

# **Automatic Replenishment**

Aptean Ltd  
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# 1 Automatic Replenishment



## 2 INTRODUCTION

This document describes the required screens to be used for setup and the process for Bulk to Pick Replenishment. Other guides describe the set up of company, user, warehouse, stock etc.

This is a generic guide based on the version of the *CALIDUS* 3pl system at the time of writing.


It can also be used by clients to specify their specific data values to aid initial system set up as well as for future reference.

Note that fields marked '\*\*\*' are mandatory and are needed to ensure correct set up of the system.

### 2.1 AUTOMATIC REPLENISHMENT

There are three types of pick face replenishment that is supported by the *CALIDUS* 3pl WMS v770 system:

1. Manual Bulk to Pick Replenishment using minimum and replenishment by levels
2. Replenishment from allocation when a pick face runs to zero or below
3. Replenishment from allocation using minimum stock and replenishment by levels

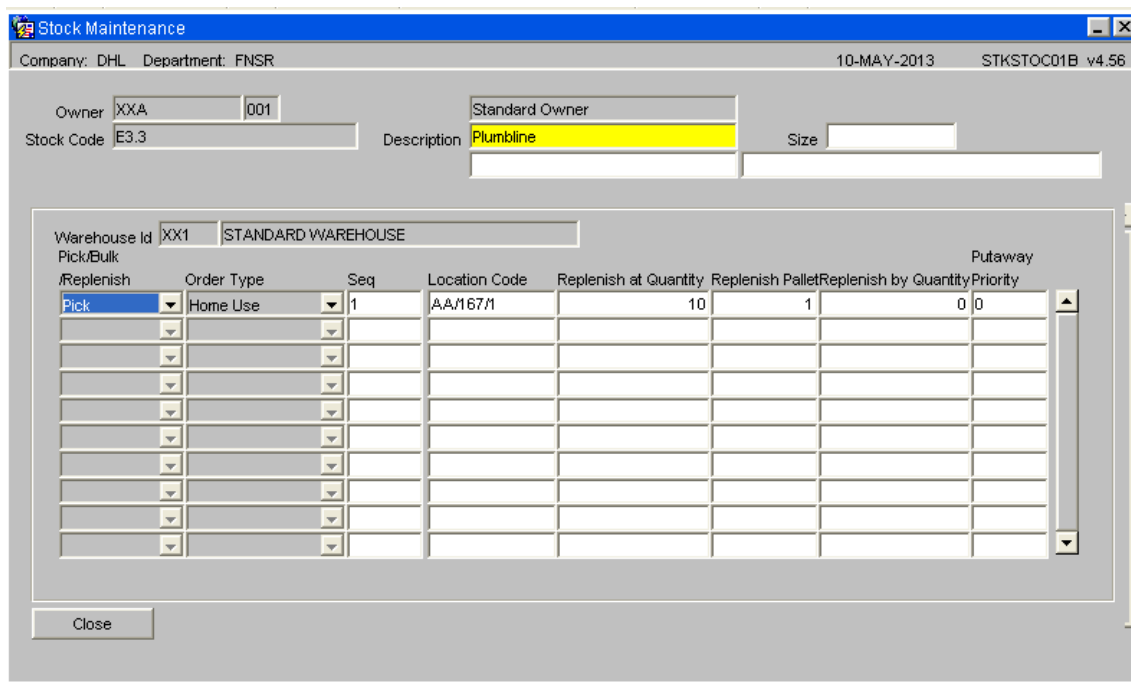
 **Note:** Dynamic Pick faces are not supported in this version of the WMS.

### 2.2 MANUAL BULK TO PICK REPLENISHMENT

#### 2.2.1 Setup

Replenishment runs at a stock code level, the minimum information that is required to be setup is: a dedicated pick face, a replenish at quantity and a replenish with quantity, which can be either a pallet, case or unit or a combination of, dependent on owner and the stock code requirement within the constraints of the warehouse.

The screen below is accessed via Stock Maintenance / Stock Warehouse Tab / Unbonded Stock Locations



The screenshot shows the 'Stock Maintenance' window with the following details:

- Company: DHL, Department: FNSR, Date: 10-MAY-2013, Version: STKSTOC01B v4.56
- Owner: XXA, Stock Code: E3.3, Description: Plumblane
- Warehouse Id: XX1, STANDARD WAREHOUSE
- Table with columns: Replenish, Order Type, Seq, Location Code, Replenish at Quantity, Replenish Pallet, Replenish by Quantity, Priority, Putaway.

Replenish	Order Type	Seq	Location Code	Replenish at Quantity	Replenish Pallet	Replenish by Quantity	Priority	Putaway
Pick	Home Use	1	AA/M67/M	10	1	0	0	

#### Key fields



Code Value	Description	Values
<i>Pick/Bulk/Replenish</i>	Location type, for replenishment to, it will always be 'Pick'	Pick
<i>Order Type</i>	Will always be Home Use (alternative values are for a bonded location and are not applicable)	Home Use
<i>Seq</i>	Will always be '1'	1
<i>Location Code</i>	This will be the dedicated pick face for the stock code, it can either be manually entered or selected from a List of Values (LOV)	The stock codes pick face (must be correctly setup in location maintenance, usage type 2) If the location code is already assigned to a stock code the system will generate a warning message but will still allow the pick face to be assigned.
<i>Replenish at Quantity</i>	The level at which the replenishment will be generated	i.e. if the quantity is set to 10 cases and there are 9 cases in the pick face then the replenishment process will generate a movement.
<i>Replenish Pallet</i>	If the pick face is to be replenished by a full pallet or number of full pallets	Depends on size of pick face - but generally set to 1
<i>Replenish by Quantity</i>	If the pick face is to be replenished by cases, then enter the number of cases to be moved.	Dependent on setup and size of physical pick face. It is also possible to replenish by units
<i>Putaway Priority</i>	The putaway priority for the stock code - taken into account by the free locations process during receipt	Normally set to 1

## 2.2.2 Manual Bulk to Pick Replenishment Process

### Process -

The Manual Bulk to Pick Replenishment Process is a three stage process.

1. Checking the stock code(s) that may require replenishment and if below the minimum level generate a replenishment movement. (WHS0610)
2. Create the movement print and new labels if required (WHS0700)
3. Complete the movement (WHS0700)

### Example -

Stock is located in bulk locations, but the stock codes assigned pick location is empty.



Bulk to Pick Replenishment

Owner: ROB Warehouse: NFT

11-JUN-2025WHS0610 v4.32

Log Messages

Parameters

Owner:

Stock Audit:

Stock code from:

to:

Aisle Code from:

to:

Location from:

to:

Option

Order Type:

Home Use

Confirm

Abandon

Stock/Pallet Move Audit Number(s)

Block Movements

Enter the Stock Code 'From' and 'To' values  
'Option' should be set to 'Replenish Case Pick'  
'Order Type' should be set to 'Home Use'

Then select the **Confirm** button and the system will check the pick face level of the required stock codes and if applicable a replenishment movement will be generated. The Log messages section will display all the information for the generated replenishments.

### 2.2.3 Stock Movements

### Stage 2 & 3 -

The replenishment is now ready to be completed as standard in the Stock Movements screen or via RF if enabled.

[illegible]

### Parameters -

1. Select the **Accept/Confirm** button unless the replenishment is to be cancelled.
2. The **Print** button will now be enabled - select the button and print off documentation and labels if required.
3. Upon printing of the documentation and the movement being completed in the warehouse select the **Confirm** button to complete the replenishment on the system.

## 2.3 REPLENISHMENT FROM ALLOCATION WHEN A PICK FACE RUNS TO ZERO OR BELOW

### 2.3.1 Setup

### Owner Maintenance -

Owner Maintenance

Company: DHL Department: FNSR 18-APR-2013 STS1000 v4.78

Owner: XXA 001 Petes Eats

Main General Sales Order Goods Rec'd SOP CH External Int... EDI Inbound EDI Outbound Charging Def Bulk L... Format Owner Rules Owner UOM Serial Num... Additional ...

Owner Stationery: No  
 Delivery Days:  
 Dept at Order level:  
 POD Confirmation Level: Pallet  
 POD Signator: Yes  
 Packing List:  
 Back Order Indicator: No  
 Supply Other Customers:  
 Pay Terms: No  
 SOP Invoicing: None  
 JDE Transfer: No Invoicing Info...  
 Prevent Ordering:  
 Manifest Ref Required: No  
 Over Picking: No  
 Order Priority Del Dates: No  
 Enter Sellers Reference: No  
 Assembly Inst Req'd: Yes  
 Enter Order Value: No  
 Run Replenishment Report: Yes

Cheque Pay Name:  
 To Follow Text:  
 Commission Rate Flag: No  
 Sequence No. Generate: Owners Range  
 Default Order Type: Home Use  
 Allocation Rules (1): As 6 Till OT then Rule 3 Rever  
 (2): Replenish Bulk -> Pick  
 (3): Replenish Bulk -> Pick  
 (4): Replenish Replen -> Pick  
 (5): Replenish Bulk -> Rep -> Pick  
 Do NOT Replen in Allocation  
 Allocation Pre-Pass:  
 Order Threshold %: 100.00  
 Allocate Pre Advice: No  
 Direct Hit Type: 0  
 POD By Despatch Note: No

Pallet Level Flag: None  
 Line Type: 1  
 Pick Wave Max Orders: 10  
 Max Order Lines: 100  
 Indicate Last Pallet Pick:  
 Default Pick Usage: Use Defined Picks  
 Pre Receipt: No  
 Remove Stock ID: No  
 Service Level Flag: No  
 Use Replen Level in Allocation:

Email Req'd: Yes  
 Email Address: Christine.Kinsella@obs-logistics.com.  
 Validate Pack Despatch: Yes  
 Display Carrier Info: Yes

### Parameters -

1. Ensure that Allocation Rules are compatible with Replenishment, i.e. Allocation Rule '2' must be correctly enabled.
2. Set Run Replenishment Report to 'Yes'

Stock Maintenance / Stock Warehouse / Unbonded Stock Locations -





Company: DHL Department: FNSR 18-APR-2013 STKSTOC01B v4.56

Owner: XXA 001 Petes Eats  
 Stock Code: E3.3 Description: Plumblime Size:

Warehouse Id: XX1 STANDARD WAREHOUSE

Pick/Bulk	Order Type	Seq	Location Code	Replenish at Quantity	Replenish Pallet	Replenish by Quantity	Putaway Priority
Pick	Home Use	1	AA/M67/1	10/ 0	1	0/ 0	0

Close

The Stock Code must have an assigned Pick Face, the Replenish at and Replenish by fields are not looked at when the process is started, this system will automatically move the next best pallet into the pick face.

## 2.4 Replenishment during the Allocation Process

### Process -

An order is placed onto the system (generally line type 1, certain other line types do not use the replenishment functionality i.e. 3 & 4 which are targeting a specific rotation or pallet)

The order is allocated and the system determines from the setup of the owner and the stock code what the optimum stock to allocate to the order is.

If pick faces are in use, replenishment is enabled and dependent on the remaining Owner setup parameters the system will check the pick face, if there is not enough stock in the pick face or if the pick face is empty and the order quantity is less than a full pallet the system will generate a replenishment movement on the next pallet to be picked.

The pallet to be moved will have stock that requires picking to satisfy an order, dependent on the owner requirement, the stock can be picked off the pallet at either the bulk location and then moved into pick or the pallet can be moved first and then picked from the pick location.

### 2.4.1 Order Entry

Standard order line, Product and Quantity -



**Sales Order Detail Lines**

Company: DHL Department: FNSR 18-APR-2013 SOS1117 v4.67

Owner Code: XXA 001 Order No.: XXA000000000000000000141 Total Cases/Units: 20 0  
 Customer: C001A 001 Entered By: LEN Total Qty: 200

Line Type	Stockist	Product Code	Description	Cases	Rotation	Units	Price	Line No	Ret.Ind
Pallet	Identifier	Reason	Ref		Catch	Weight			
1 - Standard	XXA	001 E3.3	Plumbline	20	0	0.00			
0									
									Pick Instr.
									Pick Instr.
									Pick Instr.
									Pick Instr.
									Pick Instr.
									Pick Instr.
									Pick Instr.
									Pick Instr.

Select Pallets Cancel Line

## 2.4.2 Order Allocation

**Audit Log**

Owner: XXA Warehouse: XX1 18-APR-2013 WHS1630W v4.2

```

Pick Face Defined. Location Code: AA1671
Processing Alloc_rule_1 = 6,7
In If of Alloc_rule_1 = 6,7
Pallet 334 Avail Case 50 Avail Units 0
Creating Movement Record With location code AA1671
Fetching the trans case And trans single from Ware Location Entries 50/0
Starting Allocation
Run by LEN DP_WMS_ALLOC v4.108
Moving:50/0 to location :AA1671
Creating record for to location AA1671
Available cases:50 - Ordered cases 20
Updating source ware location entries for location AA0023
Allocated 20/0 from location code AA1671 and pallet 334
Creating WMD for Audit No: 245 with location code AA1671 pallet id 334 type P
Inserted ware_location_entries record for AA1671
Ordered amount fully allocated.
Allocated 20/0
Updated Order Detail for Order Number XXA000000000000000000141 Line Number 1
Attempting to Replenish Stock.
Updating Order Well (Prepass = N or 0)
  
```

The order is allocated as normal, the audit log show the allocated pallet and the movement audit number.



**Sales Order Allocation**  
 Owner: XXA Warehouse: XX1  
 Route/Load or Order Number: Order Number  
 Route/Load: 0000000000  
 Owner: XXA  
 Order No. From: Sales Ord

**Output Manager**  
 Company: DHL Department: FNSR 18-APR-2013 OMS0010 v3.5

**Replenishments**

**Destination**  
☒ E-Mail  
☐ Fax  
☐ File  
☐ Local Printer  
☐ Printer  
☐ Screen

**Printer**  
 Group:   
 Printer:   
 Number of Copies: 1  
 Printer Tray: 1

**General**  
 Format: PDF   
 Log File: /tmp  
 Mode: ☒ Online ☐ Schedule for:

If a replenishment is generated a Replenishments report can be produced

WHR1700 4 v4.8 Replenishment Report Requested By: LEN Page 1 of 1  
 Run: 18-APR-13 03:19 PM

Warehouse:- Standard Warehouse  
 Cutnall Green

Owner:- Petes Eats Audit No:- 245

Standard Form

Location From	Product Code / Description / Pieces per Ctn	Qty to Move	Pallet ID / Owner Pallet	Rotation / Owner Batch No.	Sell By Date	Location To	Order Number Dependant On Replenishment	Check Digit
AA/002/3	E3.3 Plumblane	50 /	0 334	+ +		AA/167/1	XXA000000000000000141	

A report can be produced listing all replenishments and the dependent order number(s)

### 2.4.3 Stock Movement

The replenishment is now ready to be completed as standard in the Stock Movements screen or via RF if enabled.



-  **Note:** If a replenishment has been generated from allocation then it must be closed before the pick confirmation process can be completed

### 2.5.1 Setup

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Owner Maintenance

Company: DHL Department: FNSR 18-APR-2013 STS1000 v4.78

Owner: XXXA 001 Petes Eats

Main General Sales Order Goods Rec'd SOP CH External Int... EDI Inbound EDI Outbound Charging Def Bulk L... Format Owner Rules Owner UOM Serial Num... Additional ...

Owner Stationery: No  
 Delivery Days:   
 Dept at Order level:   
 POD Confirmation Level: Pallet  
 POD Signator: Yes  
 Packing List:   
 Back Order Indicator: No  
 Supply Other Customers:   
 Pay Terms: No  
 SOP Invoicing: None  
 JDE Transfer: No Invoicing Info...  
 Prevent Ordering:   
 Manifest Ref Required: No  
 Over Picking: No  
 Order Priority Del Dates: No  
 Enter Sellers Reference: No  
 Assembly Inst Req'd: Yes  
 Enter Order Value: No  
 Run Replenishment Report: Yes

Cheque Pay Name:   
 To Follow Text:   
 Commission Rate Flag: No  
 Sequence No. Generate: Owners Range  
 Default Order Type: Home Use  
 Allocation Rules (1): As 6 Till OT then Rule 3 Rever  
 (2): Replenish Bulk -> Pick  
 (3): Part After Full - Move to Pic  
 (4): Blk and Prt (Cmb) from Alloc  
 (5): No prmt for Con PL at ALL/PCK  
 Allocation Pre-Pass: Accept Shortages  
 Order Threshold %: 100.00  
 Allocate Pre Advice: No  
 Direct Hit Type: 0  
 POD By Despatch Note: No

Pallet Level Flag: None  
 Line Type: 1  
 Pick Wave Max Orders: 10  
 Max Order Lines: 100  
 Indicate Last Pallet Pick:   
 Default Pick Usage: Use Defined Picks  
 Pre Receipt: No  
 Remove Stock ID: No  
 Service Level Flag: No  
 Use Replen Level in Allocation: Yes

Email Req'd: Yes  
 Email Address: Christine.Kinsella@obs-logistics.com  
 Validate Pack Despatch: Yes  
 Display Carrier Info: Yes

Ensure that Allocation Rules are compatible with Replenishment, i.e. Allocation Rule '2' must be correctly enabled.

Set Run Replenishment Report to 'Yes'

Use Replen Level in Allocation to 'Yes'

Stock Maintenance / Stock Warehouse / Unbonded Stock Locations -



Company: DHL Department: FNSR 18-APR-2013 STKSTOC01B v4.56

Owner: XXA 001 Petes Eats

Stock Code: E3.3 Description: Plumblin Size:

Warehouse Id: XX1 STANDARD WAREHOUSE

Pick/Bulk	Order Type	Seq	Location Code	Replenish at Quantity	Replenish Pallet	Replenish by Quantity	Putaway	Priority
Pick	Home Use	1	AA/167/1	10/ 0	1	0/ 0	0	0

Close

The Stock Code must have an assigned Pick Face, a Replenish at Quantity and a Replenish by value

## 2.5.2 Replenish during Allocation using minimum Quantity Levels

### Process -

An order is placed onto the system (generally line type 1, certain other line types do not use the replenishment functionality i.e. 3 & 4)

The order is allocated and the system determines from the setup of the owner and the stock code what the optimum stock to allocate to the order is.

If pick faces are in use, replenishment is enabled and dependent on the remaining Owner setup parameters the system will check the pick face, if there is not enough stock in the pick face or if the pick face is empty and the order quantity is less than a full pallet the system will generate a replenishment movement on the next pallet to be picked. In addition the system will then check the Replenish at Quantity, if the stock in the pick face is less than this value it will create a replenishment for the quantity of stock held in the Replenish by fields, i.e. pallet, case or unit or a combination.

## 2.5.3 Order Entry



Audit Log

Owner: XXA Warehouse: XX1 18-APR-2013 WHS1630W v4.2

Ware Pick Header Record With Page Num : 1 Created for order number XXA00000000000000142

Writing Pick Record (WDD) With Page Num : 1 Line no : 1

Ordered amount fully allocated.

Writing Pick Record (WDD) With Page Num : 1 Line no : 2

Allocated 11/0 from location code AA1671 and pallet 0

Updating source ware location entries for location NP0021

Available cases:50 - Ordered cases 11

Creating WMD for Audit No: 246 with location code AA1671 pallet id 0 type P

Moving:50/0 to location :AA1671

Inserted ware\_location\_entries record for AA1671

Creating record for to location AA1671

Fetching the trans case And trans single from Ware Location Entries 50/0

Creating Movement Record With location code AA1671

Pallet 0 Avail Case 50 Avail Units 0

In If of Alloc\_rule\_1 = 6,7

Updating Order Well (Prepass = N or 0)

Updating Order Header

Locks released 15:27:48

18-APR-2013 15:27:48

\*\*\*\*\* ALLOCATION COMPLETE \*\*\*\*\*

## 2.5.4 Pick List

WHR1700\_PWL v4.33 Page : 1

Standard Pick List

Distribution Center :- Standard Warehouse Cutnall Green Worcestershire Droitwich WR9 0NS GB	Owner :- Petes Eats 40 High Street  Llanberis LL55 4RU GB	Deliver To :- The Crafty Croc 194 Adobe Road  New Town EC12 A33 GB
---------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------	-----------------------------------------------------------------------------------

Printed : 18-Apr-2013 at 15:28  
 Pick List : 213  
 Username : LEN  
 Booked : 18-Apr-2013 at  
 Pick Finish : / / :  
 Haulier :

Picker : \_\_\_\_\_  
 Marshalling Area : MA/999/9  
 Pick Start : / / :  
 Order Type : Home Use  
 System Order No : XXA00000000000000142  
 Owner Order Ref : 142  
 Customer Ord Ref :

Special Instructions/Remarks:-

Location	Product Code Description/(Size)	Customer Product Code	Replen Audit No	Sys/Owner Rotation	Sys/Owner Pallet ID	Sell By Date	Qty Cases/Units	Volume	Weight	Chk Pallet
AA/167/1	E3.3 Plumblime		246	+	0		11/	0	0.00	-----
				+	0					
AA/167/1	E3.3 Plumblime			+	334		30/	0	0.00	1
				+						
Page Total						41/	0	0.00		
Running Total for Order Number : XXA00000000000000142						41/	0	0.00		
1st Checker : _____			2nd Checker : _____			Loaded By : _____				

Generated Pick List showing the Replen Audit No:

WHR1700 4 v4.8 Page 1 of 1

Replenishment Report

Requested By: LEN  
Run: 18-APR-13 03:29 PM

Warehouse:- Standard Warehouse  
 Cutnall Green

Owner:- Petes Eats  
 Audit No:- 246

Standard Form

Location From	Product Code / Description / Pieces per Ctn	Qty to Move	Pallet ID / Owner Pallet	Rotation / Owner Batch No.	Sell By Date	Location To	Order Number Dependant On Replenishment	Check Digit
NP/002/1	E3.3 Plumblime	50 /	0 0 0	+		AA/167/1	XXA00000000000000142	-----


System generated Replenishment Report -

## 2.5.5 Stock Movement

The replenishment is now ready to be completed as standard in the Stock Movements screen or via RF if enabled.





-  **Note:** Unlike the previous process, it may not be necessary for the movement to be completed before entering the pick details in Pick Confirmation as there be sufficient stock in the pick face to satisfy the order, this movement will in effect be a top up.

### 2.6.1 Configurable EDI

All key values are maintained in the EDI Structure STK\_LOCATION.

### 2.6.2 Reports

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Report : WHR1001 v1.4			DHL-Exel		Page : 1 of 1	
			P I C K L O C A T I O N B Y		Date : 22-Apr-13 15:42	
			S T O C K R E P O R T			
			<----- Replenishment ----->			
Location Code	Owner	Product Code	Description	Amount	Level	Pallets
AA/150/1	XXA	001 5.10	Supercrack, 999A	0 / 0	1 /	0 1
AA/153/1	XXA	001 E3	Plumblin	0 / 0	10 /	0 1
AA/167/1	XXA	001 E3.3	Plumblin	0 / 0	10 /	0 1
AA/153/1	XXA	001 E6	The Rainbow of Recalcitrance	0 / 0	1 /	0 1
End Of Report WHR1001						

The report shows all stock codes setup with assigned pick faces with their replenishment levels.

### Oracle Data Extract (ORS0100) -

Oracle Reporting Control

Company: DHL Department: FNSR 22-APR-2013 ORS0100

Next Report Report Type STOCK Report Level LOCATION Saved Reports STK\_REP Create XLS Refresh

Level	Title	Displayed Title	Sel From	To	Sort Req	Inc Seq
HEADER	Kit Flag	Kit Flag	N		N	
HEADER	Transit Factor	Transit Factor	N		N	
HEADER	Description3	Description3	N		N	
HEADER	ABC Code	ABC Code	N		N	
HEADER	Cases Per Layer	Cases Per Layer	N		N	
HEADER	Layers Per Pallet	Layers Per Pallet	N		N	
HEADER	Capacity Weight	Capacity Weight	N		N	
HEADER	Weight UOM	Weight UOM	N		N	
HEADER	Length UOM	Length UOM	N		N	
HEADER	Volume UOM	Volume UOM	N		N	
LOCATION	Warehouse	Warehouse	R		N	
LOCATION	Location Type	Location Type	N		N	
LOCATION	Location Code	Location Code	N		N	
LOCATION	Replenish at Quantity	Replenish at Quantity	N		N	
LOCATION	Replenish Pallet	Replenish Pallet	N		N	
LOCATION	Replenish Quantity	Replenish Quantity	N		N	
LOCATION	Putaway Priority	Putaway Priority	N		N	

Clear All Selection Values Include ALL Include None

Save Report Copy Report to another User Delete This Report

Using the Oracle Data Extract screen (ORS0100) the system allows for the extraction and reporting of data to help setup and maintain pick faces and their replenishment levels.



### 3 Document History

Version	Date	Status	Reason	Initials
Version 1	13/05/2013	In Progress	User Guide	LBW

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