



HIGH LEVEL DESIGN DOCUMENT


Oracle Process Manufacturing Applications

OPM Changes for Process Features for Receiving

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NOTE: The following information is confidential and is for internal use only. There is no commitment on content or scheduling for the functionality contained within this document. Additional high level designs will follow that will provide specific content, phasing and scheduling for the project.

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Overview

Summary

The purpose of this document is to outline the potential changes to Oracle Process Manufacturing in order to provide the following functionality to the OPM (Oracle Process Manufacturing) users.

1. Internal Orders in Oracle Purchasing/ Order Management
2. Customer Returns in Oracle Purchasing
3. Receiving in Oracle Purchasing.
4. Drop Shipment in Oracle Purchasing/ Order Management

Once reviewed and accepted, a detailed design document will be written for all the accepted changes in this document.

A high level design document , 'High Level Design - Process Features for Receiving' , already exists for the changes in the Oracle Purchasing Module for this project. Please refer to this document for changes in Oracle Purchasing module.

Present Structure

Please refer to the following documentation for more details on this topic:

- *'Oracle Process manufacturing Requirements for Internal Orders, Returns and Receiving Transactions'* by Brenda Stone
- *'Walkthrough Document - Internal Orders and Inter-Org Transfers'* by Simon Mycock
- *'Walkthrough Document - Customer Returns'* by Simon Mycock
- *'High Level Design - Process Features for Receiving'* by Jatinder Gogna

Further Information

Further information and documentation on the common receiving project can be obtained from the web site URL below:

http://opmweb.us.oracle.com/financial/comm_recv.html

Basic Business Needs

Internal Orders

There is a business requirement to provide the mechanism for requesting and transferring material from inventory to other inventory or expense locations for the Process Manufacturing Users. Note that a non-inventory item in OPM maps to the expense item in Oracle Purchasing. The current functionality within OPM allows user to make a very simple inventory move or transfer. This transfer doesn't generate sales order, shipment or invoicing documents. The Internal orders functionality in Purchasing, Order Management, Shipping Execution, and Inventory provides a more flexible solution for the inter-organization and intra-organization requests by taking advantage of standard requisition and sales order functionality.

Customer Returns

OPM is currently being integrated to Order Management. Order Management provides the RMA functionality in which user can create a return material authorization (RMA) authorizing the return of the goods sold to a customer. When the return arrives at the receiving dock, a receipt can be created against the RMA. The business requirement is to successfully receive, in Oracle Purchasing, the items returned by the customers in a process organization.

As a result of the above requirement, the existing AR/Credit memo interface within the OPM will need to be disabled if the OM Integration is installed.

Drop Shipments

Current OM module supports drop-shipping items. User can receive an order from a customer, then place a purchase order with an appropriate vendor. The ship-to address on the purchase order is the customer's address. The vendor ships the item(s) directly to the customer and sends confirmation to the drop-shipment organization. The drop-shipment organization subsequently pays the vendor and sends an invoice to the customer. The customer then pays the drop-shipment organization.

The drop shipment functionality will be modified to support to drop shipments in the process organization.

Receiving

Currently, in OPM the POs are entered in Oracle Purchasing. The OPM items need to be received in OPM, where as the MRO items need to be received in Oracle Purchasing (and updates Oracle Inventory). This requires user to go to different responsibilities to perform these tasks. Allowing the same receiving system for all kinds of receiving transactions will make the software easier to use and leverage the additional functionality in Oracle Purchasing module. It is also a step toward the strategic direction of converging the OPM modules to the Oracle Applications.

RFQ & Quotations

No changes will be made to the RFQ & Quotations forms in Oracle Purchasing. The OPM users can still use these forms for the Process Organizations and items, however they will not be able to specify the process attributes like Secondary Quantity, UOM & Grade for them.

Definitions

Process Organization

A process organization is an Inventory Organization which has been marked as 'Process Enabled' in the Inventory Information form. Note that marking an Inventory Organization as 'Process Enabled' creates an OPM warehouse in OPM.

Purchase Requisition

An internal request for goods or services. A requisition can originate from an employee or from another process, such as inventory or manufacturing. Each requisition can include many lines, generally with a distinct item on each requisition line. Each requisition line includes at least a description of the item, the unit of measure, the quantity needed, the price per item, and the Accounting Flexfield you are charging for the item.

Request For Quotation (RFQ)

A document you use to solicit supplier quotations for goods or services you need. You usually send a request for quotation to many suppliers to ensure that you get the best price and terms possible. Depending on the way you do business, you can use two general types of RFQs: specific and generic. There are three types of quotations and RFQs that come with Purchasing by default:

- *Catalog*: Used for high-volume items or items for which your supplier sends you information regularly. A Catalog quotation or RFQ also includes price breaks at different quantity levels.
- *Standard*: Used for items you'll need only once or not very often, but not necessarily for a specific, fixed quantity, location, and date.
- *Bid*: Used for a specific, fixed quantity, location, and date. For example, a Bid would be used for a large or expensive piece of equipment that you've never ordered before, or for an item that incurs transportation or other special costs. You cannot specify price breaks for a Bid quotation or RFQ.

Quotation

A statement of the price, terms, and conditions of sale a supplier offers you for an item or items. A quotation usually includes a detailed description (specifications) of goods or services the supplier offers. Suppliers consider quotations as an offer to sell when given in response to an inquiry. A quotation may be verbal or written. You often get verbal quotations for minor purchases by telephone. You usually send a request for quotation if you want a written quotation from a supplier. Written quotations often have an effective date and an expiration date.

Standard Purchase Orders

You generally create standard purchase orders for one-time purchase of various items. You create standard purchase orders when you know the details of the goods or services you require, estimated costs, quantities, delivery schedules, and accounting distributions. If you use encumbrance accounting, the purchase order may be encumbered since the required information is known.

Blanket Purchase Agreements

You create blanket purchase agreements when you know the detail of the goods or services you plan to buy from a specific supplier in a period, but you do not yet know the detail of your delivery schedules. You can use blanket purchase agreements to specify negotiated prices for your items before actually purchasing them.

Blanket Releases

You can issue a blanket release against a blanket purchase agreement to place the actual order (as long as the release is within the blanket agreement effectivity dates). If you use encumbrance accounting, you can encumber each release.

Contract Purchase Agreements

You create contract purchase agreements with your suppliers to agree on specific terms and conditions without indicating the goods and services that you will be purchasing. You can later issue standard purchase orders referencing your contracts, and you can encumber these purchase orders if you use encumbrance accounting.

Planned Purchase Orders

A planned purchase order is a long-term agreement committing to buy items or services from a single source. You must specify tentative delivery schedules and all details for goods or services that you want to buy, including charge account, quantities, and estimated cost.

Scheduled Releases

You can issue scheduled releases against a planned purchase order to place the actual orders. If you use encumbrance accounting, you can use the planned purchase order to reserve funds for long term agreements. You can also change the accounting distributions on each release and the system will reverse the encumbrance for the planned purchase order and create a new encumbrance for the release.

Major Features

Internal Orders

Internal orders changes will allow users to create Internal Orders and Receipt of Internal Orders for the process organizations. The user can take advantage of standard requisition and sales order functionality to suit their individual business requirements. They can use internal requisitions/orders to move inventory items from one process inventory organization to another, even if that organization belongs to a different operating unit, legal entity, or set of books.

Customer Returns

Once OPM is integrated to Order Management, it will allow users to create a return material authorization (RMA) authorizing the return of the items sold to a customer. When the return arrives at the receiving dock, a receipt can be created against the RMA. This new change will allow Oracle purchasing to receive such returns in the process organization.

Drop Shipments

The receipts for the drop -shipment first increments the inventory for the receipts and then later reserves and decrement it indicating a shipment to the customer. We will need to modify the drop shipment routines to increment and decrement the inventory for the process organization in OPM inventory.

Common Receiving

This change will eliminate the need to the user to perform receiving functions in both OPM and Oracle Purchasing. Now the user will be able to perform all the receiving transactions (Process, Discrete or MRO items) in Oracle Purchasing.

OPM Changes Overview

Oracle Purchasing module will be modified for the Common Receiving project. Following is the summary of the changes that will affect the OPM modules:

1. The Purchase Orders, Receipts and Returns for OPM will now be entered in Oracle Purchasing.
2. The Inventory transactions and balances for the Receipts, Returns, RMA etc will be maintained in OPM. The Detailed level design for the Receiving forms & Receiving Transaction processor will describe how the Inventory transactions will be created. Note that for the expense items (which maps to the non-inventory items in OPM), no transactions inventory transactions will be created in OPM.
3. A new source and new document types will be created for the inventory transactions created by the common receiving. This will allow users to smoothly transition to the new common receiving model while allowing them to complete unfinished tasks, e.g. subledger booking of the old transactions etc. AX module will need changes due to the addition of this new document type.

This also provides a way to differentiate between the old and new data. E.g. If you perform transaction inquiry and the Inventory Transaction is for an old receipt, the form will show the old OPM receipt number. However, the Inventory Transactions for the new receipts will show the Receipt Number from Oracle Purchasing.

4. As part of the common receiving solution, the purchasing data, e.g. PO, Receipts and returns, will not be stored in the OPM PO. This data will remain in Oracle Purchasing tables. As a result of this, it will require changes to the OPM code which refer to the OPM PO tables for the PO Receipts and returns information. The current approach is to modify the existing queries to select data from the Oracle Purchasing tables directly. The existing PO Tables will continue to retain the old data and can be used by the users for the historical reasons.

Following are the Major functional areas which will be impacted by these changes

- Subledger Posting process: The subledger posting of the Purchasing and Order Management will be modified to
 - Fetch the unposted receiving transactions from the Oracle Purchasing tables and post them to subledger and
 - Handle additional transactions (RMA & Internal Orders) resulting from the changes to the Oracle Purchasing & Receiving.
- Actual Cost Calculations: The actual cost process will be modified to get the Purchasing & Invoice data from the Oracle Purchasing

tables.

- MRP: The MRP process gets the pending supply from the various tables in the OPM. The process will be modified to get this information from APPS tables.
1. The existing OPM Purchasing forms, e.g. Purchase Orders, Receipts etc. will be modified to show the old OPM data in query mode only.
 2. The existing Common Purchasing integration will become obsolete and removed as part of this project.

OPM Changes

GML Objects

Remove Common Purchasing Triggers and related codes

The following Common Purchasing programs will be removed as they are not needed once the common receiving solution is implemented.

1. Remove the following triggers. These triggers are used to synchronize the Purchase Orders from Oracle Purchasing to OPM. They are also used to synchronize Receipts and Returns from OPM to Oracle Purchasing.
 - GML_PO_RECV_DTL_T1
 - GML_PO_RECV_DTL_T2
 - GML_PO_RECV_DTL_T3
 - GML_PO_RECV_DTL_T4
 - GML_PO_RECV_DTL_T5
 - GML_PO_RTRN_DTL_T1
 - GML_RCV_TRANSACTIONS_INTERF_T1
 - GML_PO_LINE_LOCATIONS_ALL_T1
 - GML_PO_LINE_LOCS_ARCH_ALL_T1
 - GML_PO_HEADERS_ALL_T1
 - GML_PO_HEADERS_ARCHIVE_ALL_T1
 - GML_PO_HEADERS_ARCHIVE_ALL_T2
 - GML_PO_HEADERS_ARCHIVE_ALL_T3
 - GML_PO_LINES_ARCHIVE_ALL_T1
 - GML_PO_RELEASES_ARCHIVE_ALL_T1
2. Remove the following concurrent programs / Reports
 - OPM Common Purchasing PO Resubmission
 - OPM Common Purchasing Synchronization
 - OPM Purchasing Integration Audit Report

PO Receipts

Purchase management : PO Receipt.

This form will be available in the query mode only to view historical data. All the Action menu options should either be disabled or changed to be view only. No new receipts can be added through it.

Quick Receipts

Purchase management : Quick Receipt.

Since you cannot use this form to query old data, this form will be removed from the menu.

Stock Receipts

Purchase management : Stock Receipt.

This form will be available in the query mode only to view historical data. All the Action menu options should either be disabled or changed to be view only. No new stock receipts can be added through it.

Returns

Purchase management : Returns.

This form will be available in the query mode only to view historical data. All the Action menu options should either be disabled or changed to be view only. No new stock receipts can be added through it.

Vendor Class, GL Class, Trade Class

Remove the following menu options from the Purchase management: Setup

1. Vendor Classes
2. Vendor Trade Classes

However the Vendor GL Class will remain so that it can be assigned to the vendors and Account Mapping can be done by the Vendor GL Class.

Acquisitions Costs - GMLACQCE

Please see the open issue.

Reports

The following OPM reports will not work for the new solution. However, these reports will exist for the OPM users in order allow them to run them against old data. The following table shows the corresponding Oracle Purchasing reports which should work for the new solution. These reports will need to be tested to ensure that they work for the process users. If not, they need to be modified to work properly.

OPM Report	Oracle Purchasing Report
PO/Stock Return History Report	<ul style="list-style-type: none">• Receipt Adjustments Report• Unordered Receipts Report• Receiving Transactions Register
PPV Summary Report	Purchase Price Variance Report
Items Received Report	
Costed Receiving Report	Receiving Value Report

GMF Objects

Item Trigger

The item trigger needs to be modified to synchronize the lot control and location control indicators to Oracle Inventory. These controls are used in the receiving/ returns form to enable/disable the lot and locator entry for the items. We will have to see the effect of doing this on the existing OM/OPM Integration. Also, the Inventory asset flag will be set based upon the non-inventory indicator. Following are the column mapping for the two indicators:

MTL_SYSTEM_ITEMS	Values	IC_ITEM_MST	Values
LOT_CONTROL_CODE	1- No Control 2- Full Control	LOT_CTL	0 - No 1 - Yes
LOCATION_CONTROL_CODE	1 - No Control 2 - Prespecified 3 - Dynamic Entry	LOCT_CTL	0 - Non Location 1 - Validated 2 - Non Validated
INVENTORY_ASSET_FLAG	Y - Yes N - No	NONINV_IND	0 - No 1 - Yes

Vendor Trigger

Since the vendors in OPM will only be used for the GL Mapping and QC, reduce the constraints/ checking to only the required columns. This will remove the unnecessary constraints on the Oracle Purchasing vendors. Following columns will not be synchronized for the vendors:

1. Vendor Address (All address columns)
2. Phone, Fax, Telex
3. Terms Code, Freight Terms
4. Vendor Currency
5. Vendor Associations

Note that Vendor GL Class will still be synchronized.

AP FOB Code/ Terms Code/ Freight Bill Method trigger

Following triggers will be removed. FOB Code, Terms Code synchronization for the users using OPM Order Fulfillment will still remain a manual process.

1. GMF_PO_LOOKUP_CODES_TG
2. GMF_OP_FRGT_MTH_TG
3. GMF_AP_TERMS_TG
4. GMF_AP_TERMS_LINES_TG

AP Invoice Price

CMIPMED: Since the AP Invoice Price interface will be removed, this form is obsolete and will be removed from the menu.

Data Synchronization - AP Invoice Price

AP Invoice Price synchronization will be removed from the Data Synchronization. This data is only used for Actual Costing. The Actual cost process will be modified to retrieve the data from the Oracle AP tables directly.

Data Synchronization - Cr/Dr Memo Inv

The Cr/Dr Memo Inv update will be disabled if the OM Integration is installed. The program will use 'GML: OM Integration' profile and run this program only if this profile is set to 'No'.

Actual Cost Process

The actual cost process will be modified to get the purchasing data from the Oracle Purchasing tables. The doc type of the Receipt transactions is now **PORC** for PO Receipts & Returns. The following fetch from the Actual Cost Process will be modified to get the data correctly:

1. AP Invoice Transactions (cmacget_ap_trans):. Currently the Actual Costing gets the AP Invoice Price from the cm_apcm_mst table. The fetch will be modified to get the data from AP Invoice tables.
2. AP Invoice Acquisition Costs (cmacget_ap_acqui): This function selects the acquisition costs linked to the AP Invoice. This function may be removed or not executed. See the Open issue regarding Acquisition costs.
3. PO Receipts (cmacget_po_receipt): This function will be modified to fetch the receipt details from the Oracle Purchasing tables.
4. PO Receipt Inventory Transactions (cmacget_recv_inv_tran): The actual cost engine fetches the inventory transactions to get the warehouses where item is received. It looks like this information is ignored and not used. If that is the case, the call to this fetch should be removed. If the information is being used, we will need to modify the fetch query.
5. PO Receipts Acquisition Costs (cmacget_rct_acqui): This function selects the acquisition costs linked to the PO Receipts. This function may be removed or not executed. See the Open issue regarding Acquisition costs.

View Actual Cost Transactions

The queries to get the document number and other details will be modified for the sources 'PO Receipt' and 'AP Interface' to get the details from the Oracle Purchasing and Oracle AP tables. Instead of displaying the Organization, the operating unit should be displayed.

Also the description for the Source 'AP Interface' should be changed to 'AP Invoice' to indicate the correct source.

Event Fiscal Policies

Modify the Event Fiscal Policies to remove the Acquisition Costs region. Since the Acquisition Costs are not used, this indicator is obsolete.

Subledger Update

The Subledger form will be modified to allow user to run the subledger process for source PO (old) or PUR (New). It will not allow users to run the process for both of these sources simultaneously.

The Subledger Update process will be modified to get the purchasing data from the Oracle Purchasing tables for the new source PUR.

Glpoget.lpc File

Create new functions to fetch the purchasing data for the new source PUR. Note that the data fetched into the existing structure and hence will allow the same subledger processing logic for both sources PO & PUR.:

1. PO Receiving history (glpurget_po_rcv_hst): This function is based upon glpoget_po_rcv_hst, which is used to fetch the PO Receipts and Return transactions. *Note that since returns in Oracle Purchasing are just adjustments to receipt, they will be treated as receipt lines only.*
 - Fetch the data from the Oracle Purchasing tables using the mapping specified in the mapping section.
 - This fetch will retrieve OPM inventory transactions and use the gl_posted_ind on these transactions to figure out the unposted transactions. The quantity and date of the subledger posting should be derived from these inventory transactions.
 - Since the expense items are booked by the by Oracle Purchasing, only the inventory destination type items will be retrieved in the above fetch.
2. PO Order Details (glpurget_pur_ordr_dtl): This function is based upon glpoget_po_ordr_dtl, which is used to fetch the Purchase Order Details. Load the data for this function from the Oracle Purchasing tables using the mapping specified in the mapping section.
3. PO Distributions (glpurget_po_dist_dtl): This function is based upon glpoget_po_dist_dtl, which is used to fetch the Purchase Order GL Distributions. Load the data for this function from the Oracle Purchasing tables using the mapping specified in the mapping section.
4. Acquisition Cost Codes (glpoget_po_cost_mst): This function is used to fetch the Acquisition Cost Codes. Since we will not be using the Acquisitions Costs (See open issues), the call to this function will be removed for source PUR.
5. Acquisition Costs (glpoget_po_cost_dtl): This function is used to fetch the Acquisition Cost details for the Pos and Receipts. Since we will not be using the Acquisitions Costs (See open issues), the call to this function will be removed for source PUR.

glpoupd.lc File

The following new account titles will be used to book various receiving transactions. Note that these account titles will not be mapped in OPM.

1. ISP - Receiving Inspection
2. IOR - Inter Org Receivables
3. ITR - In Transit
4. FRT - Freight Charges
5. XFR - Transfer Credit
6. IOP - Inter Org Payables

A new sub-event RCVI - Internal Order Receipt will be used for booking the additional receiving transactions.

When running the subledger for the new source PUR, assign Doc Type PORC for PO Receipt in the subledger transactions. The returns are stored as correction/adjustment to receipts, they will also get assigned the Doc Type PORC. Also, the receipts against the Internal Orders will be booked as mentioned in the following table.

Note that the ISP account will not be mapped in OPM and should be retrieved from the rcv_parameters tables for the inventory organization of the receipt lines. This is done because the accrual side of the accounting is handled by the Receiving transaction processor. Following are the entries generated by it:

For the Inventory destinations the entries are as follows:

Account	Debit	Credit
Receiving Inspection account @ PO price	XX	
Inventory A/P Accrual account @ PO price		XX

For the expense destinations the entries are as follows:

Account	Debit	Credit
Receiving Inspection account @ PO price	XX	
Inventory A/P Accrual account @ PO price		XX
PO distribution charge accounts @ PO price	XX	
Receiving Inspection account @ PO price		XX
Reserve for Encumbrance @ PO price	XX	
Encumbrance @ PO price		XX

To offset the Inspection account correctly, we need to determine the inspection account in the same way as the Receiving Transaction Processor.

Source	Sub Event	Title	Org	FOB	Debit	Credit
PUR	RCPT	INV			Qty Received * Item Cost	
		ISP				Qty Received * PC
		PPV			(PO price – unit cost) * Qty Received	
PUR	RADJ	INV			Qty Received * Item Cost	

		ISP				Qty Received * PO
		PPV			(PO price – unit cost) * Qty Received	
PUR	RTR N	INV				Qty Returned * Item
		ISP			Qty Returned * PO Price	
		PPV			(PO price – unit cost) * Qty Returned	
OM	SHPI	IOR	Send	None	Qty Shipped * Item Cost (S)	
		INV	Send	None		Qty Shipped * Item
PUR	RCVI	INV	Recv	None	Qty Received * Item Cost (R)	
		IOP	Recv	None		Qty Received * Item
		PPV	Recv	None		Qty Received * Item
OM	SHPI	ITR	Send	Recv	Qty Shipped * Item Cost (S)	
		INV	Send	Recv		Qty Shipped * Item
PUR	RCVI	IOR	Send	Recv	Qty Received * Item Cost (S) + Freight Expense + Transfer	
		ITR	Send	Recv		Qty Received * Item
		FRT	Send	Recv		Freight Expense
		XFR	Send	Recv		Transfer Credit
		INV	Recv	Recv	Qty Received * Item Cost (R)	
		IOP	Recv	Recv		Qty Received * Item + Freight Expense
		PPV	Recv	Recv		Qty Received * Item + Freight Expense
OM	SHPI	IOR	Send	Ship	Qty Shipped * Item Cost (S) + Transfer	
		XFR	Send	Ship		Transfer Credit
		INV	Send	Ship		Qty Shipped * Item
		ITR	Recv	Ship	Qty Shipped * Item Cost (S) + Freight + Transfer	
		FRT	Recv	Ship		Freight
		IOP	Recv	Ship		Qty Shipped * Item + Transfer
PUR	RCVI	INV	Recv	Ship	Qty Received * Item Cost (R)	
		ITR	Recv	Ship		Qty Received * Item + Freight + Transfer
		PPV	Recv	Ship		Qty Received * Item + Freight + Transfer

Please look at the seed data section to see the seed data changes for subledger posting.

glpoput.lpc File

If the source is PUR, update the gl_posted_ind in the OPM Inventory tables to mark the purchasing transactions as posted.

glopget.lpc The following fetches from Subledger Update Process will be modified for the source OM to get the data correctly for posting RMA and Internal Shipments:

1. Unposted Shipments (glomget_unposted_shipments): This functions retrieves unposted shipments from OM. The function will be modified to retrieve the following additional transactions.
 - RMA transactions from rcv_transactions table. These are the receiving transactions for the SOURCE_DOCUMENT_CODE = RMA and DESTINATION_TYPE_CODE = INVENTORY
 - Shipments for Internal Orders. The logic for retrieving should be the same as retrieving the existing shipments.

glopupd.lc

The following sub-events will be used for booking the additional receiving transactions:

1. RMA - Customer Returns
2. SHPI - Shipments - Internal Orders

Modify this file to book the RMA and Internal Order shipments as follows as mentioned in the table (For internal Orders refer to the previous table).

Source	Sub Event	Title	Debit	Credit
OM	RMA	INV	Qty Shipped * Item Cost	
		PCO		Qty Shipped * Item Cost

glopput.lpc

For RMA Transaction update the gl_posted_ind as done in the glpoput.lpc file. For the Internal Shipments use the same logic as the existing shipments.

Subledger Report

Modify the gl_subr_led_vw & gl_subr_tst_vw views to fetch the PO Receipt information for the new source PUR. The fetch should be similar to source PO. Also Modify the fetch to get the RMA and Internal Order information for the OM source. Use the mapping specified in the mapping section for this fetch.

GL Update

glexpget.lpc

Modify this file to get the document number for the document type PORC to get the Receipt Number for the receipt.

GMI Objects

Transaction Inquiry

Modify the transaction inquiry form to get the document number for the document type PORC.

```
select w.whse_code, r.receipt_num
from rcv_shipment_headers r, ic_whse_mst w
where shipment_header_id = :doc_id and
      r.destination_organization_id = w.mtl_organization_id
```

GMA Objects

Purge and Archive

The description seed data for Type = 'PORD' need to be changed from 'Moves Purchasing data from Live tables into Archives' to something indicating that the Archive will be done for the old data.

GMP Objects

MRP

The MRP process gets the pending supply from the various tables in the OPM. In APPS, all of the pending supplies are stored in the MTL_SUPPLY table. Since the following tables, which MRP gets the supply information from, will not have any data, we can get the data using the following 2 options:

1. Modify the Existing queries to get the data from the corresponding Oracle Purchasing tables or
2. Consolidate all of the selects for the pending supply into a single select from the MTL_SUPPLY table

Following are the MRP funtions & tables in mrgetec.lpc file to get the purchasing information.

Function	OPM Table	APPS Table	MTL Supply View
get_bpos_dtl	po_bpos_dtl	po_line_locations_all	po_po_supply_view
get_bpos_hdr	po_bpos_hdr	po_headers_all	po_po_supply_view
get_rels_sch	po_rels_sch	po_line_locations_all	po_po_supply_view
get_ordr_dtl	po_ordr_dtl	po_line_locations_all	po_po_supply_view
get_tran_pnd	ic_tran_pnd	po_po_supply_view	po_po_supply_view

AX Module

Need to discuss with Phil and Paul regarding what needs to be changed for the AX module.

Data Mapping

This section describes the Data Mapping between the OPM and Oracle Purchasing table. The purpose of this mapping is help in coming up with the new queries for selecting data from the Oracle Purchasing tables directly.

Purchase Order Header Information

The following mapping can be used to modify the queries which retrieve the data from the po_ordr_hdr table. The column marked null are either obsolete or are not used in the queries.

PO_ORDR_HDR	Datatype	PO_HEADERS_ALL	Datatype	Comments
ACCT_MAP_DATE	DATE	NULL		
PO_ID	NUMBER(10)	PO_HEADER_ID*	NUMBER	
ORGN_CODE*	VARCHAR2(4)			There are two ways to derive the organization: 1. The organization of the warehouse in Purchase Order details. 2. The Operating Unit of the Purchase Order. So depending upon the usage, either of the two should be used.
BPO_ID	NUMBER(10)	???		Old mapping brings Planned Purchase Orders
FRTBILL_MTHD	VARCHAR2(4)	NULL		
BPO_RELEASE_NO	NUMBER(5)			
PO_TYPE*	NUMBER(5)	1		
PAYVEND_ID*	NUMBER(10)	po_vend_mst.vendor_id		for vendor_site_id
SHIPVEND_ID*	NUMBER(10)	po_vend_mst.vendor_id		for vendor_site_id
RECVADDR_ID	NUMBER(10)	NULL		
SHIPPER_CODE	VARCHAR2(4)	NULL		
RECV_DESC	VARCHAR2(40)	NULL		
FROM_WHSE	VARCHAR2(4)	NULL		
TO_WHSE*	VARCHAR2(4)	NULL		We will populate po_ordr_dtl properly
RECV_LOCT	VARCHAR2(16)	NULL		
SHIP_MTHD	VARCHAR2(4)	NULL		
PO_NO*	VARCHAR2(32)	SEGMENT1*	VARCHAR2(20)	
PURCHASE_EXCHANGE_RATE*	NUMBER	RATE	NUMBER	
MUL_DIV_SIGN*	NUMBER(5)	0		
BILLING_CURRENCY*	VARCHAR2(4)	CURRENCY_CODE	VARCHAR2(15)	
CURRENCY_BGHT_FWD*	NUMBER(5)	0		
TERMS_CODE	VARCHAR2(4)	op_terms_mst.terms_code		where terms_id=ap_terms.terms_id and ap_terms.terms_name = op_terms_mst.of_terms_code
PO_STATUS*	NUMBER(5)	= 20 if CLOSED_CODE is 'CLOSED', 'CLOSED FOR RECEIVING', 'CLOSED FOR INVOICE', 'FINALLY CLOSED' = 0 otherwise		
POHOLD_CODE	VARCHAR2(4)	NULL		
CANCELLATION_CODE	VARCHAR2(4)	decode(CANCEL_FLAG,		

		'Y', fnd_profile.value (OP\$HOLDREAS_CODE), NULL)		
FOB_CODE	VARCHAR2(4)	op_fobc_mst.fob_code		where fob_lookup_code = of_fobc.mst. of_fob_code
BUYER_CODE	VARCHAR2(35)	per_people_f.last_name		where per_people_f. person_id = agent_id
ICPURCH_CLASS	VARCHAR2(8)	NULL		
VENDSO_NO	VARCHAR2(32)	NULL		
PROJECT_NO	VARCHAR2(16)	NULL		
PO_DATE*	DATE	nvl(approved_date, sysdate)	DATE	
REQUESTED_DLVDATE*	DATE	need_by_date	DATE	
SCHED_SHIPDATE*	DATE	promise_date	DATE	
REQUIRED_DLVDATE*	DATE	last_accept_date	DATE	
AGREED_DLVDATE*	DATE	nvl(promised_date, need_by_date)	DATE	
DATE_PRINTED*	DATE	printed_date	DATE	
EXPEDITE_DATE	DATE	bind_date	DATE	
REVISION_COUNT	NUMBER(5)	revision_num	NUMBER	
IN_USE	NUMBER(10)	NULL		
PRINT_COUNT	NUMBER(5)	print_count	NUMBER	
EXPORTED_DATE	DATE	NULL		
LAST_UPDATE_DATE*	DATE	LAST_UPDATE_DATE*	DATE	
CREATED_BY*	NUMBER(15)	CREATED_BY	NUMBER	
CREATION_DATE*	DATE	CREATION_DATE	DATE	
LAST_UPDATED_BY*	NUMBER(15)	LAST_UPDATED_BY*	NUMBER	
LAST_UPDATE_LOGIN	NUMBER(15)	LAST_UPDATE_LOGIN	NUMBER	
DELETE_MARK*	NUMBER(5)	0		
TEXT_CODE	NUMBER(10)	NULL		
ATTRIBUTE1-30	VARCHAR2(240)	NULL		
ATTRIBUTE_CATEGORY	VARCHAR2(30)	NULL		

Purchase Order Detail Information

The following mapping can be used to modify the queries which retrieve the data from the po_ordr_dtl table. The column marked null are either obsolete or are not used in the queries.

PO_ORDR_DTL	Datatype	PO_LINE_LOCATIONS_ALL	Datatype	Comment
PO_ID*	NUMBER(10)	PO_HEADER_ID*	NUMBER	
ACCT_MAP_IND	NUMBER(5)	NULL		
LINE_ID*	NUMBER(10)	LINE_LOCATION_ID*	NUMBER	
LINE_NO*	NUMBER(5)	PO_LINES_ALL.LINE_NUM	NUMBER	where po_lines_all.po_line_id = po_line_id
BPO_LINE_ID	NUMBER(10)	???		
APINV_LINE_ID	NUMBER(10)	NULL		
ITEM_ID*	NUMBER(10)	ic_item_mst.item_id	NUMBER	from ic_item_mst ic, mtl_system_items msi, po_lines_all pl where ship_to_organization_id = msi.inventory_organization_id and pl.po_line_id = po_line_id and pl.item_id = msi.item_id and msi.segment1 = ic.item_no
GENERIC_ID	NUMBER(10)	NULL		
ITEM_DESC*	VARCHAR2(70)	NULL		

ICPURCH_CLASS	VARCHAR2(8)	NULL		
PO_STATUS*	NUMBER(5)	= 20 if CLOSED_CODE is 'CLOSED', 'CLOSED FOR RECEIVING', 'CLOSED FOR INVOICE', 'FINALLY CLOSED' = 0 otherwise		
ORDER_QTY1*	NUMBER	QUANTITY	NUMBER	
ORDER_QTY2	NUMBER	SECONDARY_QUANTITY	NUMBER	The new columns
ORDER_UM1*	VARCHAR2(4)	UNIT_MEAS_LOOKUP_CODE	VARCHAR2(25)	
ORDER_UM2	VARCHAR2(4)	SECONDARY_UNIT_OF_MEASURE	VARCHAR2(25)	The new columns
RECEIVED_QTY1	NUMBER	QUANTITY_RECEIVED	NUMBER	
RECEIVED_QTY2	NUMBER	QUANTITY_RECEIVED2	NUMBER	The new columns
NET_PRICE*	NUMBER	PRICE_OVERRIDE	NUMBER	
EXTENDED_PRICE*	NUMBER	PRICE_OVERRIDE * QUANTITY	NUMBER	
PRICE_UM*	VARCHAR2(4)	UNIT_MEAS_LOOKUP_CODE	VARCHAR2(25)	
FROM_WHSE	VARCHAR2(4)	NULL		
TO_WHSE*	VARCHAR2(4)	ic_whse_mst.whse_code		where ic_whse_mst.mtl_organization_id = ship_to_organization_id
RCV_LOCT	VARCHAR2(16)	NULL		
RCVADDR_ID	NUMBER(10)	NULL		
RCV_DESC	VARCHAR2(40)	NULL		
SHIP_MTHD	VARCHAR2(4)	NULL		
SHIPPER_CODE	VARCHAR2(4)	NULL		
SHIPVEND_ID*	NUMBER(10)	po_vend_mst.vendor_id		where po_vend_mst.of_vendor_site_id = vendor_site_id
QC_GRADE_WANTED	VARCHAR2(4)	po_lines_all. qc_grade_wanted		where po_lines_all.po_line_id = po_line_id
FRTBILL_MTHD	VARCHAR2(4)	NULL		
TERMS_CODE	VARCHAR2(4)	NULL		
POHOLD_CODE	VARCHAR2(4)	NULL		
CANCELLATION_CODE	VARCHAR2(4)	decode(CANCEL_FLAG, 'Y', fnd_profile.value(OP\$HOLDREAS_CODE), NULL)		
FOB_CODE	VARCHAR2(4)	NULL		
VENDSO_NO	VARCHAR2(32)	NULL		
BUYER_CODE	VARCHAR2(35)	NULL		
PROJECT_NO	VARCHAR2(16)	NULL		
AGREED_DLVDATE*	DATE	nvl(promised_date, need_by_date)	DATE	
EXPEDITE_DATE	DATE	bind_date	DATE	
REQUESTED_DLVDATE*	DATE	need_by_date	DATE	
REQUIRED_DLVDATE*	DATE	last_accept_date	DATE	
SCHED_SHIPDATE*	DATE	promise_date	DATE	
MATCH_TYPE*	NUMBER	3		
EXPORTED_DATE	DATE	NULL		
CREATION_DATE*	DATE	CREATION_DATE	DATE	
CREATED_BY*	NUMBER(15)	CREATED_BY	NUMBER	
LAST_UPDATE_DATE*	DATE	LAST_UPDATE_DATE*	DATE	
LAST_UPDATED_BY*	NUMBER(15)	LAST_UPDATED_BY*	NUMBER	
LAST_UPDATE_LOGIN	NUMBER(15)	LAST_UPDATE_LOGIN	NUMBER	
TEXT_CODE	NUMBER(10)	NULL		
TRANS_CNT	NUMBER(10)	NULL		
ATTRIBUTE1-30	VARCHAR2(240)	NULL		
ATTRIBUTE_CATEGORY	VARCHAR2(30)	NULL		

Purchase Order Distributions

The following mapping can be used to modify the queries which retrieve the data from the po_dist_dtl table. The column marked null are either obsolete or are not used in the queries.

PO_DIST_DTL	Datatype	PO_DISTRIBUTIONS_ALL	Datatype	Comments
DOC_TYPE*	VARCHAR2(4)	PO		
DOC_ID*	NUMBER(10)	PO_HEADER_ID*	NUMBER	
LINE_ID*	NUMBER(10)	LINE_LOCATION_ID*	NUMBER	
RECV_SEQ_NO*	NUMBER(5)	0		
SEQ_NO*	NUMBER(5)	1 - Inventory 2 - Accrual 3 - Variance		
AQUI_COST_ID	NUMBER(10)	NULL		See Open Issue
ITEM_ID*	NUMBER(10)	NULL		
ACCTG_UNIT_ID*	NUMBER(10)	Get OPM AU for 1. code_combination_id 2. accrual_account_id 3. variance_account_id		
ACCT_ID*	NUMBER(10)	Get Account for 1. code_combination_id 2. accrual_account_id 3. variance_account_id		
ACCT_DESC*	VARCHAR2(70)	NULL		
ACCT_TTL_TYPE*	NUMBER(5)	1. 1500/5100 (INV/EXP) 2. 3100/3150 (AAP/AAC) 3. 6100/6150 (PPV/ACV)		1. Based upon DESTINATION_TYPE 2. Based upon item_id 3. Based upon event fiscal policy
AMOUNT_BASE*	NUMBER	0		
AMOUNT_TRANS*	NUMBER	0		
QUANTITY*	NUMBER	QUANTITY_ORDERED*	NUMBER	
QUANTITY_UM*	VARCHAR2(4)	po_line_locations_all. unit_meas_lookup_code	VARCHAR2(25)	where po_line_locations_all. Line_location_id = line_location_id
PROJECT_NO	VARCHAR2(16)	NULL		
GL_POSTED_IND*	NUMBER(5)	0		
EXPORTED_DATE*	DATE	0		
CURRENCY_TRANS*	VARCHAR2(4)	po_headers_all. currency_code	VARCHAR2(15)	where po_headers_all.po_header_id = po_header_id
CURRENCY_BASE*	VARCHAR2(4)	gl_sets_of_books. Currency_code	VARCHAR2(15)	where gl_sets_of_books.set_of_book s_id = set_of_books_id
CO_CODE*	VARCHAR2(4)	sy_orgn_mst.co_code		ic_whse_mst w, sy_orgn_mst o where w.mtl_organization_id = destination_organization_id and w.orgn_code = o.orgn_code
LEDGER_CODE*	VARCHAR2(4)	NULL		
FISCAL_YEAR*	NUMBER(5)	NULL		
PERIOD*	NUMBER(5)	NULL		
LAST_UPDATE_DATE*	DATE	LAST_UPDATE_DATE*	DATE	
CREATED_BY*	NUMBER(15)	CREATED_BY*	NUMBER(15)	
CREATION_DATE*	DATE	CREATION_DATE*	DATE	
LAST_UPDATED_BY*	NUMBER(15)	LAST_UPDATED_BY*	NUMBER(15)	
LAST_UPDATE_LOGIN	NUMBER(15)	LAST_UPDATE_LOGIN	NUMBER(15)	
TRANS_CNT	NUMBER(10)	NULL		
TEXT_CODE	NUMBER(10)	NULL		
DELETE_MARK*	NUMBER(5)	0		

Purchase Order Receipts

The following mapping can be used to modify the queries which retrieve the data from the po_rcv_hdr table. The column marked null are either obsolete or are not used in the queries.

PO_RECV_HDR	Datatype	PO_SHIPMENT_HEADERS	Datatype	Comments
RECV_ID*	NUMBER(10)	SHIPMENT_HEADER_ID*	NUMBER	
RECV_LOCT	VARCHAR2(16)	NULL		
RECV_NO*	VARCHAR2(32)	RECEIPT_NUM	VARCHAR2(30)	
RECV_TYPE*	NUMBER(5)	1 - Regular Receipt	VARCHAR2(30)	You can use RECEIPT_SOURCE_CODE to determine the following receipt sources: 1. INTERNAL ORDER 2. INVENTORY 3. VENDOR
PAYVEND_ID	NUMBER(10)	NULL		No info available
SHIPVEND_ID	NUMBER(10)	NULL		po_rcv_dtl will have this info
SHIPPER_CODE	VARCHAR2(4)	NULL		Not needed any more
SHIP_MTHD	VARCHAR2(4)	NULL		Not needed any more
TO_WHSE	VARCHAR2(4)	ic_whse_mst.whse_code		where ic_whse_mst.mtl_organization_id = ship_to_org_id
ORGN_CODE*	VARCHAR2(4)	ic_whse_mst.orgn_code		where ic_whse_mst.mtl_organization_id = ship_to_org_id
RECV_DATE*	DATE	NULL - ??? - Not available		Should get the rcv_transaction date whenever possible.
REASON_CODE	VARCHAR2(4)	NULL		
TRAILER_NO	VARCHAR2(40)	NULL		
WAYBILL_NO	VARCHAR2(32)	NULL		
RECEIVED_BY	NUMBER(15)	NULL		
APPROVED_BY	NUMBER(15)	NULL		
PRINT_COUNT*	NUMBER(5)	NULL		
DEBARKATION_PORT	VARCHAR2(8)	NULL		
EMBARKATION_PORT	VARCHAR2(8)	NULL		
ARRIVAL_DATE	DATE	NULL		
DEPARTURE_DATE	DATE	NULL		
REGISTERED_IND*	NUMBER(5)	NULL		
DEMURRAGE_AMT	NUMBER	NULL		
DEMURRAGE_CURRENCY	VARCHAR2(4)	NULL		
RECEIPT_COMMENT	VARCHAR2(70)	NULL		
GROSS_WT	NUMBER	NULL		
NET_WT	NUMBER	NULL		
TARE_WT	NUMBER	NULL		
BOL_UM	VARCHAR2(4)	NULL		
DATE_PRINTED	DATE	NULL		
VOID_IND*	NUMBER(5)	0		
IN_USE	NUMBER(10)	NULL		
RECEIPT_EXCHANGE_RATE*	NUMBER	CONVERSION_RATE	VARCHAR2(30)	
MUL_DIV_SIGN*	NUMBER(5)	0		
BILLING_CURRENCY*	VARCHAR2(4)	CURRENCY_CODE	VARCHAR2(15)	
TEXT_CODE	NUMBER(10)	NULL		
CREATION_DATE*	DATE	CREATION_DATE*	DATE	
LAST_UPDATE_DATE*	DATE	LAST_UPDATE_DATE*	DATE	
LAST_UPDATED_BY*	NUMBER(15)	LAST_UPDATED_BY*	NUMBER(15)	
LAST_UPDATE_LOGIN	NUMBER(15)	LAST_UPDATE_LOGIN	NUMBER(15)	
CREATED_BY*	NUMBER(15)	CREATED_BY*	NUMBER(15)	
DELETE_MARK*	NUMBER(5)	0		
ATTRIBUTE1-30	VARCHAR2(240)			
ATTRIBUTE_CATEGORY	VARCHAR2(30)			

Purchase Order Receipts Details

The following mapping can be used to modify the queries which retrieve the data from the po_recv_dtl table. The column marked null are either obsolete or are not used in the queries.

PO_RECVDTL	Datatype	RCV_SHIPMENT_LINES	Datatype	Comments
LINE_ID*	NUMBER(10)	SHIPMENT_LINE_ID*	NUMBER	
RECV_ID*	NUMBER(10)	SHIPMENT_HEADER_ID*	NUMBER	
LINE_NO*	NUMBER(5)	LINE_NUM*	NUMBER	
PO_ID	NUMBER(10)	PO_HEADER_ID	NUMBER	
POLINE_ID	NUMBER(10)	PO_LINE_LOCATION_ID	NUMBER	
RECV_QTY1*	NUMBER	QUANTITY_RECEIVED	NUMBER	
RECV_QTY2	NUMBER	SECONDARY_QUANTITY	NUMBER	
RECV_UM1*	VARCHAR2(4)	UNIT_OF_MEASURE*	VARCHAR2(25)	
RECV_UM2	VARCHAR2(4)	SECONDARY_UNIT_OF_MEASURE	VARCHAR2(25)	
PORECV_QTY1	NUMBER	PO_LINE_LOCATIONS_ALL. QUANTITY_RECEIVED		where po_line_locations_all.line_location_id = po_line_location_id
PORECV_QTY2	NUMBER	PO_LINE_LOCATIONS_ALL. QUANTITY_RECEIVED2		where po_line_locations_all.line_location_id = po_line_location_id
RECVADDR_ID	NUMBER(10)	NULL		
SHIPPER_CODE	VARCHAR2(4)	NULL		
SHIP_MTHD	VARCHAR2(4)	NULL		
TO_WHSE*	VARCHAR2(4)	ic_whse_mst.whse_code		where ic_whse_mst.mtl_organization_id = to_organization_id
FROM_WHSE	VARCHAR2(4)	NULL		
RECV_LOCT	VARCHAR2(16)	NULL		
RECV_DESC	VARCHAR2(40)	NULL		
FRTBILL_MTHD	VARCHAR2(4)	NULL		
FOB_CODE	VARCHAR2(4)	NULL		
RECV_DATE*	DATE	NULL - Not available		Use the Inventory Transaction Dates where possible.
RECV_STATUS*	NUMBER(5)	20 - if SHIPMENT_LINE_STATUS_CODE = 'FULLY RECEIVED' 0 - Otherwise		
ALLOC_IND*	NUMBER(5)	1		
EXTENDED_PRICE*	NUMBER	po_headers_all. price_override * po_line_locations_all. Quantity_received		where po_headers_all.po_header_id = po_header_id and po_line_locations_all.line_location_id = po_line_location_id
ITEM_ID*	NUMBER(10)	ic_item_mst.item_id	NUMBER	from ic_item_mst ic, mtl_system_items msi, po_lines_all pl where to_organization_id = msi.inventory_organization_id and item_id = msi.item_id and msi.segment1 = ic.item_no
NET_PRICE*	NUMBER	po_headers_all. price_override		where po_headers_all.po_header_id = po_header_id
PRICE_UM*	VARCHAR2(4)	po_line_locations_all. unit_meas_lookup_code		unit_meas_lookup_code
RETURN_IND*	NUMBER(5)	NULL		

SHIPVEND_ID	NUMBER(10)	po_vend_mst.vendor_id		where po_vend_mst.of_vendor_site_id = po_line_locations_all.vendor_site_id and po_line_locations_all.Line_location_id = po_line_location_id
VENDSO_NO	VARCHAR2(32)	NULL		
GL_POSTED_IND*	NUMBER(5)	NULL		
CREATION_DATE*	DATE	CREATION_DATE*	DATE	
CREATED_BY*	NUMBER(15)	CREATED_BY*	NUMBER(15)	
LAST_UPDATE_DATE*	DATE	LAST_UPDATE_DATE*	DATE	
LAST_UPDATED_BY*	NUMBER(15)	LAST_UPDATED_BY*	NUMBER(15)	
LAST_UPDATE_LOGIN	NUMBER(15)	LAST_UPDATE_LOGIN	NUMBER(15)	
TRANS_CNT	NUMBER(10)	NULL		
ATTRIBUTE1-30	VARCHAR2(240)	NULL		
ATTRIBUTE_CATEGORY	VARCHAR2(30)	NULL		
TEXT_CODE	NUMBER(10)	NULL		

PO_RECV_HST

Only the records with destination_type_code = 'INVENTORY' should be selected. Note that the source_document_code = 'RMA' will be handled in booking shipments to subledger.

from

rcv_transactions t,
rcv_transactions pt

where

source_document_code = 'PO' and
t.parent_transaction_id = pt.transaction_id (+)

PO_RECV_HST	Datatype	RCV_TRANSACTIONS	Datatype	Comments
PROGRAM_UPDATE_DATE	DATE	NULL		
REQUEST_ID	NUMBER(15)	NULL		
PROGRAM_APPLICATION_ID	NUMBER(15)	NULL		
PROGRAM_ID	NUMBER(15)	NULL		
RCV_ID*	NUMBER(10)	SHIPMENT_HEADER_ID*	NUMBER	
RCV_LINE_ID*	NUMBER(10)	SHIPMENT_LINE_ID*	NUMBER	
RCV_SEQ_NO*	NUMBER(5)			
EXCHANGE_RATE*	NUMBER	CURRENCY_CONVERSION_RATE	NUMBER	
MUL_DIV_SIGN*	NUMBER(5)	0		
NET_QTY*	NUMBER	QUANTITY*	NUMBER	
PRICE_UM*	VARCHAR2(4)	UNIT_OF_MEASURE*	VARCHAR2(25)	
NET_PRICE*	NUMBER	PO_UNIT_PRICE	NUMBER	
TO_WHSE*	VARCHAR2(4)	ic_whse_mst.whse_code		where ic_whse_mst.mtl_organization_id = organization_id
GL_POSTED_IND*	NUMBER(5)	?????		Open Issue - how to handle this
PO_ID	NUMBER(10)	PO_HEADER_ID	NUMBER	
PO_LINE_ID	NUMBER(10)	PO_LINE_LOCATION_ID	NUMBER	
SUB_EVENT_TYPE*	NUMBER(10)			10010 - if p.transaction_type = 'DELIVER' 10020 - p.transaction_type = 'RETURN TO VENDOR' or pt.transaction_type = 'RETURN TO VENDOR' 10030 - otherwise

RECV_DATE*	DATE	TRANSACTION_DATE*	DATE	
CREATION_DATE*	DATE	CREATION_DATE*	DATE	
CREATED_BY*	NUMBER(15)	CREATED_BY*	NUMBER(15)	
LAST_UPDATE_DATE*	DATE	LAST_UPDATE_DATE*	DATE	
LAST_UPDATED_BY*	NUMBER(15)	LAST_UPDATED_BY*	NUMBER(15)	
LAST_UPDATE_LOGIN	NUMBER(15)	LAST_UPDATE_LOGIN	NUMBER(15)	
TRANS_CNT	NUMBER(10)	NULL		
TEXT_CODE	NUMBER(10)	NULL		
DELETE_MARK*	NUMBER(5)	NULL		

PO Returns

PO_RTRN_HDR

There are no separate return tables in Oracle Purchasing. Returns are always associated to receipts.

PO_RTRN_DTL

There are no separate return tables in Oracle Purchasing. Returns are always associated to receipts.

BPOS Table

PO_BPOS_DTL

PO_BPOS_HDR

PO_RELS_SCH

Costing Tables

CM_APCM_MST

Following query will be used to retrieve the approved invoices:

```

FROM
    ap_invoices_all i,
    ap_invoice_distributions_all id,
    po_distributions_all pd,
    po_lines_all pl,
    mtl_system_items msi,
    ic_item_mst ic,
    gl_sets_of_books sob
WHERE i.invoice_type_lookup_code = 'STANDARD'
      AND i.invoice_id = id.invoice_id
      AND id.po_distribution_id = pd.po_distribution_id
      AND id.line_type_lookup_code = 'ITEM'
      AND i.set_of_books_id = sob.set_of_books_id
      AND pl.po_line_id = pd.po_line_id
      AND pl.item_id = msi.inventory_item_id
      AND msi.organization_id = pd.destination_organization_id
      AND ic.item_no = msi.segment1
      AND invoice_id in ( /* Approved invoice */
        select invoice_id from ap_invoice_distributions_all
        where
          invoice_id not in (
            select invoice_id from ap_holds_all
            where release_lookup_code is null)
        group by invoice_id

```

```
having min(decode(match_status_flag, NULL, '0N',
                 'N', '1N', 'T', '2T', 'A', '3A', '4'))
         in ('2T', '3A'));
```

CM_APCM_MST	Datatype		Datatype	Comment
INVOICE_LINE_NO*	NUMBER(15)	id.distribution_line_number		
PO_ID*	NUMBER(10)	pl.po_header_id		
POLINE_ID*	NUMBER(10)	pl.line_location_id		
LINE_TYPE*	NUMBER(5)	id.line_type_lookup_code		
ITEM_ID*	NUMBER(10)	ic.item_id		
AQUI_COST_ID*	NUMBER(10)	NULL		
INVOICE_NO*	VARCHAR2(50)	i.invoice_num		
INVOICE_TYPE*	NUMBER(5)	i.invoice_type_lookup_code		
PREV_INVOICE_NO*	VARCHAR2(50)	NULL		Not Used
INVOICE_QTY*	NUMBER	id.quantity_invoiced		
QUANTITY_UOM*	VARCHAR2(4)	pl.unit_meas_lookup_code		
INVOICE_AMOUNT*	NUMBER	id.amount		
UNIT_PRICE*	NUMBER	id.unit_price		
INVOICE_BASE_AMOUNT*	NUMBER	id.base_amount		
UNIT_BASE_PRICE*	NUMBER	msi.list_price_per_unit		
BILLING_CURRENCY*	VARCHAR2(4)	i.invoice_currency_code		
BASE_CURRENCY*	VARCHAR2(4)	sob.currency_code		
EXCHANGE_RATE*	NUMBER	id.exchange_rate		
INVOICE_STATUS*	NUMBER(5)	'Approved'		
PO_DATE*	DATE			
INVOICE_DATE*	DATE	i.invoice_date		
GL_DATE*	DATE	pd.gl_closed_date		
INTERFACE_DATE*	DATE	NULL		Not Used
AC_STATUS*	NUMBER(5)	????		
DELETE_MARK*	NUMBER(5)	0		
TRANS_CNT	NUMBER(10)	NULL		
TEXT_CODE	NUMBER(10)	NULL		
APINT_TRANS_ID*	NUMBER(10)	invoice_distribution_id		
CREATION_DATE*	DATE	CREATED_BY*		
CREATED_BY*	NUMBER(15)	LAST_UPDATE_LOGIN		
LAST_UPDATE_LOGIN	NUMBER(15)	LAST_UPDATE_DATE*		
LAST_UPDATE_DATE*	DATE	LAST_UPDATED_BY*		
LAST_UPDATED_BY*	NUMBER(15)			

CM_APCM_INT

This table is obsolete and will not be used any more.

Acquisition Costs

PO_COST_DTL

These table may become obsolete. Please see the open issues.

PO_COST_MST

These table may become obsolete. Please see the open issues.

PO Vendors

PO_VEND_CLS

This table is obsolete and will not be used any more.

PO_VNIT_MST

This table is obsolete and will not be used any more.

PO_VTRD_CLS

This table is obsolete and will not be used any more.

Upgrade

A separate document will be written for the upgrade strategy. At a high level following will be the upgrade strategy for the OPM data:

1. Purchase Orders: Standard upgrade from 4.10 to 11.0 & 11i applies. Nothing extra needs to be done to upgrade the Purchase Orders.
2. Purchase Order Receipts: There are scripts which will upgrade the OPM Receipts to Oracle Purchasing for the user upgrading to 11i. These script will handle the PO Receipt upgrade.
3. Stock Receipts: Currently there are no migration scripts for stock receipts and it needs investigation on how these will migrated to Oracle Purchasing.
4. PO Returns: Currently there are no migration scripts for PO Returns and it needs investigation on how these will migrated to Oracle Purchasing.
5. Subledger Posting : Since there are separate sources for the old and new data, the subledger posting can continue to work without any issues.
6. Actual Cost Calculation: Since the receipts are migrated to Oracle Purchasing, the Actual Cost Calculation engine should give the same result once it fetches the data from the Oracle Purchasing tables.
7. MRP: ???

New Seed Data

OPM Source

Following new source will be added to OPM

Type	Code	Description	Rate Type
12	PUR	Oracle Purchasing	DALY

Document Types

Following new types will be added to OPM

Type	Description
PO	Purchase Orders
PORC	Purchase Order Receipts

Sub Events

The following new Sub-Events will be added to OPM

Type	Code	Description	Event
10050	RMA	Customer Returns	RCPT
10060	RCVI	Internal Order Receipt	RCPT
20040	SHPI	Shipments - Internal Orders	OMSO

The following Sub Events are obsolete and will be removed.

Type	Code	Description
21010	INVG	Sales Invoice - Goods

Account Titles

Following new Account Title will be added. Since this account title will not be mapped in OPM, no rows will be inserted in the gl_acct_hrc table.

Type	Code	Description
3200	ISP	Receiving Inspection

Sub Event/Account Title

The following rows will added to Sub-Event account title tables

Sub-Event	Account Title	Sign	Quantity	Organization
RCPT	ISP	CR	No	Warehouse
RADJ	ISP	CR	No	Warehouse
RTRN	ISP	CR	No	Warehouse
RCVI	INV	DR	Yes	Warehouse
RCVI	ISP	CR	No	Warehouse
RCVI	EXP	DR	No	Warehouse
RCVI	PPV	DR/CR	No	Warehouse
RMA	INV	DR/CR	Yes	Warehouse
RMA	PCO	DR/CR	No	Warehouse
SHPI	INV	DR/CR	Yes	Warehouse

SHPI	ICT	DR/CR	No	Warehouse
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The Sub-Event/account title rows for the following Sub-Events are obsolete and will be removed.

Sub-Event	Account Title	Sign	Quantity	Organization
VOID				
INVG				

Open/Closed Issues

Acquisition Costs

How to handle the acquisition costs?

1. Leave the acquisition cost screen and access it via OPM.pll. The downside is that the standard PO form will not generate its distribution and the subsidiary ledger will have to generate the distributions for them. AP has no visibility of these acquisitions cost so they cannot be matched to an Invoice.
2. Remove the acquisition cost screen from the PO Entry screen. Users can enter the Acquisition costs as the Item description on a Purchase Order Line. Purchasing will generate the distributions for this line. The Charge account is always an expense account and users can override it. Users will not be able to map the accounts by acquisition cost codes, but they will have the ability of specifying the charge account manually. Since the acquisition costs will always be expensed, it is equivalent to the 'Included Ind' set to 1 (Indicating that the PO Price already includes the Acquisition Costs). We may need to remove the 'Compute PPV' indicator from the component class. All components in the item cost should be used for the PPV calculations. The acquisition cost will become obsolete in OPM and removed from OPM responsibility.

Document Organization

How will the document organization for purchasing tables be handled?

Wherever possible, the organization of the warehouse in Purchase Order details will be used.

AC Status for various OPM tables

How to handle the AC status column in cm_apcm_mst and other tables which will be replaced.

gl_posted_ind for the Oracle Purchasing transactions

We will use the gl_posted_ind on the inventory transaction table for logic to mark transactions as posted. Need to find out how the expense items are booked by Oracle Purchasing. Since the expense items does not result in any inventory transactions, does the receiving transaction processor books the entire expense transaction?

The gl_posted_ind in the ic_tran_pnd/cmp will be used for subledger logic. The expense items are posted by the Oracle Purchasing and hence will not be handled by OPM.

HLD Review

Source Document Code and Transaction Type combinations

Need to find out all possible combinations of the these two columns in rcv_transactions to ensure all cases are handled in OPM. This is very important to correctly identify all receiving transactions to be handled in OPM for subledger posting e.g. RMA, Internal Orders, Drop Shipments etc.

Need explanation on how Expense Items will be handled

Need to clarify how expense items will be handled in the new solution.

Done

Explain the difference between Transfer and Internal Orders

Explain the difference between Transfer and Internal Orders in the overview section.

Done

How will the Intransit Shipments be handled in OPM

Do we need to do any special processing for the Intransit Shipments for the Process Organizations?

Made changes so that the accounting entries correctly handles the intransit shipments.

Inventory Transactions Details

Need more details on how the inventory transactions will be created for the process organizations.

These details will be mentioned in the Receiving Changes DLD.

Include AX Changes in the HLD

As a result of the new doc type, include a section for the AX Changes in this HLD.

Include a new section for AX Changes. The details about the changes will be filled in after discussion with Phil & Paul.

Need to keep the OPM Receiving reports for old data

The existing OPM Receiving reports should continue to exist to allow users to report on the old data.

Modified the design for this issue.

Remove the creation of vendor association creation for vendor trigger

The vendor trigger should no longer create vendor association as part of the new solution.

Made this change to the design document.

Need to keep the Dr/Cr memo synchronization for OF module

The Dr/Cr memo synchronization should continue to exist and work for the OPM users using OF module (instead of OM).

Made this change to the design document.