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LCM Integration with Discrete and Process Manufacturing - Key Setups, Functional Flow and Data Diagnostics



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Agenda

- Overview of Landed Cost Management
- Test Case
- LCM integration Key Setup Analyzer script and output
- Functional Flow
- Data flow
- Table Mapping
- LCM Transactional Data Diagnostics script and output
- Common issues & FAQs

Overview of Landed Cost Management

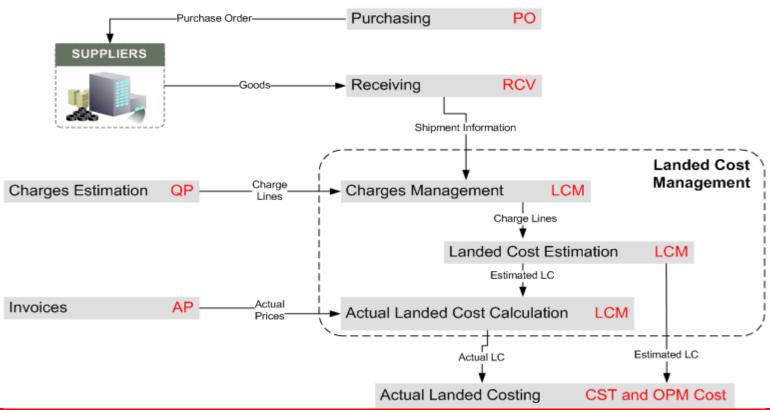
- Cost to "Land" a material on buyers final Location
- Costs Includes:
 - > Includes insurance
 - > Transportation
 - Handling, storage costs, container fees,
 - Import or Export Charges, Taxes etc...
- Benefits:
 - Maximize Profits
 - Increase Competitiveness
 - Increase Visibility
 - Ensure Compliance

Overview of Landed Cost Management

- Usage of Oracle LCM:
 - > LCM as a service:
 - Receive goods in Purchasing, calculation of estimated landed costs and generation of LCM Shipment through APIs
 - LCM pre-receiving:
 - LCM Shipments created manually, charges can be edited manually before receipt of Goods, integrate to PO receipt
- Types of Landed Cost Adjustments:
 - Estimated Landed Cost (ELC):
 - Calculated at the time of receipt based on one or more estimated charges
 - Actual Landed Cost (ALC):
 - Calculations based on the actual invoice prices

Overview of Landed Cost Management

Integration with Other Oracle Applications:



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Test Case

Create a PO with Quantity: 100 Each, Unit Price: 100 USD

Setup Cost Factors:

LCM Freight Charges: 10%

LCM Insurance Charges: 200 USD Lumpsum

Estimated Landed Cost (ELC):

Item Price + Freight + Insurance = 100*100+10000*.1+200 = 11200 USD

Unit ELC = Total Cost/Quantity = 11200/100 = 112 USD/Each

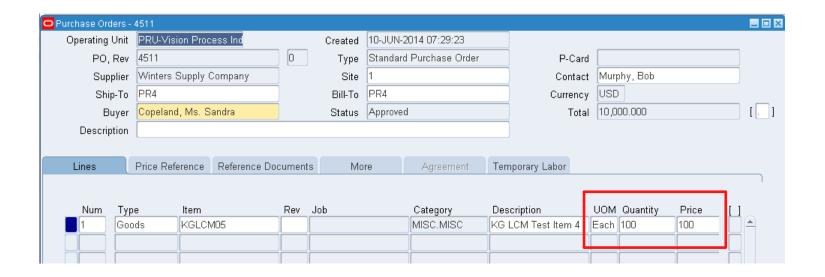
AP Invoices:

Invocie#1: Matched with Item Line Type: 11000 USD (with Item Unit Price: 110)

Invoice#2: Matched with Freight & Miscellaneous: 1400 USD(Freight: 1100, Insurance: 300)

Unit Actual Landed Cost (ALC): (11000+1400)/100 = 124 USD/Each

Test Case – Purchase Order



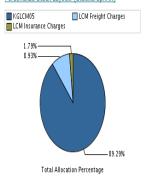
Test Case – Landed Cost Shipments Workbench

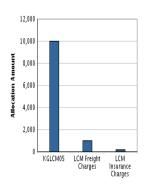


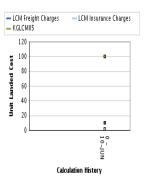
Personalize Flow Layout: (AdiHistFlowLayout)

Personalize Table: (AllocationDataTable)					
Component Reference	Туре	Analysis Code	Component Class	Amount	Unit Landed Cost
KGLCM05	Item Price			10,000.000	100.00000
LCM Freight Charges	Charge	FRT	1-FREIGHT	1,000.000	10.00000
LCM Insurance Charges	Charge	INS	1-INSURANCE	200.000	2.00000

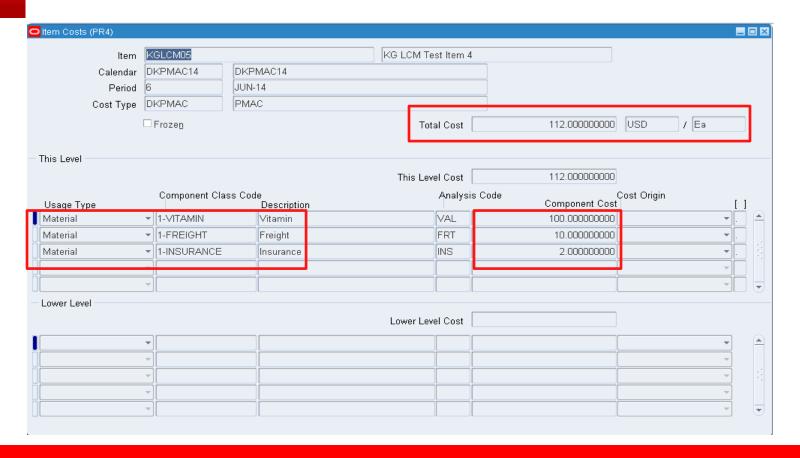
Personalize Stack Layout: (StackGraphRN)



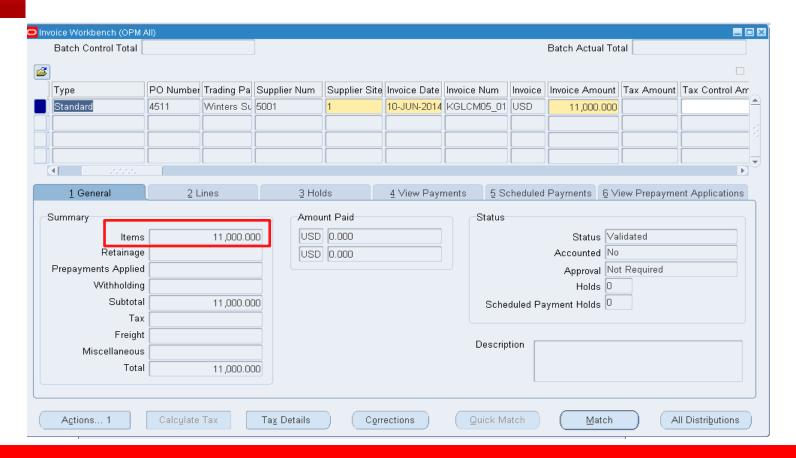




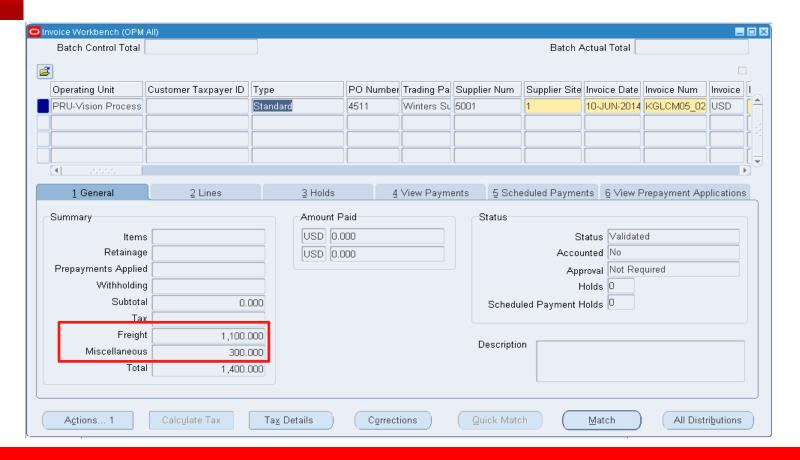
Test Case – Item Cost



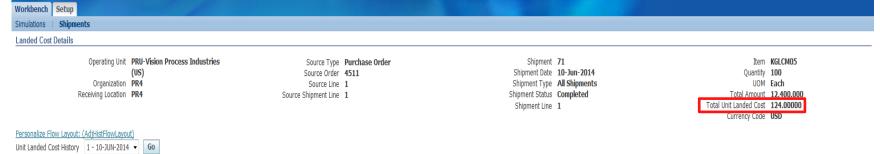
Test Case - Invoices



Test Case - Invoices



Test Case – Landed Cost Shipments Workbench

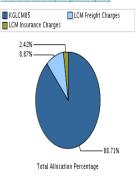


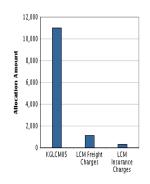
Personalize Table: (AllocationDataTable)

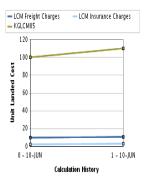
Component Reference	Туре
KGLCM05	Item Price
LCM Freight Charges	Charge
LCM Insurance Charges	Charge

Analysis Code	Component Class	Amount	Unit Landed Cost
		11,000.000	110.00000
FRT	1-FREIGHT	1,100.000	11.00000
INS	1-INSURANCE	300.000	3.00000
210	2 2100101102	5501055	5,5555

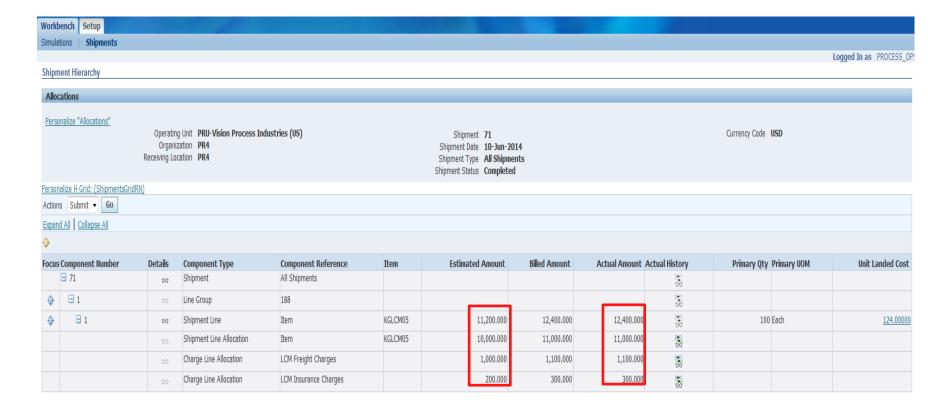
Personalize Stack Layout: (StackGraphRN)



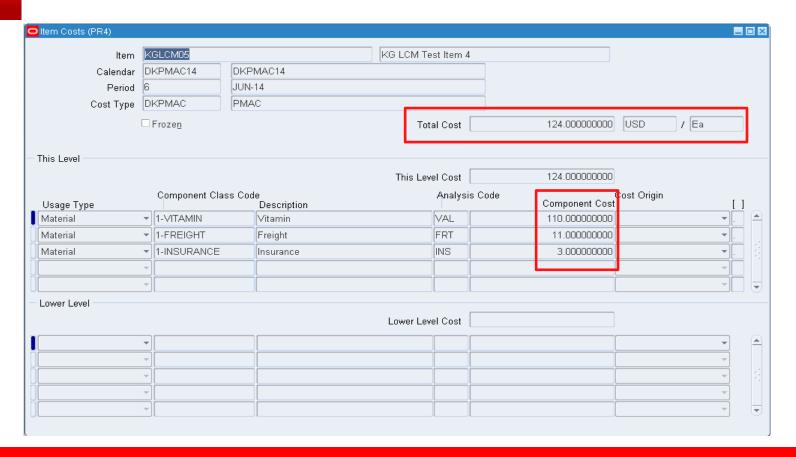




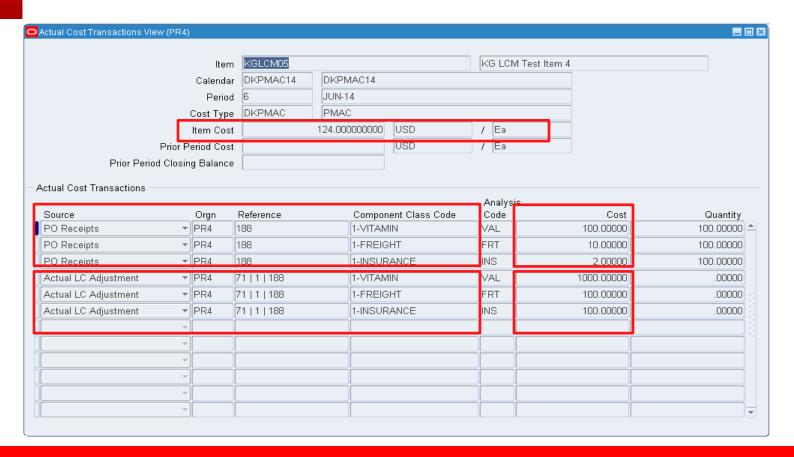
Test Case – Landed Cost Shipments Workbench



Test Case – Item Cost



Test Case – Item Cost



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LCM integration Key Setup Analyzer script and output

Doc ID 1664410.1 - OPM LCM integration Key Setup Analyzer Doc ID 1677693.1 - Discrete LCM integration Key Setup Analyzer

- Mandatory Profile Options and Recommended Values.
- **Organization Parameters**
- Receiving Options
- Cost Factors
- **Price Modifiers**
- Landed Cost Management Options, LCM Shipment and Shipment Line Types
- Recommended and High Priority Patches
- Important PL/SQL Package Versions

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Functional Flow—LCM As a Service

- A. Receipt Process:
- Import Into Inventory/Costing Estimated LC:
- C. Actual Invoice and Matching:
- Import into Inventory/Costing Actual LC:

Functional Flow – LCM As a Service

Receipt Process:

Responsibility: Purchasing

- Create and approve a Purchase order.
- Receive PO.
- Run "Landed cost Integration Manager" to interface the Shipments to LCM.

Responsibility: Landed Cost Management

- Run "Shipments Interface Import" to create a LCM shipment and to calculate the charges.
- Run "Receiving Transaction Processor" (to deliver the LCM shipment) and to update the RCV shipments with ELC
- Verify the shipment created, charges and estimated landed Cost (ELC) calculated

Functional Flow - LCM As a Service

Import Into Inventory/OPM Finacials – Estimated LC:

Responsibility: Inventory

Material Transaction Manager

Responsibility: OPM Financials

Run "Landed Cost Adjustments Import Process" into OPM Financials Run Actual cost Process and verify the item cost details along with the ELC adjustments

Functional Flow - LCM As a Service

B. Import Into Inventory/Costing – Estimated LC:

Responsibility: Inventory

Material Transaction Manager

Responsibility: Cost Management

Cost Manager

Functional Flow—LCM As a Service

C. Actual Invoice and Matching:

Responsibility: Account Payables

- Create AP Invoices and match for Item price and other charges.
- Validate Invoice for Item and other charges.

Responsibility: Landed Cost Management

- Run "Matches Interface Import" to import the actual invoice amounts from INL Interface tables.
- Run "Submit Pending Shipments" to populate actual Landed cost and the Actual landed cost adjustments

Functional Flow—LCM As a Service

Import into Inventory/OPM Financials – Actual LC:

Responsibility: OPM Financials

- Run "Landed Cost Adjustments Import Process" into OPM Financials
- Run Actual cost Process and verify the Item cost details with Actual LC adjustments.
- Run cost update
- Run OPM Accounting Pre-processor
- Run "Detailed Sub-ledger Report" to verify the accounting events
- Run the Create Accounting process in order to generate the accounting transactions

Functional Flow-LCM As a Service

Import into Inventory/Costing – Actual LC:

Responsibility: Inventory

Material Transaction Manager

Responsibility: Cost Management

Cost Manager

Functional Flow – LCM Pre-receiving

A. Receipt Process:

Responsibility: Purchasing - Create and Approve Purchase Order

Responsibility: Landed Cost Management

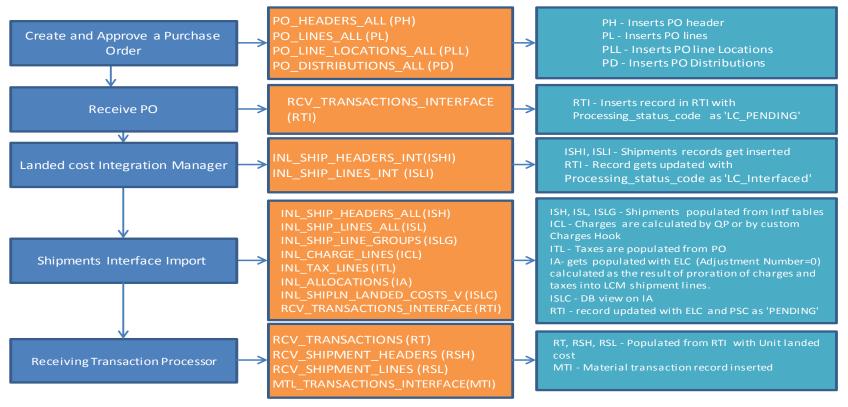
- Create LCM shipments in LCM workbench
- Generate charges by choosing "Generate Charges" so that the QP will be called to calculate the estimated landed cost. If Advanced Pricing is not used, charges has to be manually entered by choosing the 'Manage Shipments' option.
- Submit the LCM shipments (Generates Unit LC and populates RTI)
- RTP Submitted On-line mode (Populates RCV shipments with ULC and SLS as Expected.
- Query LCM shipment Number with Source as LCM in Receipts form and save the Receipt (Populate RTI).
- RTP submitted (RSH gets updated with Receipt number and SLS as Fully Received)

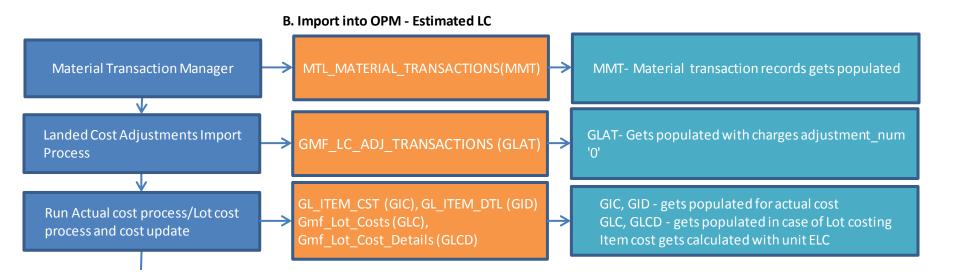
Subsequent processes which are B. Import Into Inventory/Costing – Estimated LC, C. Actual Invoice and Matching D.Import into Inventory/Costing – Actual LC same for OPM and Discrete costing.

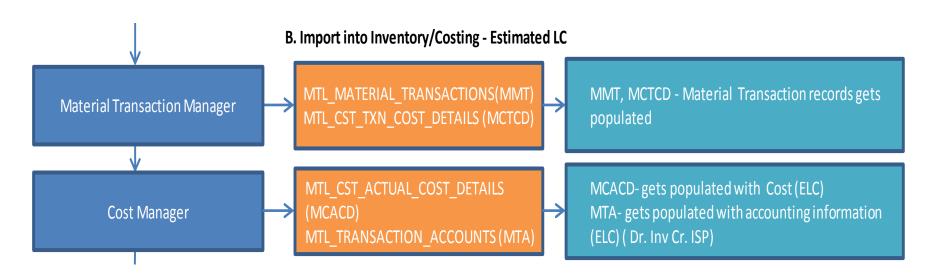
Agenda

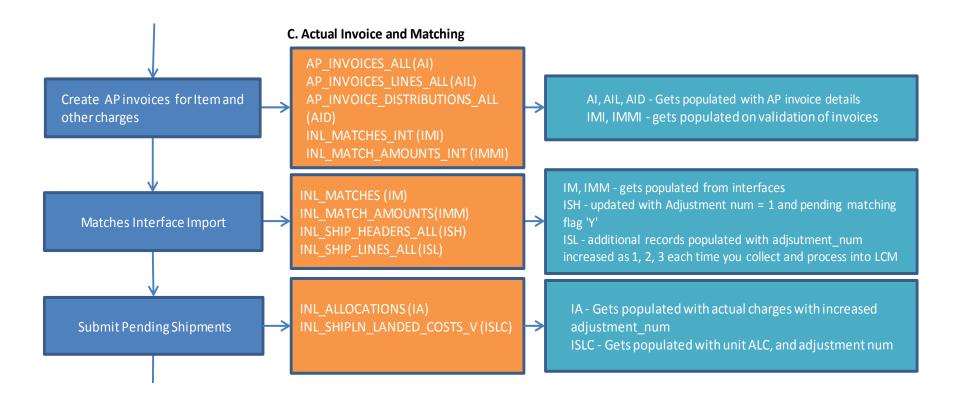
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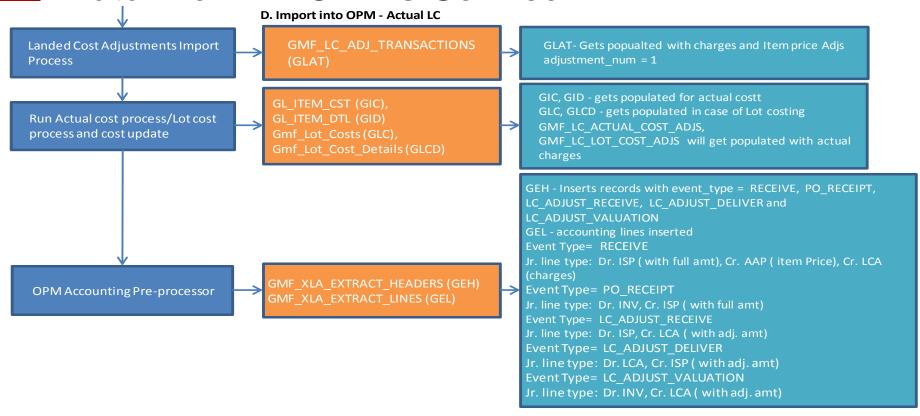
A. LCM As Service - Receipt Process

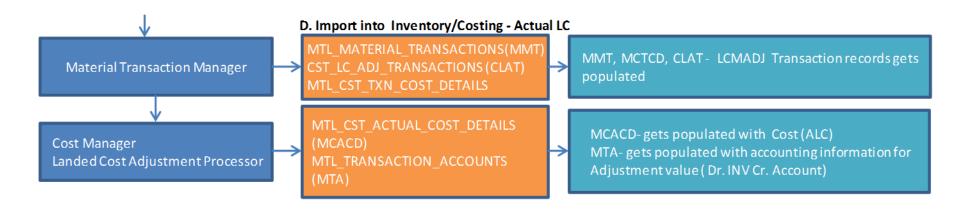






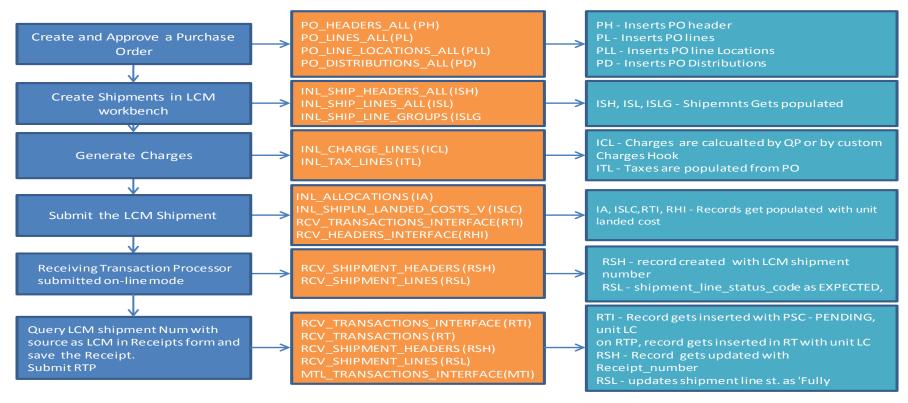






Data Flow – LCM Pre-receiving

A. LCM Pre-Receiving - Receipt Process



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Table Mapping - OPM

PO_HEADERS_ALL	PO_IINES_ALLL	PO_LINE_LOCATIONS_ALL	PO_DISTRIBUTIONS_ALL
	PO Header Id	PO_Header_Id	PO_Header_Id PO Line Id
PO_header_id	PO_Header_Id	PO_Line_Id	Line_Location_id
Segment1	\ \ __\	Line_Location_id -	PO_Distribution_id
RCV_TRANSACTIONS_INTERFACE	RCV_TRANSACTIONS	RCV_SHIPMENT_HEADERS	RCV_SHIPMENT_LINES
Interface_Transaction_id	_		Shipment_line_id
FO_Header_id	Transaction_Id	Shipment_header_id	Shipment_line_id
PO_line_id	PO header_id	Shipment_num	PO_header_Id
	Shipment_header_id		
INL_SHIP_HEADERS_INT	INL_SHIP_LINES_INT	INL_SHIP_HEADERS_ALL	INL_SHIP_LINES_ALL
Ship_header_id ◀	ship_header_id	Chile handen id a	Ship_header_id
Ship_num	Ship_line_source_id	Ship_header_id Ship_Num	✓ Ship_Line_id ↓
		S.II.P.Z.IVAIII	ship_line_source_id
			adjustment_num
INL_SH IP_LINE_GROUPS	INL_CHARGE_LINES	INL_ASSOCIATIONS	INL_TAX_LINES
Sh p_Header_Id 4	Ship_Header_Id	Ship_header_ld	Ship_header_ld
Ship_line_group_id	Charge_line_id	association id	tax_line_id
Event_Id	Adjustment_Num	from_parent_table_id	adjustment_num
Event_Type_Code	Charge_line_type_id		
INL_ALLOCATIONS	INL_SHIPLN_LANDED_COSTS_V	INL_MATCHES	INL_MATCH_AMOUNTS
Ship Header Id		Ship_header_id	
Allocation_id	Ship_Header_Id Ship_line_id	match_id	match_amount_id
Adjustment_num	ship_line_group_id	match_amount_id	matched_amt
Ever t_Type_Code	SIIIP_IIIIE_BI GAP_IA	Adjustment_num	
AP_INVOICE_ALL	AP_INVOICE_LINES_ALL	AP_INVOICE_DISTRIBUTIONS_ALL	MTL_MATERIAL_TRANSACTIONS
luca ata data		Invocie_id	
Invocie_id ← Invocie_num	Line Number	Invocie_line_number	transaction_id
Invocie_amount	Rcv transaction_id	Distribution_line_number	rcv_transaction_id
_		rcv_transaction_id	
GMF_RCV_ACCOUNTING_TXNS	GMF_LC_ADJ_TRANSACTIONS	GMF_LC_ADJ_HEADERS_V	GMF_LC_LOT_COST_ADJS
po_header_id		Given the sales and	
rcv_transaction_id	adj_transaction_id rcv_transaction_id	Ship_header_id ship_line_id	lc_adjustment_id adj_transaction_id
accounting_txn_id	adjustment_num	rcv_transaction_id	adj_transaction_id
GMF_LC_ACTUAL_COST_ADJS	GMF_XLA_EXTRACT_HEADERS	GMF_XLA_EXTRACT_LINES	
	header_id -	header id	
ac_adjustment_id	entity_code	line_id	
adj_transaction_id 🚩	event_type_code	Journal_line_type	
	source_line_id	trans_amount	

Table Mapping - Discrete

PO_HEADERS_ALL	PO_IINES_ALLL	PO_LINE_LOCATIONS_ALL	PO_DISTRIBUTIONS_ALL
PO_header_id Segment1	PO_Header_Id PO_Line_Id	PO_Header_Id → PO_Line_Id Line_Location_Id →	PO_Header_Id PO_Line_Id Line_Location_id PO_Distribution_Id
RCV_TRA VSACTIONS_INTERFACE	RCV_TRANSACTIONS	RCV_SHIPMENT_HEADERS	RCV_SHIPMENT_LINES
Interface_Transaction_id FO_Header_id PO_line_id	Transaction ld POTheader_id PO_line_ld PO_line_ld Shipment_header_id	Shipment_header_id Shipment_num	Shipment_line_id Shipment_headet_id PO_header_ld
INL_SI-HP_HEADERS_INT	INL_SHIP_LINES_INT	INL_SHIP_HEADERS_ALL	INL_SHIP_LINES_ALL
Ship_header_id ◀ Ship_num	ship_header_id Ship_line_source_id	Ship_header_id Ship_Num	Ship_header_id Ship_Line_id ship_line_source_id adjustment_num
INL_SHIP_LINE_GROUPS	INL_CHARGE_LINES	INL_ASSOCIATIONS	INL_TAX_LINES
Sh p_Header_Id Ship line_group_id Event_Id Event_Type_Code	Ship_Header_Id Charge_lihe_id Adju_stment_Num Charge_line_type_id	Ship_header_ld association_id from_parent_table_ld	Ship_header_ld tax_line_id adjustment_num
INL_ALLOCATIONS Ship_Header_Id Allocation_id Adjustment_num Event_Type_Code	INL_SHIPLN_LANDED_COSTS_V Ship_Header_Id Ship_line_id ship_line_group_id	INL_MATCHES Ship_header_id match_id match_amount_id Adjustment_num	INL_MATCH_AMOUNTS match_amount_id matched_amt
AP_INVOICE_ALL Invocie_id Invocie_num Invocie_amount	AP_IN_VOICE_LINES_ALL Invocie_id Line_Number Rcv_transaction_id	AP_INVOICE_DISTRIBUTIONS_ALL Invocie_lid Invocie_line_number Distribution_line_number rcv_transaction_id	MTL_MATERIAL_TRANSACTIONS_TEMP transaction_id rcv_transaction_id
MTL_CST_TXN_COST_DETAILS Transaction_id Organization_id Transaction_cost Value Change	CST_LC_ADJ_TRANSACTIONS Transaction_id rcv_transaction_id	CST_LC_ADJ_INTERFACE Transaction_id rcv_transaction_id	MTL_MATERIAL_TRANSACTIONS transaction_id rcv_transaction_id trx_source_line_id
	MTL_CST_ACTUAL_COST_DETAILS Transaction_id Organization_id Actual_cost Prior_cost, New_cost	MTL_TRANSACTION_ACCOUNTS Transaction_id Reference_Account Accounting_line_type Base_transaction_value	

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LCM Transactional Data Diagnostics script and output

Doc ID 1664499.1 - OPM LCM Transactional Data Diagnostics Doc ID 1677699.1 - Discrete LCM Transactional Data Diagnostics

- Very crucial information across modules (PO, AP, LCM, OPM, Discrete) for respective PO's
- Helpful in terms of interface status across PO/LCM/AP/OPM and Discrete
- Single snapshot, presented in HTML format
- Each segment has been arranged logically along with flow of data, user friendly
- Helpful in identifying data corruptions, conversion issue, stuck transactions etc...

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Common Issues & Frequently Asked Questions

Commonissues

- > How can we make use of this script output analysis? Say problem is like duplicate or landed cost doubled what to look at in script output.
- GMF_LC_ADJ_TRANSACTIONS is a key table which holds the LC adjustment transactions into OPM. Verify whether rows are in synch or any abnormal data exist in this table through the script output.
- When charges are in different currency, not converted properly.
- Check whether GMF LC ADJ TRANSACTIONS has currency conversion rate stamped properly or not.

Common Issues & Frequently Asked Questions FAQ:

- What is the sequence of execution of the requests "Matches Interface Import" and "Submit Pending Shipments"?
- Matches Interface import should be executed first to import the ALC adjustments from AP invoices into LCM.
- Once the program is completed then submit Pending Shipments to include the ALC adjustments in LCM shipments.

Common Issues & Frequently Asked Questions

FAQ:

- > How landed cost is integrated with OPM Standard costing, and OPM lot costing?
- In OPM Standard costing there is no costing impact as such however base Journals may appear (landed cost adjustments). As invoice variance will not effect item cost, posting of Inventory valuation event is not done. This will not have any impact on inventory valuation account and period closing activity for standard costing customers. For lot costing yes it works where differences of item price are captured as landed cost adjustments
- Can LCM support item invoices and charge invoices in different currencies?
- Oracle EBS Accounts Payable does not currently support the ability to receive charge invoices in a different currency from the product invoice itself.
 - Please refer to the My Oracle Support <u>Document 1383061.1</u> How to Associate Receipt Lines with an Invoice if the Invoice Currency is Different from the Purchase Order Currency.

Common Issues & Frequently Asked Questions

FAQ:

- ➤ Whether landed cost integration with OPM supports multi currency?
- LCM integration supports scenario like base currency is AED, PO item is in USD where as charges invoices are in AED, Yes, this is supported.
- > Whether Receipt Quantity Correction will get reflected in Landed Cost for LCM As pre receiving?

To explain it by example, If the receipt correction is made to Receipt against shipment, original shipment quantity received is 100 & made negative receipt correction of 20 quantity to the LCM shipment in that case the quantity corrected will get reflected in LCM against that shipment and also the LCM charges will get applied proportionately to 80 quantity instead of earlier 100 quantity as 20 gty is corrected.

Summary

What we covered today

Overview of LCM functionality



- Usage of LCM integration Key Setup Analyzer Script
- Functional Flow, Dataflow and Table Mapping

- Usage of LCM Transactional Data Diagnostics script and output.
- Common Issues and FAQs

Q & A

THANK YOU