

# RackMAN™ Console

## TECHNICAL MANUAL

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## TABLE OF CONTENTS

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
<b>2</b>	<b>Setting Up your Racking .....</b>	<b>2</b>
2.1	Example System Configuration .....	4
2.1.1	Zone 1.....	4
2.1.2	Zone 2.....	5
2.1.3	Zone 3.....	5
<b>3</b>	<b>Installing RackMAN.....</b>	<b>6</b>
3.1	Installation Guide .....	6
3.2	Quick Setup Guide.....	10
<b>4</b>	<b>User Names.....</b>	<b>10</b>
4.1	Add User .....	11
4.2	Change User.....	12
4.3	Delete User .....	13
<b>5</b>	<b>Inventory .....</b>	<b>14</b>
5.1	Add Inventory .....	14
5.2	Change Inventory .....	16
STEP 1	Enter Part Number .....	16
STEP 2	Select Part Number .....	16
5.3	Delete Inventory .....	16
STEP 1	Enter Part Number .....	16
STEP 2	Select Part Number .....	17
5.4	Auto Load Inventory.....	18
5.5	Changing and or Deleting Part Ids.....	19
<b>6</b>	<b>Customising RackMAN™ for your Site .....</b>	<b>20</b>
6.1	Introduction .....	20
6.2	Getting around the Configuration Form .....	20
6.3	Placing.....	21
6.3.1	Bin Allocation Mode .....	21
6.3.2	Fixed Multi Options .....	22
6.3.3	Placing Options .....	22
6.3.4	Place Single Quantity .....	23
6.3.5	Place Questioning Auto Answer .....	24

6.4	Picking.....	25
6.4.1	Bin Selection Mode .....	25
6.4.2	Picking Options .....	26
6.4.3	Pick Single Quantity .....	26
6.4.4	Pick Questioning Auto Answer .....	27
6.5	Racking.....	28
6.5.1	Racking Configuration.....	28
6.5.2	Edit Shelf Setup.....	29
6.5.3	Add a new Shelf and Location.....	29
6.5.4	Remove a Shelf and Location.....	29
6.5.5	Usage Info .....	30
6.5.6	Unavailable Shelves.....	30
6.5.7	Set Face & Bay Order .....	31
6.6	Lists.....	32
6.6.1	List Details .....	32
6.6.2	Miscellaneous List Settings.....	33
6.7	Verify .....	35
6.8	Reporting .....	37
6.8.1	Report Folders .....	37
6.8.2	Report Modules .....	38
6.9	Labels.....	39
6.9.1	Label Format Selection .....	39
6.9.2	Label Setup.....	39
6.9.3	General Label Settings .....	41
6.10	General .....	42
6.10.1	Miscellaneous.....	42
⑤	Location selected by user on a short Pick in Pick List Checking	43
6.11	Peripherals .....	44
6.11.1	Printer Settings .....	44
6.11.2	SortBench Setup .....	44
6.11.3	Mobile Devices .....	45
6.12	Database.....	46
6.12.1	Database Setup.....	46
6.12.2	Database Mode .....	46
6.12.3	Auto Load Inventory .....	47
6.12.4	Backup.....	48

6.12.5	Miscellaneous .....	48
6.13	Plugins.....	49
6.14	Locations .....	50
<b>7</b>	<b>RackMAN List Files .....</b>	<b>51</b>
7.1	Populated List file.....	53
7.2	Custom List Format .....	54
<b>8</b>	<b>Stocktaking your Static Racking .....</b>	<b>56</b>
<b>9</b>	<b>Reports .....</b>	<b>57</b>
9.1	RackMAN Stock Report .....	57
9.2	Audit Log Report .....	59
9.3	Reorder Report .....	59
9.4	Shelf Report .....	60
9.5	Stock Report.....	60
9.6	Free Locations Report .....	61
9.7	Event Report .....	61
9.8	Global Verify Report .....	61
<b>10</b>	<b>Interfacing RackMAN .....</b>	<b>62</b>
<b>11</b>	<b>Peripherals.....</b>	<b>63</b>
11.1	Kardex VCA SortBench.....	63
11.2	Bar Code Scanners.....	63
11.3	Printers .....	63
11.4	Counting Scales .....	63
<b>12</b>	<b>Back Up Recommendations .....</b>	<b>64</b>
<b>13</b>	<b>Troubleshooting .....</b>	<b>64</b>

Valid for RackMAN Release 1.5.18

### **IMPORTANT NOTICE**

This software is made available for use under the terms of your 'Software Licence Agreement'.

For new equipment installations Kardex VCA Vertical Storage System software is configured by our staff and operation of the equipment (Carousel / Shuttle® / SortBench) and utility software is confirmed as part of the commissioning process.

The software warranty will be void if the Customer or their representative changes, modifies or makes any additions to the hardware and/or software of the Vertical Storage System without the written permission of Kardex VCA Pty Ltd. Kardex will not withhold that permission if the changes will have no material effect on the system operation or performance.

The **Customer** is responsible for the maintenance of all **system** and **data files** including backup and restoration procedures.

## 1 Introduction

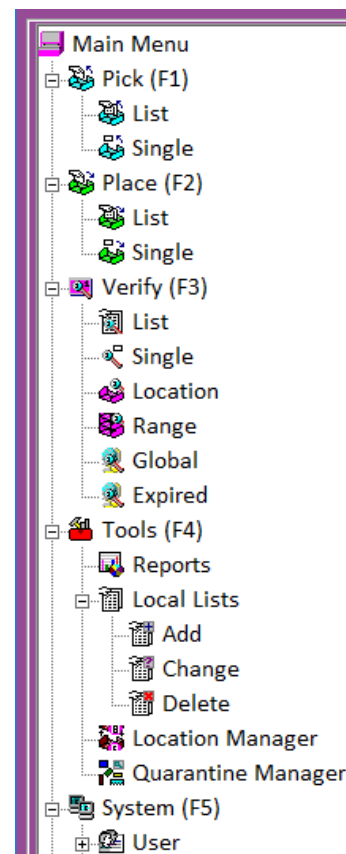
Kardex has designed RackMAN™ as an inexpensive PC based inventory application for use in small to medium sized warehouses. RackMAN facilitates the simple management of inventory stored in STATIC RACKING or SHELVING. RackMAN operates under all current Windows™ operating systems i.e. WIN7 and WIN10 and uses an ODBC compliant SQL database.

RackMAN™ functionality is based on our proven Carousel inventory management product KARMAN™, and has all the basic features necessary to account for inventory movements in your warehouse. If you are an existing Carousel user, RackMAN™ will be a transparent introduction into your warehouse and you will benefit from being able to manage all your warehouse orders through the common interface associated with Kardex VCA's Inventory Handling System.

RackMAN™ is part of Kardex's complete SME Inventory System (IS) which extends to management browsers, utility file and data handling, full warehouse order printing, zone distribution, and seamless integration with Kardex's Carousel and SortBench™ for high throughput order picking across the warehouse.

The functionality available in RackMAN is described below:

- Range of Storage (Place) Modes including Fixed, Fixed Multi and Dynamic -allowing transparent changeover from one mode to the other
- Range of Retrieval (Pick) Modes including FIFO, Closest etc.
- Barcode Product Identification
- Integrated Lot Number Support
- Comprehensive text file based interface for data exchange and Pick Slip processing.
- Support for peripheral equipment such as Barcode Scanners, Thermal Label Printers, Integrated Weigh Scales
- Practical Global and Cyclic Stocktake (Verify) functionality
- Support for printing of multiple Pick & Place lists for multi order picking
- Range of System Reports including Stock Report, Location Report, Aged Inventory Report & Audit Report
- Customised User Profiles for operator access
- Sorting of locations throughout the warehouse for the most efficient picking path
- Support for customised functionality using system Plug-ins, such as block stock transfer
- Remote connect diagnostic support
- Can share the Carousel system KARMAN Database for system simplification and database maintenance.



## 2 Setting Up your Racking

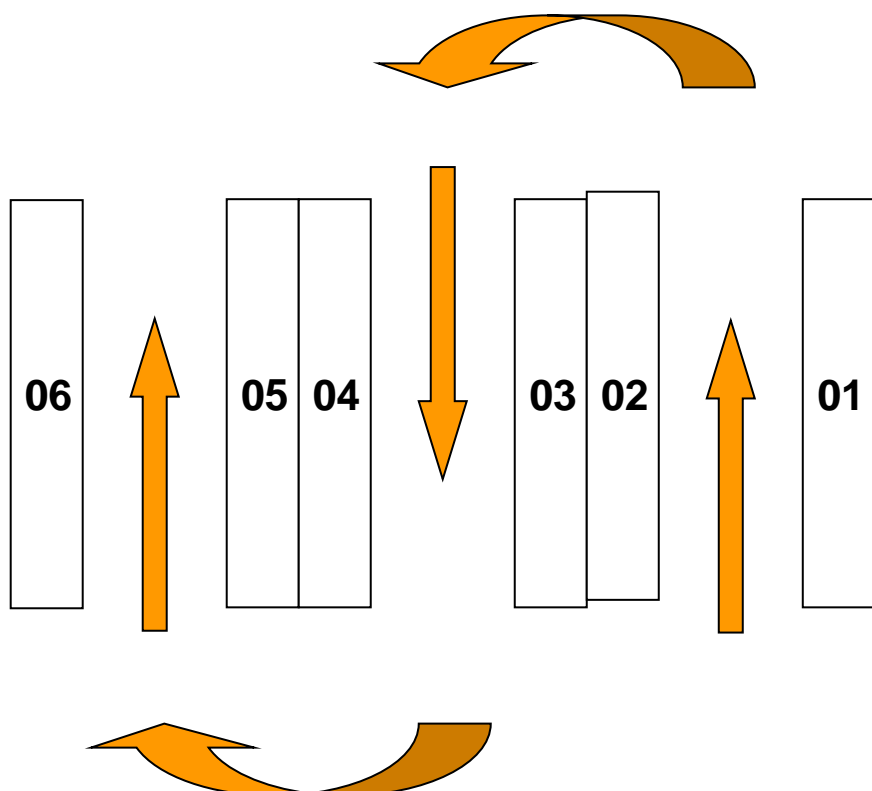
RackMAN may be used as a standalone solution for handling of inventory in static racking and shelving or in combination with Kardex VCA Vertical Storage equipment such as Carousels and Shuttles as part of a complete warehouse inventory control solution.

Introducing RackMAN in to your existing Carousel or Shuttle system will require the support of Kardex VCA utility applications such as 'File Handler' and 'General Order Handler'. If you have a multi-machine configuration, you will most likely be using these utilities already.

### Standalone System (Racking) - One or more

You will need to set up your shelving configuration to cover all pick faces in your warehouse. Physically distinct areas within the warehouse are treated as Zones. Each Zone will require its own RackMAN console.

An example of warehouse racking is shown below in plan view:



Our naming convention for each location in the racking is:

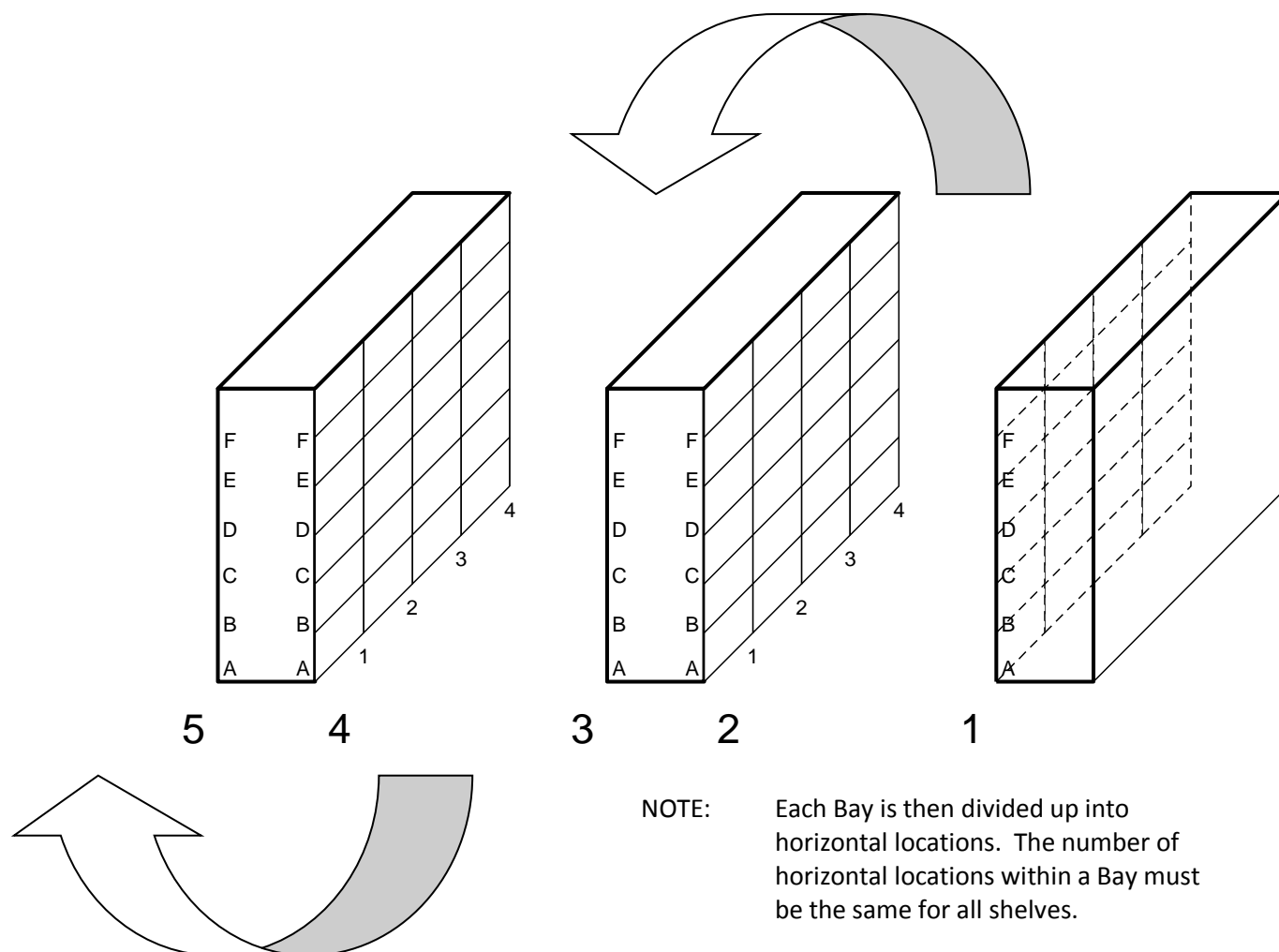
**<Pick Face><Shelf><Bay><Location>**

Where:

- Pick Face is a numeric in the range 01 .. nn
- Shelf is the vertical shelf on the Pick Face in the range A .. Z
- Bay is the horizontal position along the Pick Face in the range 01 .. nn
- Location is the horizontal position within the Bay in the range 01 .. nn

For example, Pick Face 5, Shelf B, Bay 2 and Location 1 would be identified as "05B0201".

RackMAN will generate PICK slips and PLACE slips in location order; as determined by the RackMAN shelving configuration.



Because Zones are treated as physically separate from each other; the Pick Face count will be restarted. So, Pick Face 1, Shelf A, Bay 1, Location 1 (01A0101) will exist in all Zones.

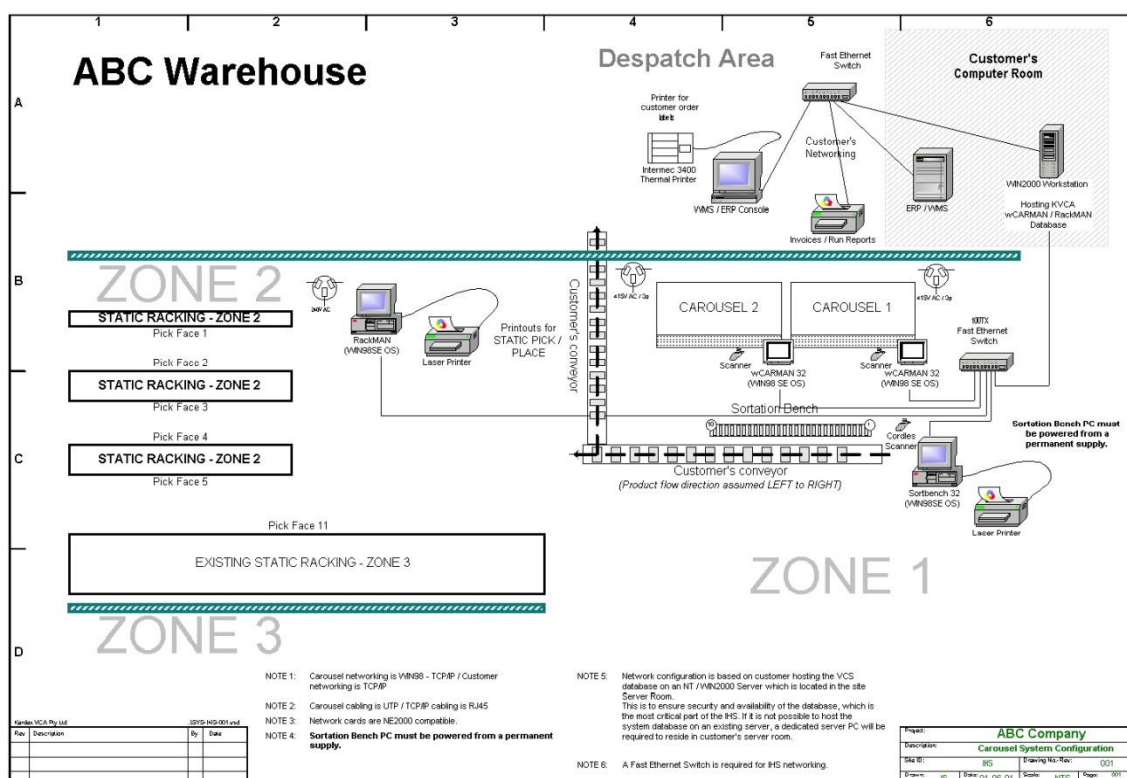
#### **Integrated System (Racking, Carousels / Shuttles)**

Integrated systems feature both automated vertical storage systems and racking. The automated vertical storage system (VSS) could be Vertical Carousels, Shuttles or a combination of both. The VSS would typically be designated Zone 1.

The KARMAN application would be used to manage inventory within the VSS. Both KARMAN and RackMAN will use the same database to enable efficient picking/placing within the warehouse.



## 2.1 Example System Configuration



This example system implementation comprises the following PC based equipment:

- o Zone 1 Carousel Console (VC1)
- o Zone 1 Carousel Console (VC2)
- o Zone 1 SortBench Console (SB1)
- o Zone 2 RackMAN Console (RM1)
- o Database Server PC to host system database and for creation of PLACE / PICK list files.

All zone equipment is to be connected to a fast Ethernet switch using shielded CAT5 cable. The Server PC is also to be connected to the fast Ethernet switch using shielded CAT5 cable.

The Database Server PC should be installed in a site computer room. This equipment needs to be in a clean and secure environment.

### 2.1.1 Zone 1

Zone 1 consists of two vertical carousels with a shared SortBench. Zone 1 will also require a laser printer to print Pick Slips for Zone 1 or Zones 1, 2, and 3. The laser printer will be connected to the parallel port on the SortBench PC.

The carousels will have a standard keyboard wedge barcode scanner to assist with the storage of items into the carousel, using PLACE by LIST. The SortBench should have a cordless keyboard wedge barcode scanner for the induction of orders on to the SortBench. The cordless scanner should have a range of 3m.



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### **2.1.2 Zone 2**

A dedicated PC is required to run the RackMAN application. A laser printer will be connected to the RackMAN console for the generation of Zone 2 PLACE reports and Zone 2 / 3 Pick Slips. The RackMAN console is also fitted with a barcode scanner for the scanning of Pick Slips, Pick Slip summary and Place summary reports.

RackMAN is able to accommodate irregular racking configurations. The location order can be set within RackMAN and is completely configurable by the user.

### **2.1.3 Zone 3**

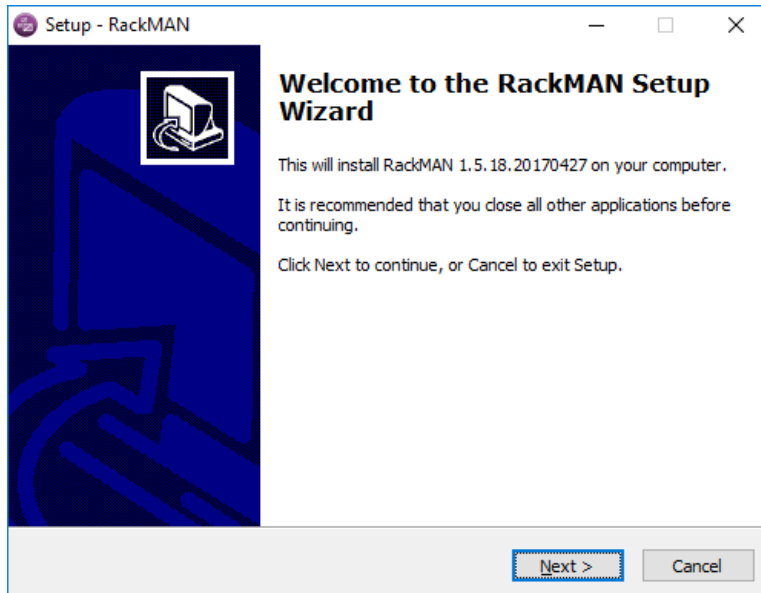
Zone 3 can be dealt with as an extension of Zone 2. Zone 3 may be racking that is physically separate from Zone 2.

It would be possible to set up Zone 3 as an extension of Zone 2, with orders to be managed at a common RackMAN console or Zone 3 could be set up as a separate instance of RackMAN on a dedicated console.

## 3 Installing RackMAN

### 3.1 Installation Guide

The screen below will show up once you have started the RackMAN setup program.



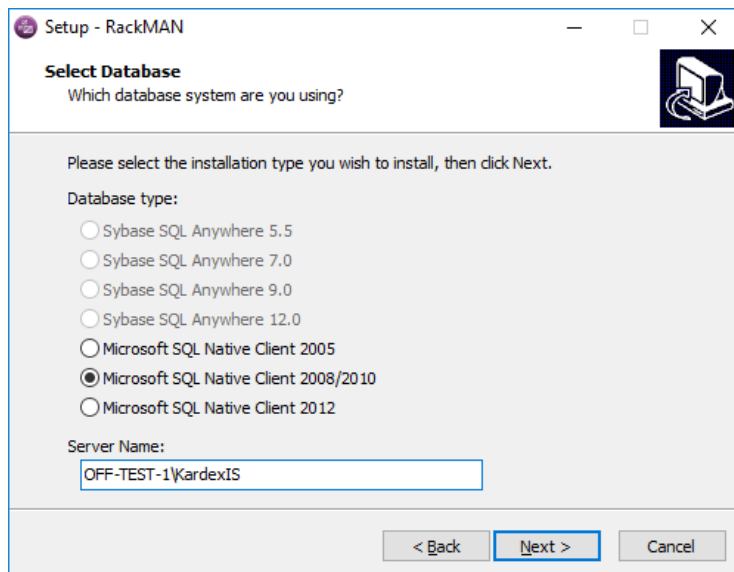
Click Next to proceed

Fill in the Registration form with the appropriate details as required as shown below.

A screenshot of the 'Setup - RackMAN' window, now on the 'Registration' screen. The title bar says 'Setup - RackMAN'. The window has a light gray background. The title 'Registration' is in bold, with 'RegistrationForm description' below it. A small icon of a computer monitor and a circular arrow is in the top right corner. The main text reads: 'Please check your registration details for your RackMAN installation below, then click Next.' Below this are three text input fields: 'Full Name' with the value 'RMM-12345', 'Company Name' with the value 'Company XYZ Pty Ltd', and 'Serial Number' with the value '12345-05'. At the bottom right, there are three buttons: '< Back', 'Next >' (highlighted with a blue border), and 'Cancel'.

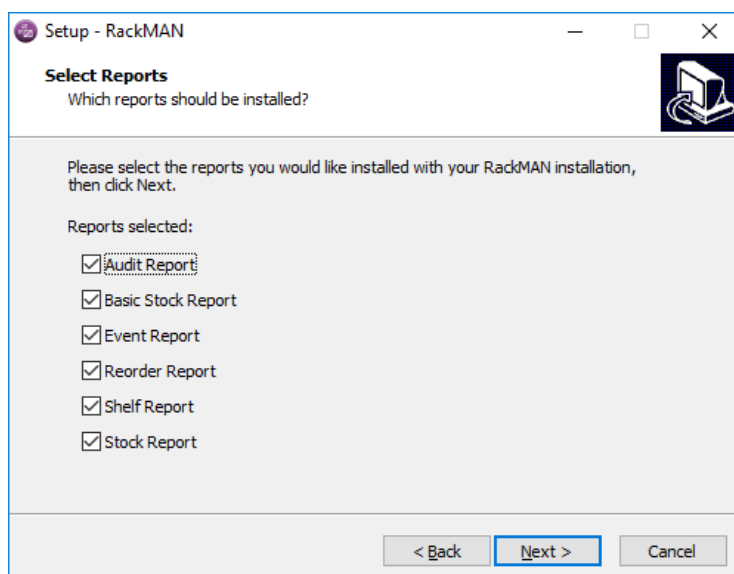
Click Next to proceed.

Select Microsoft SQL Native Client 2008/2010 and insure you enter the right server name in the appropriate box.



Click Next to proceed

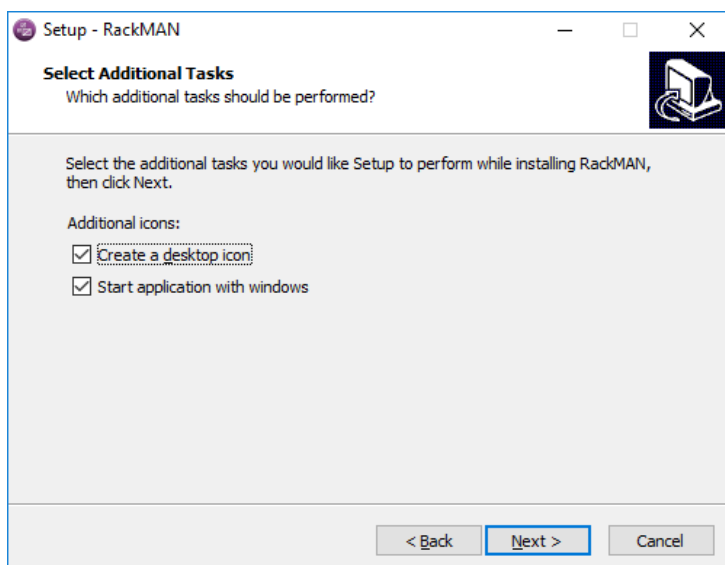
Select the desired report you want or do not want available in your system. By default, all reports are selected as shown below.



Click Next to proceed



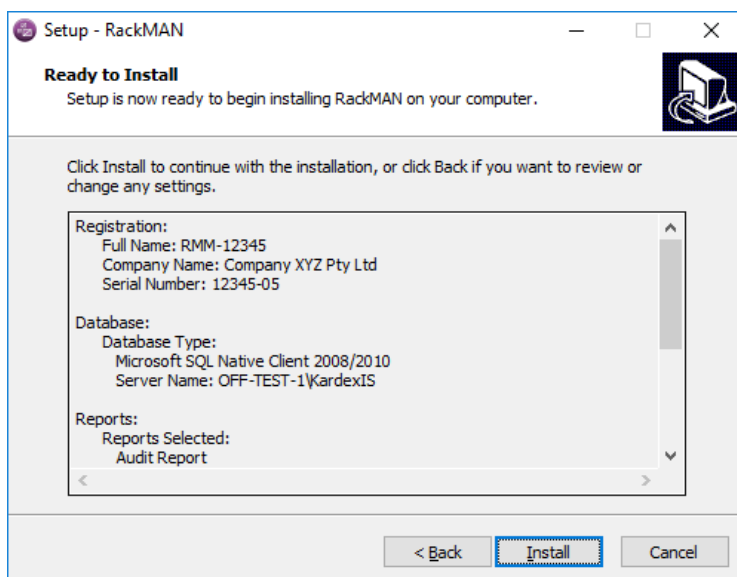
Select any additional options you want on or off the picture below shows the defaults settings.



Click Next to proceed

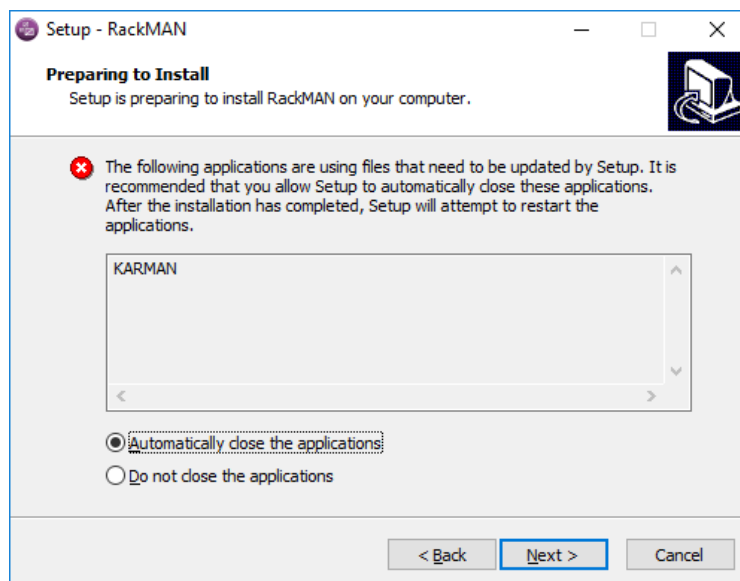
This gives you an over view of what you have asked the RackMAN setup to perform. If any of the information is wrong or there is an anomaly in the information box, please use the BACK button to rectify before installation.

*NOTE: the back button is available throughout the installation process*



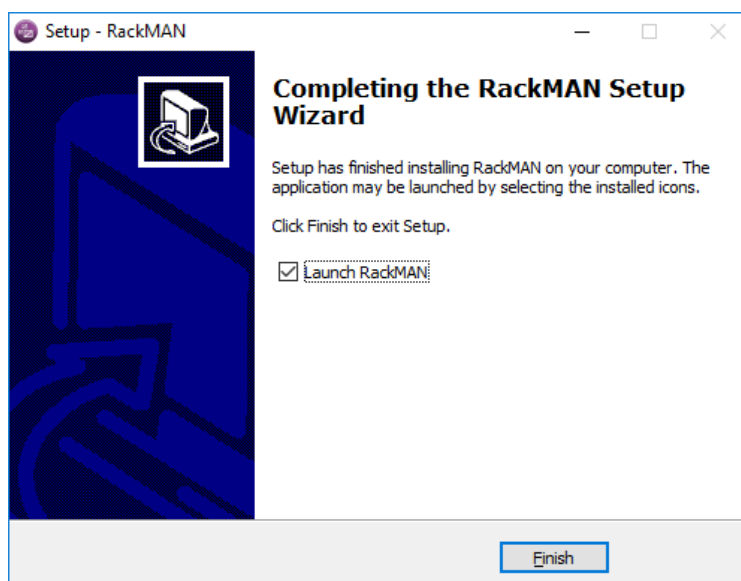
Click Install to Proceed

If a program/s that RackMAN communicates with is open the program will say that the program/s have to be closed before the installation can continue. You can either choose to close them down yourself or let the program do it for you as shown in the picture below.



Click Next to proceed

Installation is complete



Click Finish to launch RackMAN or Finish to close the window if Launch RackMAN isn't selected.

### 3.2 Quick Setup Guide

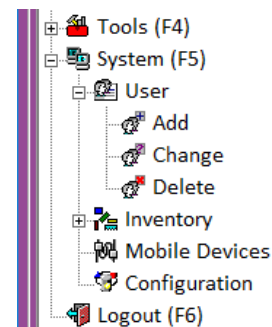
The default Login for the runtime version of RackMAN is 'Admin' with no password. Once you have logged into RackMAN, you will need to undertake the following activities so that RackMAN can operate correctly.

1. *Set up your Shelf / Bin Configuration.*  
Select System \ Configuration from the Main Menu. Go to the 'Racking' tab. Refer to Section 5.5 for details.
2. *Select your Bin Allocation Mode.*  
Select System \ Configuration from the Main Menu. Go to the 'Placing' tab. Refer to Section 5.3.1 for details.
3. *Select your Bin Selection Mode.*  
Select System \ Configuration from the Main Menu. Go to the 'Picking' tab. Refer to Section 5.4.1 for details.
4. *Add Inventory.*  
Select System \ Inventory from the Main Menu. Refer to Section 5 for details. Kardex VCA recommends you use the Auto Load Inventory routine to add data to your database.

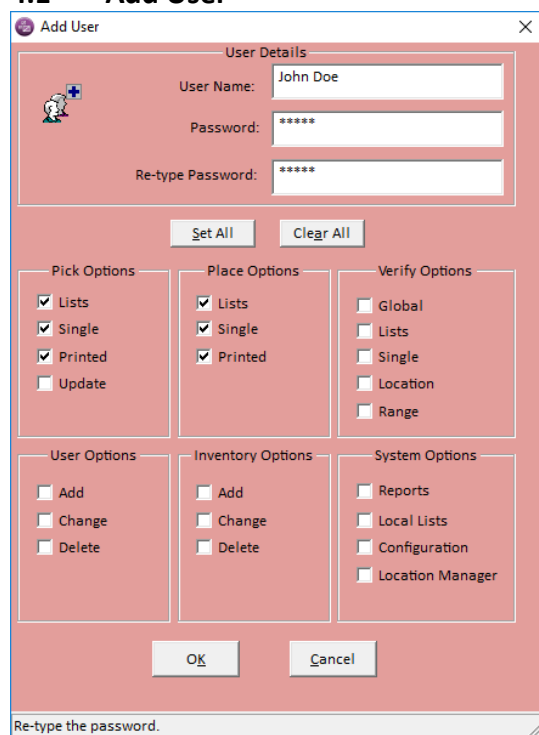
## 4 User Names

You will need to enter a valid user name and password at the RackMAN™ welcome screen before the Main Menu will be presented. The default 'Admin' user has access to all system functionality including Add, Change and Delete users from the 'User' Menu which is available under Main Menu \ System \ User. The User Menu allows you to Add Users (Section 4.1), Change Users (Section 4.2) or Delete Users (Section 4.3).

Kardex VCA recommends that your system responsible person uses the 'Admin' user and also adds a password for added security. All other users should be given specific user logins with functionality appropriate for their required tasks.



## 4.1 Add User



### Action

Move forward

Move backward

Set All Access

Clear All Access

Tick Boxes ON or OFF

Save changes and exit

Cancel changes and exit

Enter a username and password. The Password may be left blank. Give the user adequate access to do their job.

### Method

**Tab**

**Shift & Tab**

**Alt & S** or **Enter** on the Set All button

**Alt & A** or **Enter** on the Aclear All button

**Spacebar**

**Alt & K** or **Enter** on the K button

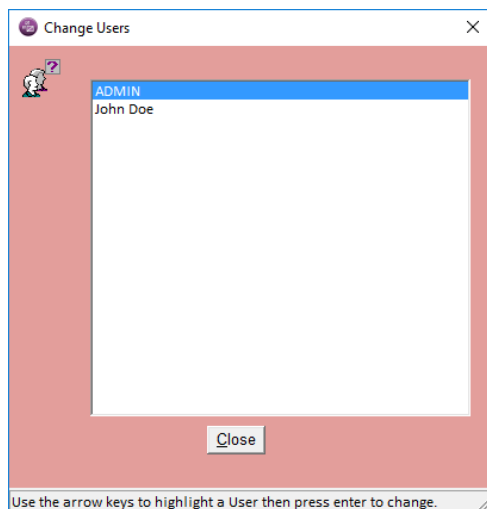
**Alt & C** or **Enter** on the C button

The Configuration and User options should be limited to one or two users from your management team.

Access to the Verify functions should be given with care. Access to these functions will allow users to change stock quantities in your static racking. Refer to Section 8, 'Stocktaking Your Static Racking', for more information.



## 4.2 Change User



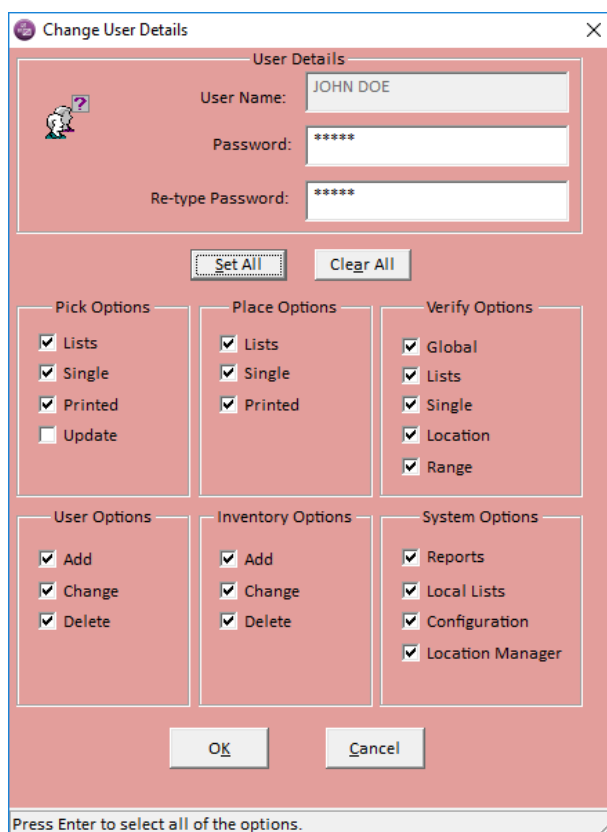
### Action

Move through User Names  
Select User Name  
Close window

### Method

up (↑) and down (↓) arrow keys  
**Enter**  
**Alt & C** or **Tab** to the Close button and press **Enter**

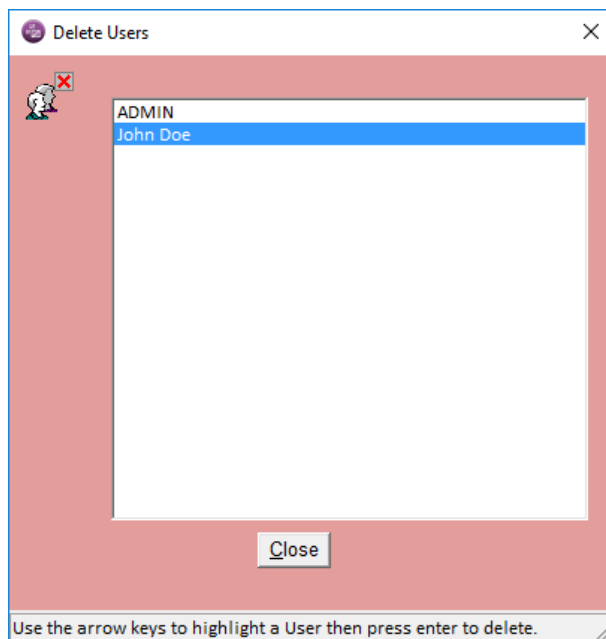
When you select a User Name, the 'Change User Details' screen will appear, displaying the selected User's details.



You can change all fields except for the User Name itself.

Refer to the previous page for instructions on navigating the User screen.

### 4.3 Delete User

**Action**

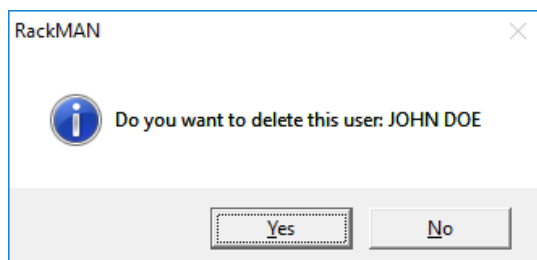
Move through User Names

Select item

Close window

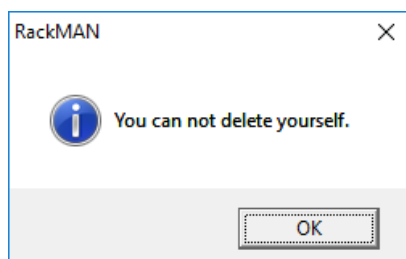
**Method****up (↑) and down (↓) arrow keys****Enter****Alt & C** or **Tab** to the **C**lose button and press **Enter**

When you select a User name, a confirmation message will be displayed.



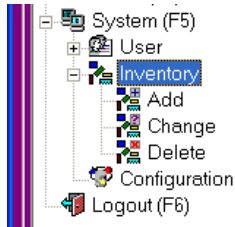
Press **Enter** to confirm deletion of the User Name. If you do not want to delete this User Name, then press **Alt & N** or **Tab** to the **N**o button and press **Enter**.

**NOTE:** You CANNOT delete the user that is currently logged in.



## 5 Inventory

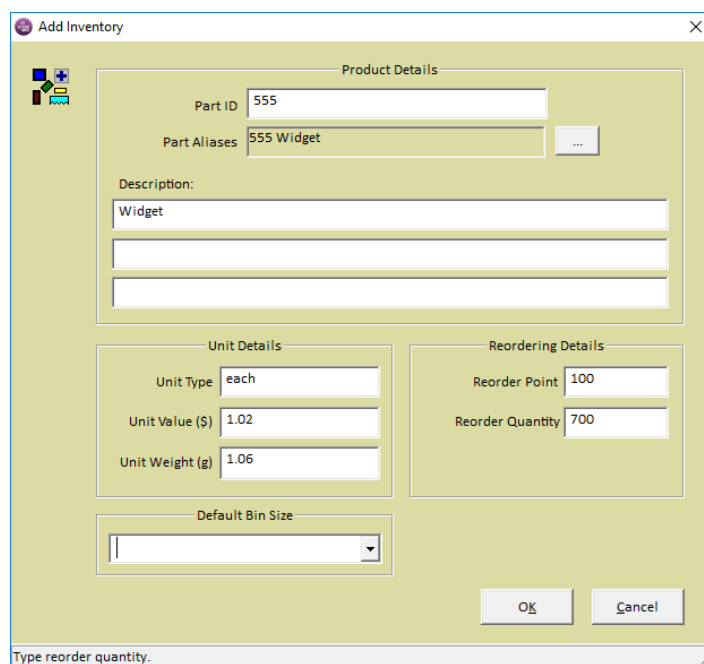
The Inventory Menu can be accessed from the System Menu. The Inventory Menu allows you to Add Inventory (Section 5.1), Change Inventory (Section 5.2) or Delete Inventory (Section 5.3).



RackMAN™ also has functionality to transparently upload new or updated inventory via an external text file (Section 5.4). If your system also comprises Carousels or Shuttles, this auto upload routine may already be implemented via KARMAN™.

**NOTE:** *Kardex VCA recommends that you use the PARTS auto upload routine if you have access to these resources. The auto upload routine will ensure there is no data entry error in your system.*

### 5.1 Add Inventory



#### Action

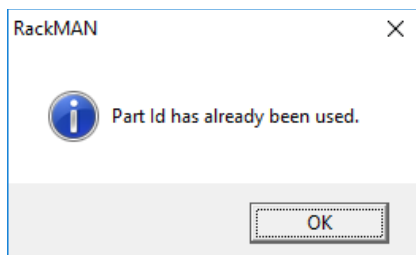
Move forward  
Move backward  
Save changes and exit  
Cancel changes and exit

#### Method

**Enter** or **Tab**  
**Shift & Tab**  
**Alt & K** or **Enter** on the OK button  
**Alt & C** or **Enter** on the Cancel button

All fields are optional except Part Id. Part Id is used as the unique identifier in the RackMAN™ or KARMAN™ system.

If you add a new inventory item that is the same as an existing Part Id, the following message will be displayed:



Press **Enter** to clear this message and RackMAN will return to the Add Inventory screen so you can change the Part Id.

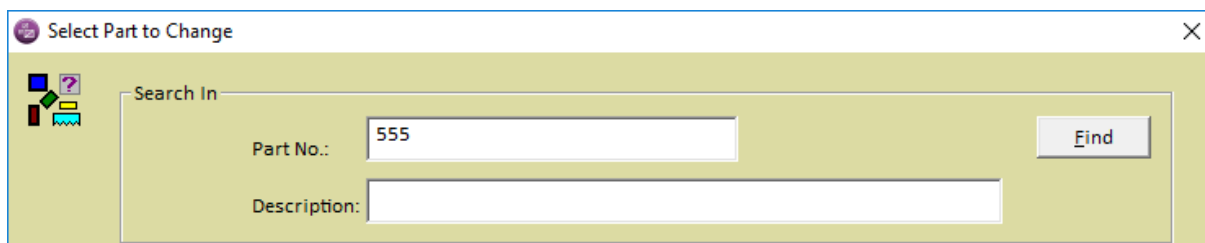
The Inventory fields are listed below. The 'Max Char' column is the maximum number of characters allowed in each field.

<b>Field</b>	<b>Max Char</b>	<b>Description</b>
<i>Product Details</i>		
Part Id	30	Type in a part number. This is the database primary key. It must be unique.
Alternate Part Id	30	Type in an alternate part number, for example the suppliers part number. This number can be used during Single Pick or Place operations to select a part.
Description 1 Description 2 Description 3	60	Type in a description of the inventory item. Description Line 1 will appear on the operation screens so it should be as informative as possible.
<i>Unit Details</i>		
Unit Type	10	Type in a unit type. This field will appear next to quantity on the operation screens. Eg. Each, Boxes, Pieces.
Unit Value	8	Type in a unit value (per unit) including the decimal point. If you do not put the decimal point in, RackMAN will add it for you at the end of the number you enter. This field can be used to report the total value of products in your static racking.
Unit Weight	8	Type in a unit weight (per unit). Unit weight is used with integrated weigh scales to determine the number of units for a Pick or Place operation.
<i>Reordering Details</i>		
Reorder Point	5	Type in a quantity. This is the stock level at which you want this part to be reordered. This quantity is used to generate the Re-order report.
Reorder Quantity	5	Type in a quantity. This quantity is the amount of stock you want reordered.

## 5.2 Change Inventory

### STEP 1 Enter Part Number

Type in the part number or the description of the item you are going to change then press **Enter** until the cursor moves to the 'Parts' window.



Select Part to Change

Search In

Part No.: 555

Description:

Find

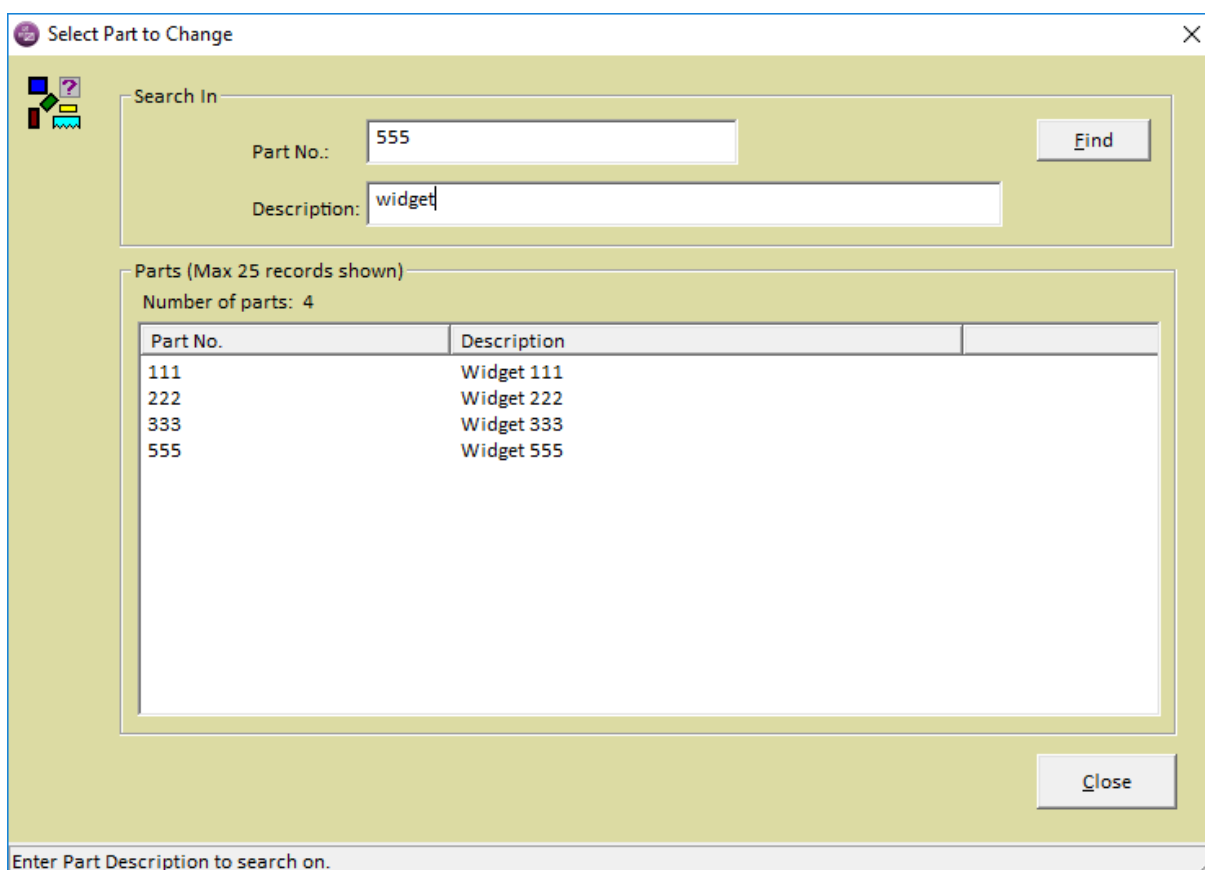
### STEP 2 Select Part Number

#### Action

Move through part numbers  
Select part number to change  
Close window

#### Method

up (↑) and down (↓) arrow keys  
**Enter**  
**Alt & C** or **Tab** to the Close button and press **Enter**



Select Part to Change

Search In

Part No.: 555

Description: widget

Find

Parts (Max 25 records shown)

Number of parts: 4

Part No.	Description
111	Widget 111
222	Widget 222
333	Widget 333
555	Widget 555

Close

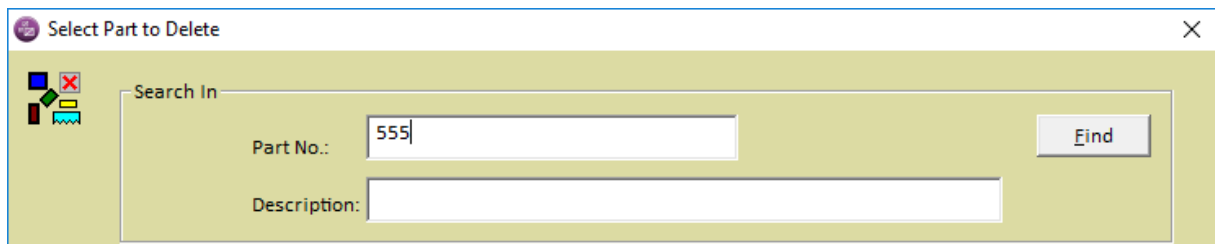
Enter Part Description to search on.

When you have selected your required Part press **Enter**. The 'Change Inventory' form will be displayed, showing all of the part details. You can change all fields except for the Part Id. The 'Change Inventory' form is navigated in the same way as the 'Add Inventory' form.

## 5.3 Delete Inventory

### STEP 1 Enter Part Number

Type in the part number or the description of the item you want to delete then press **Enter** until the cursor moves to the 'Parts' window.



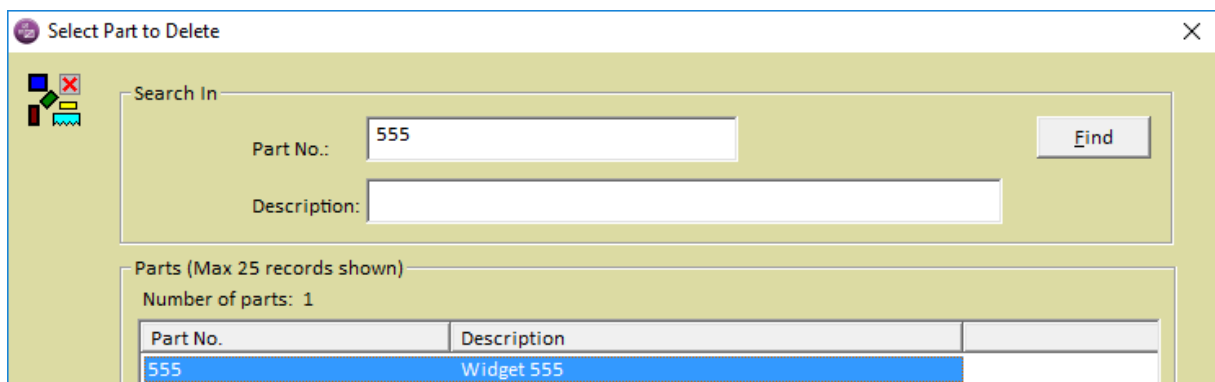
## STEP 2 Select Part Number

### Action

Move through part numbers  
Select part number to delete  
Close window

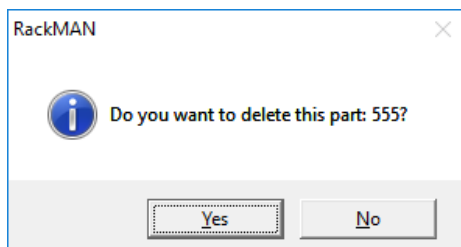
### Method

up(↑) and down(↓) arrow keys  
**Enter**  
**Alt & C** or **Tab** to the Close button and press **Enter**



Part No.	Description
555	Widget 555

When you select a part, the following confirmation message will be displayed:



Press **Enter** to confirm deletion of the part. If you do not want to delete this part press **Alt & N** or **Tab** to the No button and press **Enter**.

**NOTE:** Parts which have been placed in to a location and have stock on hand > 0 will not appear in the list.

## 5.4 Auto Load Inventory

RackMAN™ can automatically upload new inventory items, via a text file, on start-up. The path to the text file is set up on the Database tab of the \System \ Configuration form.

The text file will be deleted after the inventory items have been loaded into the RackMAN™ database. RackMAN™ must have full access to the text file for this purpose.

The default Auto Load path filename is C:\RackMAN\Data\Parts.dat. As RackMAN™ uploads the Parts.dat file a Parts.log file is created in the same folder. The log will list the status of each inventory item as either 'Added' or 'Updated'. If a syntax error is detected in the file, the upload will stop. You will need to check the content of the log file to identify the problem record. You should correct the issue in the record and initiate the full upload again.

The following points must be observed when building the text file:

- The fields are of variable length
- The fields are comma-separated
- The contents of the fields must not contain any single quotation marks (') or any commas (,) as these characters are interpreted as field delimiters.

The default file record format is:

<b>Field</b>	<b>Description</b>	<b>Max SIZE</b>
1	Part number	30
2	Alternate part number	30
3	Description line 1	60
4	Description line 2	60
5	Description line 3	60
6	Unit Type	10
7	Unit Value	8
8	Unit Weight	8
9	Reorder Point	8
10	Reorder Quantity	8
	<CR/LF>	

Below is a sample file record layout:

### **PARTS.DAT**

999999,abcdef,big,5mm,spanner,each,1.20,50,10,20,01-24-05

101439, ,BEARING & SHAFT ASSY PUMP EAM005M WARMAN, , ,EA,0,0,0,0,

123456,,,,,,,,,

**NOTE:** *The RackMAN inventory file can be configured to suit your application. It is not necessary to include all fields in the file. The simplest format would be to provide the 'Part Number' and 'Description':*

AB1234,Widget Type 1234

AB1235,Widget Type 1235

Refer to Section 6.12.3 for details regarding modification of the upload file format.



---

## 5.5 Changing and or Deleting Part Ids

Kardex VCA has a utility application called 'Part Update' that can be used to change Part Ids or delete Part Ids in RackMAN™. If you need to change your current Part Ids because you are going to implement a new ERP or WMS, this utility is very useful and can save a lot of time.

RackMAN™ does not have internal functionality to change or delete Part Ids on mass because this activity is generally a high level activity that should be undertaken in a controlled way.

If you require the 'Part Update' utility, please contact Customer Services for a quotation. Contact details are available in Section 16 of this manual.



## 6 Customising RackMAN™ for your Site

### 6.1 Introduction

All RackMAN™ parameters are available from the Configuration form. There are eleven tabs on the Configuration form. A brief description of the parameters on each tab is provided below:

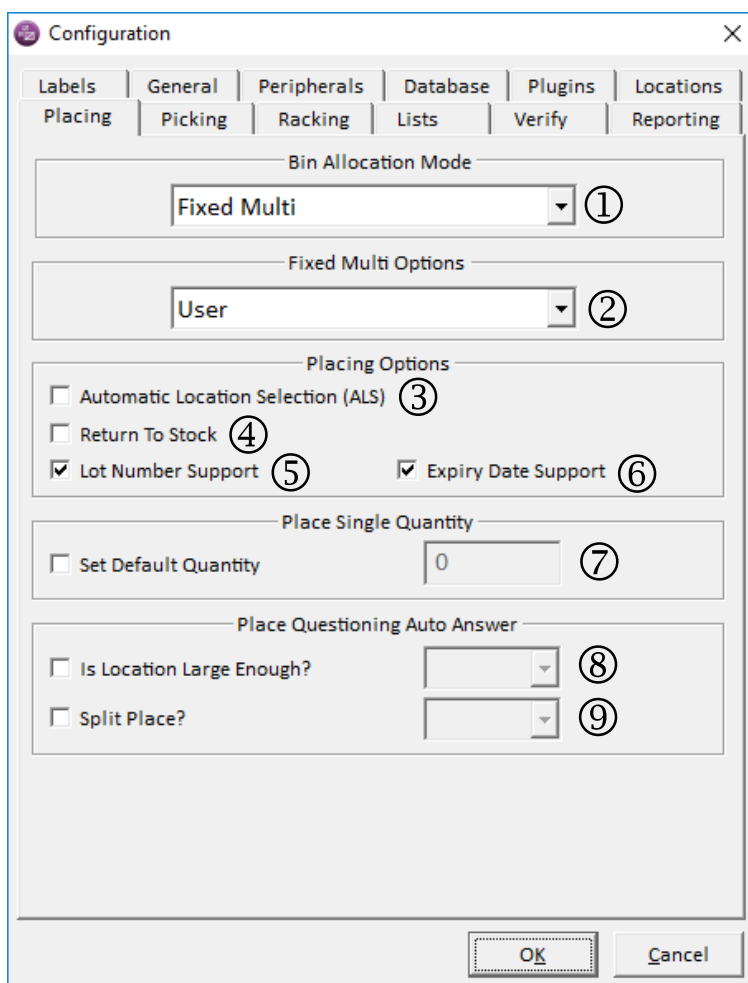
<b>Tab</b>	<b>Section</b>	<b>Description</b>
Placing	6.3	Bin Allocation Mode, Default Answers
Picking	6.4	Bin Selection Mode, Default Answers
Racking	6.5	Racking configuration, Bin Text setup and racking usage information
Lists	6.6	Local / Host List directory set up, list selection mode, customising list formats
Verify	6.7	Default Verify report directories and database update mode
Reporting	6.8	List of available reports and set up options
Labels	6.9	Printer and label selection
General	6.10	RackMAN Logout action.
Peripherals	6.11	Printer & SortBench support
Database	6.12	Database set up, backup and Auto Load path
Plugins	6.13	Plugin Path and Plugin List

### 6.2 Getting around the Configuration Form

The following keystrokes can be used to navigate each tab of the Configuration form:

<b>Action</b>	<b>Method</b>
Switch between tabs	<b>Ctrl &amp; Tab</b>
Move forward to next tab	<b>Tab</b>
Move backward to previous tab	<b>Shift &amp; Tab</b>
Switch Tick boxes ON or OFF	<b>Spacebar</b>
Switch Radio Buttons	<b>left (←) &amp; right (→) arrow key</b>
View pull down menus	<b>F4</b>
Move through pull down menu	<b>up (↑) and down (↓) arrow keys</b>
Select item in pull down menu	<b>Enter</b>
Save changes and exit	<b>Alt &amp; K or Enter</b>
Cancel changes and exit	<b>Alt &amp; C</b>

## 6.3 Placing



**Configuration**

Labels | General | Peripherals | Database | Plugins | Locations  
**Placing** | Picking | Racking | Lists | Verify | Reporting

Bin Allocation Mode  
 Fixed Multi ①

Fixed Multi Options  
 User ②

Placing Options  
☐ Automatic Location Selection (ALS) ③  
☐ Return To Stock ④  
☒ Lot Number Support ⑤ ☒ Expiry Date Support ⑥

Place Single Quantity  
☐ Set Default Quantity 0 ⑦

Place Questioning Auto Answer  
☐ Is Location Large Enough? ⑧  
☐ Split Place? ⑨

OK Cancel

### 6.3.1 Bin Allocation Mode

#### ⑦ Bin Allocation Mode

RackMAN provides three methods of location usage in your static racking. The concept of location usage is termed Bin Allocation Mode (BAM).

To switch between BAMs use the **up (↑) and down (↓) arrow keys** to highlight the BAM you require, or use F4 to display the pull down menu.

Kardex VCA can help you decide which BAM to use before installation. However, if required RackMAN can easily switch between BAMs.

Bin Allocation Mode	Description
Fixed Single	<ul style="list-style-type: none"> <li>Each part number is Placed into a single location in the static racking.</li> <li>When a part location becomes empty, the location is retained for that part.</li> </ul>
Dynamic	<ul style="list-style-type: none"> <li>Each part number is Placed into a new location in the static racking.</li> <li>When a part location becomes empty, the location is freed for storage of another part.</li> </ul>
Fixed Multi	<ul style="list-style-type: none"> <li>RackMAN offers the operator a choice either to Place a part in to a new location or to an existing location for that part number.</li> <li>RackMAN offers a choice when a part location becomes empty to either free the location or retain the location for that part.</li> </ul>

### 6.3.2 Fixed Multi Options

#### ② Fixed Multi Options

The options available under the Fixed Multi BAM are designed to provide a method of choosing a default location to place a part away to. Three options are available:

- User
- Emptiest Location
- Closest Location

Option	Description
User	<ul style="list-style-type: none"> <li>The user will select the location to place the part away to.</li> </ul> <p><i>NOTE: This method is appropriate if your static racking is not interfaced to a host system</i></p>
Emptiest Location	<ul style="list-style-type: none"> <li>RackMAN will present the emptiest location that is already in use for that part.</li> </ul> <p><i>NOTE: This method is appropriate if your static racking is interfaced to a host system</i></p>
Closest Location	<ul style="list-style-type: none"> <li>RackMAN will present the closest location that is already in use for the part. The closest location is relative to the 01A-01-01 location.</li> </ul> <p><i>NOTE: This method is appropriate for both standalone and interfaced static rackings.</i></p>

### 6.3.3 Placing Options

#### ③ Automatic Location Selection (ALS)

The Automatic Location Selection (ALS) option can be switched ON or OFF by pressing the **Spacebar**.

Value	Description
OFF	The operator chooses size, shelf, bin and location from a presented list of free locations.
Default	
ON	Future function.

#### ④ Return to Stock (RTS)

The Return to Stock (RTS) option can be switched ON or OFF by pressing the **Spacebar**.

Value	Description
OFF	Parts are Placed in locations as determined by the BAM. Part is placed away with current date / time stamp.
ON	<p>Each time a part is placed, the operator is asked whether the item is being 'Returned to Stock'.</p> <p>If so, the selected location will be given a date / time stamp which is older than all other locations for that part. This will ensure the oldest stock is always picked first, when Picking by FIFO. (Refer to Operators Manual for a description of the RTS process).</p>

*NOTE: This option is NOT available when using FIXED SINGLE*

### ⑤ Lot Number Support

Lot Number is the terminology used by Kardex VCA when referring to the batch number which may be associated with received stock. The supplier batch number is the number which identifies when a product was manufactured. This number may be relevant to determine aged stock and also convenient for stock recalls.

Lot Number Support can be switched ON or OFF by pressing the **Spacebar**.

<i>Value</i>	<i>Description</i>
OFF	No Lot Number support. Pick / Place / Verify only by Part No.
<i>Default</i>	
ON	At each Place operation RackMAN will ask for a Lot Number. Each Lot Number must be unique. It is also possible to place without a Lot Number.  [Not relevant for Fixed Single BAM]

### ⑥ Expiry Date Support

Expiry Date is used if the product has an expiry date, so that the products can be turned over at a regular interval and minimise any waste.

Expiry Date Support can be switched ON or OFF by pressing the **Spacebar**.

<i>Value</i>	<i>Description</i>
OFF	No Expiry Date support. Pick / Place / Verify only by Part No or Lot Number.
<i>Default</i>	
ON	At each Place operation RackMAN will ask for an Expiry Date. It is also possible to place without an Expiry Date.

## 6.3.4 Place Single Quantity

### ⑦ Set Default Quantity

RackMAN can be configured to provide a default Place quantity in the Qty field on the Place \ Single form. This parameter can be used in circumstances where the static racking is being used for repetitive storage and retrieval of parts such as in a tool dispensing situation.

Set Default Quantity can be switched ON or OFF by pressing the **Spacebar**.

<i>Value</i>	<i>Description</i>
OFF	No default Place quantity. Operator must enter quantity.
<i>Default</i>	
ON	Default Place quantity as set in the adjacent field. RackMAN will present this quantity in the Qty field on the Place form. Operator must then acknowledge the quantity to complete the transaction. Qty can be changed.

### 6.3.5 Place Questioning Auto Answer

**NOTE:** Applies only for **FIXED SINGLE**

RackMAN can be configured to auto answer the standard questions that are presented in the course of normal Place operation. Auto answering of standard questions can be useful in ensuring a consistent response from the operators when handling new stock locations.

#### ⑧ Is Location Large Enough?

This question is presented when the operator places parts to an existing location.

Is Location Large Enough? can be switched ON or OFF by pressing the **Spacebar**.

Value	Description
OFF	Operator must answer question when it is presented.
Default	
ON	Question will be answered automatically as determined by the YES / NO selection in the adjacent drop down box.

#### ⑨ Split Place?

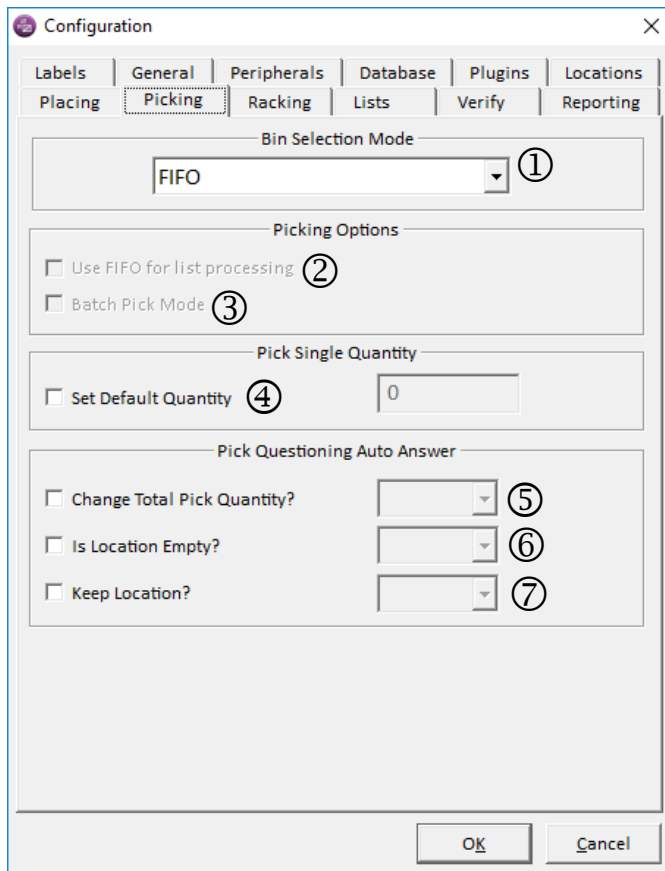
**NOTE:** Does not apply for **Fixed Single BAM**

This question is presented when the operator adjusts the Place quantity after the location is presented.

Split Place? can be switched ON or OFF by pressing the **Spacebar**.

Value	Description
OFF	Operator must answer question when it is presented.
Default	
ON	<p>Question will be answered automatically as determined by the YES / NO selection in the adjacent drop down box.</p> <p>If the auto answer is NO, the Place operation will be completed after the adjusted quantity is confirmed.</p> <p>If the auto answer is YES, the Place operation will be split in to a number of stages and the inventory can be placed over multiple locations.</p>

## 6.4 Picking



**Configuration**

Labels | General | Peripherals | Database | Plugins | Locations  
 Placing | **Picking** | Racking | Lists | Verify | Reporting

Bin Selection Mode

FIFO ①

Picking Options

☐ Use FIFO for list processing ②

☐ Batch Pick Mode ③

Pick Single Quantity

☐ Set Default Quantity ④ 0

Pick Questioning Auto Answer

☐ Change Total Pick Quantity? ⑤

☐ Is Location Empty? ⑥

☐ Keep Location? ⑦

OK Cancel

### 6.4.1 Bin Selection Mode

**NOTE:** Does not apply for Fixed Single BAM

#### ① Bin Selection Mode

RackMAN has six methods of part retrieval. The concept of part retrieval modes is termed Bin Selection Mode (BSM).

Bin Selection Mode	Description
FIFO [First in First Out]  Default	Parts are always picked from the oldest location first. This will ensure that stock is continually rotated during the Pick / Place cycle of the static racking.
User	Parts are picked from the location, which the operator selects from the Locations window.
Closest Location	Parts are picked from the location closest to the static racking access level.
Fullest Location	Parts are picked from the location, which contains the most quantity.
Satisfy Quantity	Parts are picked from the location which will satisfy the pick quantity.
Lowest Location	Parts are picked from the lowest location i.e. A shelf.
Expiry Date	Parts are picked from the closest date to the furthest date, to ensure a constant turnover of parts.

### 6.4.2 Picking Options

#### ② Use FIFO for list processing

When this parameter is set, the BSM will return to FIFO when picking lists from the static racking.

The Use FIFO for list processing option can be switched ON or OFF by pressing the **Spacebar**.

<i>Value</i>	<i>Description</i>
OFF	RackMAN will pick list items as determined by the Bin Selection Mode
<i>Default</i>	
ON	RackMAN will pick list quantities on a FIFO basis.

#### ③ Batch Pick Mode

Batch Pick Mode is used in conjunction with Kardex VCA's SortBench application. This mode enables RackMAN to Pick the total quantity of a part, required to satisfy all orders on the SortBench. The SortBench application will then manage the distribution of the parts to each order as required.

Batch Pick Mode is suitable for orders with commonality between parts.

The Batch Pick Mode option can be switched ON or OFF by pressing the **Spacebar**.

<i>Value</i>	<i>Description</i>
OFF	RackMAN will pick list quantities as required for each list.
<i>Default</i>	
ON	<p>When picking multiple orders for the Sortbench, RackMAN will pick total quantities for parts, to satisfy all orders, in one operation.</p> <p>For example, the same part is required for five (5) Lists. RackMAN automatically calculates the total quantity of the part to be picked for all 5 Lists and the operator only needs to confirm the total quantity. The Sortbench 32 application will then display how many of each part is required for each list and at which Sortbench station the list is positioned.</p>

### 6.4.3 Pick Single Quantity

#### ④ Set Default Quantity

RackMAN can be configured to provide a default Pick quantity in the Qty field on the Pick \ Single form. This parameter can be used in circumstances where the static racking is being used for repetitive storage and retrieval of parts such as in a tool dispensing situation.

Set Default Quantity can be switched ON or OFF by pressing the **Spacebar**.

<i>Value</i>	<i>Description</i>
OFF	No default Pick quantity. Operator must enter quantity.
<i>Default</i>	
ON	Default Pick quantity as set in the adjacent field. RackMAN will present this quantity in the Qty field on the Place form. Operator must then acknowledge the quantity to complete the transaction.

#### 6.4.4 Pick Questioning Auto Answer

RackMAN can be configured to auto answer the standard questions that are presented in the course of normal Pick operations. Auto answering of standard questions can be useful in ensuring a consistent response from the operators when handling new stock locations.

##### ⑤ Change Total Pick Quantity?

This question will normally be presented when a location has less than the total pick quantity you require.

Is Location Empty? can be switched ON or OFF by pressing the **Spacebar**.

Value	Description
OFF	Operator must answer question when it is presented.
Default	
ON	Question will be answered automatically as determined by the YES / NO selection in the adjacent drop down box.

##### ⑥ Is Location Empty?

This question will normally be presented when a location quantity is picked to zero.

Is Location Empty? can be switched ON or OFF by pressing the **Spacebar**.

Value	Description
OFF	Operator must answer question when it is presented.
Default	
ON	Question will be answered automatically as determined by the YES / NO selection in the adjacent drop down box.

##### ⑦ Keep Location?

*NOTE: Not relevant for Fixed Single BAM or Dynamic BAM. In Fixed Single BAM, the location is always retained. In Dynamic BAM, the location is always freed.*

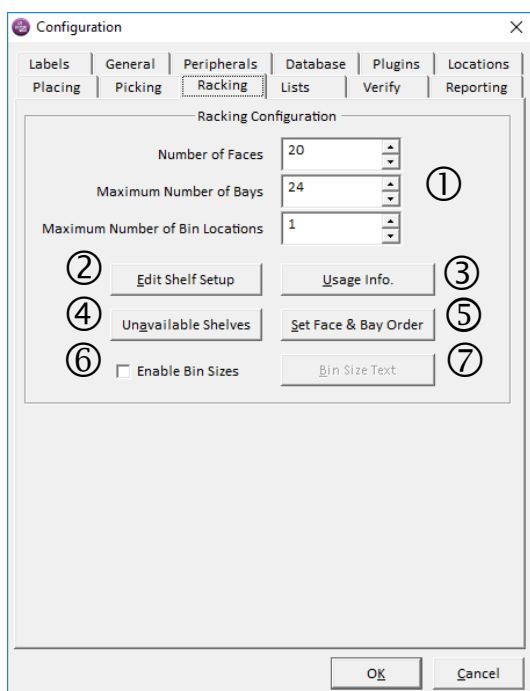
This question is presented in Fixed Multi BAM, when a location is picked to zero.

Keep Location? can be switched ON or OFF by pressing the **Spacebar**.

Value	Description
OFF	Operator must answer question when it is presented and decide whether the location should be held for future use for that part.
Default	
ON	Question will be answered automatically as determined by the YES / NO selection in the adjacent drop down box.



## 6.5 Racking



### 6.5.1 Racking Configuration

#### ① Racking Configuration

#### **WARNING: INCORRECT SETTINGS COULD DISRUPT OPERATION**

Generally, Kardex VCA will set up these fields prior to installation and the settings should not be changed. The physical configuration parameters on this form are determined during the RackMAN installation and should be set in consideration of your future system size.

Parameter	Value	Description
No. Faces	1 .. 99	The number of Faces in your static racking. <ul style="list-style-type: none"> <li>To change the number of Faces, <b>Tab</b> to this field and use the <b>up (↑) and down (↓) arrow keys</b> to select the required amount.</li> </ul>
Max No. Bays	1 .. 99	The maximum number of bays in your Static Racking. <ul style="list-style-type: none"> <li>To change the number of bays in a shelf, <b>Tab</b> to this field and use the <b>up(↑) and down(↓) arrow keys</b> to select the required amount .</li> </ul>
Max No. of Bins	1 .. 100	Set the maximum number of bins across your shelf. <ul style="list-style-type: none"> <li>To change the number of bins across the shelf, <b>Tab</b> to this field and use the <b>up (↑) and down (↓) arrow keys</b> to select the required amount.</li> </ul> Each bin position is one location.

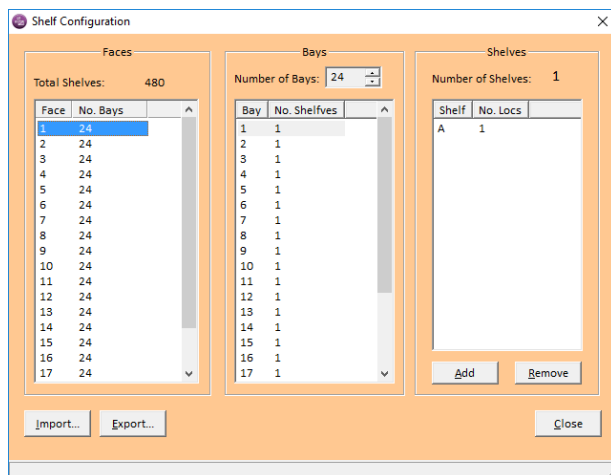
**NOTE:** Once all changes have been made you must then click the OK button at the bottom of the Configuration form **BEFORE** pressing the Edit Shelf Setup button, for the new changes to take effect.

**NOTE:** The dimensions of your static area should be kept to a realistic size to ensure optimum system performance.

## 6.5.2 Edit Shelf Setup

### ② Edit Bay Setup

Edit the Bay Setup by pressing **Enter** on the highlighted button or by pressing the shortcut keys **Alt & E**. The Shelf Configuration screen will then be displayed:



The Shelf Configuration window is divided into three main sections: Faces, Bays, and Shelves.

- Faces:** A table with columns 'Face' and 'No. Bays'. It shows 17 faces, each with 24 bays. Total Shelves: 480.
- Bays:** A table with columns 'Bay' and 'No. Shelves'. It shows 17 bays, each with 1 shelf. Number of Bays: 24.
- Shelves:** A table with columns 'Shelf' and 'No. Locs'. It shows 1 shelf (A) with 1 location. Number of Shelves: 1.

Buttons at the bottom include 'Import...', 'Export...', 'Add', 'Remove', and 'Close'.

The following keystrokes can be used to navigate the fields on the Shelf Configuration form:

#### Action

Move forward to next field

Move backward to previous field

Close the Shelf Configuration form

Add a Shelf/Location

Remove Shelf/Location

#### Method

**Tab**

**Shift & Tab**

**Alt & C**, or

press **Enter** on the **C**lose button

**Alt & A**, or press **Enter** on the **A**dd button

**Alt & R**, or press **Enter** on the **R**emove button

To add or remove Bays from each Pick Face use the  $\uparrow\downarrow$  keys to select your Pick Face. Once selected, **Tab** into the Bay window. Increase or decrease the number of Bays using the selector at the top of the form. If you cannot Remove a shelf or bay, this will be due to having parts located within that shelf, please make sure to have all shelves empty before trying to Remove any shelves.

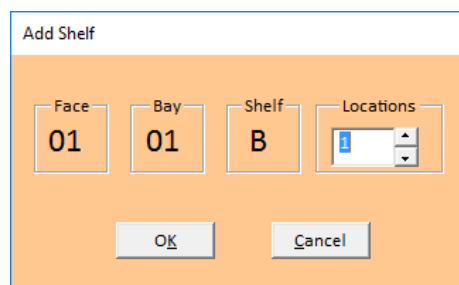
Generally, Kardex VCA will set up your Shelf Configuration prior to installation and the configuration should not be changed unless instructed by Kardex VCA. Please contact Customer Service for assistance.

## 6.5.3 Add a new Shelf and Location

From the Bay window, use the  $\uparrow\downarrow$  keys to select the Bay you want to configure. **Tab** to the **A**dd button and press **Enter** to add another shelf. The following form will be displayed:

Use the  $\uparrow\downarrow$  keys to set the number of locations you need across your shelf. **Tab** to the **OK** button and press **Enter**.

The new shelf will be included in your Bay configuration.



The Add Shelf dialog box contains four input fields: Face (01), Bay (01), Shelf (B), and Locations (1). Below the fields are **OK** and **Cancel** buttons.

## 6.5.4 Remove a Shelf and Location

From the Bay window, use the  $\uparrow\downarrow$  keys to select the Bay you want to change. **Tab** to the **R**emove button and press **Enter**. The last shelf will be removed.

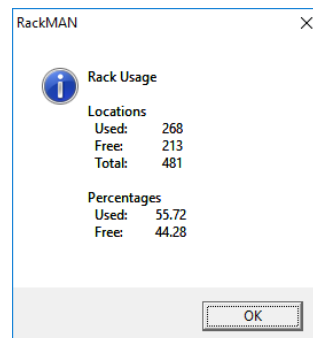
**NOTE:** It is not possible to remove shelves that have used locations.

### 6.5.5 Usage Info

#### ③ Usage Info

Select the Usage Info by pressing **Enter** on the highlighted button or by pressing the shortcut keys **Alt & U**. The Static Racking Usage statistics will then be displayed.

The Rack Usage statistics shows you how many locations you have configured and how many are in use; both in absolute and percentage terms.



RackMAN

**Rack Usage**

Locations

Used:	268
Free:	213
Total:	481

Percentages

Used:	55.72
Free:	44.28

OK

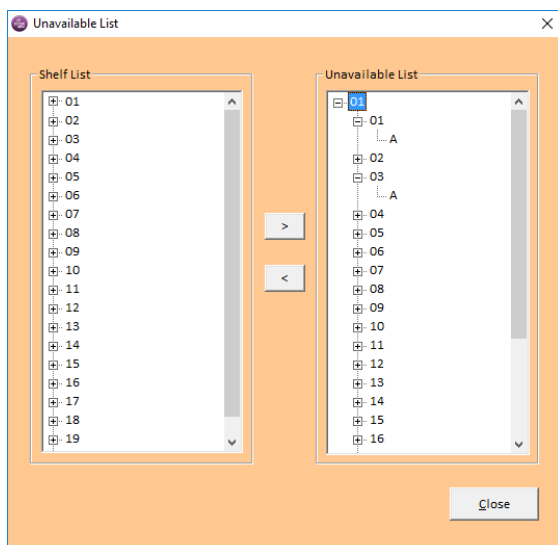
### 6.5.6 Unavailable Shelves

When a shelf is made unavailable, it will not be presented in the location list when a new location is required. If a location is already in use on the unavailable shelf, it can continue to be used.

#### ④ Unavailable Shelves

This form shows all the Available and Unavailable Shelves. To make a Shelf become Available or Unavailable **Tab** to the desired List and use the **↑↓** keys to select the desired Shelf number. Use the **←** and **→** keys to expand a shelf that has a + sign next to it. Once a shelf number is highlighted press **Enter**. The shelf plus sub shelves will be moved to the opposite window.

To Close the form press **Alt** and **C**.



Unavailable List

Shelf List

- 01
- 02
- 03
- 04
- 05
- 06
- 07
- 08
- 09
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19

Unavailable List

- 01
  - A
- 02
  - A
- 03
  - A
- 04
- 05
- 06
- 07
- 08
- 09
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Close

### 6.5.7 Set Face & Bay Order

This form is used to set the Place and Pick order from location in your warehouse. You may choose to make one pass down your aisle picking from both sides or two passes, picking from one side then the other. Your location order would generally be dictated by the width of your aisles.

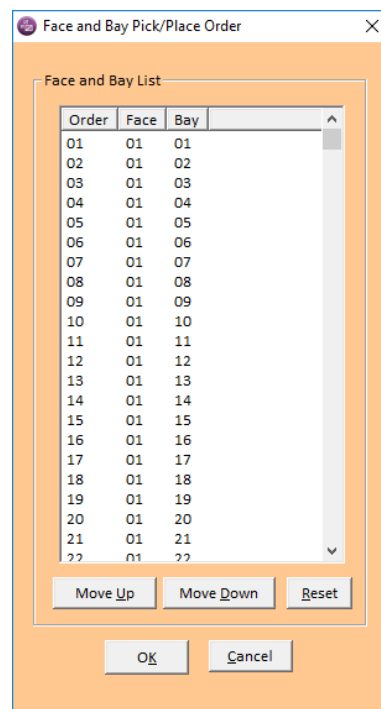
#### ⑤ Set Face & Bay Order

To change the order of the Faces and Bays in your shelving **Tab** into to the 'Face and Bay List'. Use the **↑** and **↓** keys to select which location you would like to change. Once your selection is highlighted **Tab** to either the Move Up or Move Down button, (depending on what action you would like to perform) and press **Enter**, or the press the shortcut keys which are **Alt & U**, **Alt & D** respectively.

If you make a mistake you can easily reset and start again.

**Tab** to the Reset button and press **Enter** or press **Alt & R**. When you have finished your modifications **Tab** to the OK button and press **Enter**, or press **Alt & K**.

This list will determine the order that RackMAN uses to visit your locations during the Place or Pick operations.



Order	Face	Bay
01	01	01
02	01	02
03	01	03
04	01	04
05	01	05
06	01	06
07	01	07
08	01	08
09	01	09
10	01	10
11	01	11
12	01	12
13	01	13
14	01	14
15	01	15
16	01	16
17	01	17
18	01	18
19	01	19
20	01	20
21	01	21
22	01	22

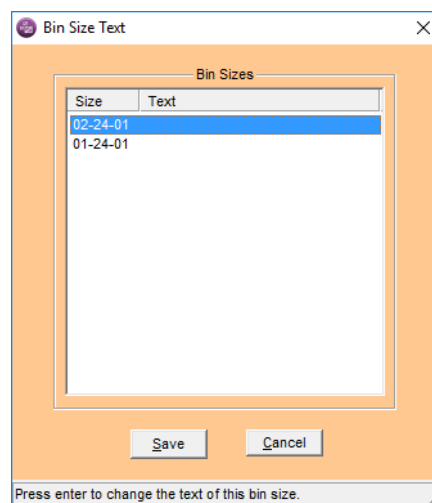
#### ⑥ Enable Bin Sizes

Tickd – When placing products, it will say bin size text beside the location number.

Unticked – Lets you place product by standard location numbering in RackMAN.

#### ⑦ Bin Size Text

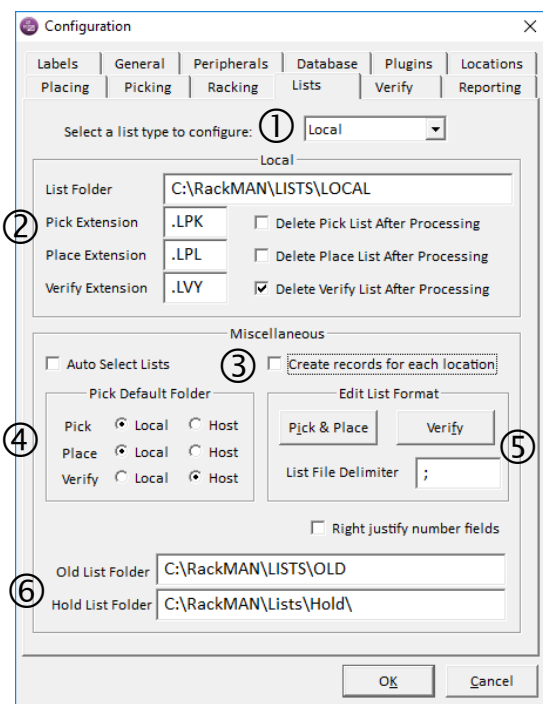
Let's you configure what the text says for that location. When you place your part, you can place by bin sizes, instead of just the location number. Only when Enable Bin Sizes is selected.



Size	Text
02-24-01	
01-24-01	

## 6.6 Lists

List files are primarily used to transfer information between your host computer system and RackMAN. It is also possible to create 'Local' lists to assist with efficient inventory placement and retrieval. Refer to Section 7, RackMAN List Files for a comprehensive description of the use of lists.



### 6.6.1 List Details

#### ① List Type

**Tab** to the field and use the **↑** or **↓** keys to highlight the List Type that you want to configure. You can select either Host (Lists created from the host system) or Local (Lists created locally using RackMAN).

Value	Description
Local	Form displays list folder, file extension and delete selection for Local list files.
Default	
Host	Form displays list folder, file extension and delete selection for Host list files.

Depending on your selection, the List Type details in Section ② will change to display the relevant information. In the picture above, the Local List details are displayed.

## ② Options

Parameter	Default Value	Description
List Folder	<u>Local</u> C:\RackMAN\Lists\Local  <u>Host</u> C:\RackMAN\Lists\Host	The full path including drive letter should be entered. RackMAN will look for your List files in this location.
Pick Extension	Local: .LPK  Host: .GPK	The file extension is used by RackMAN to identify the file type i.e. whether Pick, Place or Verify
Place Extension	Local: .LPL  Host: .GPL	
Verify Extension	Local: .LVY  Host: .GVY	
Delete List After Processing	OFF <i>Default</i>  ON	<ul style="list-style-type: none"> <li>Press the <b>Spacebar</b> to switch these options ON or OFF.</li> <li>If switched ON, the Lists will be deleted after they are processed.</li> <li>If switched OFF the Lists will remain in the source folder after processing.</li> </ul> <p>This setting is useful while testing so that lists do not need to be recreated.</p>

### 6.6.2 Miscellaneous List Settings

## ③ Misc

Press the **Spacebar** to switch these options ON or OFF.

Parameter	Value	Description
Auto Select Lists	OFF <i>Default</i>  ON	<p>When set OFF, lists are manually selected by the operator from the List Selection form (refer to RackMAN Operators Manual)</p> <p>When set ON, all available Lists in the Default Folder will be selected for processing when the List form is opened.</p> <p>The Auto Select List utility lets your host system control which lists are processed and when.</p>
Create records for each location	OFF <i>Default</i>  ON	<p>When set OFF, only the first location for each product will be displayed in the populated (Old) List file.</p> <p>When set ON, all available Location information for each product will be displayed in the populated (Old) List file. This is relevant for Place and Pick transactions over multiple locations.</p> <p>This parameter has been provided to keep your host system up to date with all location transactions in the static racking. Location transactions are reported in the populated (Old) List file (refer to Section 7, RackMAN List Files).</p>

## ④ Default Folder



The Default Folder parameter is to set which List folder should be displayed on the List Selection form when the Pick, Place or Verify \ List operation is selected. This selection is useful for sites which use Host lists for picking but Local lists for placing parts into the static racking.

Use the Tab key to move between the folders and the ← & → **arrow keys** to select the default folder.

<i>List Folder</i>	<i>Value</i>	<i>Description</i>
Pick	Local	Display Local Pick Lists
	Host <i>Default</i>	Display Host Pick Lists
Place	Local	Display Local Place Lists
	Host <i>Default</i>	Display Host Place Lists
Verify	Local	Display Local Verify Lists
	Host <i>Default</i>	Display Host Verify Lists

#### ⑤ **Edit List Format**

To begin editing the format of Pick or Place Lists press **Enter** on the highlighted button or use the shortcut keys **Alt & I**. To begin editing the format of Verify Lists press **Enter** on the highlighted button or use the shortcut keys **Alt & F**.

RackMAN uses the semi-colon; as the default 'List File Delimiter'.

The format of your List files can easily be designed to suit your host computer system. For more information on Custom List Formats refer to the Section 6.

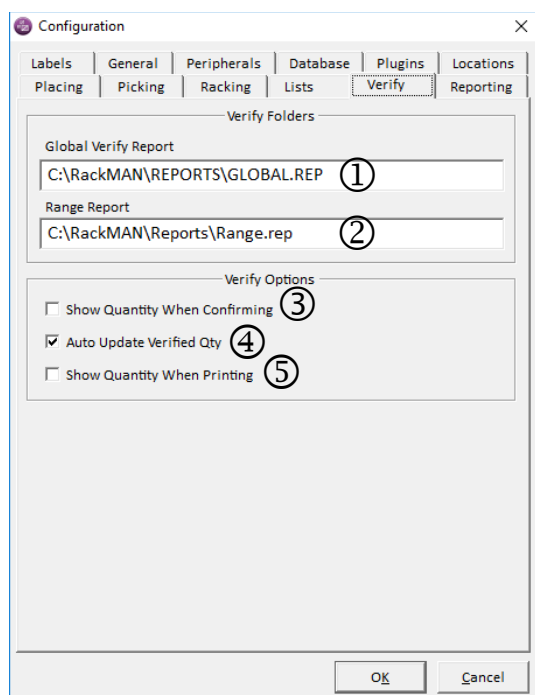
#### ⑥ **Old List Folder**

The Old List Folder is where RackMAN will write the (Old) List confirmation files after the Lists have been processed. The empty fields in the source list files are populated with actual system data after processing and are intended to be used for transaction reconciliation with your host system. Refer to Section 7 for further details regarding use of Lists.

<i>Parameter</i>	<i>Default</i>	<i>Description</i>
Old List Folder	C:\RackMAN\Lists\Old	Destination location for HOST and LOCAL list confirmation files.

## 6.7 Verify

The Verify function is designed to confirm stock on hand levels in your static racking. Refer to Section 8 for information relating to Stocktaking your Static Racking.



### ① Global Verify Default Report Directory

This is the default file path and file name that RackMAN will use to generate the 'Global Verify Report' at the conclusion of the Global Verify operation. The Global Verify operation will visit all used locations in the RackMAN configuration seeking confirmation of stock quantities in each location.

The path and filename can be changed to suit your configuration.

### ② Range Report Folder

This is the default file path and file name that RackMAN will use to generate the 'Range Verify Report' at the conclusion of the Range Verify operation.

The Range Verify operation is conducted over a sub set of shelving. Each time the Range Verify is executed, a new output file will be created. If you need to use the data that is output in the Range Report, you should make a copy of the file after it is created.

### ③ Auto Update Verified Quantity

Auto Update Verified Quantity can be switched ON and OFF by pressing **Spacebar**.

Parameter	Value	Description
Auto Update Verified Qty	OFF <i>Default</i>	When set OFF, verified quantities are not written to the database during the Verify \ List, Verify \ Range or Verify \ Global operations. The verified quantities are only available in the associated output file i.e. List, Range Report or Global Report.
	ON	When set ON, verified quantities are updated in the database with each transaction. Old and new values are also reported in the respective reports.



#### ④ Show Quantity When Printing

Show Quantity When Printing can be switched ON and OFF by pressing **Spacebar**.

<i>Parameter</i>	<i>Value</i>	<i>Description</i>
Show Quantity When Printing	OFF <i>Default</i>	When set OFF, actual quantity on hand will not be printed on the Verify Print List Summary.
	ON	When set ON, actual quantity on hand will be printed on the Verify Print List Summary.

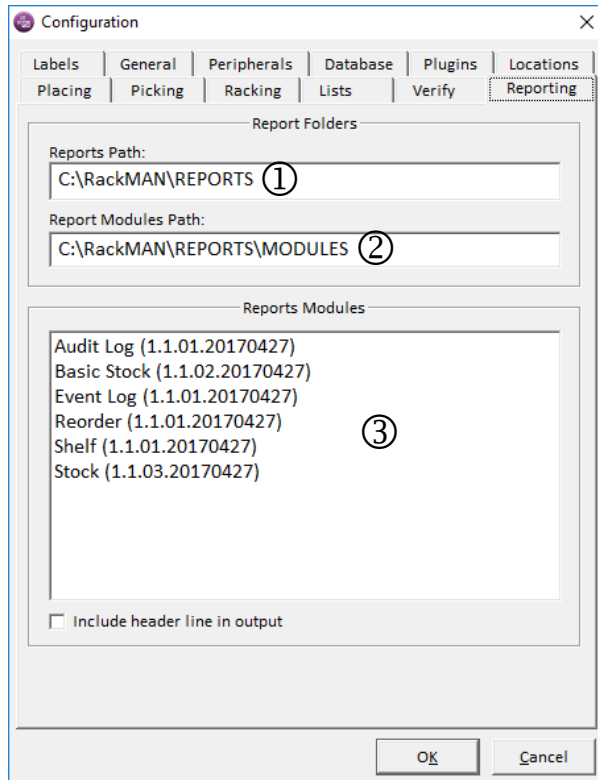
#### ⑤ Show Quantity When Confirming

Show Quantity When Confirming can be switched ON and OFF by pressing **Spacebar**.

<i>Parameter</i>	<i>Value</i>	<i>Description</i>
Show Quantity When Confirming	OFF <i>Default</i>	When set OFF, actual quantity on hand will not be displayed in the Verify List Confirm form.
	ON	When set ON, actual quantity on hand will be displayed in the Verify List Confirm form.

## 6.8 Reporting

The RackMAN reports are explained in detail in Section 9.



### 6.8.1 Report Folders

#### ① Reports Path

The Reports Path is where RackMAN will write reports when they are selected from the Tools menu. The full path should be specified including the drive letter or device name.

Default Path: C:\RackMAN\REPORTS

#### ② Report Modules Path

**NOTE:** This is a system path and should not be changed.

The Report Modules Path is where RackMAN will look for report modules when they are selected from the Tools menu. The full path should be specified including the drive letter or device name. Modules contain all the settings for each report, see section 3 for more information.

Default Path: C:\RackMAN\REPORTS\MODULES

## 6.8.2 Report Modules

### ③ Reports Modules

Use the **up (↑) or down (↓) arrow key** to select a Report module for configuration.

To change or view a Report set up, press **Enter**

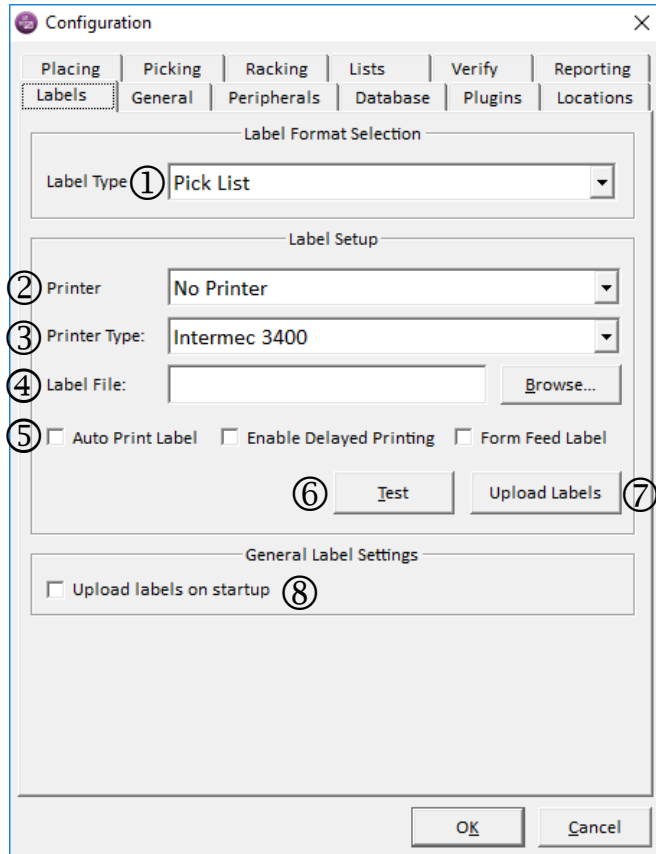
Each Report Module can be configured to best suit your reporting needs. The available options are listed below. To find out more information about Reports refer to Section 9.

Parameter	Value	Description
File Name	<Report>.REP <i>Default</i>	Type the full file name and file extension. The name of each report can be changed to suit your needs. For example, use < >.csv so the report will automatically open in MS Excel.
File Options	New and overwrite existing report  New and keep existing report  Append to existing report	A new report will be generated each time the report is run. If there is an existing report, it will be overwritten.  A new report will be generated each time the report it is run. If there is an existing report, it will be renamed.  The report will be appended to the existing report each time it is run..
Report Rollover Size	500 <i>Default</i>	Type in a number in Kb. If you are using Append to existing report the maximum size of the report can be set here so that the file never gets too big to open.
Generate Report at Start-up	OFF <i>Default</i>  ON	Turn this function ON or OFF using the <b>Spacebar</b> .  The report can be automatically set to run every time RackMAN starts up.
Generate Report at Shutdown	OFF <i>Default</i>  ON	Turn this function ON or OFF using the <b>Spacebar</b> .  The report can be automatically set to run every time RackMAN shuts down.
Delete Records After Report Generation	OFF <i>Default</i>  ON	Turn this function ON or OFF using the <b>Spacebar</b> .  Records will be deleted after every time the report is generated.

## 6.9 Labels

RackMAN supports label printing during both Pick and Place operations under either Single or List method. It is possible to have four dedicated labels i.e. one for each activity.

It is also possible to generate labels on demand, or automatically when a Pick or Place transaction is complete.



### 6.9.1 Label Format Selection

#### ① Label Type

It is possible to use a different printer, printer type and label file for each Pick / Place operation:

- ☐ Pick List
- ☐ Pick Single
- ☐ Place List
- ☐ Place Single

Each label format must be created using either the Intermec 3400 Label Shop START or Zebra Bar-ONE LITE label design tools. If you require additional labels to be implemented, please contact customer Service for assistance.

### 6.9.2 Label Setup

#### ② Printer

You must first install the required printer driver using the Windows Add Printer function. Once the printer has been successfully installed, select the required printer for generating thermal labels for Pick and Place operations.

### ③ Printer Type

KARMAN™ supports the Intermec 3400 and C4 printers, plain text printers and also Zebra Stripe printers. Select the printer type you are using from the drop down list.

### ④ Label File

Select the label format file that should be used for the selected 'Label Type'. The label format file can be located on the local drive or on a shared folder. To search for the file on the local computer or over the network, press the Browse button

The name of the label file should reflect the operation. If a label printer has been included with your installation, Kardex will have provided the label format files with your system.

The default location for label files is c:\KARMAN\Labels

### ⑤ Label Options

#### Auto Print Label

<i>Value</i>	<i>Description</i>
OFF	Labels are not printed automatically. Labels can be printed on demand by pressing the F10 key before the quantity is
ON	Labels will be printed automatically for all operations with a current label file.

#### Enable Delayed Printing

<i>Value</i>	<i>Description</i>
OFF	Labels are printed as soon as the F10 key is pressed.
ON	Labels will be printed after the quantity has been confirmed by the operator - for all operations with a current label file.
<i>Default</i>	

#### Form Feed Label

<i>Value</i>	<i>Description</i>
OFF	Form Feed command is not sent to the printer after the label is printed.
ON	Form Feed command is sent to the printer after the label is printed. The use of this parameter is printer specific and will need to be set on-site.

## ⑥ Test and Upload Labels

### Test

A test label can be printed once all the settings are complete. This will test to make sure your label settings have been done correctly. The test label will print sample data and should be used to check that the label format is OK.

### Upload Labels

To implement a new label file, it is necessary to upload the label to the printer memory area. Click on the 'Upload Labels' button, or use the **Tab key** and then press **Enter**.

If the upload is successful, no errors will be reported. If errors are reported, check your file name, label path, printer cable and make sure the printer is switched on.

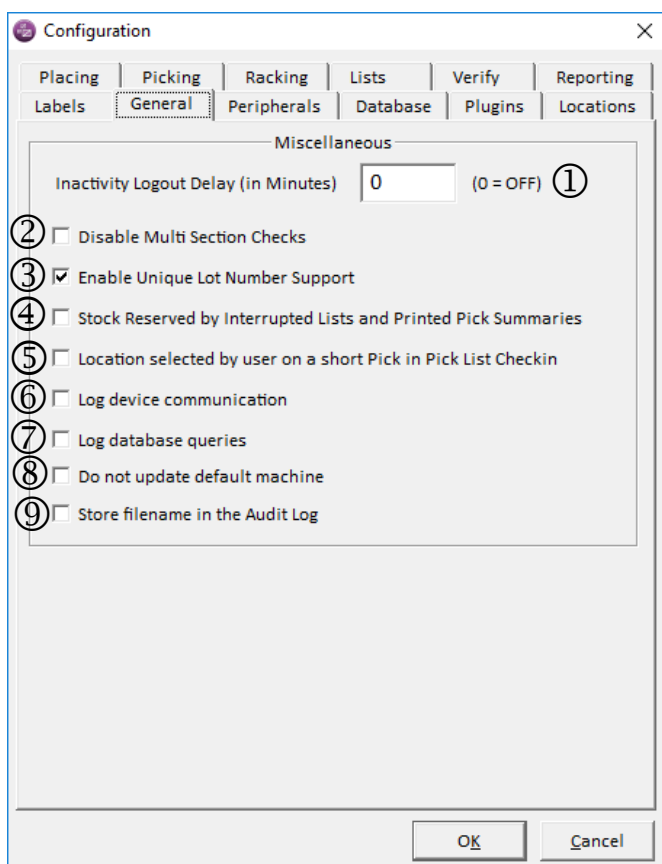
### 6.9.3 General Label Settings

## ⑦ Upload Labels on Start-up

Use this setting if your label printer does not have retentive memory.

<i>Value</i>	<i>Description</i>
OFF	Label format files will not be uploaded to the label printer when KARMAN is started.
ON	Label format files will be uploaded to the label printer when KARMAN is started.

## 6.10 General



### 6.10.1 Miscellaneous

#### ① Inactivity Logout Delay

The purpose of the Inactivity Logout Delay is to have RackMAN return to the Login screen if it has been inactive for a period of time. This function will ensure that operations at the static racking are attributed to the correct user in the Audit Log report.

Value	Description
0 = OFF	No automatic Logout
1 .. N	Enter a value greater than zero to have RackMAN automatically Logout to the Welcome screen if there has been no activity for N minutes.

**NOTE:** The Inactivity Logout only works from the Main Menu i.e. automatic Logout will not occur if an operations screen is left open.

#### ② Disable Multi Section Checks

This will stop the process of you storing the same part in more than one zone.

#### ③ Enable Unique Lot Number Support

If this is turned on – RackMAN will only allow one unique lot number per part number, you cannot have one-part number with 2 Lot Numbers.

④ **Stock Reversed by Interrupted Lists and Printed Pick Summaries**

When enabled this will hold stock of the interrupted list and printed pick summaries.

⑤ **Location selected by user on a short Pick in Pick List Checking**

If this is turned on – It gives the user the option to select a part from the location manually, if there was more than one location. When you go to pick an item it will list all the locations you can pick from in the far left box.

⑥ **Log device communication.**

When enabled this will make device communication logs

⑦ **Log database queries**

When enabled this will log all database queries that have been performed

⑧ **Do not update default machine**

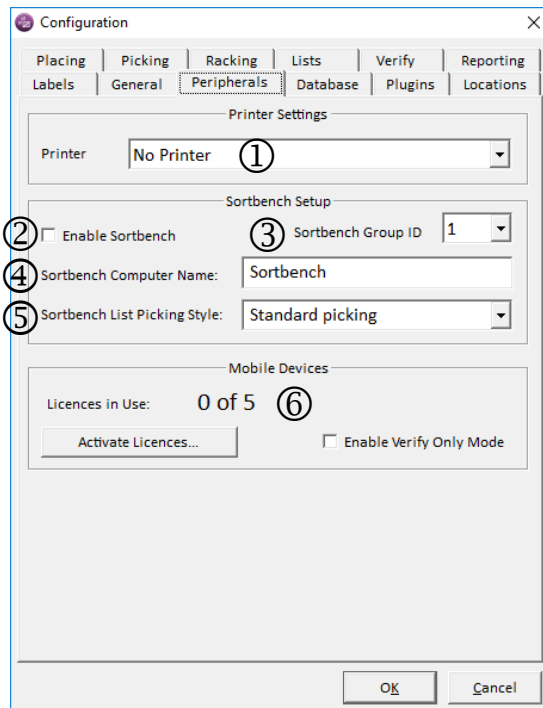
This will make sure that the default machine never changes.

⑨ **Store filename in the Audit Log**

When enabled it will force the Audit Log to show the file names of lists placed and picked.



## 6.11 Peripherals



### 6.11.1 Printer Settings

#### ① Printer

The selected printer is used to print Pick and Place List Summaries. The printer is generally A4 Laser.

### 6.11.2 SortBench Setup

Kardex VCA will generally configure SortBench parameters as part of your installation setup. If you need assistance with these settings please contact Customer Service.

Use of the Kardex VCA SortBench in conjunction with your static racking is explained in Section 11, Peripherals. Please refer to the SortBench User Guide for specific information relating to the set up and operation of the SortBench.

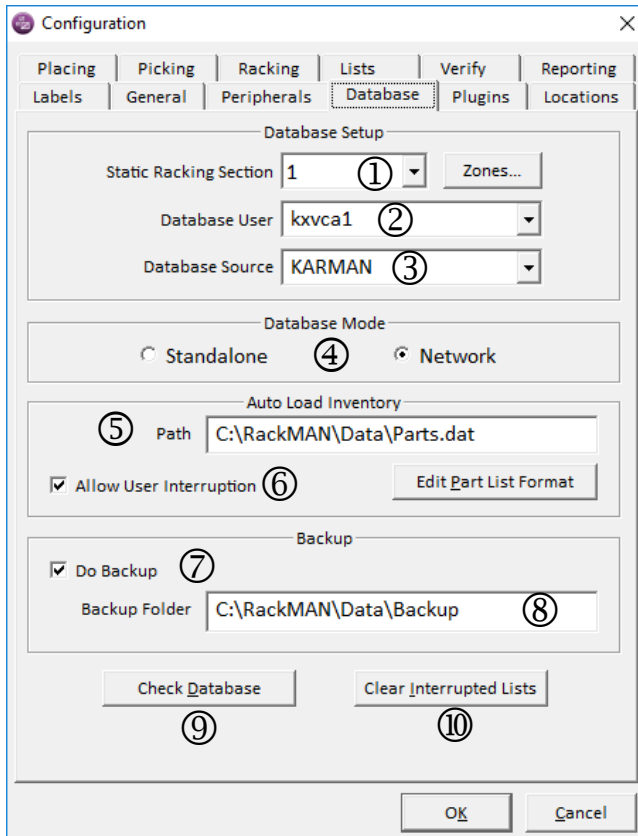
Parameter	Value	Description
Enable SortBench	OFF <i>Default</i> ON	When set OFF, lists are manually selected by the operator from the List Selection form (refer to RackMAN Operators Manual) When set ON, SortBench support is enabled. This setting is valid for use with the SortBench.
SortBench Group ID	1 .. N	Select a Group ID by pressing the <b>up(↑)</b> and <b>down(↓)</b> arrow keys to highlight the ID, or select one from the pull down menu. Kardex VCA will advise the correct setting for your system.
SortBench Computer Name	SortBench <i>Default</i>	Type in the computer name of the SortBench PC. The name should be written exactly as it is found in the network settings under the Identification Tab on the SortBench PC.
SortBench List Picking Style		Select a List Picking Style by pressing the <b>up(↑)</b> and <b>down(↓)</b> arrow keys to highlight the ID, or select one from the pull down menu. Kardex VCA will advise the correct setting for your system.

**6.11.3 Mobile Devices**

This will show the current number devices that are in use and licenced to the current RackMAN Program

- ⑥ Click Activate Licences... to activate your licences for your devices. If you do not have a current licence or need more contact Kardex Support, see Section 13.

## 6.12 Database



The screenshot shows the 'Configuration' window with the 'Database' tab selected. The 'Database Setup' section includes a 'Static Racking Section' dropdown (1) set to '1', a 'Database User' dropdown (2) set to 'kxvca1', and a 'Database Source' dropdown (3) set to 'KARMAN'. The 'Database Mode' section has radio buttons for 'Standalone' (4) and 'Network'. The 'Auto Load Inventory' section has a 'Path' text box (5) containing 'C:\RackMAN\Data\Parts.dat', a checked 'Allow User Interruption' checkbox (6), and an 'Edit Part List Format' button. The 'Backup' section has a checked 'Do Backup' checkbox (7) and a 'Backup Folder' text box (8) containing 'C:\RackMAN\Data\Backup'. At the bottom are 'Check Database' (9) and 'Clear Interrupted Lists' (10) buttons, followed by 'OK' and 'Cancel' buttons.

### 6.12.1 Database Setup

**WARNING: INCORRECT SETTINGS COULD DISRUPT OPERATION**

#### ① Static Racking ID

The Static racking ID is used to uniquely identify this Area in your system. Each Area must have a unique ID. In the case of the Carousel system this ID equates to the machine number in the system.

If you already have Carousels in your system, the Static Racking ID should be set to the next sequential number.

Once set, this number should not need to be changed. If the number is changed, the shelf configuration will be lost.

#### ② Database User

The Database User is used to log in to the SQL database. Kardex VCA will set up this field prior to installation and it should NOT be changed unless instructed by Kardex VCA.

#### ③ Database Source

The Database Source is used to log in to the SQL database. Kardex VCA will set up this field prior to installation and it should NOT be changed unless instructed by Kardex VCA.

### 6.12.2 Database Mode

**WARNING: INCORRECT SETTINGS COULD DISRUPT OPERATION**

#### ④ Database Mode

The Database Mode is used to differentiate between dedicated and common databases for single and network systems respectively. Kardex VCA will set up this field prior to installation and it should NOT be changed unless instructed by Kardex VCA.

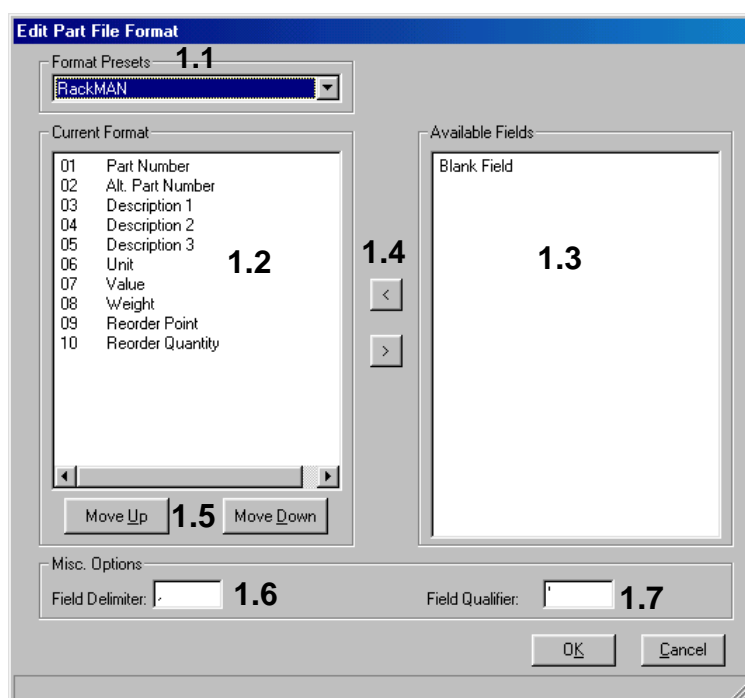
#### 6.12.3 Auto Load Inventory

#### ⑤ Auto Load Inventory

This is the file path and file name that RackMAN will search for to automatically populate its database with new inventory items each time RackMAN is started. For more information and the format of the Auto Load Inventory data file refer to Section 4.4, Auto Load Inventory.

The full path and file name should be typed in including the drive letter. RackMAN is fully setup to support network connections and can be used to copy the inventory data file from a drive mapping or to the local drive. The default inventory load file is c:\RackMAN\Data\Parts.Dat.

#### ⑤ Edit Part List Format



#### 1.1 Format Presents

Use this box to select a pre-defined format.

#### 1.2 Current Format

The fields that are shown in this section are what will be shown Part File. You can change them around to the positions that suit you best.

#### 1.3 Available Fields

These are fields that are not currently being used for the chosen application. To use them move them to the Current Format side of the form.

#### 1.4 Left and Right Arrows

Highlight the field you would like to move then use these buttons to move fields from one side to the other. You can double click on the desired field or Tab to the desired field and press the Arrow or Enter Keys. Or tab to the < > buttons and press Enter.

### 1.5 Up and Down Buttons

Once a field is highlighted on the Current Format side use these buttons to move the field either up or down in position, within that side of the form only. To move fields up and down, Tab into the Current Format side or Available Fields side, then Tab to the Move Up or Move Down buttons and press Enter.

### 1.6 Field Delimiter

This character separates fields and may only be one character in length.

### 1.7 Field Qualifier

This character is what appears around a string of text and it may only be one character in length.

#### ⑥ Allow User Interruption

This parameter should be checked if the user is to be permitted to interrupt the database upload.

#### 6.12.4 Backup

##### ⑦ Do Backup

This parameter should be checked if the RackMAN database, log file and registry key settings should be copied to the backup folder noted under ⑧ below each time RackMAN is closed.

**NOTE:** *KARDEX VCA RECOMMEND THAT THIS AUTOMATIC BACKUP PROCEDURE IS ENABLED.*

##### ⑧ Backup Folder

This is the folder where RackMAN will copy the database, log file and registry key settings should be copied to the backup folder noted under ⑨ below each time RackMAN is closed.

#### 6.12.5 Miscellaneous

##### ⑨ Repair Database

**NOTE:** *THIS UTILITY SHOULD ONLY BE USED WHEN INSTRUCTED BY KARDEX VCA*

If RackMAN is not closed down correctly, the Repair Database utility will automatically run when RackMAN is restarted to repair any anomalies that may occur in your database.

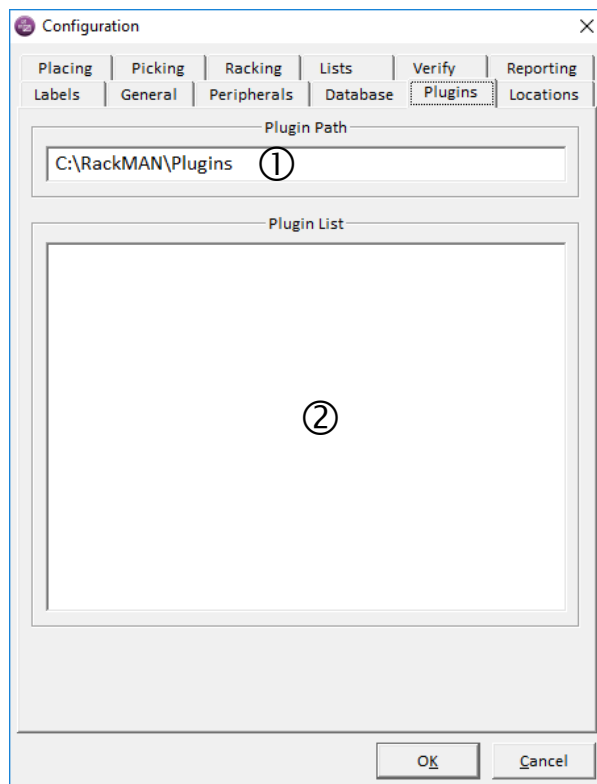
##### ⑩ Clear Interrupted Lists

The Clear Interrupted Lists utility will clear any Interrupted Lists that are left in your database. If you have cancelled the processing a List of any kind, and you do not want to complete the list, this is the button to use.

The Clear Interrupted Lists utility can be started by pressing **Enter** on the highlighted button or by pressing the shortcut keys **Alt & I**.

For more information on Lists and Interrupted Lists refer to the Section 7, RackMAN List Files.

## 6.13 Plugins



### ① Plugin Path

This is the file path that RackMAN will search to find the relevant plugin.

The full path should be typed in including the drive letter. RackMAN is fully setup to support network connections. The default directory is C:\Rackman\Plugins

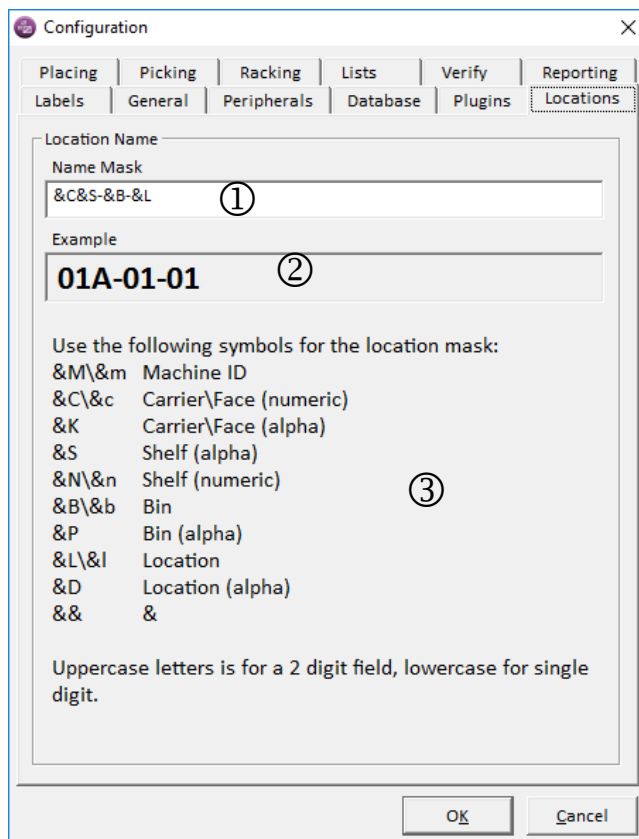
### ② Plugin List

Once a plugin has been installed it will be displayed in this section. To activate the configuration of this plugin, **Tab** to the Plugin List field and highlight your plugin then press **Enter**.

**NOTE:** *FOR MORE INFORMATION ON PLUGINS, PLEASE REFER TO YOUR PLUGIN MANUAL. IF YOU INTERESTED IN PLUGINS, PLEASE CONTACT KARDEX VCA FOR MORE INFORMATION*

## 6.14 Locations

This tab allows you to customize what the Locations of various functions that RackMAN performs such as Pick, Place and Verify are displayed as in the processes.



Configuration

Placing | Picking | Racking | Lists | Verify | Reporting  
Labels | General | Peripherals | Database | Plugins | **Locations**

Location Name

Name Mask  
&C&S-&B-&L ①

Example  
01A-01-01 ②

Use the following symbols for the location mask:

&M\&m	Machine ID
&C\&c	Carrier\Face (numeric)
&K	Carrier\Face (alpha)
&S	Shelf (alpha)
&N\&n	Shelf (numeric) ③
&B\&b	Bin
&P	Bin (alpha)
&L\&l	Location
&D	Location (alpha)
&&	&

Uppercase letters is for a 2 digit field, lowercase for single digit.

OK Cancel

### ① Name Mask

Use this field to make your Custom Location Names.

### ② Example

This shows the current format that you have typed in the Name Mask section.

### ③ Location Mask Symbols

Use these symbols to make the custom Name Mask you desire.

## 7 RackMAN List Files

The main operations in RackMAN Pick, Place and Verify can be performed against a single item but a much quicker way to handle multiple parts is by using List files. List files can be customer orders, works orders, bills of material or any other type of list. There is no limit to the number of parts in a List.

Lists that are automatically generated by your host system are referred to as HOST List files. They are located on a network drive, which is accessible by RackMAN. List files can also be generated locally at the operator console, referred to as LOCAL List files. The location for Host and Local List files is set in the Lists configuration section.

RackMAN has a new list format to take advantages of new features such as

- Lot Number handling
- Picking by alternate part number
- Prioritising of lists

Custom fields can be added to the list format to hold delivery address information that can then be used to print labels. Refer to the Lists Configuration section for more information.

RackMAN identifies a file type i.e. Pick, Place or Verify List, by the List file extension. The file extensions can be changed to suit your requirements in the Lists configuration section. The RackMAN default file extensions are shown below:

<i><b>LIST Type</b></i>	<i><b>HOST</b></i>	<i><b>LOCAL</b></i>
Pick	GPK	LPK
Place	GPL	LPL
Verify	GVY	LVY

The Standard RackMAN List format for Picking and Placing is as follows:

<i><b>FIELD</b></i>	<i><b>DESCRIPTION</b></i>	<i><b>SIZE</b></i>	<i><b>COLUMN NUMBER FOR :</b></i>
1	Status	1	2
2	Machine	3	6
3	Shelf	3	10
4	Bin	3	14
5	Location	3	18
6	<b>Part Number</b>	<b>30</b>	<b>49</b>
7	<b>Lot Number</b>	<b>30</b>	<b>80</b>
8	Confirmed Quantity	8	89
9	Old Total Quantity	8	108
10	New Total Quantity	8	117
11	Old Location Quantity	8	126
12	New Location Quantity	8	135
13	<b>List Id</b>	<b>20</b>	<b>156</b>
14	CR/LF		

The default Pick / Place List file has the following characteristics:

- The fields are all fixed length
- The delimiter is defaulted to “;” this can be changed to suit your requirements in the Lists configuration section.
- The size of each record MUST be 130 bytes.





- Fields 6 and 7 are required. Field 13 and 14 are optional. RackMAN populates all other fields after the List file has been processed.

The Standard RackMAN List format for Verifying is as follows:

<b>FIELD</b>	<b>DESCRIPTION</b>	<b>SIZE</b>	<b>COLUMN NUMBER FOR ;</b>
1	Status	1	2
2	Machine	3	6
3	Shelf	3	10
4	Bin	3	14
5	Location	3	18
<b>6</b>	<b>Part Number</b>	<b>30</b>	<b>49</b>
7	REQUIRED quantity	8	58
8	New Total quantity	8	67
9	Old Total quantity	8	76
10	Confirmed Quantity	8	85
<b>11</b>	<b>List Id</b>	<b>20</b>	<b>106</b>
12	List File name	12	119
13	CF/LF		

The default Verify List file has the following characteristics:

- The fields are all fixed length
- The delimiter is defaulted to “;” this can be changed to suit your requirements in the Lists configuration section.
- The size of each record MUST be 121.
- Fields 6 is required. Field 11 is optional. RackMAN populates all other fields after the List file has been processed.

#### CARMAN 2000 Backward Compatibility

RackMAN still supports the DOS CARMAN List files.

<b>FIELD</b>	<b>DESCRIPTION</b>	<b>SIZE</b>	<b>COLUMN NUMBER FOR ;</b>
1	Status	1	2
2	Machine Number	3	6
3	Shelf Number	3	10
4	Bin Number	3	14
5	Location Number	3	18
<b>6</b>	<b>Part Number</b>	<b>30</b>	<b>49</b>
7	Required quantity	8	58
8	Old Total quantity	8	67
9	New Total quantity	8	76
10	Confirmed Quantity	8	85
<b>11</b>	<b>List Id</b>	<b>20</b>	<b>106</b>
12	List File name	12	119
13	Lot Number	30	152
	CR/LF		

The default CARMAN 2000 List file has the following characteristics:

- The fields are all fixed length, separated by a “;”
- The size of each line MUST be 121 bytes.

- Fields 6 and 7 are required. Field 11 is optional. RackMAN populates all other fields after the List file has been processed.

### 7.1 Populated List file

As a List is processed, RackMAN populates the empty list fields with information from the static racking database and re-writes the List to the Old list directory. The destination for the Old list files is set in the Lists configuration section. Refer to Section 6.

The Old list file can be uploaded by your HOST system to reconcile the actual transactions that have been undertaken at the static racking. The Old list file will report actual quantities for the Pick or Place transaction and will also report remaining stock quantities.

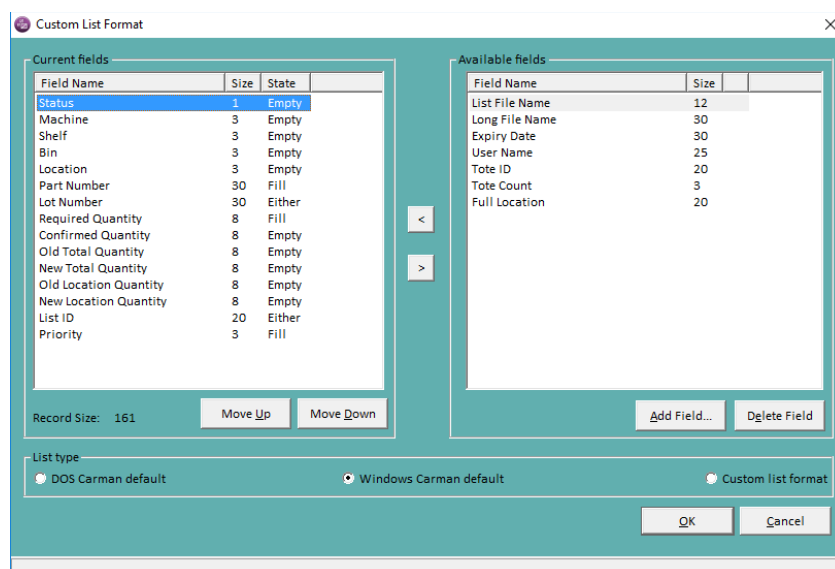
This provides one method by which inventory levels can be maintained, accurate invoices can be despatched with goods and reports can be generated from your host computer system.

As seen on the previous page, the first field in the populated list file is the status field. This field indicates whether the operator was successful in performing the required operation or whether manual intervention was required.

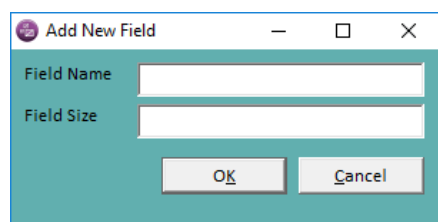
Status Code	Descriptions
J	Part has been Picked/Placed/Verified successfully
X	Part Not Placed or Total Quantity = 0
N	Part not found in database
M	Stock moved while Placing
Y	Quantity altered by operator
S	Required quantity could not be picked
Q	Required quantity value is not valid
U	No parts in that machine

## 7.2 Custom List Format

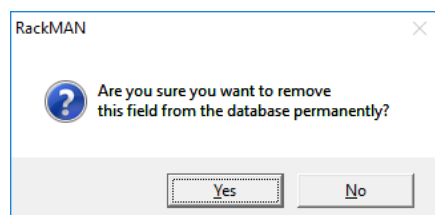
To add, remove and customise lists to suit your requirements, select System \ Configuration from the Main Menu. Go to the 'Lists' tab and click on the button **Pick and Place**.



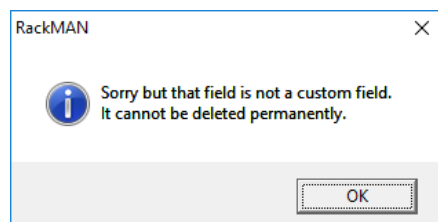
To add a field press **Alt A** or tab to the **Add Field** button and press **Enter**, then enter the Field name and Field Size.



To delete a field, select it using the **arrow keys** and press **Alt E**. You can only delete fields that have been customised (with a C next to it). Fields can only be deleted when they are in the Available fields section, because once they have been moved over to the Current fields side they are not a custom field anymore. The following message will then appear. Press **Enter** or **Alt Y** to delete the field, or tab to **Alt N** and press **Enter** to cancel.



If you try to delete a field that is not a custom field the following error message will appear:





Once created the new field will be placed in the Available fields section. Select desired field using the **arrow keys** and press **Enter** to move field across to the Current fields table, or highlight desired field name and tab to the **left facing arrow button** and press **Enter**.

Custom List Format

Current fields

Field Name	Size	State
Status	1	Empty
Machine	3	Empty
Shelf	3	Empty
Bin	3	Empty
Location	3	Empty
Part Number	30	Fill
Lot Number	30	Either
Required Quantity	8	Fill
Confirmed Quantity	8	Empty
Old Total Quantity	8	Empty
New Total Quantity	8	Empty
Old Location Quantity	8	Empty
New Location Quantity	8	Empty
List ID	20	Either
Priority	3	Fill

Record Size: 161

Move Up Move Down

List type

☐ DOS Carman default ☒ Windows Carman

## 8 Stocktaking your Static Racking

'Verify' is Kardex VCA's terminology for the stocktake process. In addition to the mechanisms in place to maximise your stock accuracy, such as pick to zero confirmation, RackMAN provides five (5) methods to Verify that the location quantities stored in the static racking database are accurate. Each method is described below:

### Verify Methods

- **Single [Refer to Section 4.1 in RackMAN Operators Manual]**  
This method is used to Verify the location quantity of a single part in the static racking. RackMAN will visit all locations where the part is placed during this process. When the operator confirms the stock quantity for the location, the static racking database will be updated immediately. This method may be used for random checks on part quantities.
- **List [Refer to Section 4.2 in RackMAN Operators Manual]**  
This method is used to Verify the location quantities of multiple parts in the static racking. The details of each Verify operation are reported in the List file. The static racking database will only be updated during this process if the < > parameter is set in the RackMAN configuration (refer to RackMAN Technical Manual). This method may be used for fast moving items. If the list is retained, the same list can be run periodically.
- **Location [Refer to Section 4.3 in RackMAN Operators Manual]**  
This method is used to Verify the quantity of a single location. When the operator confirms the stock quantity for the location, the static racking database will be updated immediately. This method may be used for random checks on location quantities.
- **Range [Refer to Section 4.4 in RackMAN Operators Manual]**  
This method is used to Verify a range of locations within the static racking. The smallest range is one shelf i.e. the same shelf could be entered as the starting location and the end location. This method is used to facilitate perpetual stocktake of the static racking locations. It is then possible to stocktake a shelf or carrier weekly or monthly, removing the need to undertake an annual global stocktake of the complete machine.
- **Global [Refer to Section 4.5 in RackMAN Operators Manual]**  
This method is used to Verify the quantity held in all locations within the static racking. The routine starts at location 01A-01-01 and will visit each location with a quantity greater than zero until all locations have been visited. It is possible to interrupt and resume the Global Verify operation at any time. The routine will continue from the last checked location.

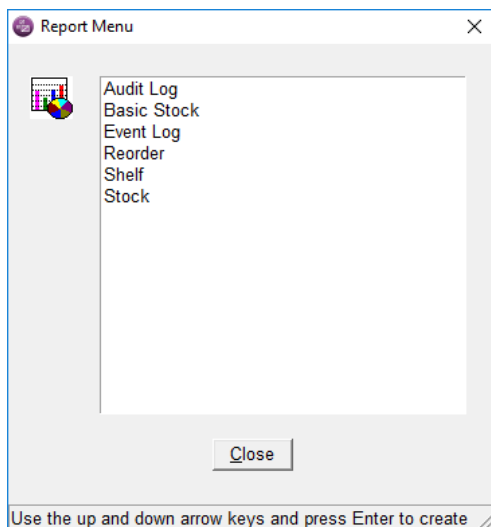
The Verify process is characterised as follows:

- ◆ The Verify process does not display quantities on the screen. This is to ensure that the operator actually verifies each item.
- ◆ When using Verify by Single or Verify by Location the quantities in your database are automatically updated when the operator confirms the quantity.
- ◆ When using Verify by List, Range or Global the quantities in your database are left unchanged, unless you specify them to automatically update in your configuration. Refer to the Verify configuration section at the end of this manual.
- ◆ Verify by List, Range & Global automatically produce reports of the Verify process. The reports can be setup in your report configuration so that your stock manager can access them and update quantities accordingly.

The outcome of the report could be used to update stock quantities using an ODBC compliant application such as MS Excel, Access or MS Query by ISQL.

## 9 Reports

The Reports Menu can be accessed via the Tools Menu.



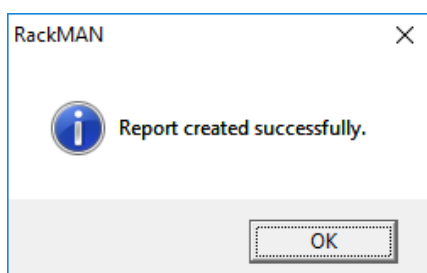
### Action

Move through Reports  
Select Report  
Close window

### Method

**up(↑) and down(↓) arrow keys**  
**Enter**  
**Alt & C or Tab** to the Close button and press **Enter**

When you press **Enter** on a Report, the report file will be generated with the name and location as set up under the Reports configuration.



Press **Enter** to clear the confirmation message. RackMAN will then return you to the Report Menu.

The standard RackMAN Reports are:

- Audit Log
- Free Location
- Reorder
- Shelf
- Stock
- Event
- Global Verify
- Range Report

Kardex VCA can design other reports to suit your companies reporting needs. For more information, please contact Kardex VCA.

### 9.1 RackMAN Stock Report

RackMAN will generate a stock report in the same format as the STOCKIMP.REP report generated by CARMAN 2000. Kardex VCA recommends that you only use this report if you have external processes set up which already make use of the CARMAN 2000 STOCKIMP.REP file.

The format of each record is:



---

<i>FIELD</i>	<i>DESCRIPTION</i>	<i>SIZE</i>	<i>COLUMN NUMBER</i> <i>FOR DELIMITER</i>
1	Machine Number	3	4
2	Part Number	30	35
3	Description 1	60	96
4	Description 2	60	157
5	Description 3	60	218
6	Storage Unit	10	229
7	Value	9	239
8	Weight	6	246
9	Re-order Point	8	255
10	Re-order Quantity	8	264
11	Carrier / Shelf	3	268
12	Bin	3	272
13	Location	3	276
14	Location Quantity	8	285
15	Total Quantity	8	294
	CR/LF		



## 9.2 Audit Log Report

The Audit Log Report is a complete audit trail of all operations and processes. From the Audit Log you can trace every Pick, Place or Verified item, the time, the date, the username and so on. Each line in the report consists of the following fields.

<b>FIELD</b>	<b>FIELD NAME</b>	<b>FIELD DESCRIPTION</b>	<b>SIZE</b>	<b>DELIM</b>
1	Status	Letter I for Information.	1	2
2	Date	Date of the operation – YYYY-MM-DD	10	13
3	Time	Time of the operation – HH:MM:SS	12	26
4	User Name	User Name that performed operation.	25	52
5	Part Number	Part Number.	30	83
6	Operation	Operation performed Eg. PICK	20	104
7	Operation Method	Operation method Eg SINGLE or List name	50	155
8	Location	Location of the Part number Eg. 01A-01-01	10	166
9	Operation Quantity	Quantity required of the operation	8	175
10	Confirm Quantity	Quantity confirmed for the operation.	8	184
11	Total Quantity	Total quantity after the operation.	8	193
12	List Identifier	List Identifier.	30	224
13	Not Used		8	233
14	Old Location Quantity	Location quantity before the operation.	8	242
15	New Location Quantity	Location quantity after the operation.	8	251

## 9.3 Reorder Report

The Reorder Report is to keep track of stock items that need replenishing. To use this report correctly the Reorder Point and Reorder Quantity fields must be filled in at the Inventory screen. This report will calculate which items need to be reordered based on the Reorder Point Quantity and the Total Quantity. Each line in the report consists of the following fields.

<b>FIELD</b>	<b>FIELD NAME</b>	<b>FIELD DESCRIPTION</b>	<b>SIZE</b>	<b>DELIM</b>
1	Part Number	Part Number	30	31
2	Unit Type	Unit Type that the part is carried in – eg. Each	10	42
3	Reorder Point	Reorder Point	8	51
4	Reorder Quantity	Reorder Quantity	8	60
	<CR/LF>			





## 9.4 Shelf Report

The Shelf Report is a list of all locations in your static racking, with a total quantity of locations and a total quantity of used locations. Each line in the report consists of the following fields.

<b>FIELD</b>	<b>FIELD NAME</b>	<b>FIELD DESCRIPTION</b>	<b>SIZE</b>	<b>DELIM</b>
1	Shelf Number	Shelf Number.	3	4
2	Bins	Number of bins on the shelf.	3	8
3	Locations	Number of locations in each bin.	3	12
4	Used Locations	Number of used locations in each Shelf.	3	16
5	Total Locations	Total number of locations on each Shelf.	3	
	<CR/LF>			

## 9.5 Stock Report

The Stock Report is a List of all Inventory items in your database, with their locations and quantities. Each line in the report consists of the following fields:

<b>FIELD</b>	<b>FIELD NAME</b>	<b>FIELD DESCRIPTION</b>	<b>SIZE</b>	<b>DELIM</b>
1	Static racking Number	For use with multiple static racking's.	3	4
2	Part Number	Part Number.	30	35
3	Alternate Part Number	Alternate Part Number	30	66
4	Description	Description of the part Line 1.	60	127
5	Description 2	Description of the part Line 2.	60	188
6	Description 3	Description of the part Line 3.	60	249
7	Unit Type	Unit type the part is carried in	10	260
8	Unit Value	Unit Value of each item.	8	269
9	Unit Weight	Unit Weight of each item.	8	278
10	Reorder Point	Reorder point.	8	287
11	Reorder Quantity	Quantity to reorder.	8	296
12	Shelf Number	Shelf number the part is found on.	3	300
13	Bin Number	Bin number the part is found in.	3	304
14	Location Number	Location in the bin the part is found in.	3	308
15	Location Quantity	Quantity in this location.	8	317
16	Total Quantity	Total quantity in the static racking.	8	326
17	Lot Number		30	357
18	Placed Date	Placed date for part / location	30	388
	<CR/LF>			

**NOTE:** All fields are left justified.



## 9.6 Free Locations Report

The Free Locations Report lists all unused locations in the static racking.

<b>FIELD</b>	<b>FIELD NAME</b>	<b>FIELD DESCRIPTION</b>	<b>SIZE</b>	<b>DELIM</b>
1	Machine Id	Static racking ID	2	3
2	Shelf Number	Carrier / Shelf Number	3	7
3	Bin	Bin	2	10
4	Location <CR/LF>	Reorder Quantity	2	13

## 9.7 Event Report

The Event Report traps all events created through system operations.

<b>FIELD</b>	<b>FIELD NAME</b>	<b>FIELD DESCRIPTION</b>	<b>SIZE</b>	<b>DELIM</b>
1	Letter I for Information.	Letter I for Information.	1	2
2	Date of the operation – YYYY-MM-DD	Date of the operation – YYYY-MM-DD	10	13
3	Time of the operation – HH:MM:SS	Time of the operation – HH:MM:SS	12	26
4	Source	Where the Event occurred	20	47
5	Event	Event that occurred	60	108
6	Event Description	Description of the Event that occurred	100	209
7	Operator	Person logged in at the time the Event occurred.	25	235

## 9.8 Global Verify Report

<b>FIELD</b>	<b>FIELD NAME</b>	<b>FIELD DESCRIPTION</b>	<b>SIZE</b>	<b>DELIM</b>
1	Part Number	Part Number.	30	31
2	Lot Number <i>This will only be shown if Lot Number Support is activated.</i>	Lot Number	30	62
3	Shelf Number	Shelf Number.	3	66
4	Bin Number	Bin Number	3	70
5	Location Number	Location Number.	3	74
6	Before Total Quantity	Previous Total Quantity for that part number.	8	83
7	Before Location Quantity	Previous Location Quantity for that location.	8	91
8	Location Quantity	Quantity entered for that location.	8	100
9	Date/ Time	Date of the operation – YYYY-MM-DD Time of the operation – HH:MM:SS	26	127

## **10 Interfacing RackMAN**

RackMAN uses an ODBC compliant SQL database which can be configured as a stand alone or client / server configuration for multiple static racking environments. It is a sophisticated package using advanced routines to minimise search times in large inventory situations.

As RackMAN uses an ODBC compliant SQL database, access to the database for the creation of inventory items, changes in descriptions, stock adjustments and report generation can be gained directly. This access is via any suitable ODBC tool such as ISQL or MS Query.

RackMAN can have stock movements initiated, processed and tracked by using List files. This way your accounting package can always be in sync with your static racking stock management system. For example the host computer system can generate List files from invoices or purchase orders. RackMAN then processes the List files for the operator to Pick or Place. The List files can then be returned to the host system with a status on each item, their location and quantity updates.

These Lists can be customised to suit your host computer system. For example, use one of the spare fields for delivery addressing, then hook your static racking system up to a printer and you can have the delivery docket printed straight from the static racking. Refer to the List Files section for more information.

For high level picking the static racking List system when used with the Kardex VCA Sortbench can save time and leave little room for error. The Kardex VCA Sortbench is described in the next section.

Kardex VCA can help you plan an interface to RackMAN designed to be efficient and save you time and money. Please contact Kardex VCA for more information.

## 11 Peripherals

RackMAN has support for a range of peripheral equipment including:

- Kardex VCA SortBench
- Bar Code Scanners
- Label Printers
- Counting Scales



### 11.1 Kardex VCA SortBench

The Kardex VCA SortBench is designed to manage picking of multiple list files. The maximum number of lists that can be picked at any time is determined by the bench size. SortBench configuration is typically ten (10) or twenty (20) stations.

The SortBench is a place to light system and facilitates the picking of multiple orders from your static locations. RackMAN can also be integrated with Carousels and Shuttles in the use of the SortBench.

For more information on the Kardex VCA SortBench please contact Customer Service.

### 11.2 Bar Code Scanners

RackMAN can use any keyboard wedge Bar Code Scanner for part number entry during single Pick or Place operations. Bar code scanning is quick and reduces the likelihood of part number errors due to incorrect key punching.

For more information on using Bar Code Scanners please contact Customer Service.



### 11.3 Printers

RackMAN supports printing to some Intermec and Zebra Direct Thermal Label printers. Kardex VCA custom designs Labels to suit your requirements. Order number and associated part information contained in the static racking database can be printed on labels, and labels can be auto generated or on generated on demand.

RackMAN support for custom list fields enables additional pass through information to be printed on labels such as customer name and address.

For more information on using Printers please contact Customer Service.



### 11.4 Counting Scales

Integrated counting scales are a particularly useful addition to a static racking system where parts are quite small and picked or placed in large quantities.

RackMAN supports a range of counting scales such as the DIGI DC120 range and also Avery Berkel Gnnn range of scales where the unit weight of a part is passed to the scale at the start of the Pick or Place operation.

The operator will then use the scale to ensure the correct quantity is recorded for the transaction.

For more information on using Scales please contact Customer Service.



## 12 Back Up Recommendations

RackMAN keeps all of its database files in the RackMAN folder situated on the root directory of your hard drive. This folder and all of its sub folders should be included in your usual network backup routine. All your configuration settings are found in the Windows registry. These settings should be printed out or exported and backed up whenever changes to your configuration settings are made.

The registry settings are found in the windows registry editor at:

HKEY\_LOCAL\_MACHINE\Software\Kardex VCA\RackMAN

RackMAN will be delivered on a CD-ROM. The installation instructions are in the installation section at the beginning of this manual.

### **PC Files**

New installations – The PC supplied with your static racking will be delivered with a recovery diskette that will contain the operating system and all of the hardware device drivers.

Pre-existing installations – the PC that was supplied with your static racking was delivered with all of the hardware device drivers and operating system on diskettes or CD-ROM.

Kardex VCA can help design a backup strategy for your static racking. For static racking that are not on a network, Kardex VCA has designed backup packages that include a Zip drive and an automatic backup scheduler that copies all required files and registry settings to a zip drive on a daily basis.

Please contact Kardex VCA for more information.

## 13 Troubleshooting

If a problem occurs with RackMAN that you are unable to resolve, please contact our site support team:

Kardex VCA Pty Ltd

Customer Service / Site Support

Phone: +61 2 6056 5173

Fax: +61 2 6056 2422

Email: [support@kardex.com.au](mailto:support@kardex.com.au)

Please quote your 'Site ID' code to assist us to find your site details. Your site code is listed on the site software license or your service agreement document