

PERCEPTION[®] MAT-PAC

Receiving & Warehousing

A Training Guide

This training guide outlines the basic features of the *PERCEPTION* system for receiving delivered purchased materials and for managing the storage of material in the shipyard.

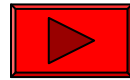
It is a supplement to the user manual entitled “*PERCEPTION Material Planning, Purchasing & Inventory Control*,” which provides more details for the user.

Before using this tutorial, the user should first view the preliminary *PERCEPTION* training tutorial, “Getting Started.”

Other related training tutorials for material control are the following:

- 1. Starting From Scratch:
Material Planning,
Purchasing & Inventory
Control**
- 2. Starting A New Project**
- 3. Managing Drawings & Bills of
Materials**
- 4. Material Requisitions**
- 5. Purchase Orders**
- 6. Work Order Pallets**
- 7. Tool Room Control**
- 8. Developing A Parts
Catalog**
- 9. Managing Stock
Inventories**
- 10. Withdrawing Material to
Production**
- 11. Managing Vendor
Invoices**
- 12. Managing Customer
Billings**

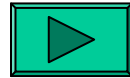
Training Directory



Continue



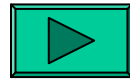
Receiving Purchases



Receiving Components



Receiving Bulk Purchases



Receiving to Requisitions



Posting Receive Transactions



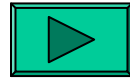
Backing Out Transactions



Return to Vendor



Reporting



Material Cost Rollup

Storage Locations

In order to receive material, storage locations must first be defined.

To define a new storage location, select *Environment/Stores Management/Locations* from the main menu that opens the Storage Locations worksheet.

The Storage Locations worksheet is used for both viewing and editing existing locations and adding new ones.

Click on either *Add* or *Retrieve* on the toolbar to add or view existing locations.

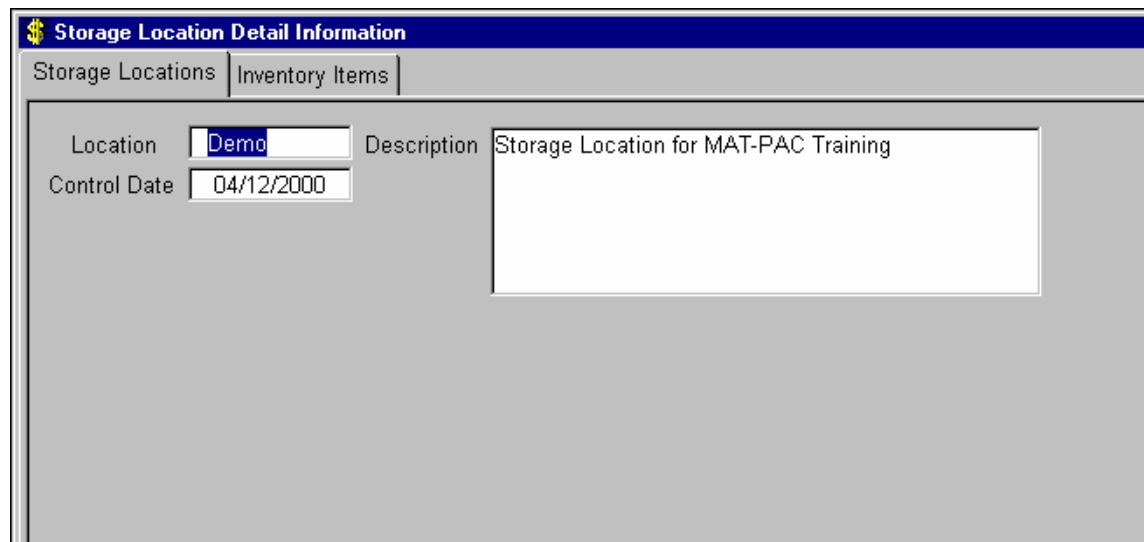
Note: The system will not permit a storage location to be deleted from the database if there is material stored in that location.

Storage Locations			
	Location	Control Date	Description
1	Bldg A	00/00/0000	Main Stores
2	Bldg B	00/00/0000	Stores Annex B
3	Bldg Berth	00/00/0000	Building Berth Buffer Area
4	Bldg C	00/00/0000	Stores Annex C
5	Demo	04/12/2000	Storage Location for MAT-PAC Training
6	Elect. Shop	00/00/0000	Electrical Shop
7	Fab Shop	00/00/0000	Steel Fab Shop
8	Joiner Shop	00/00/0000	Joiner Shop
9	Mach. Shop	00/00/0000	Machine Shop
10	Outside Pipe	00/00/0000	Outside Pipe Stores
11	Pipe Shop	00/00/0000	Pipe Shop
12	Platten I	00/00/0000	Platten I Buffer Area
13	Platten II	00/00/0000	Platten II Buffer Area
14	Platten III	00/00/0000	Platten III Buffer Area
15	Sheet Metal	00/00/0000	Sheet Metal Shop
16	SPARHOLDER	03/08/1999	Location automatically created by Perception - MATPAC to prevent
17	Steel Yard	00/00/0000	Steel Plate Yard
18	Tool Room	00/00/0000	Tool Room
19	Wet Berth	00/00/0000	Wet berth Buffer Area

The location field is character based and will allow up to twelve (12) characters.

Details of a location are available by focusing on the location and using the *Drill Down* button  on the toolbar.

This will display the location tab window. The initial tab displays the location name.



Storage Location Detail Information	
Storage Locations	Inventory Items
Location	Demo
Control Date	04/12/2000
Description	Storage Location for MAT-PAC Training

The second tab lists all parts found at that location.

The *Inventory Qty* can be changed on this window if the physical inventory does not agree with the *Qty On Shelf* that has been calculated by the system.

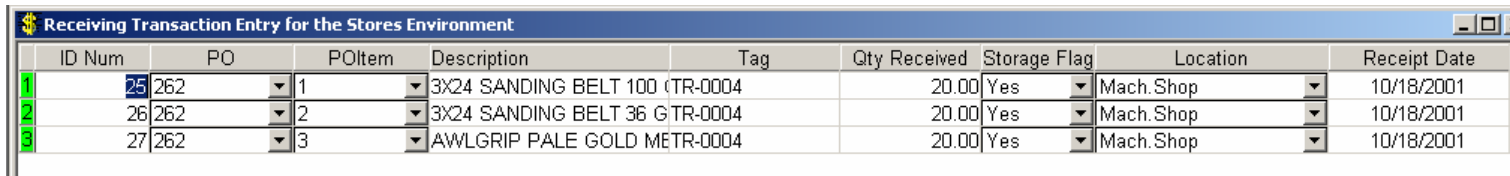
Changing the inventory quantity will set the *Inventory Date* on the line item and the *Control Date* on the storage location to the current date. This also recalculates the available quantity on the Parts Catalog and creates a Stock Adjust transaction record.

Storage Location Detail Information								
Storage Locations		Inventory Items						
	Part Type	Part ID	Description	Item Tag Number	Qty On Shelf	Inventory Qty	Inventory Date	Mfg P/N
1	Direct Purchase	SPN-PVBFLY/150-20	150# RF FLG ANSI CLASS 150, C		8.00	8.00	09/20/1999	
2	Direct Purchase	SPN-PVBFLY/150-24	150# RF FLG ANSI CLASS 150, C		3.00	3.00	09/20/1999	
3	Direct Purchase	SPN-PVCHK/150-20	150# RF FLG ANSI CLASS 150, C		2.00	2.00	09/20/1999	
4	Direct Purchase	SPN-PVGATA/150-20	150# RF FLG CAST CS, A216 Gr.		2.00	2.00	09/20/1999	
5	Direct Purchase	SPN-PVGATA/150-24	150# RF FLG CAST CS, A216 Gr.		2.00	2.00	09/20/1999	
6	Direct Purchase	SPN-PVRELF-8X10	CARGO PUMP RELIEF VALVE		9.00	9.00	09/20/1999	
7	Stock	10101	Abrasive		8.00	8.00	04/12/2000	

Receiving Purchased Material

To receive ordered parts, select *Environment/Stores Management//Receive Purchased Material*.

The Material Receiving window will open:



ID Num	PO	POItem	Description	Tag	Qty Received	Storage Flag	Location	Receipt Date
1	25 262	1	3X24 SANDING BELT 100 GTR-0004		20.00	Yes	Mach.Shop	10/18/2001
2	26 262	2	3X24 SANDING BELT 36 GTR-0004		20.00	Yes	Mach.Shop	10/18/2001
3	27 262	3	AWLGRIP PALE GOLD METR-0004		20.00	Yes	Mach.Shop	10/18/2001

In a query mode, the user can click on the *Retrieve* button on the toolbar to view existing receiving transactions.

New receiving transactions can be added using the *Add* button  on the toolbar.

Pertinent information for each transaction is the following:

1. Purchase order number
2. Purchase order item number
3. Packing slip number (for reference purposes)
4. Quantity received
5. Location for storing the received items

Special Note: If the purchase order item already has a partial receiving transaction that was assigned a storage location, or if the item is currently stored in a location, the system will default that location for the new receiving transaction.

Otherwise, the user must identify the storage location.

Stubbing Out PO For Receiving

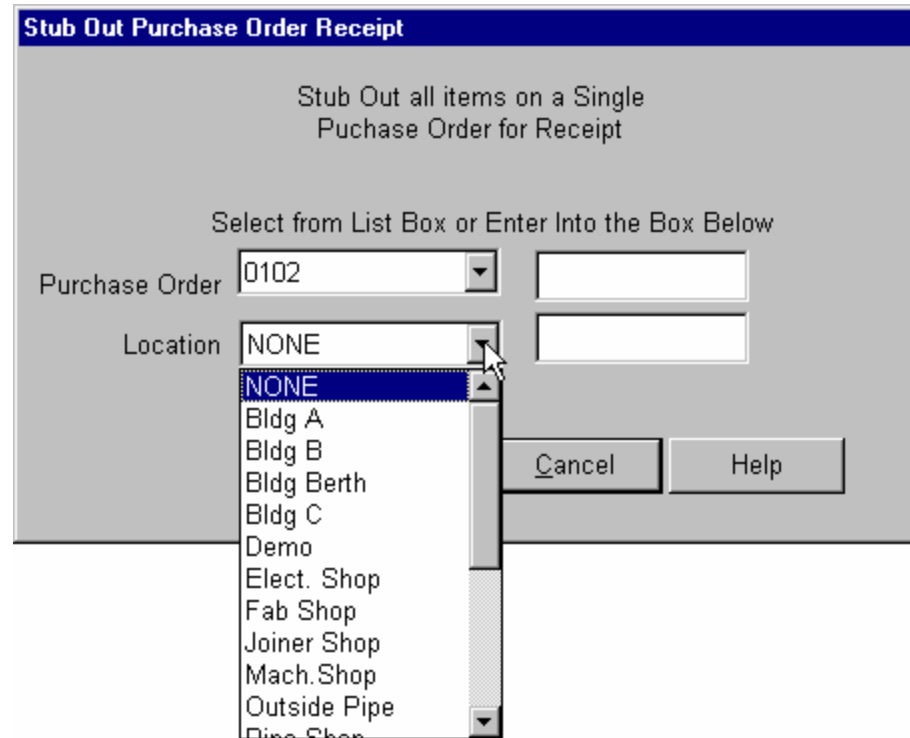
Another method for entering receiving transactions is to “stub-out” the items of the purchase order. This saves a lot of data entry for identifying the received items.

Start by opening the Material Receiving worksheet:

Select *Environment/Stores Management//Receive Purchased Material* from the main menu.

A stub-out is made by selecting **Edit/Stub Out Purchase Order Receipts** on the main menu, or by clicking on the **Stub Out Purchase Order Receipts** button  on the toolbar.

A window will open that allows the user to select the purchase order from a drop-down list.



Stub Out Purchase Order Receipt

Stub Out all items on a Single
Purchase Order for Receipt

Select from List Box or Enter Into the Box Below

Purchase Order 0102

Location NONE

- NONE
- Bldg A
- Bldg B
- Bldg Berth
- Bldg C
- Demo
- Elect. Shop
- Fab Shop
- Joiner Shop
- Mach. Shop
- Outside Pipe
- Pipe Shop

Cancel Help

Only POs that are not complete will be in the selection list.

The system will preload all outstanding purchase order items from the selected PO for receiving transactions and assign them to the storage location identified by the user.

Purchase order items that already have been fully received will not be loaded for new receiving transactions.

The user can modify the quantity received and storage locations if different from what has been preloaded by the system.

When the entry of transactions is complete, and the records are saved, the user must post the transactions as described below in “Posting Receiving Transactions.”

When a receiving transaction is posted, the system performs the following updates for purchased parts:

- 1. The purchase order item quantity received is increased**
- 2. The Parts Catalog, if involved, quantity on order is decreased**

And in addition, the posting process updates the following information throughout the system:

- 1. The drawing BOM item quantity received is increased**
- 2. The requisition item quantity received is increased**
- 3. The Parts Catalog quantity on hand is increased**
- 4. The on shelf quantity in the storage location is increased**
- 5. The quantity received is added to the quantity available calculation on the requisition item and the Parts Catalog**

Receiving Material Components

Purchases of large equipment items often are delivered in components that are not physically identified as separate PO items.

In order to keep track of these components, each can be recorded with a receiving transaction, but without the PO item number identified.

The description of the component should be filled into the *Tag* data field.

Component transactions will remain on the system and will always be retrievable, but because they are not linked to a valid PO item, they cannot be posted to the projects. An attempt to post these transactions will result in them being marked by the system as in error (color red flag).

In order to remove these components from the un-posted catalog, the PO can be amended with a “dummy” PO item that has no unit price attached. The receiving transaction then can be modified to link to the dummy PO item and posted.

The system will treat these components in exactly the same way as an over-delivered PO item, but without any cost consequences.

Receiving Bulk Items

Items that were purchased on a bulk purchase basis will be received to the requisition items based on need date.

The system will credit first the requisition item with the earliest need date that still has outstanding material.

When the order for that item is fully received, any remaining material will be credited to the next requisition in the same way.

If items have the same need date, the allocation of the received quantities is performed essentially in random order by the system.

If more quantities of a bulk item are received than what is ordered (i.e., Over-Deliveries), the extra quantities are given by the system to the requisition item with the most distant need date.

Receiving Under Deliveries

To receive quantities less than ordered, enter only the quantity received in the receiving transaction.

The incomplete PO items will remain open in the system and can be expedited like any PO item not yet delivered.

Receiving Over-Deliveries

To receive quantities of PO items greater than ordered, enter the total quantity received, including the quantity not ordered in the receiving transaction.

The system will continue to report the excess until

- a) the purchase order is amended or**
- b) the material is sent back to the vendor.**

Receiving more than the quantity ordered will increase the value of committed cost to the associated levels of the project WBS.

If the excess material and cost is not desired, the material must be returned, and the user must make a receiving transaction that backs out the excess.

Receiving Un-Purchased Material

To receive items that are not on the purchase order and are not represented as an over-delivery, enter a receiving transaction, but leave the PO item unidentified.

The description of these un-purchased items should be filled into the *Tag* data field.

These transactions will remain on the system and will always be retrievable, but because they are not linked to a valid PO item, they cannot be posted to the projects.

An attempt to post these transactions will result in them being marked by the system as in error (color red flag) until either:

- a) the purchase order is amended and the transaction is posted again, or**
- b) the material is sent back to the vendor and the transaction is deleted.**

Receiving “Other Material” To Requisitions

A special receiving function is available for manufactured parts and for owner furnished material.

The difference between receiving purchased material and other material is that

1. purchased material is received via the purchase order,
2. while “other material” is received via the requisition.


To receive non-purchased material, select *Environment/Stores Management/Receive Other Material* from the main menu.

The “Other Material Receiving” worksheet will open.



ID Num	Recv Date	Contract ID	Proj	Req	Req Item	Part Type	Qty Required	Qty Received	UoM	Location
1	01/08/2003	A-DEMO	01			Manufactured Part	0.00	0.00	EA	Tool Room

In a query mode, the user can click on the *Retrieve* button on the toolbar to view existing receiving transactions.

New receiving transactions can be added using the *Add* button  on the toolbar. Pertinent information is:

1. **Contract number**
2. **Project number**
3. **Requisition number**
4. **Requisition item number**
5. **Quantity received**
6. **Location for storing the received items**
7. **Packing slip (if available)**

Special Note: If the requisition item already has been assigned a storage location, the system will default that location for the receiving transaction. Otherwise, the user must identify the storage location.

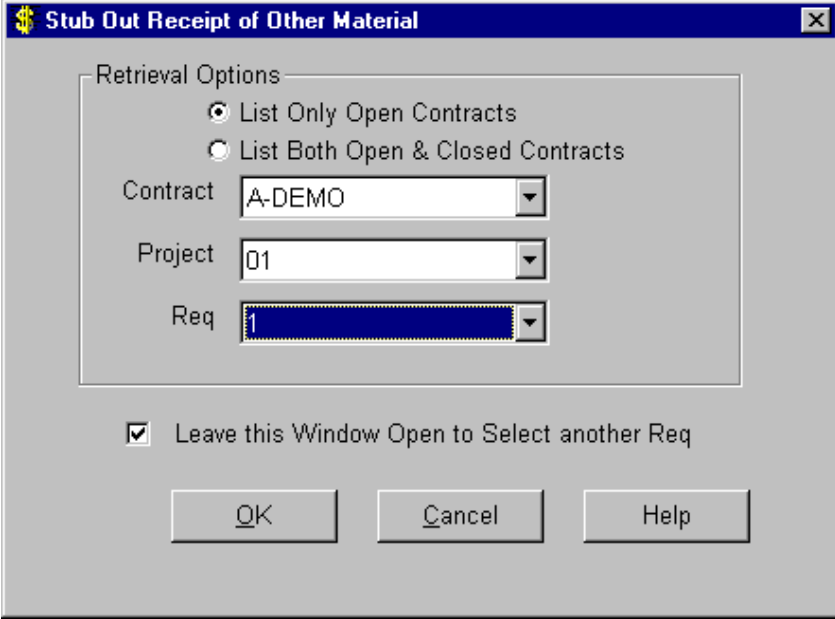
The “ID Num” for the transactions are sequenced automatically by the system.

Stubbing Out Requisition For Receiving

Another method for entering receiving transactions for “other material” is to “stub-out” the items of the requisition. This saves a lot of data entry for identifying the received items.

The requisition can be stub-out by selecting *Edit/Stub Out Requisition Item Receipts* from the main menu (or  on the toolbar).

A window will open that allows the user to select the requisition from a drop-down list.



Stub Out Receipt of Other Material

Retrieval Options

List Only Open Contracts
 List Both Open & Closed Contracts

Contract A-DEMO

Project 01

Req

Leave this Window Open to Select another Req

OK Cancel Help

Only non-complete requisitions that have items that are not stock or direct purchase material will be in the selection list.

The system will preload all outstanding requisition items from the selected requisition for receiving transactions and assign them to the storage location identified by the user.

Requisition items that already have been fully received will not be loaded for new receiving transactions.

The user can modify the quantity received and storage locations if different from what has been preloaded by the system.

When the entry of transactions is complete, and the records are saved, the user must post the transactions as described below in “Posting Receiving Transactions.”

When a receiving transaction is posted, the system performs the following updates for requisitioned parts:

1. The BOM item quantity received is increased
2. The requisition item quantity received is increased
3. The Parts Catalog quantity on hand is increased
4. The on shelf quantity in the storage location is increased
5. The quantity received is added to the quantity available calculation on the requisition item and the Parts Catalog

Posting Receiving Transactions

After the receiving transactions have been entered, they need to be posted so that the system can recognize that they are valid liabilities for vendor payments.

From the receiving transaction worksheet,

1. Select the transactions desired for posting
2. Click on *Edit/Post Selected Receive Transactions* from the main menu (or  on the toolbar).

Any transactions selected that already have been successfully posted will be ignored by the system and their posting will not be repeated.

Receiving Transactions Color Codes

When the system has completed the posting process, it will color code the transactions as follows:

Gray – Transaction has not yet been processed for posting

Green – Transaction is valid (it references a valid purchase order item or requisition item)


Red – The posting process detects errors in the transaction

Backing Out Receiving Transactions

Posted receiving transactions cannot be modified or deleted.

However, an additional transaction that makes the necessary corrections can be entered and posted.

A posted or un-posted transaction can be reversed, or backed out by

- 1. Selecting them in the worksheet**
- 2. Clicking on *Edit/Back Out Selected Receive Transactions* from the main menu, (or  on the toolbar).**

Return Material To Vendor

Occasionally, it is necessary to return material to a vendor because it is not what was ordered, is defective, not needed, or not in compliance.

To return an item back to the vendor, select *Environment/Stores Management/Return Material*.

This will open the Return Material to Vendor worksheet where the Return To Vendor (RTV) transactions can be entered.

Return Material To Vendor									
	ID Num	PO	PO Item	Description	RMA Number	Qty Return	Qty Received	Unit Price	Location
1	12346	1	1	Harken Roller Furling set Cat No.		1.00	0.00	0.0000	Demo
2	31	1	1	Flow Meter		1.00	1.00	257.2500	Demo
3	41	1	1	Flow Meter		10.00	100.00	257.2500	Demo
4	22262	1	1	3X24 SANDING BELT 100 GRIT		5.00	30.00	2.7780	Mach.Shop
5	23262	2	2	3X24 SANDING BELT 36 GRIT		5.00	30.00	2.5890	Mach.Shop
6	24262	3	3	AWLGRIP PALE GOLD METALI		5.00	30.00	2.6500	Mach.Shop
7	25262	1	1	3X24 SANDING BELT 100 GRIT		-5.00	25.00	2.7780	Mach.Shop
8	26262	2	2	3X24 SANDING BELT 36 GRIT		-5.00	25.00	2.5890	Mach.Shop
9	27262	3	3	AWLGRIP PALE GOLD METALI		-5.00	25.00	2.6500	Mach.Shop
10	62262	1	1	3X24 SANDING BELT 100 GRIT		3.00	30.00	2.7780	Mach.Shop
11	65262	1	1	3X24 SANDING BELT 100 GRIT		2.00	27.00	2.7780	Mach.Shop
12	66262	2	2	3X24 SANDING BELT 36 GRIT		5.00	30.00	2.5890	Mach.Shop
13	67262	3	3	AWLGRIP PALE GOLD METALI		5.00	30.00	2.6500	Mach.Shop
14	68262	1	1	3X24 SANDING BELT 100 GRIT		-2.00	25.00	2.7780	Mach.Shop
15	69262	2	2	3X24 SANDING BELT 36 GRIT		-5.00	25.00	2.5890	Mach.Shop
16	70262	3	3	AWLGRIP PALE GOLD METALI		-5.00	25.00	2.6500	Mach.Shop

For each item to be returned, enter the following information:

- 1. purchase order number**
- 2. purchase order item number**
- 3. the quantity to be returned.**

The “ID Num” is automatically assigned by the system incrementally.

The system will provide information as to the total quantity received and the unit price from the purchase order.

The user may enter the RMA (Return Material Advice) number if required by the vendor for the transaction.

Returning Bulk Purchase Items

Items that were purchased on a bulk purchase basis (across multiple requisitions) will be returned based on Need Date.

The system will deduct from the quantity available on the requisition item with the latest need date first.

When all available material for that item is returned, any remaining material will be deducted from the next requisition in the same way.


When an item is returned, the system performs the following updates:

- 1. The quantity returned on the drawing BOM item, the requisition item, and the purchase order item is increased**
- 2. The quantity returned is deducted from quantity available calculation on the requisition item and the Parts Catalog**
- 3. The total RMA dollars at the WBS levels are increased**
- 4. The total unused dollars at the WBS levels are decreased**
- 5. The quantity in the storage location is decreased**

***Note:* The user cannot return more than is available in the storage location.**

Such a transaction can be saved, but the system will produce an error message when it is posted.


Posting RTV Transactions

Return To Vendor (RTV) transactions must be posted by highlighting those transactions in the RTV worksheet and selecting *Edit/Post Selected Return Transactions* from the main menu (or  on the toolbar)

Once RTV transactions have been posted, they cannot be changed.

Posted transactions are flagged in the worksheet with green

Backing Out RTV Transactions

Posted RTV transactions can be backed out by highlighting them in the RTV worksheet and then selecting *Edit/Back Out Selected Return Transactions* from the main menu (or  on the toolbar).

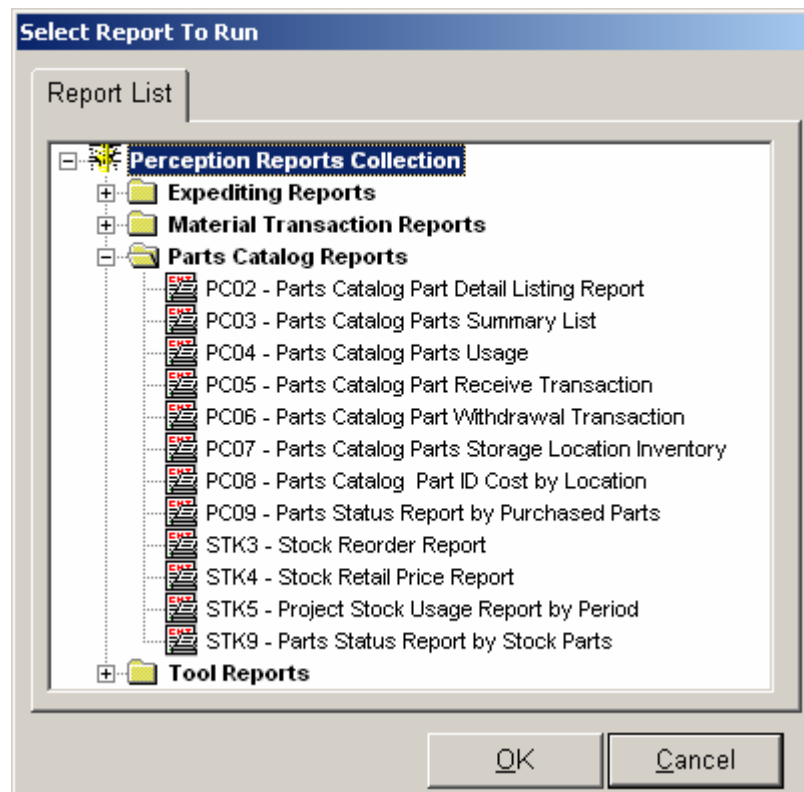
The system will duplicate the selected original RTV transactions, but negate the quantity returned.

These back-out transactions also must be posted.

Stores Management Reports

PERCEPTION provides various reports of the status of stock inventories and transactions.

To generate various stores status reports currently available on the system, click on *Environment/Stores Management/Reports* from the main menu and make a selection.

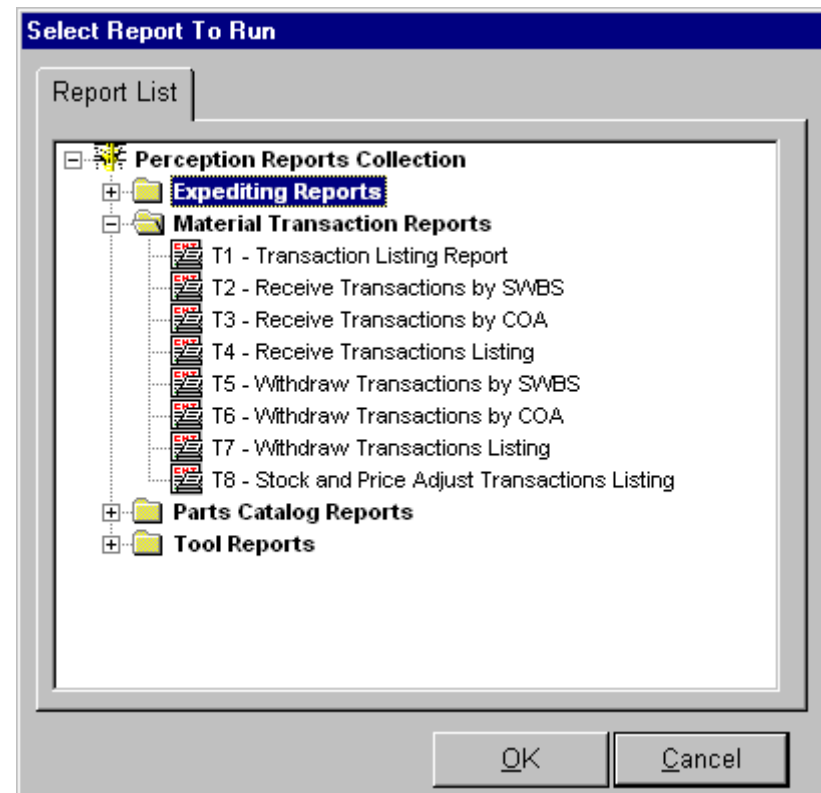


The “Stores Location Listing (DE2)” provides a status of receipts from purchase order deliveries.

DE2 - Stores Location Listing												
06/24/2003 10:53:58 (Date format: MM/DD/YYYY)			Chesapeake Marine Industries						P			
Stores Location Listing (DE2)												
Contract A-DEMO - Demo Contract for MAT-PAC Tutorial												
Project 01 - Sample Material Control												
Project Range: 0 to /			Tag: 0 to /									
Requisition Range: 0 to /			Part ID: 0 to /									
Req Item	Description	Part ID Part Type	PO - PO Item	Tag	Required		PO Quantities			Reqn Quantities		
					Ordered	UoM	Received	Pending	Returned	Transferred	Used	Avai
Requisition 1 Valves												
1	150# RF FLG CAST CS, A216 Gr. WCB GATE VALVE W/ACTUATOR	SPN-PVGATA/150-24 Direct Purchase		01262	3.00	EA					0.00	13.00
			req1 - 1		0.00	EA	0.00	0.00	0.00			
2	150# RF FLG ANSI CLASS 150, CS, SS TRIM WAFER BUTTERFLY VALVE	SPN-PVBFLY/150-24 Direct Purchase		01262	4.00	EA					0.00	3.00
			req1 - 2		0.00	EA	0.00	0.00	0.00			
Requisition 2 Machinery Systems Material List												
1	150# RF Flg, CS, Gate Valve w/Actuator	PVGATA/150-24 Direct Purchase		01300	3.00	EA					0.00	0.00
			02 - 14		24.00	EA	0.00	0.00	0.00			
2	EX STG ERW/SMLS, CS, Pipe	PI/XS-10 Direct Purchase		01300	5.67	M					0.00	0.00
			02 - 3		13.00	M	0.00	0.00	0.00			

Stores Transaction Reports

There are a number of material transaction reports that provide the status of withdraws and delivery receipts.



Rolling Up Transactions Into Project WBS

The system will rollup the allocated costs of receiving transactions up through the project WBS by clicking on *Environment/Material Control/Rollup/Production Material Rollup*.