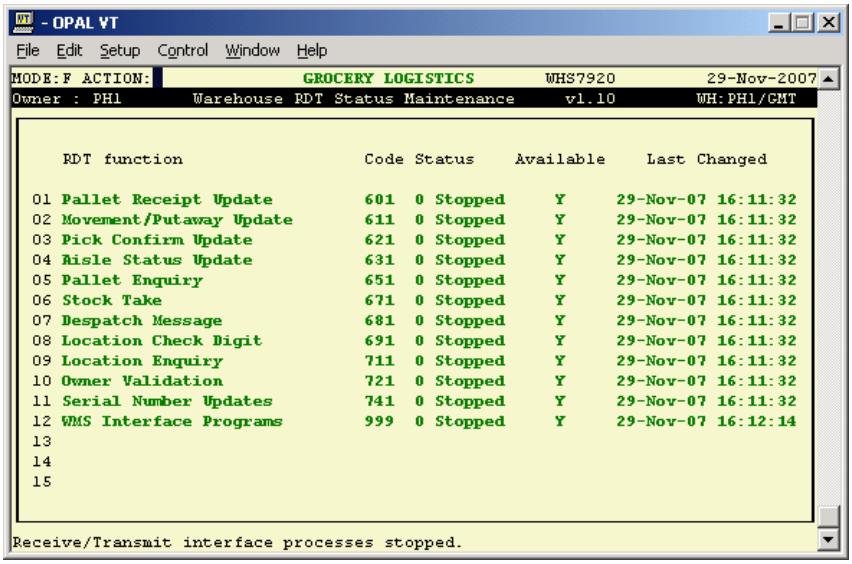


Stop the Update processes by entering STOP

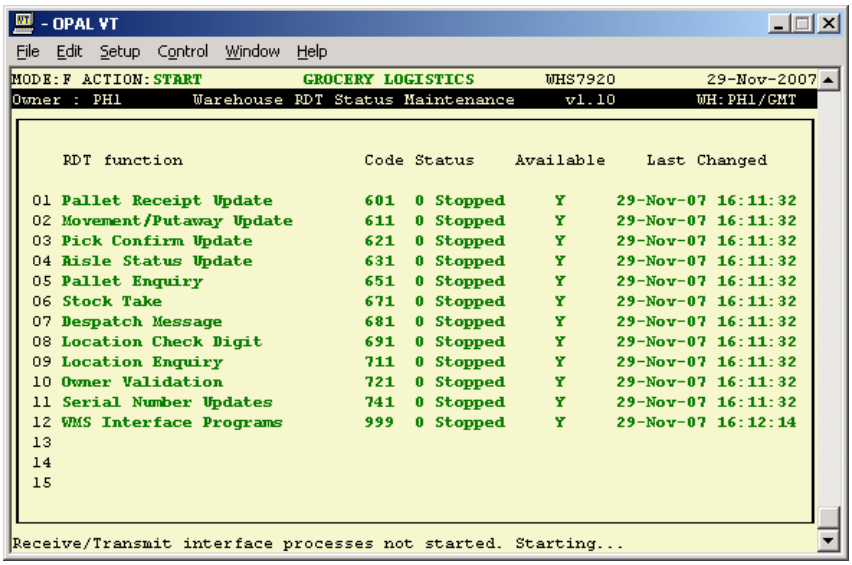


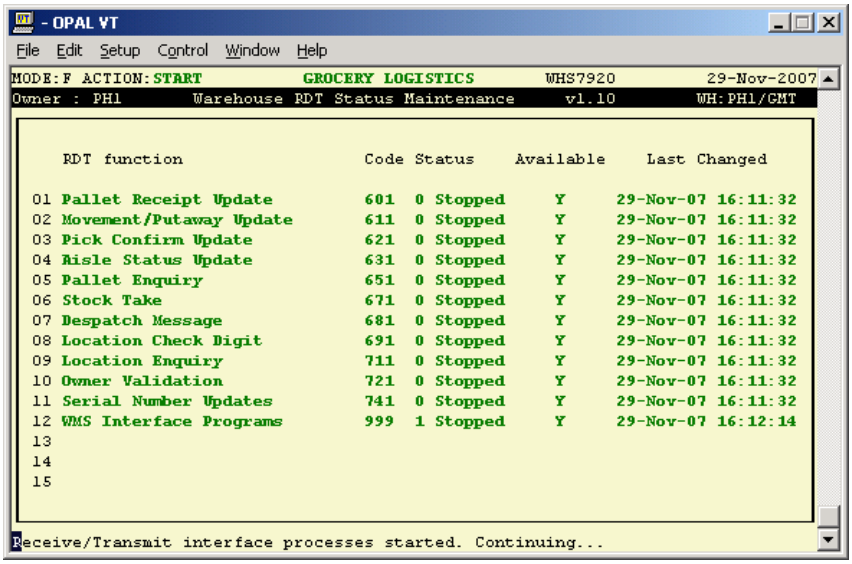
Stop the WMS Interface processes by entering KILL:

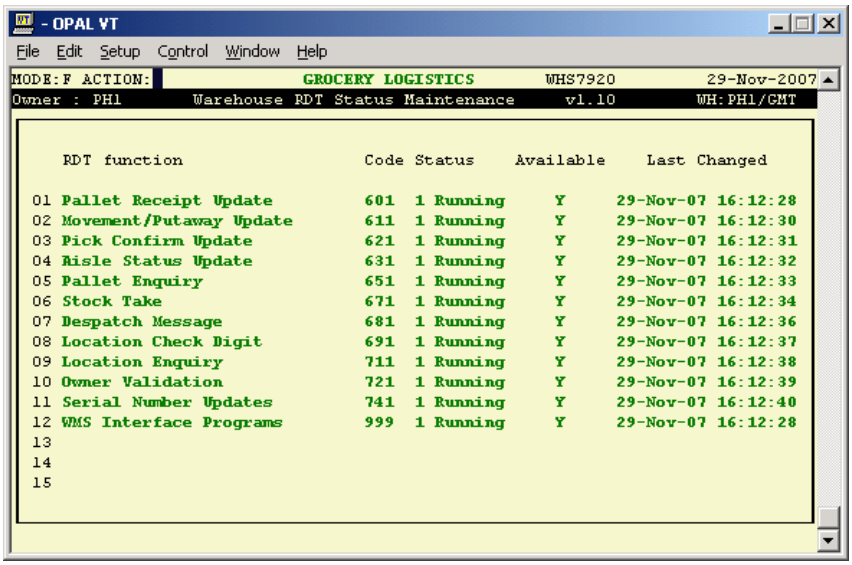




Re-start them all by typing START.







At this point, check with the operation that the problem has resolved. If not, move on to the next stage.

39.1.4 Re-start WCS-Server application

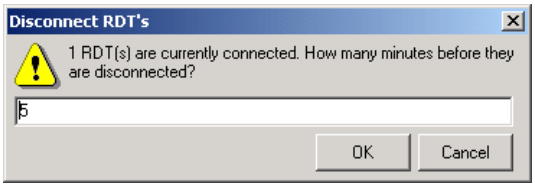
Log on the WCS Server machine and locate the WCS-Server application:

To stop, click the X in the corner:

Enter the password.

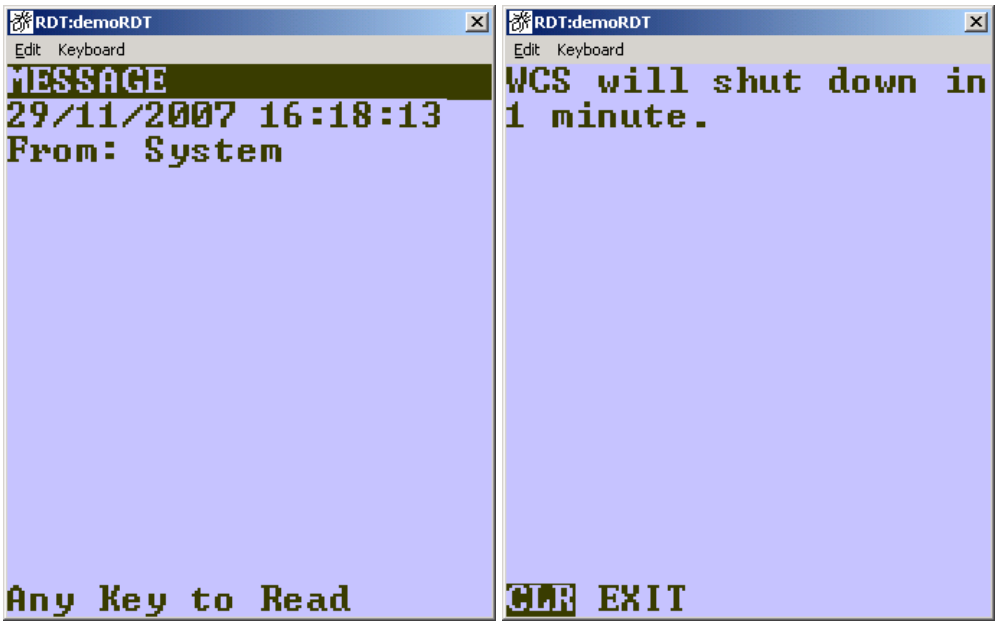
Click OK

If any RDT users are connected, you will be prompted how long to wait before logging them off:



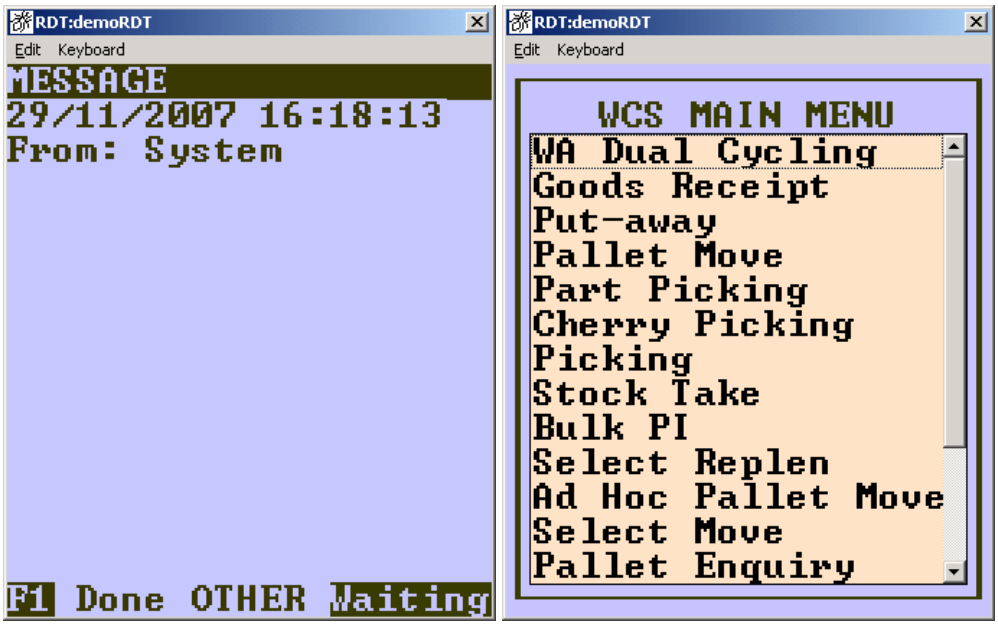
If you enter 0, the WCS-Server application will exit immediately without informing any connected RF users.

If you leave a positive number of minutes in here, the WCS-Server will commence a countdown on the screen, and will send each connected RF user a message, to exit the system immediately.



To restart the WCS-Server application, choose the application from the Start menu/Programs/Warehouse Control Server/WCS Server shortcut.

When the server restarts, the WCS will reconnect to any RDT users when they next press a key:



Note: If you are quick enough stopping and starting the WCS-Server application, the users will not know that the application has been re-started - they will simply continue to work as usual, as long as you get it re-started within 30 seconds.

At this point, check with the operation that the problem has resolved. If not, move on to the next stage. Also, contact OBSL support.

39.1.5 Re-start WCS Server machine

Ensure all users have logged off the system, including RF users and WCS Maintenance users.

Reboot the WCS Server machine.

When the machine has re-booted, restart the WCS application.

40 Changing WCS/WMS Connectivity

It is sometimes necessary to change the connectivity settings on the WMS and/or WCS (for example, a site move). The following is a standard process covering this procedure.

Note: If the WCS IP address is being changed then a new authorisation code may be required. This can be requested from OBS Logistics.

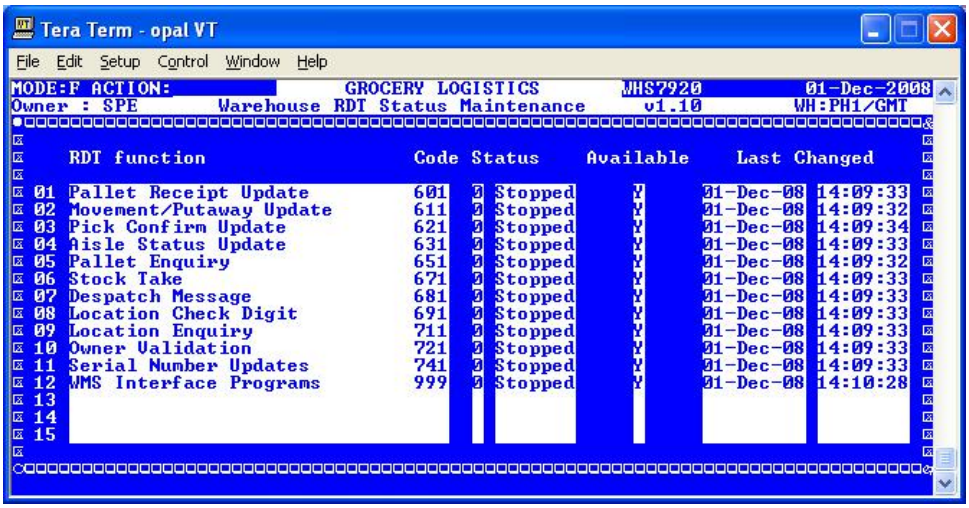
40.1 Requirements

Before this process is started, you will need to know:

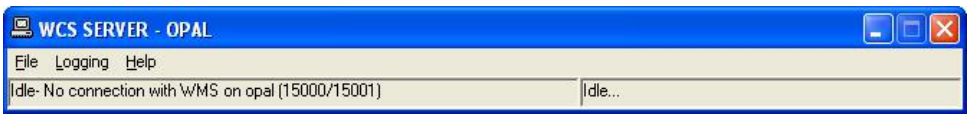
- The WMS IP address.
- The port number used to send messages from the WMS to the WCS.
- The port number used to send messages from the WCS to the WMS.

40.1.1 Stop the existing WMS - WCS Interface

Stop the existing WMS/WCS interface using the 'RDT Start/Stop Screen' (WHS7920). This is done by entering 'STOP' at the action prompt to stop the RF processes followed by entering 'KILL' at the action prompt to stop the interface. Once the RF processes and interface have been stopped, the screen should display all of the processes as status 0 (stopped). An example of this can be seen in the screenshot below:

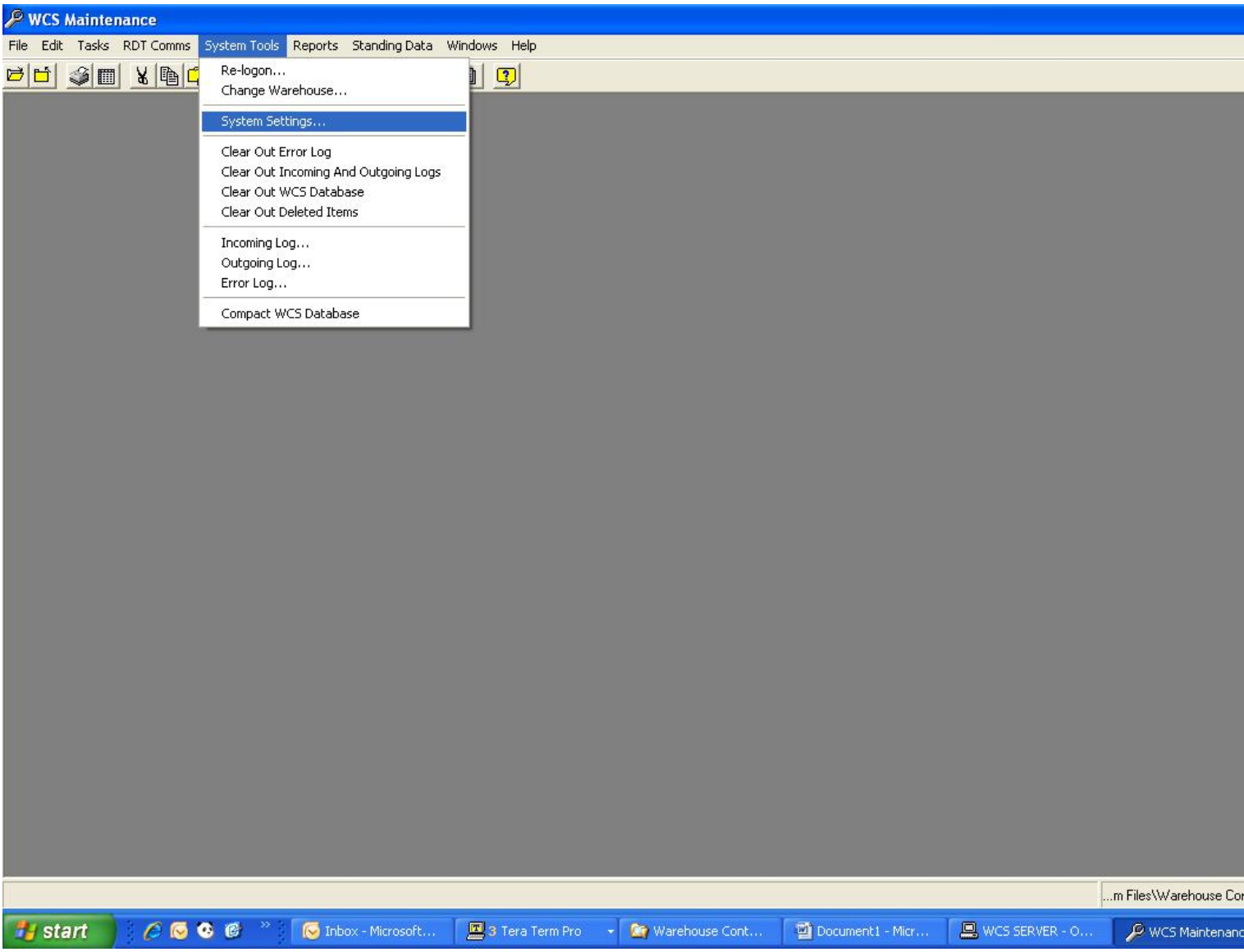


The WCS should also display a message showing that there is no connection between the WCS and WMS:

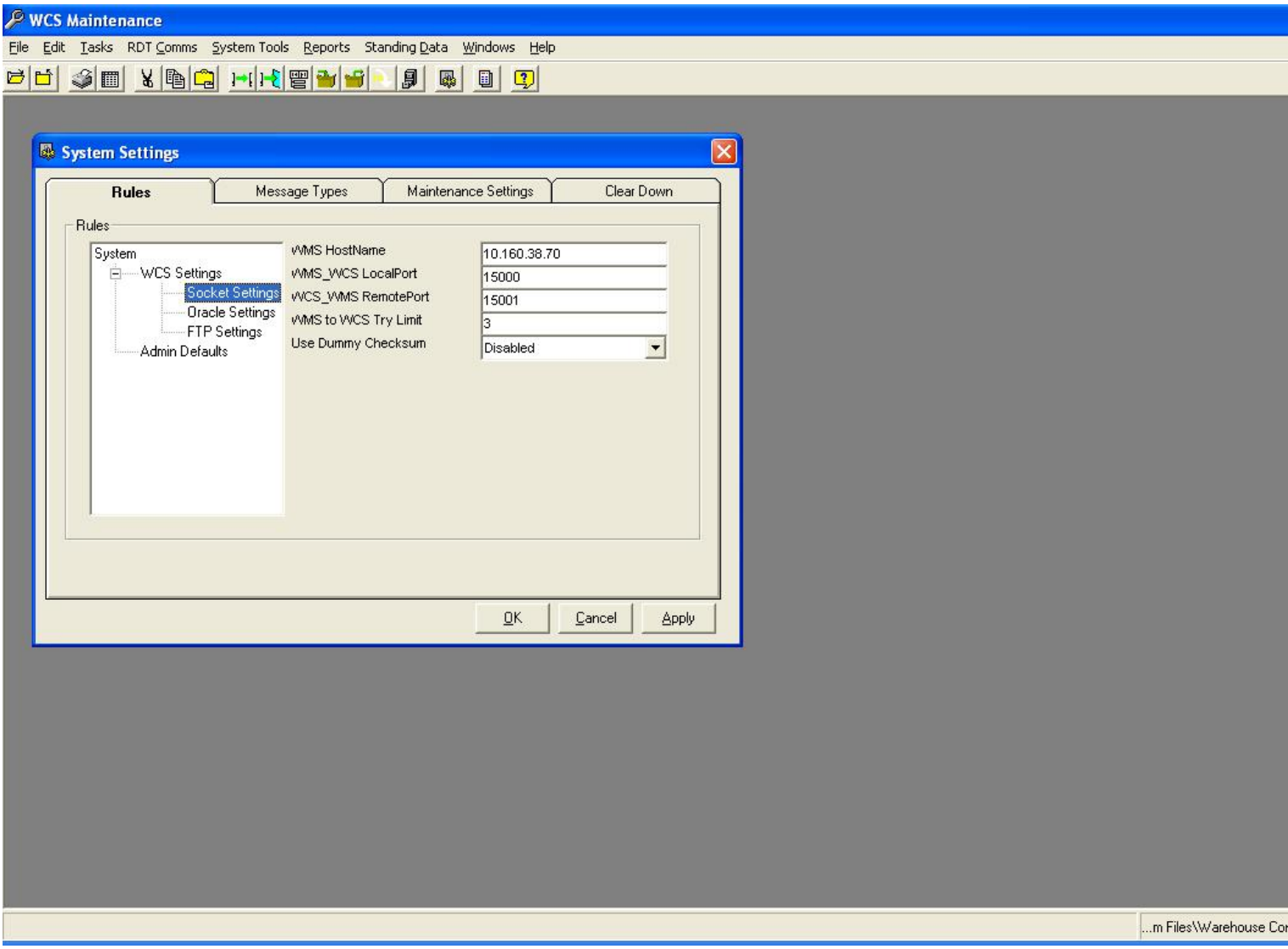


40.1.2 Update the WCS Connection Settings

Stop the WCS Server application. Start a WCS Maintenance session and open the 'System Settings' screen which can be done by selecting the 'System Settings?' option from the 'System Tools' drop down list. This can be seen in the screenshot below:



Once the 'System Settings' screen has opened, select the 'Socket Settings' option before entering the WMS IP Address (WMS HostName), the WMS to WCS port number (WMS_WCS LocalPort) and WCS to WMS port number (WCS_WMS RemotePort) with the relevant values. An example is shown in the screenshot below:



40.1.3 Update the WMS Connection Settings

If the IP address of the WCS PC has changed then follow the steps below:

At a UNIX prompt on the WMS change directory to the RDT directory using the following command:

```
cd $RDT_LOCATION
```

Once in this directory, open the 'start_int' file. Once the 'start_int' file has been opened, locate the lines of code that contain the connection settings. An example of the code is displayed below:

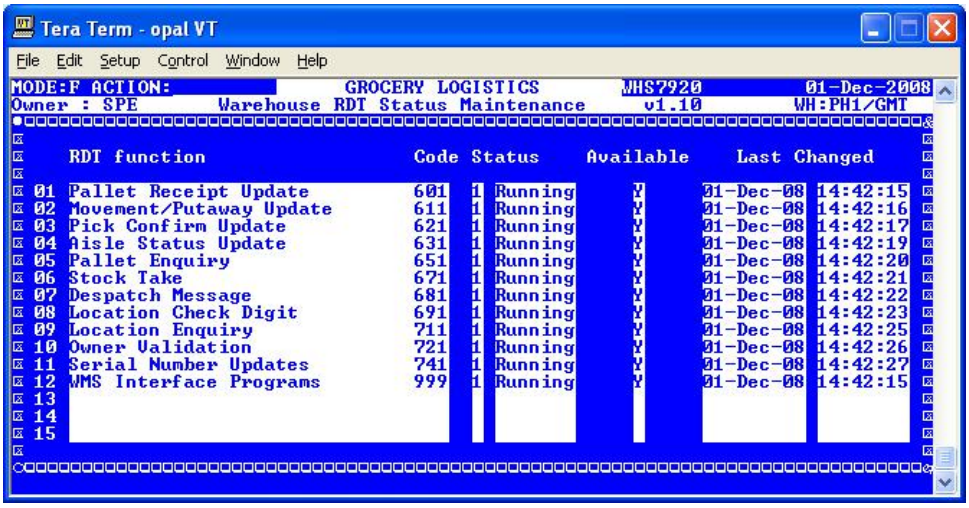
```
nohup $RDT_LOCATION/wms_xmit3 $WMSWCS_MBX 1024 15000 10.43.0.124 0 1 1 0 60000 0

$RDT_LOCATION/ >>$RDT_LOCATION/wms_if_msgs.log &

nohup $RDT_LOCATION/wms_recv3 $RDT_LOCATION/rmp.ctrl 15001 1 0 5 $RDT_LOCATION >

>$RDT_LOCATION/wms_if_msgs.log &
```

Ensure that the IP address of the WCS PC (highlighted above in blue), the WMS to WCS port number (highlighted above in green) and the WCS to WMS port number (highlighted above in red) are populated correctly. If they are not correct, amend the values before saving the changes.

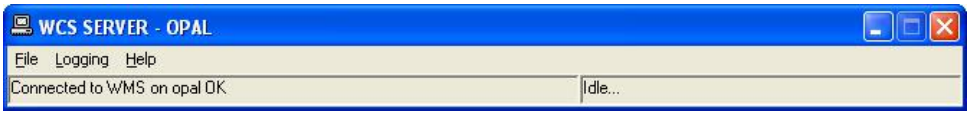
Note: If the RDT directory ($RDT_LOCATION) or the 'start_int' program does not exist then contact OBS Logistics support.

40.1.4 Start the WCS and Interface

Start the WCS Server application, it should still show as no connection to the WMS. Start the WMS/WCS interface on the new machine using the 'RDT Start/Stop Screen' (WHS7920). This is done by entering 'START' at the action prompt. Once the RF processes and interface have been started, the screen should display all of the processes as status 1 (Running). An example of this can be seen in the screenshot below:



The WCS should also display a message showing that it is connected to the WMS:



The WCS should be available to use now.

41 Appendices

41.1 WCS File Layout

RDT Activity table

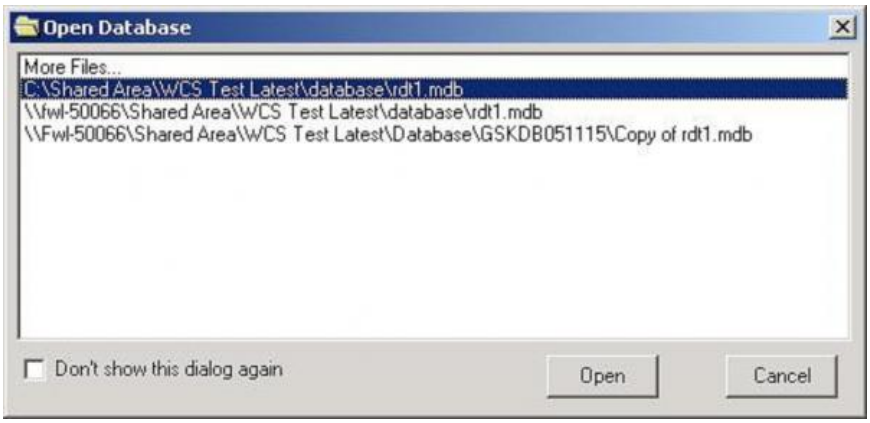
RDT Activity : Table

Field Name	Data Type	Desc
Start	Date/Time	Time activity started
End	Date/Time	Time activity ended
Activity	Text	Activity undertaken
Module	Text	System module used
Company	Text	Company Code
Warehouse	Text	Warehouse ID
RDT	Number	RDT used to complete task
Employee	Text	Employee Code who completed task
Pallet ID	Text	Pallet ID
Cust Pallet No	Text	Customer's Pallet ID
Owner Code	Text	Owner of Stock
Stock Code	Text	Stock
Cust Batch	Text	Batch
WMS Rotation	Text	WMS Rotation
From Location	Text	Location pallet was moved from
To Location	Text	Location pallet was moved to
Move Qty	Number	Amount on pallet when moved
Reference	Text	Reference under which pallet was moved

42 WCS Maintenance

This suite allows administrators to configure the WCS system, and modify the running of tasks within that system for the RDTs. When you log on, you need to open the WCS database being used by the central WCS. There should only be one. You will not need to open the database if you start the WCS Maintenance program from the WCS Server program. This option is only available if the maintenance program is being run on the WCS Server PC. The Open Database command is on the File Menu.

When you open a database, you will by default be shown a list of recently opened database files.



This allows for multiple WCS systems to be in operation for you. If you do not want to use this list, you can disable it by the check box provided. If the database you require is not listed, then you can choose to see more files. This will open a standard windows explorer dialogue. Once you have identified the database, this will be added to the top of your list of recent files. The settings panels allow you to modify the options for this list.

You will be asked to enter your company and warehouse codes. This is to identify the data that you will be enquiring on in the RDT database. This can be changed later if required. The codes are the same as in your main warehouse management system.

You are also prompted to enter your username code and password, if required. These are the same as the employee codes in your main warehouse management system.

The options you have available to you within the program depend upon the group your username has been given. The passwords (and other options) for your user, directly relating to this program can be maintained from the main menu from Standing Data Maintenance. If you have unavailable options, these items will be greyed out on the menus, and will not be available from the toolbar. Contact your administrative manager to obtain more options to the system.

There are several menus, which control all the features of the WCS Maintenance suite of windows. They are:

File Menu

Edit Menu

Tasks Menu

RDT Comms

System Tools Menu

Reports Menu

SD Maintenance Menu

Windows Menu

Help

Click on one of the items listed above to find help about the options available on that menu.

Most of the useful items on the menus can be accessed via the toolbar. The toolbar can be maintained to suite your preference. See ToolBars for more information on this.

This help can also be accessed by use of the F1 key, within the windows themselves. This, along with the icon available on most windows, is context-sensitive and will take you straight to a related topic. If no related topic is found, you will be taken to this topic.

42.1 WCS Maintenance Menus

Menus:

File Menu

Edit Menu

Tasks Menu

RDT Comms

System Tools Menu

Reports Menu

SD Maintenance Menu

Windows Menu

Help

42.2 File Menu

Menu Items:

Open Database

Close Database

Print

Print Selection

Exit

42.2.1 Open Database

Shortcut: CTRL-O

This command is not necessary if you are running the program from the WCS Server. It can be used to change the database that you are linking to, if multiple RDT systems are in use. Simply follow the prompts until the RDT database is found (it is usually called ?rdt1.mdb?).

42.2.2 Print

Shortcut: CTRL-P

This option prints the selected window?s contents. If you have accessed this option from the icon, you will be prompted for confirmation, to prevent printing thousands of pages of data accidentally. If you have selected records from the active window, the button will work as the option Print Selection.

Related Topics:

Print Selection

42.2.3 Print Selection

This option prints a selection of records from the selected window.

42.2.4 Close Database

Shortcut: CTRL-W

This option closes down the currently opened database. You will be unable to use most of the functions if you do not open another database. The only options available to you when the database is closed are Repair Database and Compact Database.

Related Topics:

Compact Database

Open Database

42.2.5 Exit

Shortcut: CTRL-Q

This option exits the WCS Maintenance program.

42.3 Edit Menu

Menu Items:

Cut

Copy

Paste

42.3.1 Cut

Shortcut: CTRL-X

Cuts selected data to the clipboard.

42.3.2 Copy

Shortcut: CTRL-C

Copies selected data to the clipboard.

42.3.3 Paste

Shortcut: CTRL-V

This option pastes data from the clipboard to the selected area.

42.4 Tasks Menu

Menu Items:

Pallet Movement Maintenance

Pick Maintenance

Picking Container Maintenance

Deconsolidation Maintenance

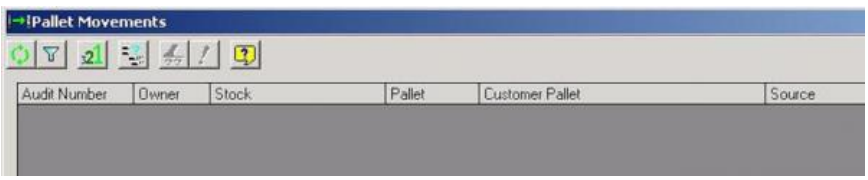
Goods Receipt Enquiry

Stock Take Enquiry

Shipment Packages Enquiry

Shipment Pallets Enquiry

42.4.1 Pallet Movement Maintenance



On start-up, you are presented with the Select Movements window. When data has been selected, you will be returned to this screen. All data from the movements screen that conforms to your selection criteria will be displayed. The window will

display all the data that is required, and in a reasonable order, but this can be modified.

There is an icon bar on this screen, to aid you.

To add new fields to or remove existing fields from the display, right-click on the grid header anywhere and select the option 'Field Chooser', or hit the appropriate icon on the toolbar.

To change the position of the fields in the grid, drag the required field to its new position and then release the mouse button.

You can change the way the data is sorted (the order the rows appears in the grid) in several ways. You can double-click on the column header to sort ascending on that field (low to high). You can then double click again on that field, and it will switch to descending (high to low). Double clicking again will remove the sort.

You could also right-click on the required field header, and choose ascending, descending or none from the pop-up menu.

You can sort on several fields at the same time by using one of the above methods on several of the fields, in the order you require. Each column will be marked to show that data has been sorted within it.

The 'Refresh' button can be used to re-find the data from the database, using your original selection criteria. This is useful if any changes have taken place on the data since you found it.

Reprioritisation of movements can be achieved by several methods. You can either reprioritise each line singly by right clicking and choosing re-prioritise line, or you can select several lines. This is done by using shift or control keys with the mouse click, then right-clicking and choosing 'Re-prioritise Selection' from the menu, or the corresponding button. Either way you will be taken to a screen to enter the new priority of the movement(s), then click OK. You will be shown the success or failure of the activity on a progress screen.

When you are finished, the data will be re-displayed with the new elements in place and the WCS database will have been updated.

You can remove a task from the list of available tasks by setting the task to Error status. This is different to holding the task, as held tasks can still block P&D locations - Error tasks won?t. Simply right-click on the task you want setting to error status and choose the Set Error option from the pop-up menu. The program will ask you for a reason - enter some descriptive text here. When OK is pressed, the task will have been set to error status and will be displayed in red. An audit record will have been written to the Exceptions log, visible by using the Exceptions Enquiry screen.

If you wish to print out details of the movements in the list, either those selected or all the records in the list, use the print icon or options from the main WCS maintenance menu.

Supervisor options

If you are a supervisor user (defined against your user name in the Users Maintenance screen), you also have the option of deleting tasks from the database. Simply right-click on the task you want removing from the database and choose the Delete option from the pop-up menu. The program will ask you for a reason - enter some descriptive text here. When OK is pressed, the task will have been deleted from the database. An audit record will have been written to the Exceptions log, visible by using the Exceptions Enquiry screen.

See also:

Select Data Window

Field Chooser

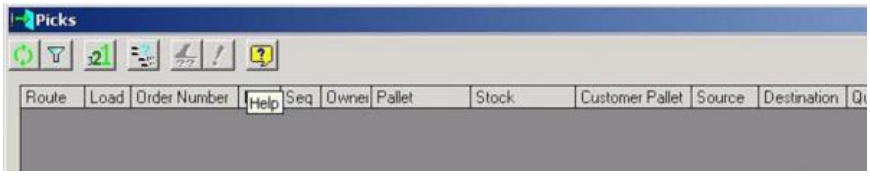
Miscellaneous

Re-prioritise Entry Window

Help

ToolBars

42.4.2 Pick Maintenance



On start-up, you are presented with the Select data window. When data has been selected, you will be returned to this screen. All data from the screen that conforms to your selection criteria will be displayed. The window will display all the data that is required, and in a reasonable order, but this can be modified.

There is an icon bar on this screen, to aid you.

To add new fields to or remove existing fields from the display, right-click on the grid header anywhere and select the option 'Field Chooser', or hit the appropriate icon on the toolbar.

To change the position of the fields in the grid, drag the required field to its new position and then release the mouse button.

You can change the way the data is sorted (the order the rows appears in the grid) in several ways. You can double-click on the column header to sort ascending on that field (low to high). You can then double click again on that field, and it will switch to descending (high to low). Double clicking again will remove the sort.

You could also right-click on the required field header, and choose ascending, descending or none from the pop-up menu.

You can sort on several fields at the same time by using one of the above methods on several of the fields, in the order you require. Each column will be marked to show that data has been sorted within it.

The 'Refresh' button can be used to re-find the data from the database, using your original selection criteria. This is useful if any changes have taken place on the data since you found it.

Reprioritisation of data can be achieved by several methods. You can either reprioritise each line singly by right clicking and choosing re-prioritise line, or you can select several lines. This is done by using shift or control keys with the mouse click, then right-clicking and choosing 'Re-prioritise Selection' from the menu, or the corresponding button. Either way you will be taken to a screen to enter the new priority of the movement(s), then click OK. You will be shown the success or failure of the activity on a progress screen.

When you are finished, the data will be re-displayed with the new elements in place, and the WCS database will have been updated.

You can remove a task from the list of available tasks by setting the task to Error status. This is different to holding the task, as held tasks can still block P&D locations - Error tasks won?t. Simply right-click on the task you want setting to error status and choose the Set Error option from the pop-up menu. The program will ask you for a reason - enter some descriptive text here. When OK is pressed, the task will have been set to error status and will be displayed in red. An audit record will have been written to the Exceptions log, visible by using the Exceptions Enquiry screen.

If you wish to print out details of the data in the list, either those selected or all the items in the list, use the print icon or

options from the main WCS maintenance menu.

Picks are allocated to RDT users in groups and these groups are decided when the task is received from the WMS. To split a number of picks out of an existing group into a new group, select a number of picks in one group, then right-click and choose ?Create Pick Group?. Alternatively, you can click on the icon on the icon bar. The picks will then be split into a new group.

Picks in different groups cannot be put into a new group together. Additionally, pick tasks in progress will not be changed to a new group.

Supervisor options

If you are a supervisor user (defined against your user name in the Users Maintenance screen), you also have the option of deleting tasks from the database. Simply right-click on the task you want removing from the database and choose the Delete option from the pop-up menu. The program will ask you for a reason - enter some descriptive text here. When OK is pressed, the task will have been deleted from the database. An audit record will have been written to the Exceptions log, visible by using the Exceptions Enquiry screen.

See also:

Select Data Window

Field Chooser

Miscellaneous

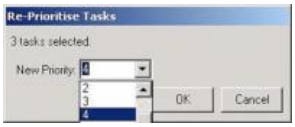
Re-prioritise Entry Window

Help

ToolBars

42.4.2.1 Re-prioritise Entry Window

When you have chosen lines to re-prioritise, you will be taken to this dialogue window, to enter the new priority of the lines.

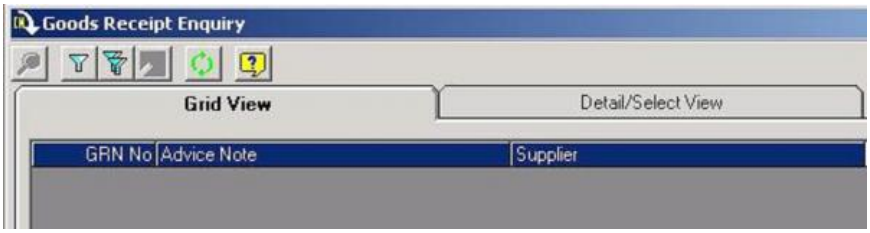


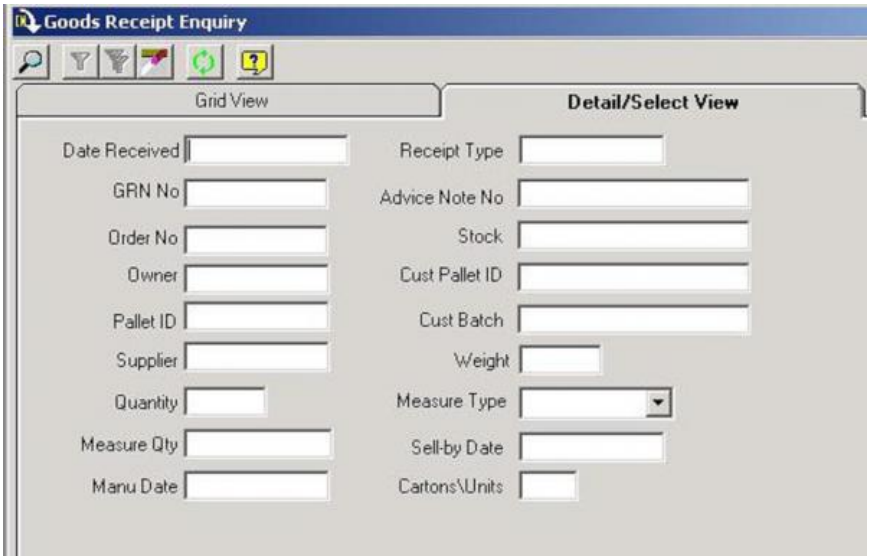
Once this is done, click OK. You will be shown the success or failure of the activity on a progress screen.

42.4.3 Goods Receipt Enquiry

This screen allows you to enquire on the Goods Receipt Preadvice file, showing all outstanding receiving tasks for the RDT users.

The form has two views, a detail/select view, and a grid view.





Note: Data cannot be modified on the form.

The screen will start by prompting you for selection criteria to retrieve the data by.

If the item being entered is a character-based field (for example, stock code), the program will match all data that is similar. So, entering ?A01? in this field will match all stock codes that have the string ?A01? in them, like ?A0101?, ?AA012345? or ?B1763A01?.

If the item being entered is a numeric-based field (for example, quantity), the program will exactly match all data. So, entering ?123? in this field will match only records that have exactly 123 in quantity.

If the item being entered is a date-based field (for example, date from), the program will exactly match the date, or exactly match a date and time.

Dates must be entered in the standard database date format, in this case ?DD/MM/YY?. The ?slash? separator must be entered.

Date and time entries must be entered as ?DD/MM/YY hh:mm:ss?. The ?space? between the date and time must be entered, as must the ?colon? separator on the time portion.

Criteria may be entered from a lookup screen. This is available on fields with a ?!? button next to them. Simply press the lookup button to bring up a screen of all data.

Any number of criteria may be entered.

Once entered, press the ?Find? button to find data using the criteria entered. The screen will flip to the grid view, to show you all the data selected in a table.

In the grid view, you can change the width of each of the data columns. The screen will not remember your setting when next you use the screen. You can sort the data by clicking on the column header. You can sort the data in reverse order by shift- or control-clicking on the item in the header.

You can flip back to the detail view, by clicking on the appropriate tab.

Selection criteria can be added by pressing the ?New Criteria? button. This will blank the screen, and allow you to enter

criteria for the selection.

To change the criteria entered, use the ?Amend Criteria? button. This will blank the screen, and display the current selection criteria.

If you wish to remove all criteria during entry or amendment, press the ?Clear Criteria? button. This will remove all previously entered criteria, and start from a blank screen.

To re-find data based on the current selection criteria, press the ?Refresh? button.

Related Topics

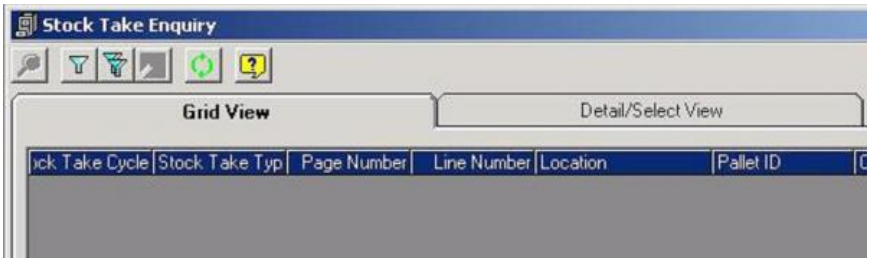
Lookup Screens

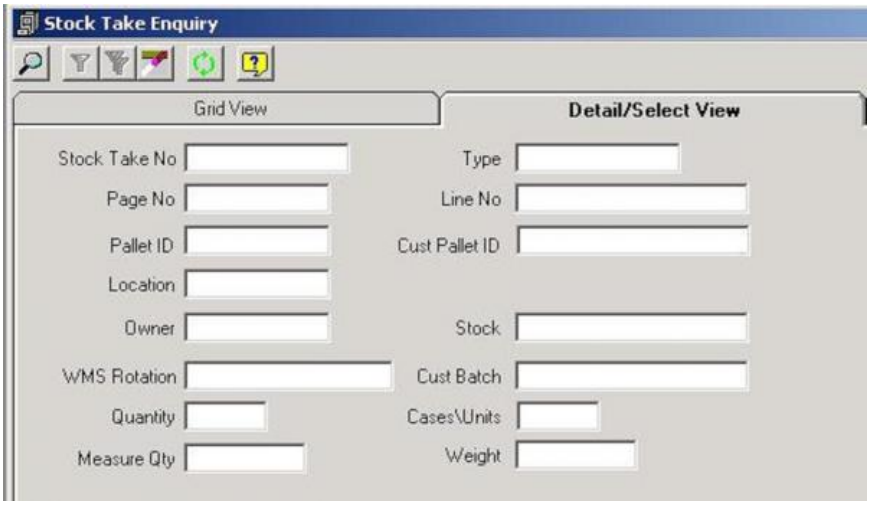
ToolBars

42.4.4 Stock Take Enquiry

This screen allows you to enquire on the Stock Take file, showing all outstanding stock take tasks available to the RDT users.

The form has two views, a detail/select view, and a grid view.





Note: Data cannot be modified on the form.

The screen will start by prompting you for selection criteria to retrieve the data by.

If the item being entered is a character-based field (for example, stock code), the program will match all data that is similar. So, entering ?A01? in this field will match all stock codes that have the string ?A01? in them, like ?A0101?, ?AA012345? or ?B1763A01?.

If the item being entered is a numeric-based field (for example, quantity), the program will exactly match all data. So, entering ?123? in this field will match only records that have exactly 123 in quantity.

If the item being entered is a date-based field (for example, date from), the program will exactly match the date, or exactly match a date and time.

Dates must be entered in the standard database date format, in this case ?DD/MM/YY?. The ?slash? separator must be entered.

Date and time entries must be entered as ?DD/MM/YY hh:mm:ss?. The ?space? between the date and time must be entered, as must the ?colon? separator on the time portion.

Criteria may be entered from a lookup screen. This is available on fields with a ?!? button next to them. Simply press the lookup button to bring up a screen of all data.

Any number of criteria may be entered.

Once entered, press the ?Find? button to find data using the criteria entered. The screen will flip to the grid view, to show you all the data selected in a table.

In the grid view, you can change the width of each of the data columns. The screen will not remember your setting when next you use the screen. You can sort the data by clicking on the column header. You can sort the data in reverse order by shift- or control-clicking on the item in the header.

You can flip back to the detail view, by clicking on the appropriate tab.

Selection criteria can be added by pressing the ?New Criteria? button. This will blank the screen, and allow you to enter criteria for the selection.

To change the criteria entered, use the ?Amend Criteria? button. This will blank the screen, and display the current selection criteria.

If you wish to remove all criteria during entry or amendment, press the ?Clear Criteria? button. This will remove all previously entered criteria, and start from a blank screen.

To re-find data based on the current selection criteria, press the ?Refresh? button.

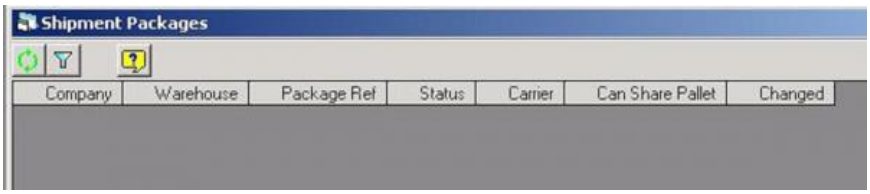
Related Topics

Lookup Screens

ToolBars

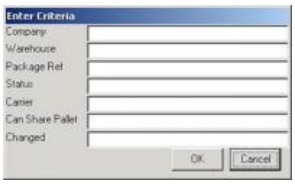
42.4.5 Shipment Packages Enquiry

The Shipment Packages Enquiry screen allows the user to see the packages that are available for the RDT Shipment Pallet Building module.



The screen starts by showing a filter, with a list of items that can be selected. The filter can be shown at any time by

pressing the Filer option on the toolbar.

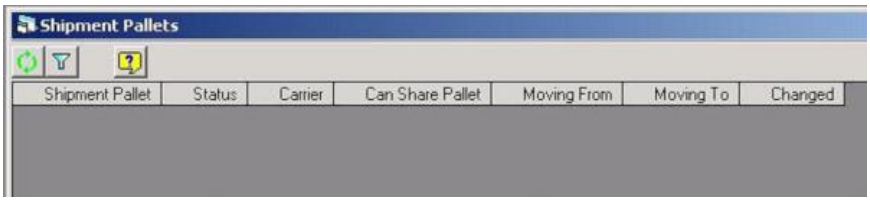


Enter any search criteria here, and then press OK. The data will be refreshed, selecting only the data that matches the search criteria.

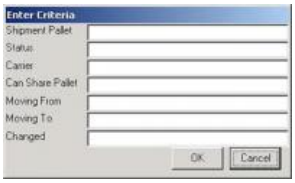
To refresh the data, press the refresh button on the toolbar.

42.4.6 Shipment Pallets Enquiry

The Shipment Pallets Enquiry screen allows the user to see the pallets that have been built by the RDT Shipment Pallet Building module. These pallets will be available for Movement or Despatch, depending on the status of the pallet.



The screen starts by showing a filter, with a list of items that can be selected. The filter can be shown at any time by pressing the Filer option on the toolbar.



Enter any search criteria here, and then press OK. The data will be refreshed, selecting only the data that matches the search criteria.

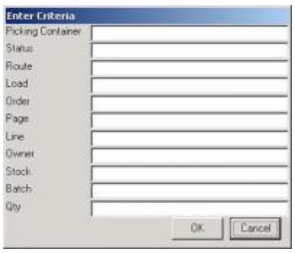
To refresh the data, press the refresh button on the toolbar.

42.4.7 Deconsolidation Maintenance

The Deconsolidation Maintenance screen allows the user to see the stock that is ready for deconsolidation after picking. The screen also shows orders that are ready for despatch.

The screen allows the status of the tasks to be changed.

The screen starts by showing a filter, with a list of items that can be selected. The filter can be shown at any time by pressing the Filer option on the toolbar.



Enter any search criteria here, and then press OK. The data will be refreshed, selecting only the data that matches the search criteria.

To refresh the data, press the refresh button on the toolbar.

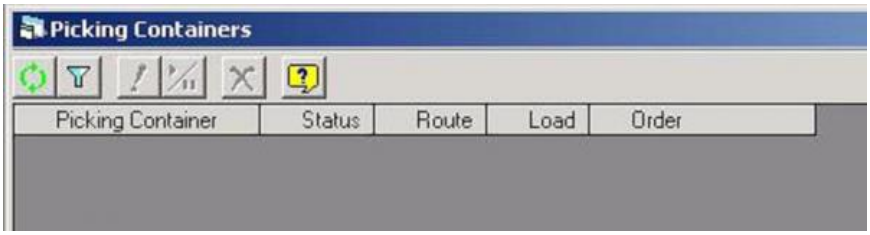
The screen allows tasks to be held or released. Select one or multiple tasks on the grid, and then press the hold/release button on the toolbar. The screen will pop-up a selection box, asking you what task you want to perform, and a reason associated with it. This reason will be written to the Exceptions log.

The screen allows tasks to have an error status set against them, or cleared. Select one or multiple tasks on the grid, and then press the Set/Clear Error button on the toolbar. The screen will pop-up a selection box, asking you what task you want to perform, and a reason associated with it. This reason will be written to the Exceptions log.

42.4.8 Picking Container Maintenance

The Picking Container Maintenance screen allows the user to see Picking Containers. The screen also shows orders that are ready for deconsolidation.

The screen allows the status of the containers to be changed.



The screen starts by showing a filter, with a list of items that can be selected. The filter can be shown at any time by pressing the Filer option on the toolbar.

Enter any search criteria here, and then press OK. The data will be refreshed, selecting only the data that matches the search criteria.

To refresh the data, press the refresh button on the toolbar.

The screen allows containers to be held or released. Select one or multiple containers on the grid, and then press the hold/release button on the toolbar. The screen will pop-up a selection box, asking you what task you want to perform, and a reason associated with it. This reason will be written to the Exceptions log.

The screen allows containers to have an error status set against them, or cleared. Select one or multiple containers on the grid, and then press the Set/Clear Error button on the toolbar. The screen will pop-up a selection box, asking you what task you want to perform, and a reason associated with it. This reason will be written to the Exceptions log.

42.4.9 Pick Summary Screen

The Pick Summary screen allows the user to see a summary of all the picking tasks available in the WCS.

On entry, the screen will be in ?data select? mode. Data is selected by entering the owner of the orders and the route. You can select asterisk (*) from the drop-down lists to select all the owners or routes.

Once the criteria have been selected, clicking the refresh button will display the selected data (?Display? mode) on a grid.

- Should any of the records on the route/load be in error, the status will be ?Error? and the background colour of the whole line will be red. The fore-colour will be in white. The text will be in **bold.**
- Should any of the records on the route/load be held, the status will be ?Held? and the background colour of the whole line will be red. The fore-colour will be in white. The text will be in **bold**.
- Should any of the records on the route/load be in progress, the status will be ?In Progress? and the text of the whole line will be displayed in green and **bold**.
- Otherwise, the records will be put in default black, with no bold.

The colouring on the line will be decided in the order displayed above. Therefore, if there are tasks held, and there are some in progress, the line will be displayed as if all lines are held.

The grid allows single-line selection and re-sizing of columns and is scrollable.

Where multiple and different customer details are found for a load, ?*? (asterisk) is displayed in the Customer column.

The screen displays a status bar, showing the total number of outstanding tasks displayed in the grid. If no records are selected based on the criteria entered, the status bar will display ?No records selected?.

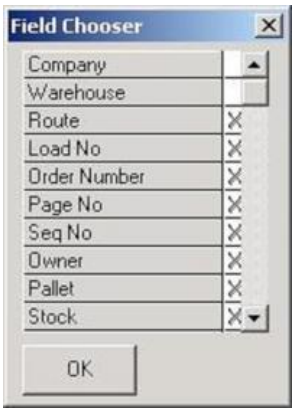
Clicking the Refresh button will refresh the record set, based on the selection criteria already entered. The grid will then be re-displayed based on the new data selected.

Clicking the Select button will clear the grid and the screen will re-enter ?Data Select? mode and allow you to enter the selection criteria again.

Should you double-click on a line, the pick reprioritisation screen is displayed, showing the orders matching the route and load on the line chosen. This screen will then operate in the same way as the normal pick reprioritisation screen, but without allowing you to re-select data.

42.4.10 Field Chooser

This screen shows you the all the elements that you can display on the grid.



To change the items displayed, check the box next to the fields you want to see, and uncheck those you don?t want to see (by left clicking).

If you are using the field chooser to modify a grid display, the grid display will change as you change the checks. When you have finished, close the window, with either the OK button, or just the ?X? in the top-right of the window. The CANCEL button will be greyed out - it is not necessary when the window is used in this way.

If you are using the field chooser to select a layout for a selection template, click the OK button when you are satisfied with the display for the template. If you are not satisfied, click the cancel button, or the ?X? in the top-right of the window. The template will revert to the layout it had before you entered.

42.4.11 Select Data Window

This screen is used to select the data that you require to see on the main window. There are two tabs on this window, a normal tab and an advanced tab.

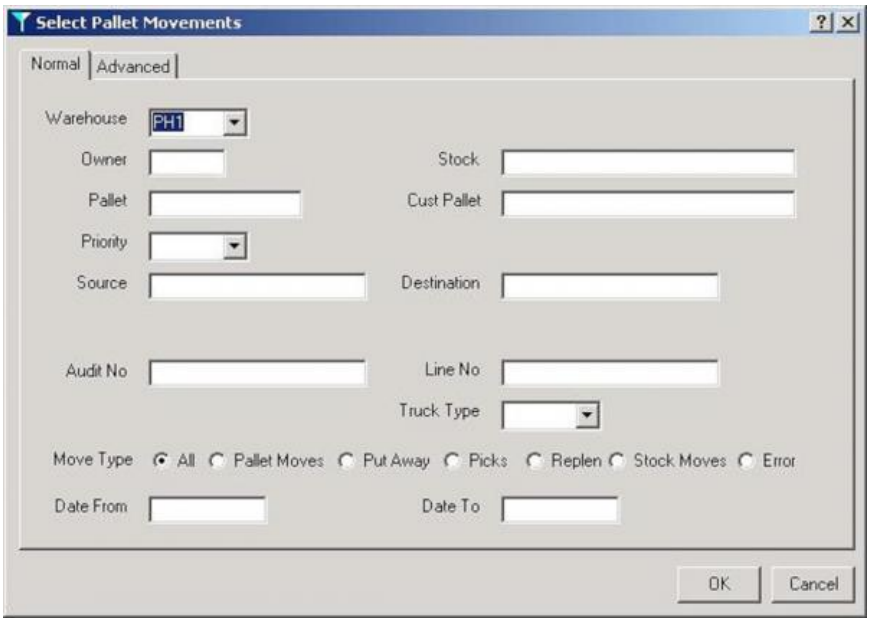
Topics:

Select Data Window, Normal Tab

Select Data Window, Advanced Tab

42.4.11.1 Select Data Window, Normal Tab

This is the area where standard selection criteria can be entered, to retrieve movement information from the database. This is the screen that you will be brought into first.



Each of the criteria can be ranged or entered singly, based on the type of data that is held in each field. These can be of several types:

- Character type
- Numeric type
- Selection boxes
- Numeric type (Special)
- Date

Validation exists for each type, so that if entry is incorrect, you will be informed of the correct way.

Standard selection criteria (and their selection types) are:

Warehouse	Selection box, Character type
Owner	Character type
Stock	Character type
Pallet	Numeric type
Customer Pallet	Character type
Priority	Selection box, Character type
Source Location	Character type
Destination Location	Character type
Truck Type	Selection Box, Character type
Date From	Date
Date To	Date

For Movements, the following extra criteria are displayed:

Audit Number	Numeric type (Special)
Line number	Numeric type (Special)
Movement Type	Radio buttons, Character type

For Picks, the following extra criteria are displayed:

Route Code	Character Type
Load Number	Numeric Type
Order Number	Character Type (Special)
Page Number	Numeric Type
Sequence Number	Numeric Type
Pick Type	Radio Buttons, Character type

When selection criteria are entered, clicking OK will select all information on movements in the database that conform to this.

Further information:

Selection Types

42.4.11.2 Select Data Window, Advanced Tab

This is the area where advanced selection criteria can be entered, to retrieve movement information from the database.

Each item on the grid is a line of selection criteria.

When you switch to the advanced tab, any criteria you have entered on the normal tab will be entered automatically on this screen. This is so you can use the previous screen to enter the initial criteria easily, then fine-tune on the more complicated screen.

To enter new lines, you can double click the left mouse button on the indicated line, and you will be taken to a selection box, showing all the elements you can use to select with. You will then be allowed to enter any values with which to select. These values follow the standard selection type rules you would normally use.

You can also right-click on any of the lines. This will allow you to insert a new line in this way. From the menu that pops up here, you can also edit the marked criteria, or delete it.

Rather than entering selection criteria from scratch every time, it is possible to retrieve selection templates previously saved, and use them. To do this, click the ?Save? button. These may then be loaded using the ?Load? button.

Standard wildcard operation is in effect for the elements whose type permit it (character).

Ranges and lists are also permitted.

When selection criteria are entered, clicking OK will select all information on movements in the database that conform to this.

Further information:

Selection Templates

42.4.11.3 Selection Templates

This screen is available from the 'Advanced' tab of the Select Movements window. It allows you to create, retrieve, modify, save or delete templates for movement retrieval.

Selection Templates allow you to save standard retrieval criteria for specific functions for later use, saving re-typing time.

To create a new template, simply add the selection criteria to the grid, in the same way as the advanced tab. When this has been entered, click the 'Save' button. You will then be prompted to save the template.

To retrieve an existing template, click the 'Load' button. You will then be prompted to find your template. When you have selected your template, click 'OK'. The template will then be displayed on the screen, for editing or use.

If a retrieved template has been edited, you should save your template, either back to its original name or as a new template (using the 'Save' button).

To delete a template, use the Load Template window. You will not be asked to confirm your selection.

Fields can be left blank in the advanced criteria, and can be saved as such in the template file. You will not, however be able to use the blank templates until valid data has been entered for them.

42.4.11.4 Selection Types

Selection types encompass the entry methods of the different types of fields, and what entries may be allowed in this type.

Further information:

Selection Types, Character Type

Selection Types, Numeric Type

Selection Types, Selection Box/Radio Buttons

Selection Types, Numeric Type (Special)

42.4.11.5 Selection Types, Character Type

When entering single selections or ranges, field must be surrounded by "" (Double Quote).

Characters entered as range delimited by '-' (Hyphen).

Characters entered singly delimited by ',' (Comma).

Wildcards may be used in this type. So, an asterisk (*) may be used to signify many or no characters, and a question mark (?) may be used to signify a single character.

Note: If using wildcards, you may be required to end the string with an asterisk. This is to account for possible trailing spaces. The exception to this is the Special derivative of Character types. In this instance, the asterisk is always assumed.

Examples:

Selecting a single owner ABC:

Enter ?ABC? in the field.

Selecting 2 owners, ABC and XYZ:

Enter ?ABC?,?XYZ? in the field.

Selecting a range of owners from AAA to CCC:

Enter ?AAA?-?CCC? in the field.

Selecting multiples of the above:

Entering

?AAA?-?CCC?,?XYZ?,?YYY?-?ZZZ?

will select any owners in the range AAA to CCC, any between YYY and ZZZ and the owner XYZ.

42.4.11.6 Selection Types, Numeric Type

Numbers entered as range delimited by '-' (Hyphen).

Numbers entered singly delimited by ',' (Comma).

Examples:

Selecting a single pallet 00008132

Enter 8132 in the field.

Selecting 2 pallets, 00008132 and 00020001:

Enter 8132,20001 in the field.

Selecting a range of pallets from 00000200 to 00005000:

Enter 200-5000 in the field.

Selecting multiples of the above:

Entering

200-5000,8132,10000-10500

will select any pallets in the range 00000200 to 00005000, any between 00010000 and 00010500 and the pallet 00008132.

42.4.11.7 Selection Types, Numeric Type (Special)

In cases like this, special validation may limit entry of ranges.

Audit Number/ Line number.

In this case, a range of audit numbers may be entered, or a range of audit numbers with a single line number, or a single audit number with a range of line numbers.

Examples:

Selecting a single pallet 00008132

Enter 8132 in the field.

Selecting 2 pallets, 00008132 and 00020001:

Enter 8132,20001 in the field.

Selecting a range of pallets from 00000200 to 00005000:

Enter 200-5000 in the field.

Selecting multiples of the above:

Entering

200-5000,8132,10000-10500

will select any pallets in the range 00000200 to 00005000, any between 00010000 and 00010500 and the pallet 00008132.

42.4.11.8 Selection Types, Selection Box/Radio Buttons

Data in fields like this will allow standard entry based on the selection types above, but will also allow you to select single values from a pop-up list.

Radio buttons will allow you to select from a fixed list of values. Only one of these may be selected at one time.

For advanced criteria, these items act similarly to character type selection, and will appear as such in the list of criteria.

42.5 RDT Comms

Menu Items:

Current Exceptions

Employee Activity

Messages

42.5.1 Employee Activity

The Employees Analysis window shows a constantly updated list of all the RDTs available on the WCS system, showing their status. The window you are shown initially shows you:

- The RDT ID
- The employee code
- A brief description of their activity.

The screen will display RDT users with activities older than 10 minutes at the top of the list.

The RDT ID is the WCS?s identifier for the RDT. This is included for reporting and system purposes only.

The employee code is from the standing data table on the WCS server. It is updated continually from the WMS table. The RDT user enters this when they log on to their RDT.

The activity description shows the current task in which the RDT is engaged. The description can be:

- Receipt - receiving pallets into the warehouse from a pre-advised Goods Receipt.
- Pick - picking pallets for advised sales orders.
- Replenishment - replenishing pick faces from bulk locations.
- Putaway - Taking pallets from receipt bays to their designated place in the warehouse.
- Movement - Moving a pallet from one area to another.
- Stock Take - involved in an advised stock take cycle count.
- Marshalling - marshalling a sales order load.
- Loading - Loading a sales order.
- Disconnected - the RDT is not connected to the WCS server.
- Idle - not involved in any of the above activities.
- Error - a system error.

The status ?Idle? simply shows that the RDT is not linked to an activity that is part of the current functionality. The RDT may well be performing different activities (ad hoc moves, pallet enquiry, etc).

The status ?Error? shows that the RDT may not be communicating correctly with the WCS server, but still has a job outstanding against it. The system is designed to self-correct these errors in most instances, but manual intervention may be required. These error lines will be displayed in red, indicating that there may be a problem. To force the system to clear these problem users, right-click on the affected user and choose Clear Locks from the pop-up menu. The system will then clear any tasks the user may have locked, releasing them to the general pool of tasks once more.

To find more information about the current activity of any particular RDT, double-click the left mouse button on the appropriate line. This will take you to the Employee Analysis - Detail window. Alternatively, right-click on the item, and choose Display Details from the pop-up menu.

The screen is kept updated at all times every few seconds. This means that the most up-to-date information about your RDT users is at your fingertips at all times. The window can be re-sized, as can the width of the grid rows, to keep all information on the screen at all times.

Further information:

Detail Window

42.5.1.1 Detail Window

This window gives you more detail on the selected line. The window shows you:

- The Employee code and their registered name.
- A short description of the activity.
- A detailed description of the activity.

42.5.2 Current Exceptions

The Exceptions window shows any tasks completed, but with exceptions. Exceptions include such things as:

- Repositioning a movement or putaway
- Cancelling a movement, replenishment or putaway
- Changing the quantity on a pick
- Cancelling a pick, or picking to zero
- Exchanging pallets on pick, movements or replenishments
- Any Ad-hoc movement
- Setting a task to Error status
- Deleting a task.

If any of these events take place, a message is shown on the exceptions screen immediately, showing the employee, the RDT, a brief description of the error and a date and time. The window shows only exceptions within a specified time period. Double clicking on the line will give you greater detail about the task.

Further information:

Detail Window

42.5.3 Messages

This screen allows you to send messages to RDT users who are logged on. The list of logged-on RDT users is kept updated at all times, making sure that the users you are sending a message to are always correct. If a user connects or disconnects from the Wireless network, you will be informed on this screen.

Enter your message in the text box provided. You must enter a message.

Pick the users to whom you wish to send a message. The list shows the entire network, including registered companies, warehouses and users. You can pick users individually, or send messages to an entire warehouse, company or the whole network. Either click on your chosen recipient and click the ?add? (->) button, or simply drag the intended recipient to the recipients list. Double clicking on a user will give you some information about their current activity.

Once all the intended recipients have been chosen, simply click the ?send? button. You will be informed of the progress of the message, and its completion. Messages will appear on RDT terminals when the user next exits a function.

To get a message to a user quicker, set the urgent flag on this screen. The RDT user will then pick up the message the next time they press the ?Enter? key.

42.6 System Tools Menu

Menu Items:

Re-logon

Change Warehouse

System Settings

Clear out Error log

Clear out Incoming/Outgoing log

Clear out WCS Database

Clear Out Deleted Items

Incoming Log

Outgoing Log

Error Log

Compact Database

Database Utilities

42.6.1 Change Warehouse

This option allows you to set and change the company code and warehouse id, for the enquiry and movement priority screens.

Note: You can blank the company and warehouse here - this will allow you to view the data for all companies and warehouses on the current database.

42.6.2 Clear Out Deleted Items

This option will clear out any items in the database marked for deletion, but not yet deleted. Tasks such as these would be created if the database is set not to delete tasks, or if Maintenance users have deleted tasks using the Pallet Movement Maintenance screen.

Related Topics:

WCS Settings

42.6.3 Clear out Error log

This option will clear down the error log, obeying the user-entered clear-down settings.

42.6.4 Clear out Incoming/Outgoing log

This option will clear down the incoming and outgoing logs, obeying the user-entered clear-down settings.

42.6.5 Clear out WCS Database

This option will clear down the entire WCS database, leaving only standing data untouched, obeying the user-entered clear-down settings.

42.6.6 Incoming Log

This option is used to view the log of all incoming data to the WCS server.

To sort the data, simply click on the title of the column you want sorted. The data will automatically sort in this order. To sort the data in reverse order, hold down the Shift key when you click on the column title.

42.6.7 Outgoing Log

This option is used to view the log of all outgoing data from the WCS server.

To sort the data, simply click on the title of the column you want sorted. The data will automatically sort in this order. To sort the data in reverse order, hold down the Shift key when you click on the column title.

42.6.8 Error Log

This option is used to view the error log for operations on the WCS server.

To sort the data, simply click on the title of the column you want sorted. The data will automatically sort in this order. To sort the data in reverse order, hold down the Shift key when you click on the column title.

42.6.9 Compact Database

This option compresses the WCS database. It is a necessary requirement of SQL databases that this option be present. It can only be run if the database is closed. Close the database using the appropriate button, or choosing ?Close Database? from the ?File? menu.

42.6.10 System Settings

This option brings up a multiple panel window for maintaining system options. The tabs available are:

Rules, consisting of:

WCS Settings

Admin Defaults

Clear out Settings

Message Types

Maintenance Settings

See Also:

Rules Maintenance

42.6.10.1 WCS Settings

This allows you to modify the communication settings. The content of this form changes, depending on which WMS system you are linking to.

If the system is connecting using socket connections, the following details will be shown:

- WMS IP Address - This is the IP address of the WMS machine. It is in the standard telnet layout (4 numbers, separated by full stops.
- WMS -> WCS Local Port - This is the port that the WCS listens to for communications from the WMS.
- WCS -> WMS Remote Port - This is the port that the WMS listens to for communications from the WCS.

If the system being linked to is using Oracle Advanced Queues, the following options can be changed:

- Oracle Database Name
- User
- Password

Settings common to both connection systems that may be modified are:

- RDT -> WCS Local Port - This is the port that the WCS listens to for communications from RDTs.
- RDT Waiting Time - This is the amount of time that the RDT will wait before re-trying communications.
- WMS -> WCS Re-Try Limit - This is the amount of times the WCS will try to send a message to the WMS, if the message has been refused, before logging the error and trying the next.
- Default Company Code - This is the default company code that the RDT will log on to.
- Enable Hold Priority - This allows the lowest priority in the WCS to be used as a Held status. When this option is checked, and tasks on priority 9 will not be allocated to RDTs to complete. To release the tasks, re-prioritise the task to a higher level.
- Delete records - When this option is checked, completed tasks are deleted from the WCS database. All logging is still in place. When un-checked, the completed tasks are marked for deletion by the cleardown process.
- Window Caption - this field changes the displayed name of the WCS Server process, when running. This is useful when running multiple systems on one site or one server.
- WCS Logging database - When this option is checked, you will be prompted to enter a location for the logging database. THIS OPTION MUST NOT BE CHANGED IF THE WCS SERVER IS RUNNING. When this is done,

the logging files in the normal database are no longer used - a new database will be created in the defined area and the WCS server will begin all logging to this database instead. All options in the WCS that use these logging files will now use the new database instead. The logging files are:

- Error log
- Incoming log
- Outgoing log
- RDT Activities
- Exceptions

N.B. Changing these settings may affect the running of the WCS server. If you are not sure of the consequences of your actions, telephone the support team.

42.6.10.2 Clear out Settings

This option is used to enter the settings to control the clear-down options above.

You are prompted to enter the log directory, where details of the clear down?s success will be written.

For each clearable dataset, you can specify whether the clear down program will process this type, and the number of day?s data you wish to keep.

The datasets are:

- Database - Any tasks not actioned within the period specified will be deleted.
- Log Archive - The logs of previous clear down runs.
- Exceptions - Exception events raised from RDT actions.
- Activities - Activity journals of each RDT.
- Deleted Records - Any records marked as deleted (See WCS Settings tab)
- Incoming Log - The next three are cleared for the same period. They are the logs of all transmissions in the WCS.
- Outgoing Log
- Error log

42.6.10.3 Admin Defaults

If a user logs on to this program (WCS Maintenance) without having a group set for them, this screen maintains the options available for the user to access.

A list of available modules is shown each with a tick or cross against the module. A tick designates that the module is available, a cross, unavailable. Either double clicking on the item or right clicking, then selecting the appropriate availability can change the options.

Related Topics:

Users Maintenance

Groups Maintenance

Owners Maintenance

Warehouse Maintenance

42.6.10.4 Maintenance Settings

This allows you to maintain locations and lists for files used specifically by this program. The options are:

- Default Criteria Templates Folder - Criteria files for use in the Reprioritisation screens.
- Default Report Files Folder - Compiled reports.
- Default Reports Folder - Text files saved from reports will be saved here.

Each of these options includes a browse button, to allow you to pick the area Explorer-style. Each also has a default area.

A recent file list is displayed, showing all the WCS databases accessed by the program. The initial screen uses this when logging on the program. This can be switched off by un-checking the ?Show File List At Startup? box. To clear the list, press the ?Clear List? button.

Related Topics:

Selection Templates

Run Report

View Report

42.6.10.5 Message Types

This tab allows you to maintain the queue settings for Oracle systems.

- Incoming Queue
- Agent

Additionally, the queues available in the WMS should be set here, using the grid provided.

42.7 Reports Menu

Menu Items:

Run Report

View Report

42.7.1 Run Report

This option shows you a screen of all registered reports in the WCS system. Double clicking on a report name will run the selection criteria screen. This allows you to enter the required criteria to select data for the report.

If you have a default company and warehouse, and the report requires these for selection, they will already be set to your defaults, otherwise they will be set to ?*? (asterisk), the wildcard character.

If you want to select all the data for that criterion, simply enter the wildcard character at the prompt. All fields can be set to the wildcard character.

Dates can be defaulted using the wildcard character, or set in a different way. If you enter ?+? (plus) and then a number, the date entered will be the number of days specified added to today?s date e.g. +15 will ad 15 days to today?s date. You can also enter ?-? (minus) to take days away.

Once all criteria have been entered, the report will be run using the default report destination parameters.

Right clicking on a report will allow you to change the selection criteria and the destination parameters of the report, if the report writing option is available in your version of the WCS. Right clicking on an empty area of the window will allow you to create a new WCS report, if the report writing option is available in your version of the WCS.

42.7.2 View Report

View report allows you to see any reports saved as files. The WCS will edit the report in the Windows editor associated to the report type.

42.8 SD Maintenance Menu

Menu Items:

Users Maintenance

Groups Maintenance

Warehouse Maintenance

Owners Maintenance

Aisles Maintenance

P&D Maintenance

RDT ID Maintenance

Printers Maintenance

Location Truck Checker

Activities Enquiry

Exceptions Enquiry

Truck Enquiry

Reason Code Enquiry

Pallet Type Enquiry

Update Truck Moves Seq

42.8.1 Users Maintenance

This is the Users Maintenance screen. This allows you to maintain system settings per user.

Users are partially maintained by the WMS, sending data records when an employee is added or deleted. The data sent by the WMS includes the company and warehouse, the employee ID, the description and the shift number. These can all be changed on this screen if desired.

A toolbar is included on the screen for ease of use.

This screen allows you to create a password for the user, if required, and create a link to a set of system parameters, via a group ID.

The screen automatically displays all the employees for your default company and warehouse. Changing your company and warehouse will close this screen. When it is next opened, it will display details on your new default company and warehouse. The Refresh button will also check for the new company code and warehouse id.

A lookup is provided for groups, so that you can pick your required group from the list. Once selected, a description is displayed for reference.

If you want to see the set-up of the group you have chosen, press the Edit Group button. You will be taken to the Groups Maintenance screen. You will only be shown the group you have chosen. You can make changes here.

To find an existing record, press the find button on the toolbar. You will be taken to a lookup screen. Once you have selected your user, the data will be displayed.

To navigate to other users sequentially, use the scrollbar at the bottom of the screen. The status bar will show you which record you are on.

Once you have found a user, you may wish to change some parts of it. Simply click on your chosen field and edit it. Once you have made all your changes, press the save or OK button to save your data.

?Works Only in Aisle?: These parameters affect the areas the user is given tasks, when operating System-directed tasks in the bulk areas. These will act as defaults for the user, or their defined range, depending on certain warehouse flags.

The Supervisor check box allows the user some additional functionality within the maintenance functions - see Pallet Movement Maintenance for details. It also allows the user to clear locked users in some RDT screens.

Access Type shows how the user is able to log on to the system - admin and/or RDT. This can be modified, and will take effect the next time the user logs on. Logged on shows how the user is currently logged on to the system. This can be reset using the reset button. N.B. this directly affects the users. USE WITH CARE.

Related Topics

Groups Maintenance

Change Warehouse

Lookup Screens

ToolBars

42.8.2 Groups Maintenance

This is the Groups Maintenance screen. This allows you to maintain system settings for use on the Users Maintenance screen.

Users are partially maintained by the WMS, sending data records when an employee is added or deleted. The data sent by the WMS includes the company and warehouse, the employee ID, the description and the shift number. You can add system settings to a user, using the Group ID reference field. This links to records you can maintain in this screen.

The group contains switches to show which users are allowed to use which functions. As such, the screen allows you to enter a unique group id, and a description of the group.

The explorer shows all the rules that apply at this level. To change a value, simply find the rule you wish to change and change the value.

A toolbar is included on the screen for ease of use.

To add new records, press the new button on the toolbar. Once you have entered your new group, press the save button or OK button. Your data will be saved.

To find an existing record, press the find button on the toolbar. You will be taken to a lookup screen. Once you have selected your group, the data will be displayed.

To navigate to other groups sequentially, use the scrollbar at the bottom of the screen. The status bar will show you which record you are on.

Once you have found a group, you may wish to change some parts of it. Simply click on your chosen field and edit it. Once you have made all your changes, press the save or OK button to save your data.

To delete a record, press the delete button on the toolbar, then confirm through the popup dialogue. You will only be allowed to delete groups records that are not currently in use.

Related Topics

Lookup Screens

ToolBars

Rules Maintenance

42.8.3 Warehouse Maintenance

This screen allows you to modify the system and default user settings of the Warehouse.

The screen has several tabs, allowing you to modify settings affecting different broad areas of the system:

The following is a description of the contents of the various settings that can be changed, loosely grouped by area, with some additional elements in greater detail.

General

Parameters that affect the way the system runs for the warehouse.

The ?Action Password? is prompted for whenever any modules are password-protected on the RDT.

The Aisle, Bay and Level lengths are used by the WCS to extract the data correctly from the location codes, so that the system can decide how to prioritise the tasks in the warehouse. These must replicate the values on the WMS, or the system will become unreliable when sending users to the next task.

?Task Identifier? controls how the RDT identifies individual pallets in the warehouse. The values are:

By Stock Code - the RDT modules will prompt for Location Code, Owner and Stock code.

By Customer?s Pallet Id - The RDT modules will prompt for Owner and Customer?s Pallet Id.

By System Pallet Id - The RDT modules will prompt for the WMS System Pallet Id.

The ?Check Digits? flag controls how the user identified that they are at a particular location. The RDT will either prompt for the user to scan or enter Check Digits for each location (enabled), scan or enter the location code (disabled) or either scan the location code or enter the check digits (Combo Check).

The ?Move Efficient? flag controls how tasks are assigned to each user in the warehouse. This is either by Priority/Location sequence, or simple by location sequence.

The ?Block Stack? flag controls whether pallets may be exchanged for others in the same location in the warehouse.

The ?Exchange Replen? flag controls whether, if the warehouse is set as Block Stack, whether replenishment moves can also be exchanged.

The ?Allow Task Exchange? flag controls whether the WCS looks for outstanding tasks in the WCS database before requesting the WMS to exchange a pallet.

The ?Seamless Exchange? flag controls whether the user must request to exchange a pallet with the Error key, or whether the exchange occurs seamlessly.

The ?Mixed Stock? flag controls whether the WCS allows pallets of mixed stock in the warehouse.

?Customer Pallet No? controls whether the RDT system will prompt for Customer Pallet Ids for pallets held in the warehouse.

The ?WCS Generate Replenishment? flag controls whether the WCS attempts to generate select replenishments via an Ad Hoc Move, or whether the WMS will reply with a move instead. Note: This should be left as enabled.

The ?RDT Pop-up description? flag controls whether the RDT automatically pops up a description of the Stock upon receipt and pick.

?Measure Quantity? and ?Weights? control whether the system prompts for Measure Quantities or Weights for pallets in the warehouse.

The ?Multi-UOM processing? flag control whether the RDT prompts for cases and units.

The flags ?Pallet Enquiry Print Labels? and ?WCS Pallet Enquiry Label Format? rules control whether the RDT pallet enquiry function is allowed to print labels, and what label format to use.

RDT Modules

Default modules allowed to RDT users, if the users are not assigned to a group. Please note: Some of these modules are bespoke and require certain WMS system set-up to be enabled. Please check your documentation as to which modules should be enabled.

Receipt

Parameters that affect the running of a Receipt module in the warehouse.

The ?Receipt Type? flag governs how the RDT Receipt module works on the RDT. ?Check Receipt? is used when the receipts are advised to a pallet detail level, and ?Blind Receipt? is when the receipts are advised to a stock detail level.

The ?Selection Type? flag governs how the RDT prompts for the Receipt you are receiving stock against. You can either enter the WMS reference (By GRN number) or the supplier?s reference (By Advice Note).

The ?RDT Damages? flag allows RDT Receipt users to specify stock as damaged.

The ?Enter WMS Rotation? flag allows the user to enter WMS Rotation during Goods Receipt.

The ?Default Pallet Type? flag controls whether the RDT prompts for a default pallet type to assign to all the pallets being received on a GRN in one session.

The ?Enter Receipt Type? flag controls whether the RDT user must enter a valid Receipt Type for the GRN.

The ?Echo Putaway Location? flag controls whether the RDT receipt process displays the location to which the pallet will be located, after the pallet is received.

The ?Print Labels? flag controls where/if pallet labels are printed during the receipt process. If the WCS is printing receipt labels, the flag ?WCS Receipt Label Format? defines the format being used.

The ?Additional Pallets? flag governs whether the RDT Receipt module allows the user to enter pallets that have not been advised by the WMS. This only affects Receipts that have been advised to a pallet detail level (Check Receipts).

The ?Single Scan Entry? flag governs whether the RDT Receipt process prompts for a single barcode scan when adding additional pallets. Please Note: As the single barcode can be in many formats for clients, this feature should only be enabled if the WCS has been modified to work with your Single Barcode format.

Next comes a number of validation checks that can be performed during RDT Goods Receipt. Those flags are:

- Receipt Pallet Count Check - The action the RDT is to take when the number of pallets received for a stock code is exceeded.
- Receipt Total Qty Stock Check - The action the RDT is to take when the total quantity of a stock code received is exceeded.
- Receipt Standard Qty Check (Stock) - The action the RDT is to take when a stock code is received with a non-standard pallet quantity.
- Receipt Pallet Qty Check (Pallet) - The action the RDT is to take when a pallet is received with a quantity that is not that preadvised. This supersedes the previous check.
- Receipt Non-Advised Stock - The action the RDT is to take when the user attempts to receive a stock code that was not preadvised.

The flags can have several values assigned to them, with different effects:

- No Check - No action taken.
- Informational Message - A message is displayed on the RDT, but the user is allowed to continue.
- Error - A message is displayed on the RDT and the user is not allowed to continue.
- Authorisation Required - A message is displayed on the RDT. The user is then required to obtain authorisation from a supervisor user to continue.

The ?Enter Eurodate? flag controls whether the user can enter a Eurodate instead of a manufacture date during the Receipt process. The ?Enter Dates? flag must also be enabled for this flag to work. Please Note: Only some Eurodate formats are supported. Ensure yours are before enabling this flag.

The ?Enter Layers? flag controls whether the RDT Receipt process prompts for the user to enter number of layers and loose cases on a pallet, rather than just the number of cases. Please Note: The WMS must be set up to allow the entry of layers, and to send the data to the WCS when the receipt is preadvised. If not, this flag should be disabled.

Putaway/Moves

The ?Multi-pallet Putaway? flag governs whether the RDT putaway process allows the user to scan more than one pallet to locate at a time.

The ?Enable Extended Reposition Validation? is an extended check added to putaways when the pallets are being repositioned.

The ?Request Putaway Details at Scan? flag controls whether the RDT putaway process requests a location for the pallet at the time of scanning by the putaway driver, rather than when the pallet is received. Please Note: The WMS?s putaway algorithm must support this type of processing for this flag to be enabled.

The ?Reposition? and ?Cancellation? flags control whether the RDT is allowed to reposition or cancel Move tasks in the warehouse. These functions can be password-protected.

Pick/Post Picking Activities

Parameters that affect the running of a Pick module in the warehouse.

The ?Pick By? flag controls what the RDT prompts for as confirmation that the correct item has been found for picking.

The ?Continuous Part Picking? flag controls whether the user is allowed to continue picking cases of other stock codes on to the same despatch pallet. If enabled, the user is prompted whether the pallet should be taken to the marshalling location, or to continue to the next case pick.

The ?Pick Into Containers? flag controls whether RDT Part Picking prompts for Picking Container IDs when part-picking.

The ?Lost Label? flag controls whether the user is allowed to confirm a picked pallet by visually checking the details of the pallet (stock code, batch, etc), rather than simply scanning the palled ID or stock code. This is optional.

?Pick Location Error? allows the user to cancel a Part Pick when they reach the pick location, before they are told to pick the pallet. This is to allow for damaged pick faces where stock is unavailable. This functionality can be password-protected.

The ?Residual Stock Balance Enquiry? flag controls whether the WCS checks the available quantity on the WMS pallet record at the time of picking, to ensure that the most up-to-date information is available to the picker at all times. This option can be password-protected.

If the ?Use WMS Rotation? rule is set, wherever Customer Batch is displayed or entered during Picking or Deconsolidation, the RDT will display or request the entry of WMS Rotation instead.

The ?Picker Replens? flag controls whether the RDT user is allowed to pick up the replenishment move to the pick face for the pick they are currently completing. This functionality is not compatible with Pick Dependencies.

The ?Pick Dependencies? flag controls whether Part Picks are available to the pickers if a corresponding replenishment move is on the WCS. If enabled, the pick is not available.

The ?Replen Dependency? flag controls whether the WCS allows only one move into a specific location to be available to RDT users at a time.

The ?Pick In Sequence? rule controls the sequence orders are released for picking. This is based on the Drop sequence, interfaced from the WMS.

The ?Pick Page Allocation? flag controls how the WCS allocates Part Pick tasks to the users. ?By Aisle? means that the users are given tasks for an aisle for the current order or load.

?Concurrent Picks? controls whether the RDT Part Picking module allows the users to pick several orders or loads at the same time. This functionality has been enabled for use when Loads are being picked rather than Orders.

The ?Lock Pick Header? flag controls whether the RDT Full pallet picking option locks all picks for his area to him, or whether it would allow many users to access these picks.

The ?Consolidation Group? flag controls how the stock is consolidated during part picking.

The ?Force Sky Picking? rule controls whether part pick tasks from bulk area treated as sky picks.

The ?Print Despatch Labels? flag controls whether the WCS prints labels for the stock picked in the Part Picking module. The format used for the labels is defined in the ?WCS Despatch Label Format? field following. Clicking on the button shows an ?Open File? dialogue, allowing you to pick the format required. The format will have been created by OBS specifically for your use. The time when these labels are printed is controlled by the ?Pick Label Prompt? rule.

The ?User Select Pick Location? rule controls whether the user is allowed to specify the location from which to start picking.

The ?Deconsolidation Method? flag controls whether Deconsolidation tasks are processed by the WCS. The rule ?Ad Hoc Deconsolidation? controls whether deconsolidation tasks are sequenced manually or automatically by the system.

The ?Loading Method? flag controls whether the warehouse is loading pallets after picking, and the method by which loading is done.

Dual Cycling

Parameters that affect the running of Dual Cycling in the warehouse, and whether it is allowed.

?Enable Dual Cycling? enables the use of Dual Cycling in the warehouse. If the flag is enabled, other modules are made available to RDT users that interleave tasks in the most efficient way.

The ?NADC Crossover Method? flag controls how the RDT crosses over to another narrow aisle when in Narrow Aisle Dual Cycling (NADC). The values are:

- Manual - The RDT user chooses when to change aisle.
- Threshold - the RDT crosses over to complete moves higher than the threshold priority (?NADC Threshold Priority?)
- Weighting - Future development - should not be enabled.

The ?Send Aisle Status? flag governs whether the WCS informs the WMS when Aisles are currently occupied with Trucks. For some systems, this can affect which locations are suggested for putaway. This message is only sent if the aisles are designated as Narrow Aisles, a parameter entered on Aisles Maintenance.

The ?NADC Aisle Lock? rule controls the point at which an aisle is locked to prevent other RDTs using the aisle

The ?RDT DC Aisle Selection? flag controls whether an RDT user is allowed to select the aisle range in which to work when using Narrow Aisle Dual Cycling. If the flag is enabled, the user is prompted for an aisle range in which to work. This range will default to the values entered against the user?s Employee Id on the Users Maintenance screen. If the flag is disabled, the user will not be given the opportunity to change their allocated range. In this instance, a range must be entered for the user.

The ?NADC Skip Putaway? flag controls whether an RDT NADC user is allowed to skip a putaway move and go straight back to picking from the aisle again.

Other flags on this screen are either for system use only, or are for future development. These should not be changed unless specifically instructed to do so by the OBS team.

Default Locations

Some default locations used by the system in some modules.

You can modify values on each tab by clicking on the relevant tab and changing the values in the required fields.

To choose the warehouse you want to look at or change, use the scrollbar on the bottom of the form to navigate to the record you want, or click on the lookup icon on the toolbar. This will display a screen of all the warehouses set up in the system.

You can get the data from the database again by clicking on the refresh button on the toolbar.

When you have completed changing the values, save the data by clicking on the Save button on the toolbar. It is not necessary to save changes in between moving from tab to tab.

Bespoke

Bespoke rules have been created for sites to control specific functionality for those sites only and are unlikely to be used anywhere else.

?Bespoke Site Rule? is a broad rule used to control the various site-specific rules created in the past under one value. The value of this rule is normally the company or site running the system.

The ?Bespoke Kraft Batch? rule controls extraction of batch data for Kraft.

The ?Pick by Carton? functionality replaces certain parts of the normal part picking functionality, by requiring the user to scan a stock code on each individual carton, as they are placed on the despatch pallet. This functionality requires many parameters to be set up for the warehouse, and must be enabled only by the WCS support team.

The ?Encoded Sell-by dates? flag controls whether sell-by dates are entered encoded into the system.

The ?Allow Overpicking? rule allows RF users to pick more than the requested amount.

The ?Batch Delivery? flag enables some processing to link to a bespoke delivery system.

See also:

Lookup Screens

ToolBars

Aisles Maintenance

Users Maintenance

Rules Maintenance

Barcode Maintenance

42.8.4 Owners Maintenance

This screen allows you to see the owners set up on the system, flags specific to the Owner, plus any rules set up for the Owner.

This maintenance form works very similarly to the Warehouses maintenance. All warehouse rules are replicated at an Owner level. Therefore, please see the warehouses maintenance section to see a description of the rules maintained. Any specific Owner rules and screen-specific functionality is listed in this section.

To set up rules for an Owner, the Owner must be set to Restrictive. This means that only certain members of the workforce can work for this Owner, as they will be allowed to operate in a different way to the rest of the warehouse.

Once the Owner is set to Restrictive, rules will be generated and you will be allowed to modify them.

An owner that is not restrictive inherits the rules of the warehouse. Therefore, any RDT users working for owners that are non-restrictive will get their settings from the Warehouse they logged in as, not the Owner. Additionally, they will also be given work to complete for other non-restrictive Owners.

See also:

Warehouse Maintenance

Lookup Screens

ToolBars

Rules Maintenance

Barcode Maintenance

42.8.5 Barcode Maintenance

This screen allows the users to define what barcodes will be extracted from UCC/EAN-128 barcodes at receipt of pallets into the system.

Click on the items required and save using the button provided.

See also:

Warehouse Maintenance

Owners Maintenance

42.8.6 Aisles Maintenance

This screen allows you to modify or add aisles for the warehouse.

To add new records, press the new button on the toolbar. Once you have entered your new aisle, press the save button or OK button. Your data will be saved.

To find an existing record, press the find button on the toolbar. You will be taken to a lookup screen. Once you have selected your aisle, the data will be displayed.

To navigate to other aisles sequentially, use the scrollbar at the bottom of the screen. The status bar will show you which record you are on.

Once you have found an aisle, you may wish to change some parts of it. Simply click on your chosen field and edit it. Some fields have lookups enabled on them, denoted by the ?!? button to the right. Just click on this item to see a list of compatible data to enter here.

If aisle sequences or certain parameters are changed, the program will re-calculate the order of tasks in the warehouse for you.

Once you have made all your changes, press the save or OK button to save your data.

Related Topics:

Update Truck Moves Seq

42.8.7 P&D Maintenance

This screen allows you to modify or add P&Ds for the warehouse.

To add new records, press the new button on the toolbar. Once you have entered your new P&D press the save button or OK button. Your data will be saved.

To find an existing record, press the find button on the toolbar. You will be taken to a lookup screen. Once you have selected your P&D, the data will be displayed.

To navigate to other P&D?s sequentially, use the scrollbar at the bottom of the screen. The status bar will show you which record you are on.

Once you have found a P&D, you may wish to change some parts of it. Simply click on your chosen field and edit it. Once you have made all your changes, press the save or OK button to save your data.

To recalculate the number of pallets actually at the P&D, click the Recalculate button. You will be asked to confirm your selection. There is no need to save the data once recalculated, as the program will do this automatically.

42.8.8 RDT ID Maintenance

This screen allows you to modify RDT Ids in the system.

This is an optional setup item.

An RDT that make connections to the WCS create a record on this table. The WCS stores a unique key number and the RDT identifier, which is normally the IP address of the RDT. The data can be seen on the RDT ID Maintenance screen, found on the Standing Data menu.

The table also contains a description, and this screen can be used to change this to a more user-friendly description of the RDT. Additionally, this allows you to keep a list of all RDTs and their IP addresses.

When descriptions have been entered of the RDTs, this can be displayed against any activities or exceptions on the WCS.

The RDT can also be marked as "Intrinsically Safe" for use with flammable goods. This optional setup will then prevent users from logging on with truck types that are NOT intrinsically safe for use with flammable goods.

To find an existing record, press the find button on the toolbar. You will be taken to a lookup screen. Once you have selected your aisle, the data will be displayed.

To navigate to other records sequentially, use the scrollbar at the bottom of the screen. The status bar will show you which record you are on.

Once you have found a record, you may wish to change some parts of it. Simply click on your chosen field and edit it. Once you have made all your changes, press the save button or OK button to save your data.

To delete a record, press the delete button on the toolbar, then confirm through the popup dialogue. You will only be allowed to delete RDT records that are not currently in use.

42.8.9 Printers Maintenance

This is the Printers maintenance screen. This allows you to change the name associated to a network printer.

Printers can be either networked windows printers, or direct TVP/IP connections. The screen allows entry of either type

A toolbar is included on the screen for ease of use.

To add new records, press the new button on the toolbar. Once you have entered your new printer, press the save button or OK button. Your data will be saved.

To find an existing record, press the find button on the toolbar. You will be taken to a lookup screen. Once you have selected your printer, the data will be displayed.

To navigate to other printers sequentially, use the scrollbar at the bottom of the screen. The status bar will show you which record you are on.

Once you have found a printer, you may wish to change some parts of it. Simply click on your chosen field and edit it. Once you have made all your changes, press the save or OK button to save your data.

To delete a record, press the delete button on the toolbar, then confirm through the popup dialogue.

You can test a connection to a TCP/IP printer using the test connections and test file buttons. You may also identify block markers and characters for the file.

Related Topics

Lookup Screens

ToolBars

42.8.10 Location Truck Checker

This screen allows you to check which trucks are available to move between specified location types.

Click on a location type on the two boxes. Once you have chosen your location types to check, click the Check button. This will show you the compatible trucks between the two location types.

42.8.11 Activities Enquiry

This screen allows you to enquire on the RDT Activities file, showing all tasks completed by RDT users.

The form has two views, a detail/select view, and a grid view.

Note: Data cannot be modified on the form.

The screen will start by prompting you for selection criteria to retrieve the data by.

If the item being entered is a character-based field (for example, stock code), the program will match all data that is similar. So, entering ?A01? in this field will match all stock codes that have the string ?A01? in them, like ?A0101?, ?AA012345? or ?B1763A01?.

If the item being entered is a numeric-based field (for example, quantity), the program will exactly match all data. So, entering ?123? in this field will match only records that have exactly 123 in quantity.

If the item being entered is a date-based field (for example, date from), the program will exactly match the date, or exactly match a date and time.

Dates must be entered in the standard database date format, in this case ?DD/MM/YY?. The ?slash? separator must be entered.

Date and time entries must be entered as ?DD/MM/YY hh:mm:ss?. The ?space? between the date and time must be entered, as must the ?colon? separator on the time portion.

Criteria may be entered from a lookup screen. This is available on fields with a ?!? button next to them. Simply press the lookup button to bring up a screen of all data.

Any number of criteria may be entered.

Once entered, press the ?Find? button to find data using the criteria entered. The screen will flip to the grid view, to show you all the data selected in a table.

In the grid view, you can change the width of each of the data columns. The screen will not remember your setting when next you use the screen. You can sort the data by clicking on the column header. You can sort the data in reverse order by shift- or control-clicking on the item in the header.

You can flip back to the detail view, by clicking on the appropriate tab.

Selection criteria can be added by pressing the ?New Criteria? button. This will blank the screen, and allow you to enter criteria for the selection.

To change the criteria entered, use the ?Amend Criteria? button. This will blank the screen, and display the current selection criteria.

If you wish to remove all criteria during entry or amendment, press the ?Clear Criteria? button. This will remove all previously entered criteria, and start from a blank screen.

To re-find data based on the current selection criteria, press the ?Refresh? button.

Related Topics

Lookup Screens

ToolBars

42.8.12 Exceptions Enquiry

This screen allows you to enquire on the Exceptions file, showing all tasks completed with exceptions by RDT users.

The form has two views, a detail/select view, and a grid view.

Note: Data cannot be modified on the form.

The screen will start by prompting you for selection criteria to retrieve the data by.

If the item being entered is a character-based field (for example, stock code), the program will match all data that is similar. So, entering ?A01? in this field will match all stock codes that have the string ?A01? in them, like ?A0101?, ?AA012345? or ?B1763A01?.

If the item being entered is a numeric-based field (for example, quantity), the program will exactly match all data. So, entering ?123? in this field will match only records that have exactly 123 in quantity.

If the item being entered is a date-based field (for example, date from), the program will exactly match the date, or exactly match a date and time.

Dates must be entered in the standard database date format, in this case ?DD/MM/YY?. The ?slash? separator must be entered.

Date and time entries must be entered as ?DD/MM/YY hh:mm:ss?. The ?space? between the date and time must be entered, as must the ?colon? separator on the time portion.

Criteria may be entered from a lookup screen. This is available on fields with a ?!? button next to them. Simply press the lookup button to bring up a screen of all data.

Any number of criteria may be entered.

Once entered, press the ?Find? button to find data using the criteria entered. The screen will flip to the grid view, to show you all the data selected in a table.

In the grid view, you can change the width of each of the data columns. The screen will not remember your setting when next you use the screen. You can sort the data by clicking on the column header. You can sort the data in reverse order by shift- or control-clicking on the item in the header.

You can flip back to the detail view, by clicking on the appropriate tab.

Selection criteria can be added by pressing the ?New Criteria? button. This will blank the screen, and allow you to enter criteria for the selection.

To change the criteria entered, use the ?Amend Criteria? button. This will blank the screen, and display the current selection criteria.

If you wish to remove all criteria during entry or amendment, press the ?Clear Criteria? button. This will remove all previously entered criteria, and start from a blank screen.

To re-find data based on the current selection criteria, press the ?Refresh? button.

Related Topics

Lookup Screens

ToolBars

42.8.13 Truck Enquiry

This option is used to view the Truck Types standing data, sent from the WMS.

Truck Types are sent from the WMS to the WCS from a maintenance screen in the WMS. Instructions on how to do this and what is sent are in the WMS Training guide

Truck Types are used when logging on to the WCS. The type used defines in which areas the driver is allowed.

The data stored on the WCS is simply the truck type itself, along with which company the trucks are associated and whether the truck type is considered intrinsically safe.

To sort the data, simply click on the title of the column you want sorted. The data will automatically sort in this order. To sort the data in reverse order, hold down the Shift key when you click on the column title.

42.8.14 Reason Code Enquiry

This option is used to view the Reason Codes standing data, sent from the WMS.

To sort the data, simply click on the title of the column you want sorted. The data will automatically sort in this order. To sort the data in reverse order, hold down the Shift key when you click on the column title.

42.8.15 Pallet Type Enquiry

This option is used to view the Pallet Types standing data, sent from the WMS.

To sort the data, simply click on the title of the column you want sorted. The data will automatically sort in this order. To sort the data in reverse order, hold down the Shift key when you click on the column title.

42.8.16 Update Truck Moves Seq

This option is used to recalculate the sequences of the truck move tasks in the WCS, with relation to certain flags against the aisle being changed.

Related Topics:

Aisles Maintenance

42.8.17 Lookup Screens

All the lookup screens in the WCS have the same functionality. Generally, lookup screens are used to display quantities of data where a combo box may not show all the support data that is required. A lookup will provide this extra information.

When you enter the lookup screen, the data is displayed from top to bottom, alphabetically. If required, you can scroll the data using the scrollbar on the side. When you have chosen your line, you can return to the calling screen by:

Double clicking on the line

Pressing Return on the line

Selecting the line and pressing OK

To return to the calling screen without choosing data, simply press the cancel button.

To find specific data, you can press the first letter of the data you want. This will take you to the first occurrence of the data starting with that letter. Subsequent presses of the same key will move you on to the next occurrence.

Quickly typing the first few letters of the data you are looking for will refine the search, until you have found your data.

42.9 Windows Menu

This menu is a standard windows menu. It includes the options:

- Cascade
- Tile Horizontal
- Tile Vertical
- Arrange Icons

The menu also includes a list of all opened windows, so the user can switch between them easily when necessary.

42.10 Help

Shortcut: F1

This menu allows you to access the help files associated with the WCS Maintenance program and windows. It can also be accessed from the toolbar using the appropriate button. The help given is context-sensitive, so you should be directed straight to help about your current screen. If direct help is not available from this screen, you will be taken to a topic list, where you can choose from all the help available.

You can also see the version of the software you are running by clicking the About menu item.

42.11 Miscellaneous

42.11.1 Refresh Screen

The 'Refresh' button can be used to re-find the data from the database, using your original selection criteria. This is useful if any changes have taken place on the data since you found it.

42.11.2 ToolBars

Toolbars can be modified using the standard Windows method of double clicking on a blank portion of the toolbar. This will bring up the toolbar modification window

Modifications can be made to several areas by adding from the left-hand window to the right-hand window.

You can change the position of the items in the toolbar.

You can add as many of the separator items as you like - there will always be more of them in the left-hand window!

42.11.3 Database Utilities

This program allows you to enquire and change any data on the system database. THIS OPTION IS ENABLE FOR SYSTEM MAINTENANCE ONLY, AND SHOULD NOT BE USED FOR ANY OTHER REASON. The DBUTILS program is separate and as such can be removed from the local functionality.

Usage of the program: Trained users only.

42.11.4 Rules Maintenance

This program uses a standard mechanism for maintaining rules in the system. This mechanism is described here.

The rules required are displayed in an explorer window, showing the rule groups on the left-hand pane, and the rules belonging to that group in the right-hand pane.

To find rules, click on the appropriate section in the left-hand pane. The rules will display on the right-hand pane. Should there be too many rules to display on one screen, the screen will provide a scroll-bar.

Rules can be broken down into several types:

Fixed Values - these will be displayed in a drop-down list, for you to select.

Text values - plain text for you to type the value in.

Numeric values - plain numeric values for you to type in.

Browse buttons - where the WCS requires a directory listing or file selection, a browse button is provided.

Database lookups - there the WCS requires a data value, a drop-down list is provided with the values allowed. There will also be a blank value on the list for you to select.

As each value is modified and you move to the next, the data will be saved.

Screen which contain Rules explorers:

Warehouse Maintenance

Groups Maintenance

Owners Maintenance

System Settings

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All Training Guides