

# *PERCEPTION<sup>®</sup> MAT-PAC*

## **Material Requisitions**

*A Training Tutorial*

**This training tutorial outlines the basic features of the *PERCEPTION* system for requisitioning shipyard material.**

**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.”**

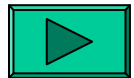
## **Other related training tutorials for material control are the following:**

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

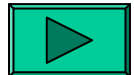
# Training Directory



**Continue**



**Defining Requisitions**



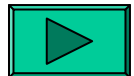
**Requisition Items**



**The Parts Catalog Wizard**



**Requisition Item Types**



**Part ID**



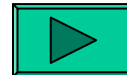
**Quality Assurance**



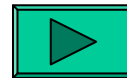
**Impact on the System**



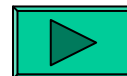
**Stock Replenishment**



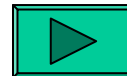
**Authorizing A Requisition**



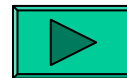
**Closing A Requisition**



**Deleting A Requisition**



**Toolbox Functions**



**Material Rollup**

# Creating A Project

Once all general information (work centers, vendors, etc.) has been defined, projects can be defined and the day-to-day usage of *PERCEPTION* for material planning, purchasing and inventory management can begin.

## **The typical steps for setting up a project for material management functions are as follows:**

- 1. Define the contract and one or more projects under the contract.**
- 2. Identify the contract's General Ledger accounts for the accounting system interface.**
- 3. Define the Work Breakdown Structures (SWBS, PWBS, COA, and/or CLINs) for each project.**
- 4. Schedule work (either manually or via *PERCEPTION PERT-PAC* planning activities).**
- 5. Perform analysis to ensure material, facilities, and manpower availability for scope of work and schedules.**

**The training tutorial, “Starting A New Project,” provides instructions for creating contracts, projects, and all necessary Work Breakdown Structures (WBS).**

**If formal planning and scheduling is required, the training tutorial “*PERCEPTION PERT-PAC: Integrated Planning & Scheduling*” provides detailed instructions.**

## The following are typical stages of material control:

1. Define drawings and drawing bills of material (optional).
2. Develop material requisitions, either directly or via drawing BOMs or work order pallets.
3. Identify requisitioned material items that can be obtained from stock, or from direct purchase or from manufactured parts.
4. Develop purchase orders and issue them to vendors and suppliers.
5. Expedite material deliveries.
6. Monitor material costs and schedules.
7. Receive material deliveries, perform QA inspections (optional), and place material in selected storage locations.
8. Formulate work order pallets of material from either requisitions or drawings or both (optional).
9. Withdraw material to production.
10. Enter vendor invoices and process for acceptance (optional).

# Defining Material Requisitions

A requisition is a listing/bill of material that defines some portion of the project's material requirements.

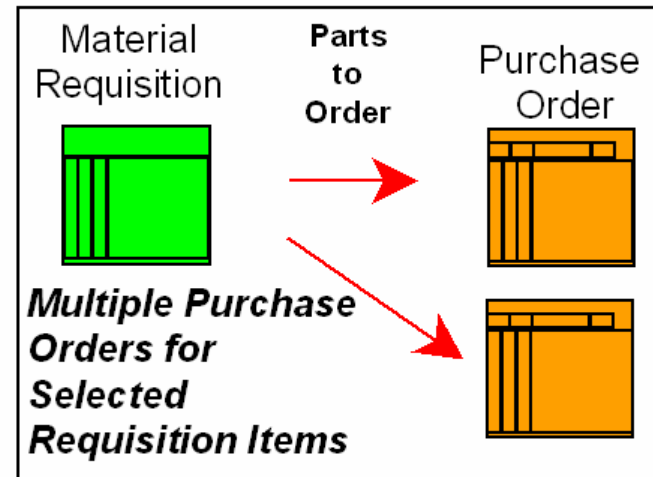
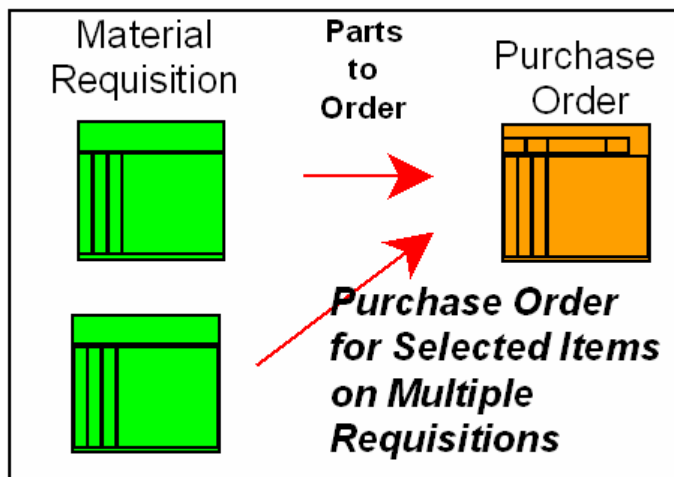
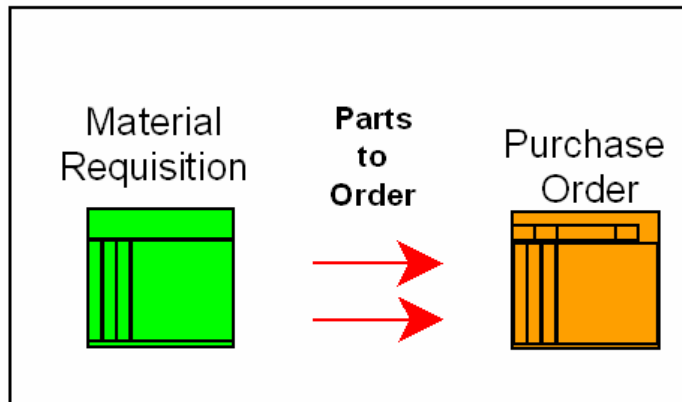
Requisitions normally proceed into procurement phases.

Requisitions also may source material items from general stock inventory, and from manufactured parts and assemblies.

*A single requisition can source all types of these items, including subcontracted services.*

## The requisition is the basis for all purchases

*All purchase orders must relate to one or more material requisitions.*



# Requisition items can be developed six different ways:

1. Manually, item by item
2. From a Cost Estimate list of materials
3. From Engineering Drawing BOMs
4. From production Work Order Pallets
5. From “Quick Stock Withdraws”
6. Copied from similar material requirements already on the database.

# Requisitions From A Cost Estimate

Material requisitions may be generated automatically from detailed cost items of a cost estimate developed in *PERCEPTION*.

Detail instructions for developing cost estimates are available later in this tutorial and also in the training guides “*PERCEPTION ESTI-MATE Estimating Ship Repair*” and “*PERCEPTION ESTI-MATE Estimating New Construction*.”

# Requisitions From Drawing Bills of Material

Material requisitions may be generated automatically from drawing bills of material developed in *PERCEPTION*.

Detail instructions for developing drawing bills of material are available in the training guide “*PERCEPTION MAT-PAC* Managing Drawings & Bills of Material.”

# Requisitions From Work Order Pallets

Material requisitions may be generated automatically from work order pallets developed in *PERCEPTION*.

Detail instructions for developing pallets are available in the training guide “*PERCEPTION MAT-PAC Work Order Pallets.*”

# Requisitions From Quick Stock Withdraws

A *Quick Stock Withdraw* is requisition for stock material, which is normally generated spontaneously to satisfy an immediate production requirement.

This type of requisition is not quite so formal in terms of pre-planning and can be entered into the system real-time at the time the material is issued to production.

Detail instructions for Quick Stock Withdraws are available in the training guide “*PERCEPTION MAT-PAC* Withdrawing Material to Production.”

The system automatically creates a requisition item for the *Quick Stock Withdraw* item.

The system will store them under a requisition number having the following date-oriented format:

*Requisition Number = YYYYMMDD.*

Each of these Quick Stock requisitions are cataloged separately for each contract/project processed for the date of withdraw.

The system automatically assigns a sequential requisition item number for each of these Quick Stock requisition items.

The system automatically flags Quick Stock requisitions as authorized for withdraw.

**When a stock item is “quick” withdrawn, the system performs the following updates:**

- 1. The quantity used on the newly created requisition item is increased**
- 2. The on hand quantity in the Parts Catalog is decreased**
- 3. The stock withdrawn dollars at the WBS levels is increased**
- 4. The quantity is decreased in the storage location**
- 5. The quantity used is deducted from quantity available calculation on the Parts Catalog**

# Requisitions Copied From Other Requisitions

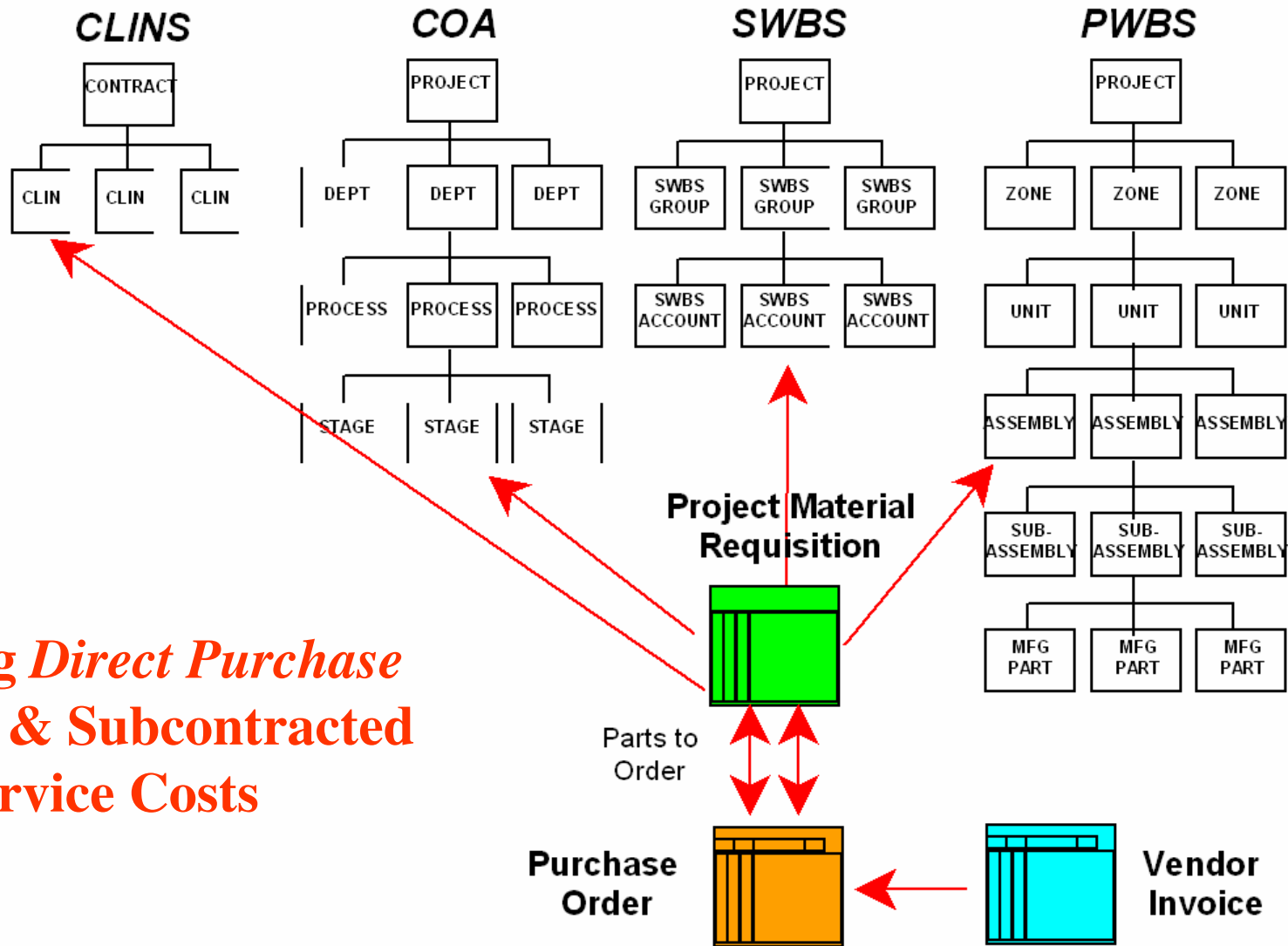
Material requisitions may be generated automatically from copies of requisitions existing elsewhere on the *PERCEPTION* database.

Detail instructions for developing copies of requisitions are available later in this training guide.

# Material Cost Management

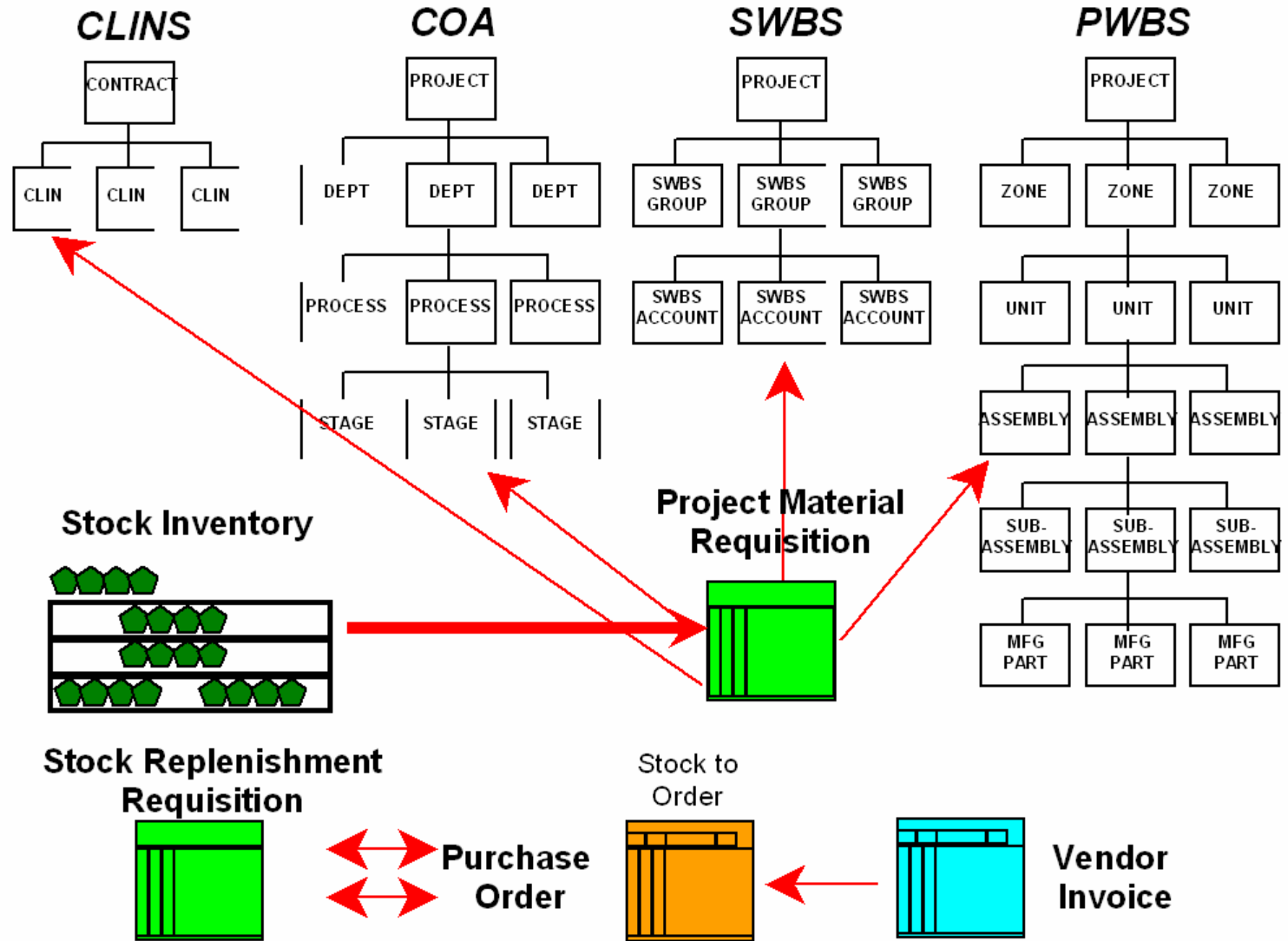
The requisition is the repository for all project material & subcontract costs.

Requisition costs ultimately are “rolled up” and summarized by the project’s WBS.



**Tracking *Direct Purchase* Material & Subcontracted Service Costs**

# Tracking Stock Material Costs

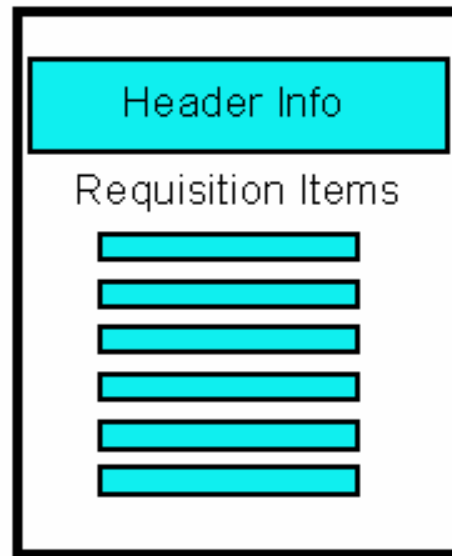


# ***IMPORTANT!***

**To track project costs properly, all requisition items must identify their appropriate WBS.**

Requisitions consist of the requisition header record and requisition item records.

## Requisition



The header record stores general information about the requisition. The requisition items are its details.

# Requisition Header Record

Access to requisitions is available either via the drill-down features or directly by selecting *Environment/Material Control/Requisitions* from the main menu.

Requisition Information									
Contract	Project	Reqn	Heading	Drawing	Drawing File Name	Center	Work Order	Authori	
6 PD-337	337	1	Hull Structure						
7 PD-337	337	10	Masts Towers & Tetrapods						
8 PD-337	337	11	Service Platforms						
9 PD-337	337	1111	Auto Created from Drawing 0101	0101				Yes	
10 PD-337	337	12	Electric Plant Foundations						
11 PD-337	337	13	Auxiliary Systems Foundations						
12 PD-337	337	14	Propulsion I.C. Engines						
13 PD-337	337	15	Auxiliary Propulsion Devices						
14 PD-337	337	16	Propulsion Reduction Gears						
15 PD-337	337	17	Propulsion Shafting						
16 PD-337	337	18	Propulsion Shaft Bearings						
17 PD-337	337	19	Propulsors						
18 PD-337	337	2	Shell & Supporting Structure						
19 PD-337	337	20	Propulsor Shrouds & Ducts						
20 PD-337	337	21	Circulation & Coupling Sea Water System						
21 PD-337	337	22	Uptakes						
22 PD-337	337	23	Fuel Service System						
23 PD-337	337	24	Main Propulsion Lube Oil System						
24 PD-337	337	25	Motors & Associated Equipment						
25 PD-337	337	26	Electric Cables						
26 PD-337	337	27	Ship Service Power Generation						

## Requisitions Header Worksheet

Each requisition is identified uniquely on the database by its set of primary keys:

1. Contract ID (must be previously defined)
2. Project number (must be previously defined)
3. Requisition number (maximum 8 alphanumeric characters)

*(The requisition's primary keys are indicated by blue labels on the detail window)*

Double clicking on a desired requisition will open the *Requisition Details* tab window.

This window provides most of the information available at the requisition header level of the requisition.

**Required  
Unique  
Requisition  
Identification:**

1. Contract
2. Project
3. Requisition Number

Requisition Details Information

Requisitions Requisition Items

Contract PD-337 Reqn 1111 Heading Auto Created from Drawing 0101

Proj 337 Drawing 0101 Center Work Order Budget 0.00

Auth Yes Auth Date 04/12/2000 Need Date 06/01/2000

Auth By spar Complete No - Buffer Days 13

Date Created 04/11/2000 Revision = Required In Yard 05/19/2000

RFQ Date 00/00/0000 Rev Date 00/00/0000 - PO Lead Time 14

Destination = PO Action Date 05/18/2000

Responsible spar

SWBS Group Acct COAs Phase A2 Stage

Category 01 I.M. Hammer

PWBS Zone 01 Unit 0101 Sub Assy Activity Center

Outfit Zone Assembly Part Activity

*Requisition Detail Window*

# Requisition Header WBS

**The WBS structure for the requisition (SWBS, PWBS and/or COA) comprises the secondary reference keys (indicated by red labels on the detail window).**

**The requisition WBS may be defined to whatever level of the WBS is appropriate for the requisition.**

**Reports can be generated across any combination of these reference fields to suit specific reporting requirements.**

# Requisition Header Schedules

1. Schedules for the requisition include the Need Date.
2. From the Need Date and the stores Buffer Time, the system computes the Required-In-Yard (RIY) Date.
3. From the RIY Date and the purchasing Lead-Time, the system computes the PO Action Date.

By default, the system will use a stores Buffer Time and the purchasing Lead Time as defined by the Company Default values (*Library/Company Parameters/Company Defaults*).

*The user can modify these values for the requisition. Changing the lead time will cause the system to revise the Required-In-Yard and PO Action dates.*

**Note: All times for Storage Buffer, Pallet Buffer, PO Lead-Time, and PO Process are to be given in calendar days.**

# Requisition Header Work Order Assignment (Optional)

If the requisition header references a valid work order already defined on the database, the system will use the work order's planned start date as the Need Date for the requisition.

The user then may manually modify the Need Date as long as the automated scheduling option for requisitions in the company parameters window (*Library/Company Parameters/Company Defaults* tab) is turned off.

*A work order is defined by its work order number, plus its work center and related to the contract and project.*

# Requisition Header Planning Activity Assignment (Optional)

If the requisition header references a valid planning activity already defined on the database, the system will use the planning activity's planned start date as the Need Date for the requisition.

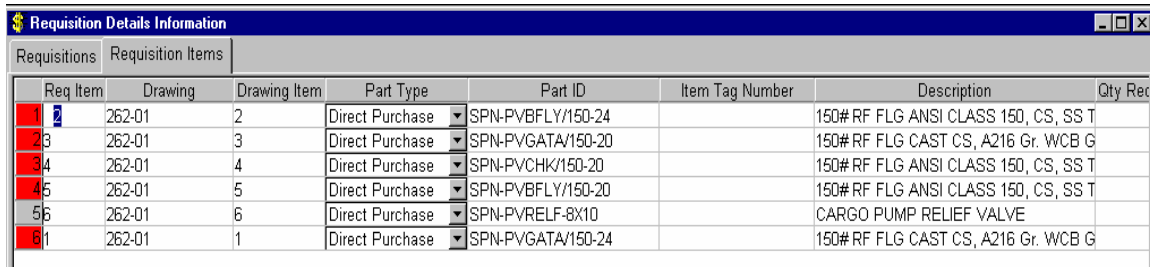
If the requisition also references a valid work order, the work order start date preempts for the requisition Need Date.

The user may manually modify the Need Date as long as the automated scheduling option for requisitions in the company parameters window (*Library/Company Parameters/Company Defaults* tab) is turned off.

*A planning activity is defined by its planning activity number, plus its work center and related to the contract and project.*

# Requisition Items

When the requisition header information is complete, add items by clicking on the Requisition Items tab to display the Requisition Item worksheet



Requisition Details Information							
Requisitions		Requisition Items					
Req Item	Drawing	Drawing Item	Part Type	Part ID	Item Tag Number	Description	Qty Rec
1	2	262-01	2	Direct Purchase	SPN-PVBFLY/150-24	150# RF FLG ANSI CLASS 150, CS, SS T	
2	3	262-01	3	Direct Purchase	SPN-PVGATA/150-20	150# RF FLG CAST CS, A216 Gr. WCB G	
3	4	262-01	4	Direct Purchase	SPN-PVCHK/150-20	150# RF FLG ANSI CLASS 150, CS, SS T	
4	5	262-01	5	Direct Purchase	SPN-PVBFLY/150-20	150# RF FLG ANSI CLASS 150, CS, SS T	
5	6	262-01	6	Direct Purchase	SPN-PVRELF-8X10	CARGO PUMP RELIEF VALVE	
6	1	262-01	1	Direct Purchase	SPN-PVGATA/150-24	150# RF FLG CAST CS, A216 Gr. WCB G	

## Requisition Items Worksheet

Each requisition item is identified uniquely on the database by its set of primary keys:

1. **Contract ID (must be previously defined)**
2. **Project number (must be previously defined)**
3. **Requisition number (same as for the header)**
4. **Requisition item number (maximum 8 alphanumeric characters)**

*(The requisition item's primary keys are indicated by blue labels on the detail window)*

**The system automatically fills in for the item the following requisition header information:**

- 1. Revision information**
- 2. WBS (SWBS, PWBS, COA, & CLIN)**
- 3. Schedule information**
- 4. Responsible person (for ship repair, typically the requesting foreman; for new construction, typically the design engineer)**
- 5. Work Order & Work Center number (if assigned)**
- 6. Planning Activity & Activity Center (if assigned)**

*The user may modify this item information as needed.*

**NOTE: Requisition Items may be assigned to different project WBS, schedules and revision identifiers.**

## Requisition items can be developed several different ways:

1. Manually, item by item
2. From Drawing Bills of Material
3. From Work Order Pallet Requirements
4. Copied From Other Requisitions
5. Imported from other Windows software products
6. Copied and pasted from other Windows software products, including *PERCEPTION*

# Requisition Items Manually Determined

Requisition items can be entered item by item into the requisition item worksheet.

Requisition items must all have the correct association to the requisition header (contract, project and requisition number) and have valid requisition item numbers applied.

# Requisition Items

## From Drawing Bills of Material

Requisitions can be generated directly from a drawing or set of drawings and their bills of material (BOMs).

Refer to the training tutorial “*PERCEPTION MAT-PAC* Managing Drawings & BOMs” for details.

**When a drawing bill of material (BOM) item is assigned to a requisition item, the system initiates the following:**

- 1. The part ID of the requisition item is compared to the part ID of the drawing BOM item.**
- 2. If they match, then the requisition item is updated with the drawing/drawing BOM item.**
- 3. If they do not match the system generates an error message for the user.**

**The system ensures that all quantities and unit prices are rolled up from requisition items to their parent drawing automatically via the database.**


# Requisition Items From Work Order Pallets

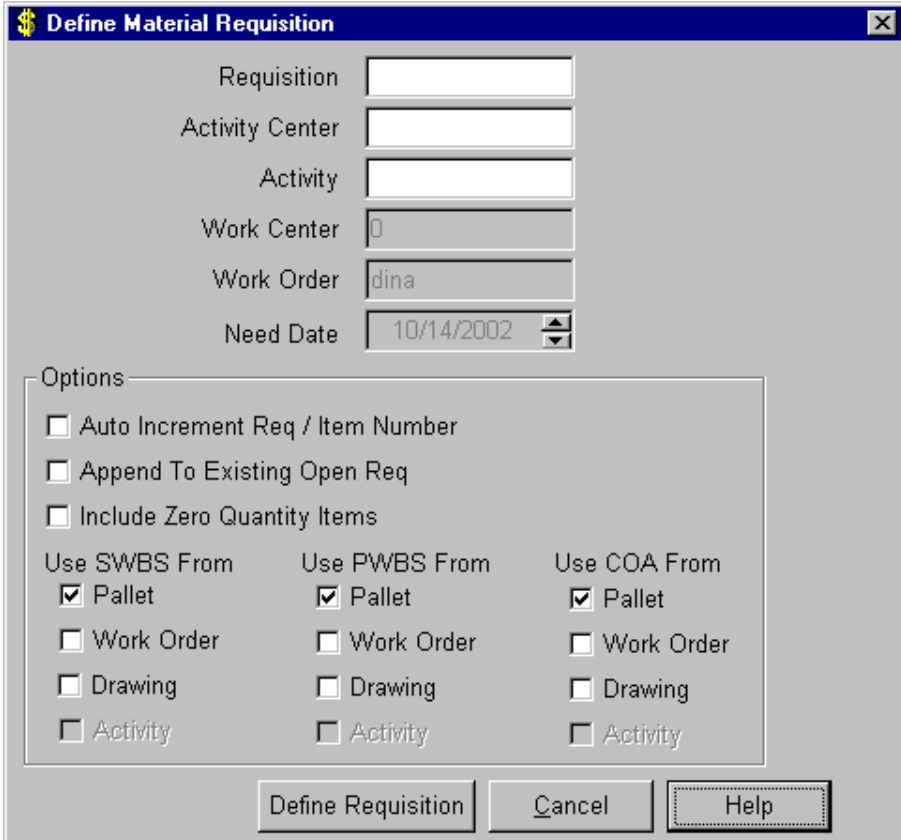
For ship repair, the work order pallet may be used to identify all of the necessary material items needed to execute a specific work order.

*PERCEPTION* provides a convenient wizard for automatically developing a material requisition from this pallet bill of material.

The requisition then can be processed directly by the various purchasing functions.

## Identifying A Pallet For A Requisition:

1. Open the pallet worksheet (*Environment/Material Control/Pallets*), and highlight the pallet containing pallet items to be made into requisition items.
2. Click on the *Define Requisition* button  on the toolbar.



Define Material Requisition

Requisition

Activity Center

Activity

Work Center 0

Work Order dina

Need Date 10/14/2002

Options

Auto Increment Req / Item Number

Append To Existing Open Req

Include Zero Quantity Items

Use SWBS From      Use PWBS From      Use COA From

Pallet                       Pallet                       Pallet

Work Order                       Work Order                       Work Order

Drawing                               Drawing                               Drawing

Activity                                   Activity                                   Activity

Define Requisition      Cancel      Help

*The system will then display the window for defining the requisition*

**Requisition:** Enter the requisition number (it may also be an existing requisition, but the *Append to Existing Open Req* option must be clicked on), or select the *Auto Increment Requisition/Item Number*.

**Activity Center & Activity:** If identified on the pallet, this information is automatically set by the system.

**Work Center & Work Order:** If identified on the pallet, this information is automatically set by the system.

**Need Date:** The date determined by the system according to the scheduling rules

**Option, Auto Increment Req/Item Number:** Unless the user wishes to manually define each requisition, this option will allow the system to automatically define a new requisition as the next higher requisition number for the project. The requisition item numbers will be the same as the pallet item.

**Option, Append To Existing Open Req:** If the pallet items are to be added to an existing requisition, this option must be turned on.

**Option, Include Zero Quantity Items:** Normally (by default), pallet items that have no quantity defined are not included as requisition items.

**SWBS, PWBS & COA Requisition Item Assignments:** The user can assign these WBS elements to the requisition items as defined on the pallet.

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**If an assignment is made to either a valid planning activity (requires a valid activity center to be defined) or work order (requires a valid work center to be defined), the Need Date for the requisition will be set accordingly.**

**Otherwise, the Need Date can be defined manually. All other purchasing schedules (Required-In-Yard, PO Action Date, and Planned PO Date) are computed by the system using company default process times.**

# Requisition Items Imported From Windows Software Products

Requisition items can be imported from other software products such as Microsoft *Excel*.

Refer to “*Getting Started With PERCEPTION*” for details.

**Requisition items imported must all have the correct association to the requisition header and have valid requisition item numbers applied.**

# Requisition Items Copied & Pasted From Windows Software Products

Requisition items can be copied and pasted either from other software products, or from requisition items stored elsewhere on the *PERCEPTION* database. Refer to “*Getting Started With PERCEPTION*” for details.

Requisition items pasted must all have the correct association to the requisition header and have valid requisition item numbers applied.

# Requisition Items From Parts Catalog

**Any requisition item can reference an item in the Parts Catalog.**

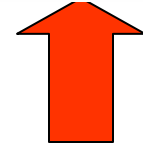
**The Parts Catalog can catalog a variety of standard parts (“Part Type”):**


- 1. Stock Items (a requirement if using stock)**
- 2. Direct Purchase Standard Parts (optional)**
- 3. Standard Manufactured Items (optional)**

The Part Type can be set on the requisition item record as viewed in the *Requisition Item* worksheet.

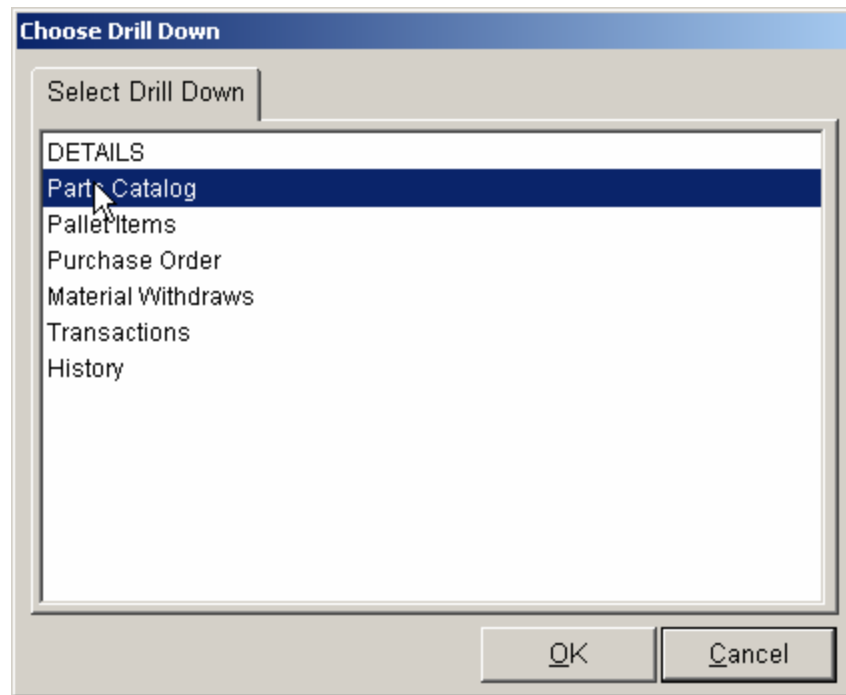
All parts managed by the Parts Catalog have a unique Part ID. In addition, the item must identify the Part Type (Stock, Direct Purchase or Manufactured Part):

Requisition Details Information for the Material Control Environment								
Requisitions		Requisition Items						
	Contract	Project	Req	Req Item	Drawing	Drawing Item	Part Type	Part ID
1	A-DEMO	01	12349	1			Stock	CHAIN-GP-60
2	A-DEMO	01	12349	2			Stock	CHAIN-GP-80



If a requisition item references a stock part, the user can inquire directly about the part's availability using the *Drill Down* button  on the tool bar.

The system will produce a list of drill-down selections.



Select *Parts Catalog*, and the system will retrieve the Part ID under the Part Type from the catalog:



Part Classification	Part Type	Part ID	Description	Qty On Shelf	UoM	Unit Price	Markup %
1 Chain	Stock	CHAIN-GP-80	Galv Chain, Proof Coil 3/4" (20m	100.00	FT	7.6900	0.00

Double click on the Part Catalog to view the detailed availability status of the part.

The detail window of the part will show not only the on-shelf quantity, but the quantity currently being reserved by other requisitions and the quantity on order.

**Parts Catalog Details for the Material Control Environment**

Part Type:  Description: Galv Chain, Proof Coil 3/4" (20mm)

Part ID: CHAIN-GP-80

NATO ID: - - -

MFG P/N: 130CO00121232

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**Characteristics**

Classification:  Sub-Class:

QA Flag:  Weight:

Stock Class:  Grade:

Lead Time:  Size:

Last Inventory:  Shelf Life:

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**Database Quantities**

On Shelf:  Available:  Reserved (On Reqs/Not Used):

On Order:  On Pallets:  On Requisitions/Not Ordered:

UoM:  UoI Convert:

Overhead G/L Expense Acct:

---

**Pricing (Company pricing shown in red)**

As Priced		On Average	
Unit Price	<input type="text" value="7.6900"/>	Avg Price	<input type="text" value="6.92"/>
Total Value	<input type="text" value="769.00"/>	Total Value	<input type="text" value="769.00"/>
Markup	<input type="text" value="0.00"/>	Retail Price	<input type="text" value="7.6900"/>

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**Stock Limit Quantities**

High:  Low:  Alternate Low:

G/L Asset Acct:

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**Labor Information**

Labor Rate 1 And Trade:  Labor Rate 2 And Trade:

---

**Pricing (Continued)**

Replacement Cost:  Last Purchase Date:

Last Price:  Total Value:

*Sample Detail of a Part on the Parts Catalog*


**NOTE:** If the requisition item references *Stock* and had been saved to the database, the total quantity on stock reserve will include that required by the requisition item.

However, if the user then changes *the requisition item Part Type from Stock to Direct Purchase*, the stock reservation will reduce accordingly and the system will expect the item to be processed by a purchase order.

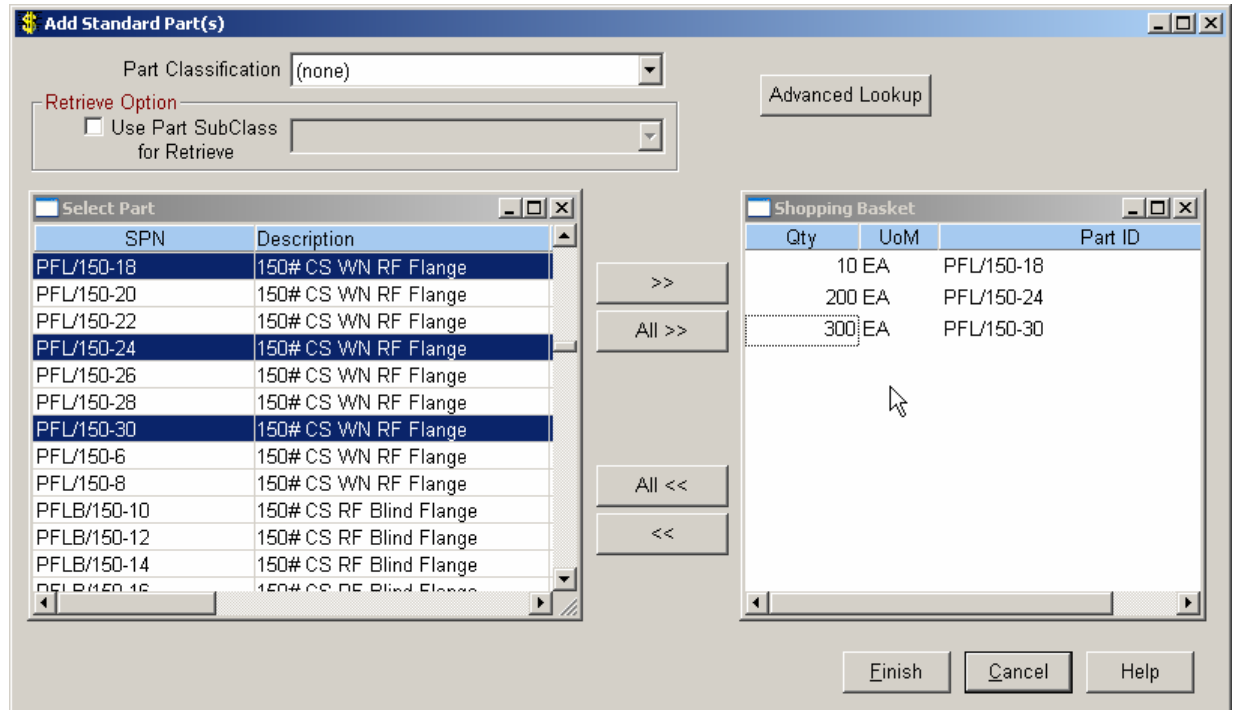
**If requisition items are to be identified as parts held in the Parts Catalog, the Parts Catalog should be completed before creating requisition items**

# Using the Parts Catalog Wizard

Another option, when manually entering requisition items, is to use the Parts Catalog Wizard.

While the *Requisition Items Worksheet* is open, items can be added from the Parts Catalog by clicking on the *Add Parts* button  on the tool bar.

This causes the system to open the *Add Standard Part(s)* wizard into the Parts Catalog:




Parts can be selected first by specifying the part classification and the sub classification, then by clicking on whatever selection of parts are needed from the displayed list.

By clicking the transfer button , the system copies these selected parts to the “shopping basket” at the right of the window. *The user then fills in the quantities required.*

Parts not wanted from the shopping basket can be removed by clicking on the de-transfer button. 

**Additional parts can follow in the same manner.**

**Once all parts desired have been selected, click on the *Finish* button at the bottom, and the system will copy these items to the requisition.**

**Note: The copying process to the requisition will honor whatever global values (click on “Global Defaults” button on the tool bar  ) are in effect.**

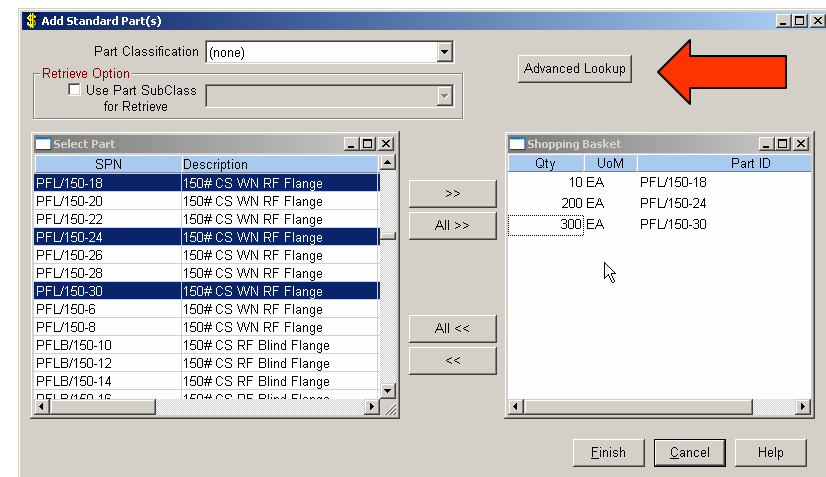
The system then will display the results from adding parts from the catalog to the requisition.

Requisition Details Information							
Requisitions		Requisition Items					
Req Item	Drawing	Drawing Item	Part Type	Part ID	Item Tag Number	Description	
1			Direct Purchase	PIXS-12		EX STG ERW/SMLS, CS, Pipe	
2			Direct Purchase	PIXS-18		EX STG ERW/SMLS, CS, Pipe	
3			Direct Purchase	PIXS-22		EX STG ERW/SMLS, CS, Pipe	

*Requisition Items From The Parts Catalog*

An alternative method of adding new items is to click on the more advanced Search for Parts button  on the tool bar, or by clicking on the *Advanced Lookup* button in the *Add Standard Part(s)* wizard.

**This feature provides a means of searching the Parts Catalog with more advanced, user-defined criteria of part attributes.**



Refer to "Setting Up a Parts Catalog/Parts Catalog Query/Search for Parts" in the "Material Planning, Purchasing & Inventory Control User Manual" for details.

# Requisition Item Detail Window

Double click on the desired requisition item to view the Requisition Item Detail window

**Requisition Item Information**

Requisition	1	Item	2	Description	150# RF FLG ANSI CLASS 150, CS, SS TRIM WAFER BUTTERFLY VALVE
Drawing	262-01	BOM Item	2		
Center	0	Work Order	Demo		
Activity Cente		Activity		MFG P/N	
Item Type	Direct Purchase	Q.A. Flag		Qty Available	2.00
Part ID	SPN-PVBFLY150-24	Size		Need Date	02/02/1999
Tag		Weight	0	- Buffer Days	13
Qty Required	4.00	NATO ID	- - -	Required In Yard	01/20/1999
Revision		Status	Partial Issue	- Lead Time	14
Revision Date	00/00/0000			PO Action Date	01/06/1999
Budgeted Cost	0.00			- PO Delay	10
				PO Planned Date	12/27/1998

**SWBS** Group 2 Account 262

**COAs** Group Sub Group Item Progress

**PWBS** Zone 20 Unit 709P Sub Assy Responsible

Outfit Zone Assembly Part

The individual requisition items can be viewed or modified by using the scroll buttons on the tool bar.



# Requisition Items Referencing a Work Order

The system will automatically set the requisition item Need Date equal to the Work Order's Planned Start Date:

1. If a requisition item references a valid work order (requires a valid work center assignment too),
2. If the automatic scheduling option for requisitions in the company parameters window (*Library/Company Parameters/Company Defaults* tab) is turned on

**If the work order does not yet exist, a manual Need Date may be entered.**

**However, if and when the work order is defined on the database with a planned schedule, the system will automatically reschedule the requisition item Need Date accordingly.**

**If the automatic scheduling option has been turned off, the Need Date must be defined manually**


# Requisition Items Referencing a Planning Activity

The system will automatically set the requisition item Need Date equal to the Planning Activity's Planned Start Date.

1. If a requisition item references a valid planning activity (requires a valid work center assignment too),
2. If the automatic scheduling option for requisitions in the company parameters window (*Library/Company Parameters/Company Defaults* tab) is turned on,
3. If the requisition item does not reference a work order. The work order start date always preempts to set the Need Date.

# Attaching Planning Activities To Requisition Items

Requisition items can reference planning activities as provided in the Requisition Item worksheet or Detail window.

Another method is to highlight one or more requisition items in the Requisition Item worksheet, and then click on the *Attach/Detach Planning Activity* button  on the toolbar.

**The system will display a pop-up window in which the user can identify the planning activity and its work center.**

**An option allows the user to indicate if the planning activity's WBS (SWBS, PWBS and/or COA) also should be assigned to these requisition items.**

**If the planning activity does not yet exist, a manual Need Date may be entered.**

**However, if and when the planning activity is defined on the database with a planned schedule, the system will automatically reschedule the requisition item Need Date accordingly, unless it references a valid work order.**

**If the automatic scheduling option has been turned off, the Need Date must be defined manually**

**The system will set the Need Date for the overall requisition (the requisition header record) as the earliest non-completed item Need Date.**

# Requisition Item Type

The requisition can contain various types of requisition items:

1. **Direct Purchase (Spec Items, Non-spec Items & Standard Parts)**
2. **Stock items**
3. **Manufactured Items**
4. **Government Furnish Equipment (GFE) & Owner Furnished Equipment (OFE)**
5. **Load Items & Spares**
6. **Vendor Furnished Information (VFI)**
7. **Milestone Payments**
8. **Economic Price Adjustments (EPA)**

# Direct Purchase Requisition Items

A direct purchase item is any material item that is purchased directly for a specific contract/project.

Unlike stock items, the cost of direct purchased items is cataloged directly as a liability to the contract.

**A direct purchase item may or may not be an item defined in the Parts Catalog.**

**Direct purchase items in the Parts Catalog are referred to as “Standard Parts.”**

**Direct purchase items that typically are not included in the Parts Catalog are the “spec items” that have specifications unique for the contract at hand.**

**Other, non-spec items also may be direct purchase and not managed in the Parts Catalog.**

# Requisitioned Stock Items

Stock items can be included on project requisitions.

These items automatically create stock reservations for them on the Parts Catalog.

These project requisition items, however, do not increase the “Quantity on Requisitions” in the Parts Catalog.

**For replenishment, stock items must be requisitioned on a “stock” project.**

**These items do not create any stock reservation transactions on the Parts Catalog.**

**They do, however, increase the “Quantity on Requisitions” in the Parts Catalog to indicate that these items have been defined on a requisition and are therefore available for purchasing.**

# Manufactured Items

Items tagged as Manufactured Items are items resulting from various manufacturing processes in the shipyard that need to be tracked and used in later stages of construction.

These items typically are defined without any material costs, since the material costs already have been charged to the contract when their raw materials (purchased, stock, etc.) were used for the initial manufacturing process that created them.

**If manufactured items are to be tracked in the system, they must be included in a requisition.**

**Then, when the part has been manufactured or assembled, the requisition item must be received in much the same way as receiving a delivered purchased item.**

**Refer to “Delivery Receiving & Warehousing - Receiving Other Material to Requisitions,” in the *PERCEPTION* user manual “Material Planning, Purchasing & Inventory Control.”**

**Manufactured items can be included in a pallet.**

# Government & Owner Furnished Equipment

Requisition items tagged as GFE/OFE may be expedited with a pro-forma purchase order that carries no pricing information. Nevertheless, these items may need to be received and used in production like any other contract material item.

GFE/OFE items can be received like manufactured parts. Refer to “Delivery Receiving & Warehousing - Receiving Other Material to Requisitions,” in the *PERCEPTION* user manual “Material Planning, Purchasing & Inventory Control.”

# Requisition Load Items

**Requisition items tagged as Load/Items and Spares are treated in the same manner as Direct Purchase Items. This special tagging, however, enables the system to generate special reports on their status.**

**Load Items and Spares that are not purchased, but provided by the government/owner should be tagged as GFE/OFE items.**

# Vendor Furnished Information

Requisition items tagged as Vendor Furnished Information (VFI) can be included in a requisition for a purchase order and expedited as any other purchased items.

# Milestone Payments

Requisition items tagged as Milestone Payments identify them as strictly financial transactions between the vendor and the shipyard for goods and services purchased.

Any material items included under the cost of a milestone payment should not be defined on the purchase order with a unit price. However, these items would normally be defined with appropriate quantities so that these may be processed when received and used in production.

**Milestone Payment items are required to be “received” so that the system can acknowledge that they no longer are merely a commitment, but have, in fact, been recognized as payable.**

# Economic Price Adjustments

Items tagged as Economic Price Adjustments (EPA) are financial transactions between the vendor and the shipyard for goods and services purchased.

These transactions typically are negotiated credits or debits due the vendor as a result of changes in the economic environment of doing business, such as inflation and deflation.

**EPA items may be determined from changes in the cost of living and other price indexes.**

**EPA items typically are items included only in the purchase order and have no direct association with actual materials purchased, received and used in production. They only impact the cost of the contract.**

**EPA items are required to be “received” so that the system can acknowledge that they no longer are merely a commitment, but have, in fact, been recognized as payable.**

# Part ID

**When a Part ID and a Part Type are entered and the ID corresponds to an item in the Parts Catalog, all relevant data from the Parts Catalog will be copied automatically to the requisition item.**

**A Part ID that does not exist in the Parts Catalog can still be used on a requisition item, but a warning message will display to inform the user that the part is not cataloged.**

**If the Part ID field is left blank, the system will generate a Part ID for that item that consists of the concatenation of the project, requisition, and requisition item.**

**This system-created Part ID belongs exclusively to this requisition item and is used by the other modules (purchasing, pallet, receiving, storage) but will not be added to the Parts Catalog.**

**If the Part ID is not being used, the Tag Number can track the item.**

**Good planning should ensure that the requisition items and their associated drawing BOM items will have the same Part ID.**

**If a valid Part ID is entered on the requisition item that does not agree with the BOM item, a message box will appear asking the user if they wish to have different Part IDs on the BOM and the requisition item.**

**The Part ID can be changed on the requisition item only if there is no associated purchase order.**

**If the requisition item already has existed on the database, changing its Part ID will then update the Parts Catalog for quantity reserved and quantity requisitioned, but not ordered.**

# Quality Assurance Flag

The user can devise a quality assurance (QA) inspection scheme to classify various types of QA inspections. The following are examples:

1. Damage Inspection
2. Operational (Functional) Testing
3. Dimensional Inspection
4. Construction Quality Inspection

*The QA inspection code scheme may also be detailed to indicate specific tests and inspection procedures required for the material item.*

**When a requisitioned item has the QA flag set and has been purchased, the system assumes that it must go through a quality assurance inspection after it is received.**

**When QA material is received, the system updates the quantity pending on the following records: PO item, requisition item, and BOM item.**

**The system will not permit an item with a QA flag set to be withdrawn to production until it has been inspected and accepted.**

**Also, if the item is involved in a material transfer, the system will not allow it to be a payback until the inspection is complete and the item has been accepted.**

**Upon acceptance, the system will then automatically generate the payback transaction.**

# Requisition Item Color Coding


The system color codes requisition items in the Requisition Item worksheet:

Gray – non-stock requisition item not yet linked to a purchase order

Red – requisition item successfully linked to a purchase order

Blue – requisition item linked to a stock item

# Impact of Requisition On Other Material Control Documents

When the requisition is fully defined it must be saved. Do this either by clicking on the *Save* button  on the tool bar or the Windows X.

When a requisition is saved, the system automatically performs a number of updates to other records in the system.

**When a requisition item is saved, the system performs the following automatic updates for non-stock project items:**

- 1. The requisitioned quantity on the BOM item (if created) is increased.**
- 2. The quantity reserved on the Parts Catalog (if involved) is increased.**
- 3. The quantity on requisitions (not ordered) on the Parts Catalog is increased.**
- 4. The quantity available on the Parts Catalog is decreased.**

**The system performs the following automatic updates for stock reservation items on a project requisition:**

- 1. The requisition quantity on the BOM item (if created) is increased.**
- 2. The quantity received on the requisition item is set to equal the quantity required.**
- 3. The quantity reserved on the Parts Catalog is increased.**
- 4. The quantity on requisitions (not ordered) on the Parts Catalog is NOT increased.**
- 5. The quantity available on the Parts Catalog is decreased.**

**For a stock replenishment (“Stock” project) requisition item, the system performs the following:**

- 1. The quantity reserved on the Parts Catalog is NOT increased.**
- 2. The quantity requisitioned, but not ordered on the Parts Catalog is increased.**
- 3. The quantity available on the Parts Catalog is NOT decreased.**

**Note: Possible changes in the committed costs as they apply to reserved stock items will be computed by the system for the project WBS when the user initiates a material cost rollup.**

# Creating Stock Replenishment Requisitions

To purchase material for stock inventory replenishment, a stock purchase requisition must be created on the system, in exactly the same manner as is used for requisitioning contract/project material.

**Stock replenishment requisitions must be identified with special “stock projects.”**

**These projects must include the characters “STK” anywhere in the project number data field:**

**Example:**

**Stock Replenishment Project Number = STK2003.**

**(stock replenishments for year 2003)**

**The stock items on the requisition must be identified with a valid Part ID in the Parts Catalog and must have a Part Type of “Stock.”**

**Stock items on the replenishment requisition do not create any stock reservation transactions on the Parts Catalog.**

**They do, however, increase the “Quantity on Requisitions” in the Parts Catalog to indicate that these items have been defined on a requisition and are therefore available for purchasing.**

# Authorizing A Requisition

When creating a new requisition, the requisition initially is not set to “*Not Authorized.*”

- With this status, requisition items may be added, changed and/or deleted.
- Other definitions and assignments, such as the WBS, also can be added or modified.

Once the requisition is “*Authorized,*” the system assumes that the creation of the requisition is complete and it can now be processed for purchasing.

Without this authorization, the requisition cannot be processed for a purchase order.

Once the requisition has been authorized, it cannot be modified or more items added unless the requisition is “*Un-Authorized.*”


When the changes to the requisition are complete, it must be authorized again and then saved to the database.

**When a requisition is authorized, it is updated with the ID of the user in the *Authorized By* field and the current date in the *Date* field.**

**Authorization also is required before the requisition can be used to develop production pallets (optional).**

# Authorizing All Requisition Items


All items on a requisition can be authorized as a group in the following manner:

On the Requisition header worksheet, highlight the requisition(s) to be authorized and click on the *Authorize/Un-Authorize* button  on the tool bar.

This process cannot be reversed by un-authorizing the requisition header. This reversal process can only be done for individual requisition items.

# Authorizing Selected Requisition Items

Individual requisition items can be authorized in the following manner:

On the Requisition Item worksheet, highlight the requisition item(s) to be authorized and click on the *Authorize/Un-Authorize* button  on the tool bar.

If any item is un-authorized, the system will automatically set the requisition header to be un-authorized.

If all items are authorized, the system will automatically set the header to be authorized.

# Closing A Requisition

A requisition item is considered complete when the quantity used (withdrawn by production) is equal to or greater than the quantity required.

The user, however, may manually flag the requisition and/or requisition item as complete through a manual closing process.

When manually closed, the item quantity required is set by the system as the quantity used (i.e., withdrawn) to date.

**If the requisition item has been linked to the Parts Catalog, the un-fulfilled quantity is backed out from the reserved quantity for that part.**

**If the requisition item is linked to a stock item, any remaining stock reservation for the item is set to zero and the project WBS committed costs due to stock reservations are reduced accordingly.**


# Closing All Requisition Items

All items on a requisition can be set as completed as follows:

On the Requisition header worksheet, highlight the requisition(s) to be closed and click on the *Complete/Un-Complete* button  on the tool bar.

# Closing Selected Requisition Items

Individual requisition items can be set as completed in the following manner:

On the Requisition Item worksheet, highlight the requisition item(s) to be closed and click on the *Complete/Un-Complete* button  on the tool bar.

**NOTE: The closing process for requisition items does nothing to linked open purchase orders.**

**If related purchase orders also need to be adjusted, the purchase order may be either closed or an amendment issued to the vendor.**

# Deleting A Requisition

Requisitions or requisition items can be deleted


1. only if they are not authorized and
2. if no material has been purchased against them.

To delete an item, highlight it and click on the *Delete* button  on the tool bar.

*Note: The system will not permit a requisition item to be deleted from the database if it has been ordered, received, on pallets, or withdrawn by production.*

# Material Control Toolbox Functions

Selections of requisitions can be modified also via the toolbox.

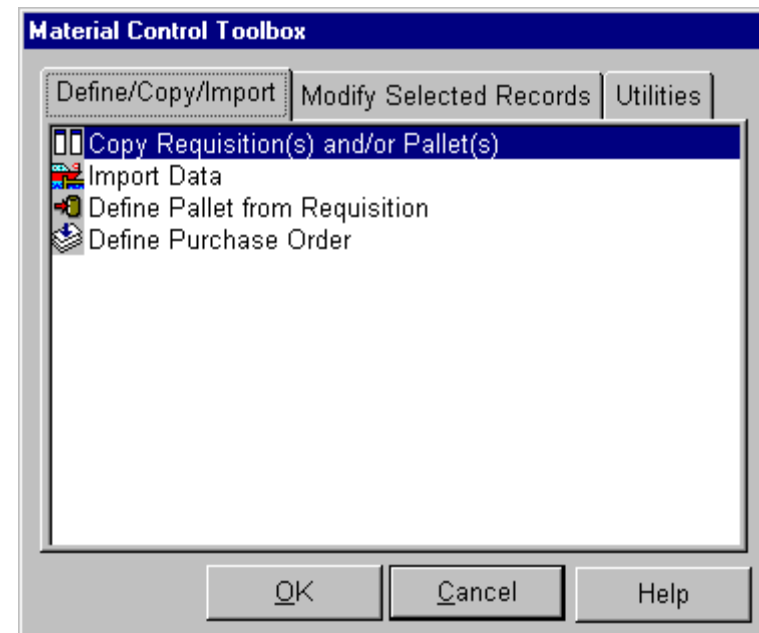
Click on the *Toolbox*  button on the tool bar:

The system will open the toolbox selections that are available.

# Copying Requisitions From Other Projects

The first tab on the toolbox window provides the following options:

1. Copy requisitions and/or pallets from other projects
2. Import data from another source
3. Define a pallet from a requisition
4. Create a purchase order from a requisition





**There are three basic levels of selection criteria:**

- 1. The top level identifies both the contract/project from which information is to be copied and the contract/project to which this information is to be copied.**
- 2. The middle level allows the copying of WBS levels from one project to another.**

***DO NOT CHECK THE WBS LEVELS UNLESS THESE WBS LEVELS ARE TO BE COPIED IN ADDITION TO REQUISITIONS.***

- 3. The lower level criteria allow the user to identify what items are to be copied to the new project and their ranges, if entered.**

***CLICK ON THE REQUISITIONS CHECK BOX.***

**When requisitions are selected for copy, the system will copy:**

- 1. header records and**
- 2. all related requisition item details**

**If the items have WBS values that have not been defined on the receiving project, the new items will be saved with the values that are not valid. The data can then be validated in a variety of ways. Refer to “Data Validation” in the tutorial “*PERCEPTION - Getting Started.*”**

**Other items that can be copied by this tool box function are Drawings with their Bills of Material, Pallets and/or CLINs.**

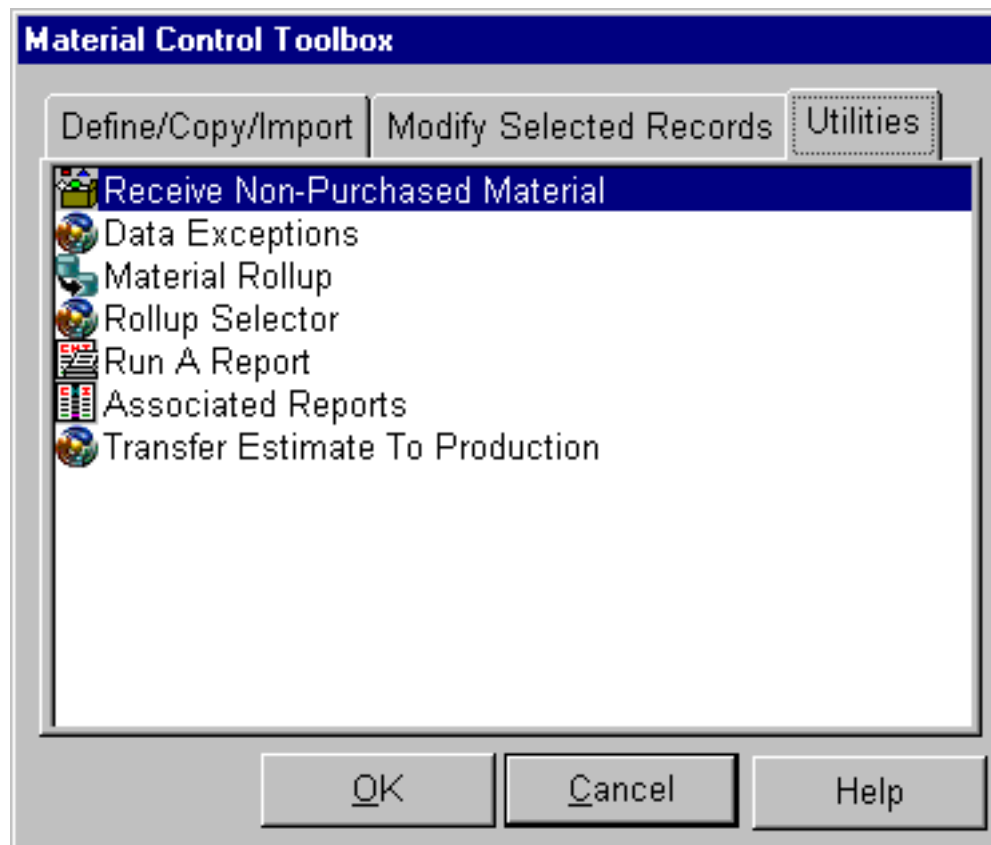
**The second tab on the toolbox window provides the same options for modifying selected records as are available on the toolbar:**

- 1. Authorize/Un-Authorize**
- 2. Complete/Un-Complete**
- 3. Attach/Detach Planning Activity**
- 4. Attach/Detach Work Order**
- 5. Reschedule Requisitions**

## **The third tab on the toolbox window provides the following options:**

- 1. Receive Non-Purchased Material (manufactured items)**
- 2. Data Exceptions (select from a list of exception reports)**
- 3. Material Rollup (summarize material cost status to project WBS)**
- 4. Rollup Selector (other optional rollup functions)**
- 5. Run A Report (generate various material control reports)**
- 6. Associated Reports (select from a list of reports to run against specific selected requisitions)**
- 7. Transfer Estimate To Production (initialize contract production data with information from the cost estimate)**

## Material Control Toolbox third tab (Utilities) options:

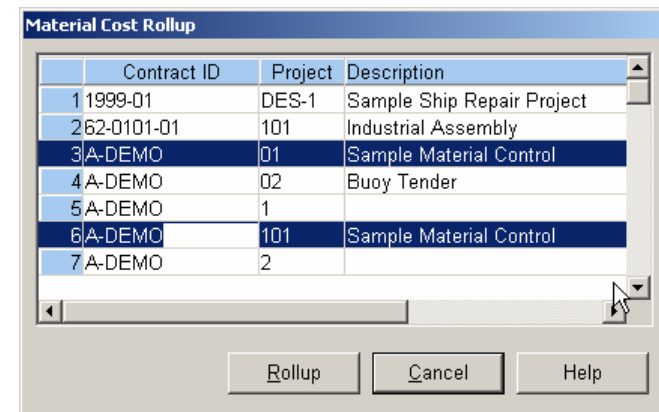


# Project WBS Material Cost Rollup

This material control toolbox option summarizes detail material cost status at all levels of a project's WBS (SWBS, PWBS, COA, and/or CLIN).

When selected, the system displays a list of possible projects for a rollup.

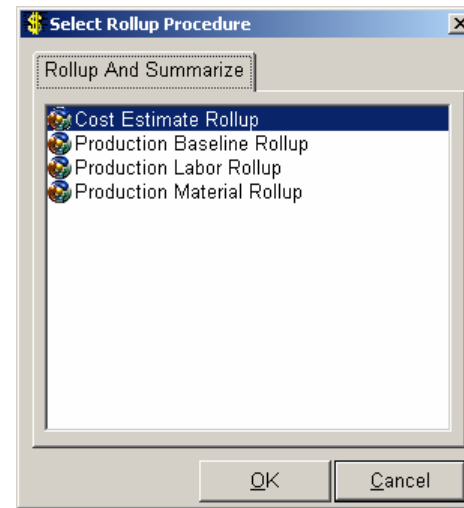
Highlight one or more projects, and then click on the *Rollup* button so that the system can perform this summation process.



# Rollup Selector

This material control toolbox option provides other cost status rollups, including

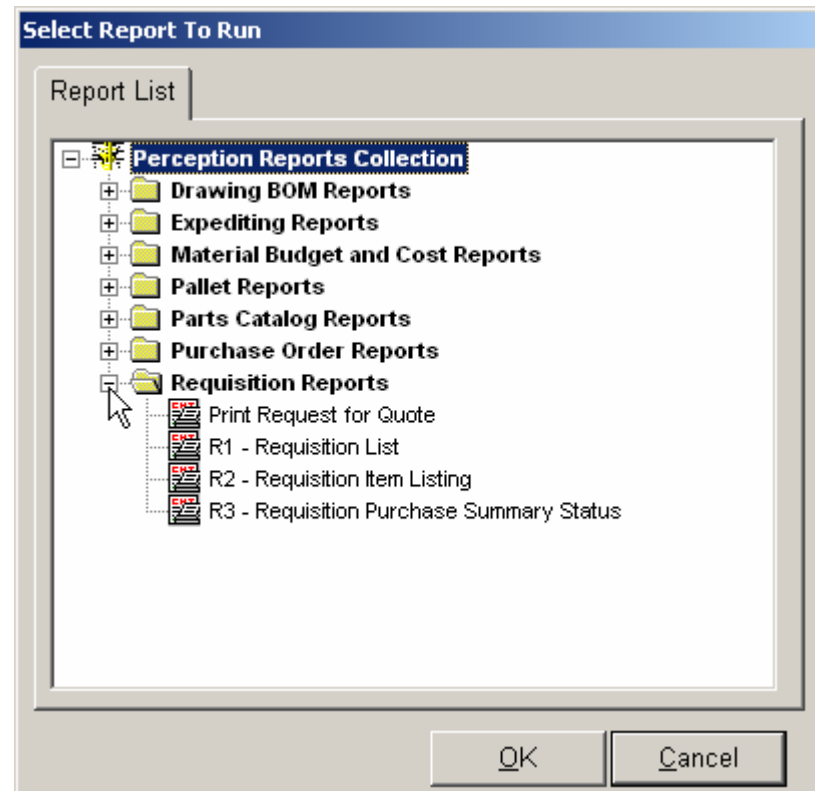
1. Cost estimate,
2. Production baseline (i.e., project planning activities),
3. Production labor (work orders), and
4. Production material (i.e., material cost rollup).



*Details of these optional rollups are discussed in their related user manuals.*

# Run A Report

This material control toolbox option is another way for users to generate various material control reports.



# Create Requisitions From A Cost Estimate

The material control toolbox *Transfer Estimate to Production* function allows the user to create requisitions directly from cost estimate detail cost items.

**Transfer Estimate To Production**

Contract and Project Retrieval Options

List Only Open Contracts  
 List Both Open & Closed Contracts

Contract: 1999-01  
Project: DES-1

Management Reserves

Labor Hours: 0.00%  
Material Dollars: 0.00%

Set Budgets On WBS

SWBS  
 PWBS  
 COA

Create Planning Details

Requisitions  
 Work Orders

Transfer Cancel Help

**There are a number of options provided by this cost estimate transfer function:**

- 1. Copy the material cost estimate to the project as the material budget. The user may specify:**
  - A percentage of the cost estimate to be retained as material cost management reserves.**
  - Which WBS elements (SWBS, PWBS, COA) to budget.**
- 2. Create planning material requisitions from the details of the cost estimate. Each requisition created will be identified to a single SWBS account.**

*Although typically not a material control function, this function also provides options for transferring labor cost estimates to the production project in similar fashion.*