

Cost Management In Oracle Applications

by
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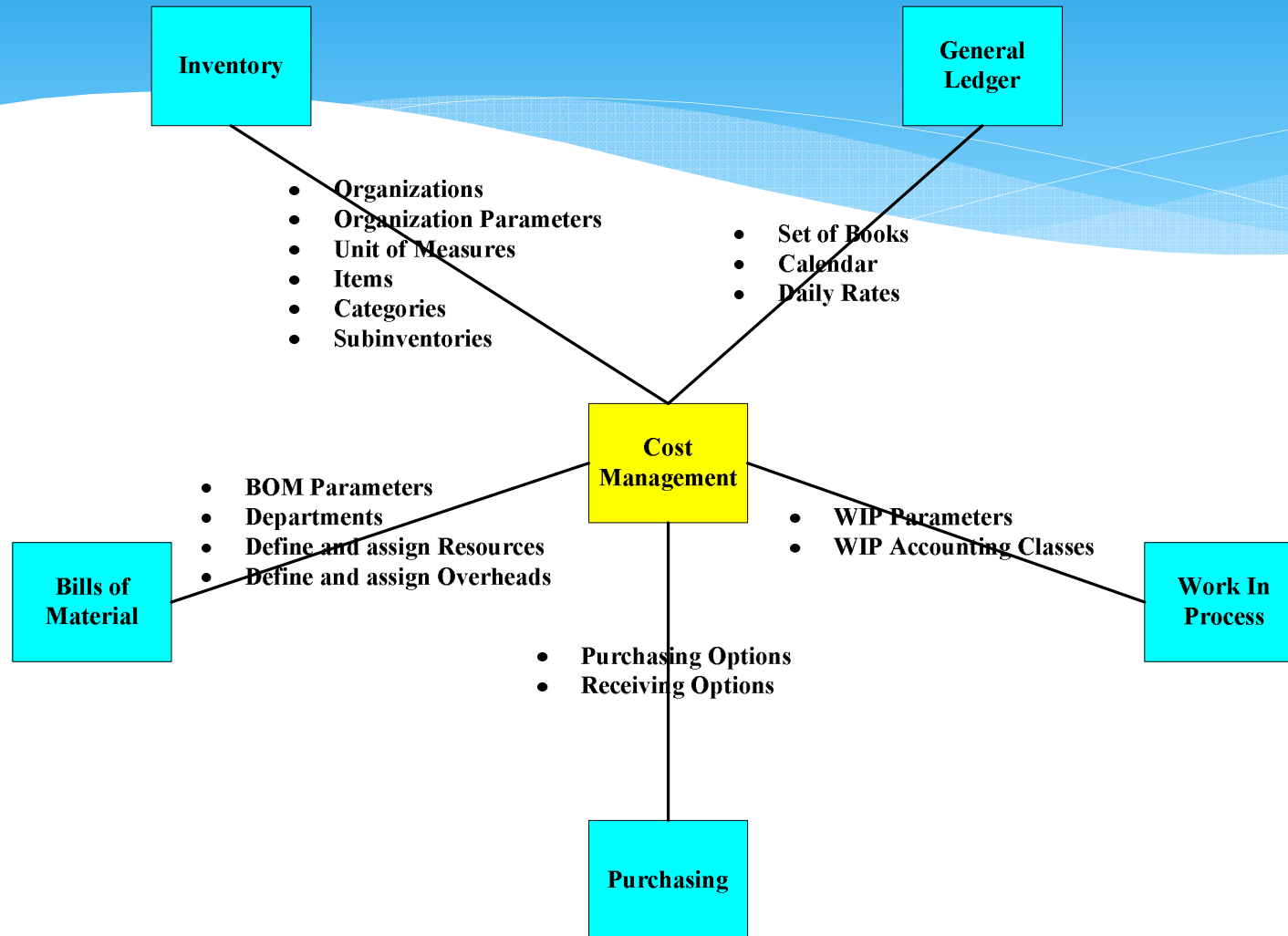
Overview

Oracle Cost Management is a full absorption and perpetual cost system for purchasing, inventory, work in process, and order management transactions.

Cost Management automatically costs and values all inventory, work in process, and purchasing transactions. This means that inventory and work in process costs are up-to-date.

Cost Management provides flexible cost setup features, including multiple cost elements and unlimited sub-elements, unlimited resources and overheads, and unlimited activities.

Integration Points



Costing Methods

Oracle offers following four different perpetual costing methods:

- Standard Cost
- Average Cost
- FIFO Cost
- LIFO Cost

Oracle offers following two different periodic costing methods:

- Periodic Average Cost
- Periodic Incremental LIFO Cost

Perpetual - Standard Cost

- * Values inventory at a predetermined cost
- * Determine profit margin based on projected costs
- * Record variances against expected costs
- * Evaluate production costs relative to standard costs
- * Measure the organization's performance based on predefined product costs
- * Evaluate product costs to assist management decisions

Perpetual – Average Cost

- * Values inventory at a moving weighted average cost
- * Tracks inventory and manufacturing costs without the requirement of having predefined standards
- * Determines profit margin based on an actual cost method
- * Measure the organization's performance against historical costs
- * Include all direct costs of manufacturing an item in that item's inventory cost

Perpetual – Average Cost

- * Under average cost systems, the unit cost of an item is the average value of all receipts of that item to inventory, on a per unit basis.
- * Each receipt of material to inventory updates the unit cost of the item received.
- * Issues from inventory use the current average cost as the unit cost.
- * The system maintains the average unit cost at the organization level.

Perpetual – Layer Cost

- * FIFO and LIFO are layer costs
- * FIFO is First in First Out
- * LIFO is Last in First Out
- * Approximate actual material costs
- * Values inventory and transacts at layer cost
- * Maintain layer costs
- * Analyze profit margins using an actual cost method

Perpetual – Layer Cost

- * The cost of the inventory is maintained in layers.
- * Receipts and assembly completions are maintained in layers, each layer with its own costs and quantities.
- * Issues are valued at the costs of the earliest layers remaining in on-hand inventory.
- * Period end value is kept in layers, based on receipts that still have quantity balances.
- * The layers for previous periods and years will be in a single layer as the period closes and carried over to the next period.
- * The inventory layer is the unique identification of every receipt into inventory.
- * Each inventory layer has an associated cost and quantity.

Periodic Costing

In addition to the perpetual costing system, Oracle offers two methods of Periodic Costing:

- * Periodic Average Costing (PAC)
- * Periodic Incremental LIFO (Last-In First-Out)

Perpetual Costing setup is mandatory. Oracle maintains the perpetual system and the periodic system separately and produces separate reports.

Periodic Costing

Three principal objectives of Periodic Costing are:

- * To capture actual acquisition costs based on supplier invoiced amounts plus other direct procurement charges.
- * To capture actual transaction costs using fully absorbed resource and overhead rates.
- * To average inventory costs over a prescribed period, rather than on a transactional basis.

Standard / Average Comparison

Standard Costing

Average Costing

Material and material overhead with Inventory; all cost elements with Bills of Material	Material with Inventory; all cost Elements with Bills of Material
Item costs held by cost sub-element	Item costs held by cost element
Unlimited sub-elements	Unlimited sub-elements
Can share costs across child organizations when not using Work in Process	No shared costs; average cost is maintained separately in each organization
Define pre-determined standards	Standards are not defined
Moving average cost is not maintained	Maintains the average unit cost with Each transaction
Separate valuation accounts for each subinventory and cost element	Separate valuation accounts for each Cost group and cost element
Variances for Work in Process transactions	Little or No variances for Work in Process Transactions

Cost Elements

Unit cost of an item is the sum of all of the applicable cost elements for that item. These elements include:

- * **Material:** The raw material cost at the lowest level of the bill of material determined from the unit cost of the component item.
- * **Material Overhead:** The overhead cost of material such as freight, storage, etc.
- * **Resource:** Direct Labor Costs, machine costs, space costs required to manufacture products.
- * **Overhead:** The overhead cost of resource or machine which is used as a means to allocate department costs or activities.
- * **Outside Processing:** This is the cost of outside processing purchased from a supplier.

Sub Elements

- * Sub-elements can be used as smaller classifications of the cost elements.
- * Each cost element must be associated with one or more sub-elements.
- * An amount or rate is attached to each sub-element.

Basis Types

Basis types determine how costs are assigned to the item. Basis types are assigned to sub-elements, which are then assigned to the item. Each Sub-element must have a basis type.

- * **Item** - Used with material and material overhead sub-elements to assign a fixed amount per item.
- * **Lot** - Used to assign a fixed lot charge to items or operations. The cost per item is calculated by dividing the fixed cost by the item's standard lot size.
- * **Resource Value** - Used to apply overhead to an item based on the resource value earned in the routing operation.
- * **Resource Unit** - Used to apply overhead to an item based on the resource units earned in the routing operation.
- * **Total Value** - Used to apply overhead to an item based on the total value of the item.
- * **Activity** - Used to directly assign the activity cost to an item. Used with the material overhead sub-element only.

Basis Types Usage

Allocation Charge Methods					
	SUBELEMENT				
BASIS TYPE	Material	Material Overhead	Resource	OSP	Overhead
Activity		X			
Item	X	X	X	X	X
Lot	X	X	X	X	X
Resource Units		X			X
Resource Value		X			X
Total Value		X			

Cost Group

A cost group is a set of accounts that hold on hand inventory.

The common cost group is seeded when Cost Management is installed. The valuation accounts defined in the Organization Parameters window are used for this cost group and cannot be changed or made inactive.

Cost Type

- * A cost type is a set of costs uniquely identified by name.
- * In Standard Costing method, 'Frozen' is the seeded cost type.
- * An unlimited number of additional simulation cost types can be defined and updated.

Activities & Activity Costs

- * An action or task that uses a resource or incurs cost.
- * Associate all product costs to activities.
- * Define activities and assign them to any Sub-element.
- * Assign costs to activities and build item costs based on activities.

Material Overhead Defaults

- * Can define and update default material overhead sub-elements and rates.
- * These defaults speed data entry when defining items.
- * When you define items, these material overheads are defaulted into the Frozen cost type.

Item Cost & Item Cost Controls

- * Costing Enabled
- * Inventory Asset Value
- * Include in Roll up
- * Cost of Goods Sold Account
- * Standard Lot Size

Cost Cut-Off Date

This functionality allows businesses the option of changing labor rates and overhead rates at the beginning of the accounting period while transactions in the next period wait for these new costs to be completed.

When using the Cost Cutoff Date, all cost processing for the new accounting period is stopped for that organization. Once the new costs are set, then the costing is started for the new period. This occurs by changing the cost cutoff date to a date in the future.

Cost Rollup

Cost Rollup is a process by which the costs of assemblies are built, starting with the lowest level and working up the structure to top-level assemblies. This process is specifically called a 'full Cost rollup'.

There is another way of rolling up Costs, which is the single-level rollup, which only looks at the first level of the bill structure for each assembly in the rollup and rolls the costs for the items at this level into the parent. This method does not reflect structure or cost changes that have occurred at a level below the first level of assemblies.

Standard Costing

- * Standard costing uses predetermined costs for valuing inventory and for charging material, resource, overhead, period close, and job close and schedule complete transactions.
- * Differences between standard costs and actual costs are recorded as variances.
- * Manufacturing industries use Standard Costing for performance measurement and cost control.

Standard Costing contd...

- * Establish and maintain standard costs
- * Define cost elements for product costing
- * Value inventory and work in process balances
- * Perform extensive cost simulations using unlimited cost types
- * Determine profit margin using expected product costs
- * Update standard costs from any cost type
- * Revalue on-hand inventories, intransit inventory, and discrete work in process jobs when updating costs
- * Record variances against expected product costs
- * Measure your organization's performance based on predefined product costs

Standard Cost Variances

- * Standard Cost Inventory Variances

Inventory records purchase price variance (PPV) and recognizes cycle count and physical inventory adjustments as variances.

- * Standard Cost Manufacturing Variances

Work in Process provides usage, efficiency, and standard cost adjustment variances.

Standard Cost Inventory Variances

- **Purchase Price Variance (PPV)**

During a purchase order receipt, Inventory calculates purchase price variance. This is the difference between the PO price and the item's standard cost. Inventory updates the purchase price variance account with the PPV value. Purchasing reports PPV using the Purchase Price Variance Report.

- * **Invoice Price Variance (IPV)**

Invoice price variance is the difference between the purchase price and the invoice price paid for a purchase order receipt. Purchasing reports invoice variance. Upon invoice approval, Payables automatically records Invoice Price Variance to variance accounts.

- * **Cycle Count and Physical Inventory**

Inventory considers cycle count and physical inventory adjustments as variance.

Standard Cost Manufacturing Variances

- * **Material Usage Variance**

The material usage variance is the difference between the actual material issued and the standard material required to build a given assembly.

- * **Resource and Outside Processing Efficiency Variance**

The resource and outside processing efficiency variances is the difference between the resources and outside processing charges incurred and the standard resource and outside processing charges required to build a given assembly.

- * **Move Based Overhead Efficiency Variance**

Move based overhead efficiency variance is the difference between overhead charges incurred for move based overheads and standard move based overheads required to build a given assembly.

- * **Resource Based Overhead Efficiency Variance**

Resource based overhead efficiency variance is the difference between overhead charges incurred for resource based overheads and standard resource based overheads required to build a given assembly.

- * **Standard Cost Adjustment Variance**

Standard cost adjustment variance is the difference between costs at the previous standards and costs at the new standards created by cost update transactions.

Valuation Accounts

- * **Material:** An asset account that tracks material cost.
- * **Material Overhead:** An asset account that tracks material overhead cost.
- * **Resource** An asset account that tracks resource cost.
- * **Overhead** An asset account that tracks resource and outside processing overheads.
- * **Outside processing** An asset account that tracks outside processing cost.
- * **Expense** The expense account used when tracking a non-asset item.

Standard Cost Update

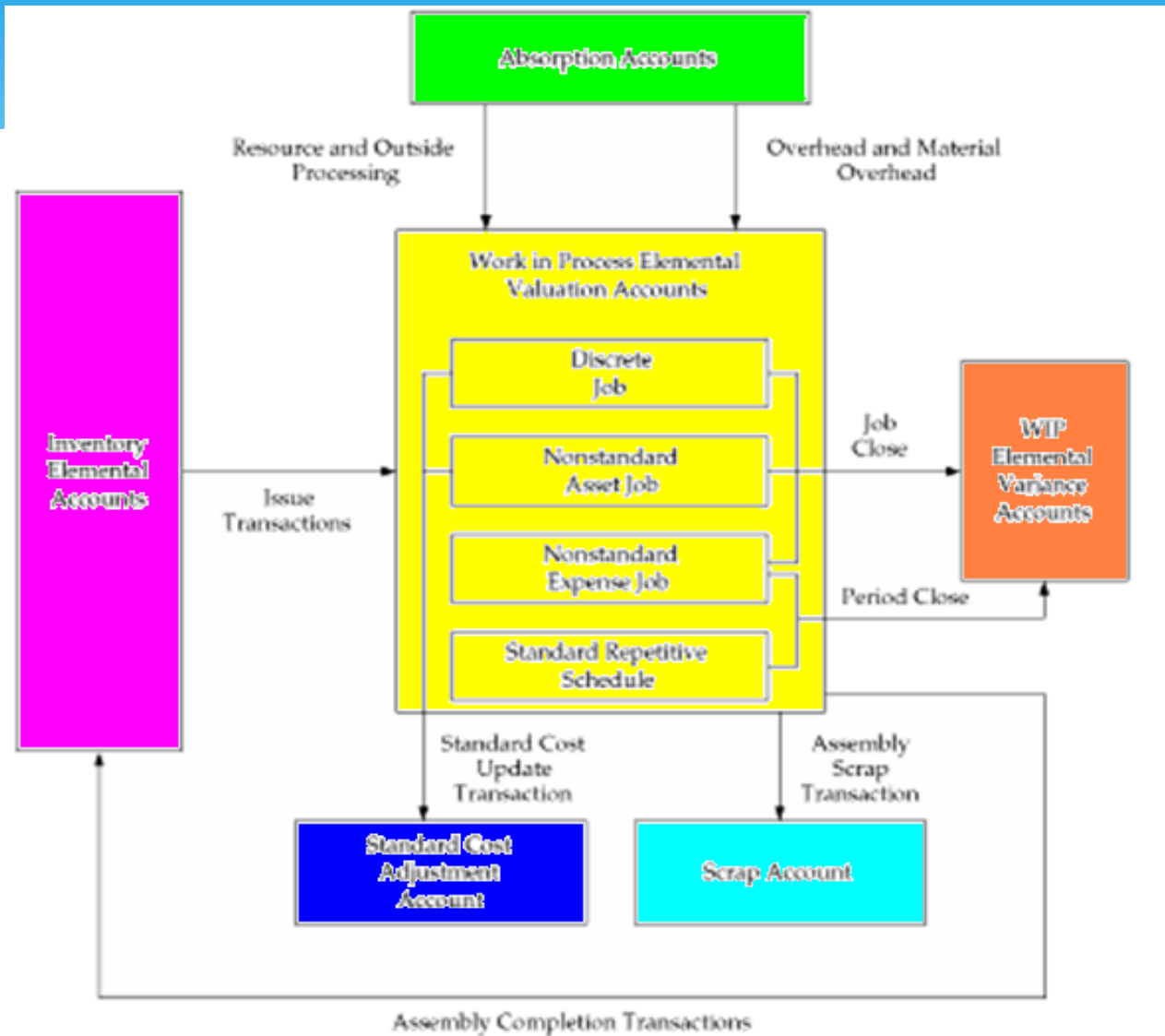
The standard cost update procedure enables users to define and roll up pending costs, simulate changes to standard costs for “what if” analysis and then update pending costs to the Frozen standard cost type.

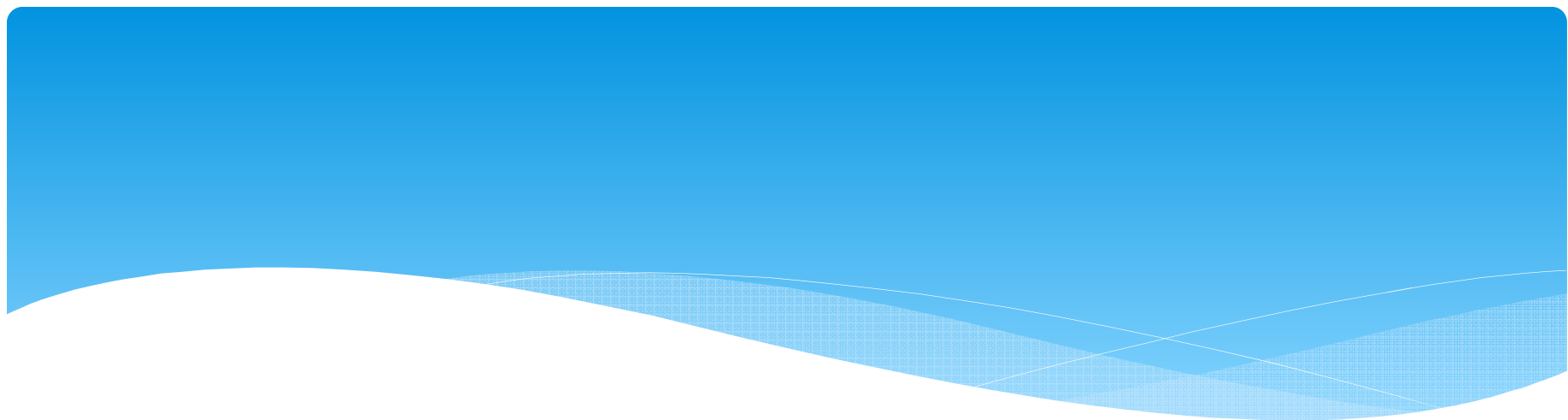
This is accomplished by running the ‘Update Standard Costs’ concurrent request.

WIP Transaction Cost Flow

- * Valuation accounts are charged when material is issued to a job or schedule, or when resources, outside processing, or overhead is earned by a job or schedule.
- * Valuation accounts are relieved when assemblies are completed from a job or schedule.

WIP Transaction Cost Flow





PO Receiving

<u>Account</u>	<u>Debit</u>	<u>Credit</u>
Receiving Inspection @ PO Cost	XXXX	
Inventory PO Accrual Account @ PO Cost		XXXX

PO Delivery

<u>Account</u>	<u>Debit</u>	<u>Credit</u>
Sub Inventory - Material Account @ PO Cost	XXXX	
Sub Inventory - Material Overhead Account	XXXX	
Receiving Account @ PO Cost		XXXX
Material Overhead Absorption Account		XXXX
PPV (Favorable / Unfavorable)	XXXX	XXXX

Return to Supplier from Receiving

<u>Account</u>	<u>Debit</u>	<u>Credit</u>
Inventory PO Accrual Account @ PO Cost	XXXX	
Receiving Inspection @ PO Cost		XXXX

Return to Supplier from Subinventory

<u>Account</u>	<u>Debit</u>	<u>Credit</u>
Receiving Account @ PO Cost	XXXX	
Material Overhead Absorption Account	XXXX	
Sub Inventory - Material Account @ PO Cost		XXXX
Sub Inventory - Material Overhead Account		XXXX
PPV (Favorable / Unfavorable)	XXXX	XXXX

Miscellaneous Receipt

<u>Account</u>	<u>Debit</u>	<u>Credit</u>
Sub Inventory - Material Account @ Std Cost	XXXX	
Sub Inventory - Material Overhead Account @ Std Cost	XXXX	
GL Account Entered @ Std Cost		XXXX

Subinventory Transfer

<u>Account</u>	<u>Debit</u>	<u>Credit</u>
To Sub Inventory - Material Account @ Std Cost	XXXX	
To Sub Inventory - Material Overhead Account @ Std Cost	XXXX	
From Sub Inventory - Material Account @ Std Cost		XXXX
From Sub Inventory - Material Overhead Account @ Std Cost		XXXX

WIP Assembly Completion

<u>Account</u>	<u>Debit</u>	<u>Credit</u>
Inventory Valuation Subinventory Account	XXXX	
WIP Valuation Account		XXXX
Overhead Absorption Account		XXXX

WIP Assembly Scrap

<u>Account</u>	<u>Debit</u>	<u>Credit</u>
Scrap Account	XXXX	
WIP Valuation Account		XXXX

Sales Order Pick

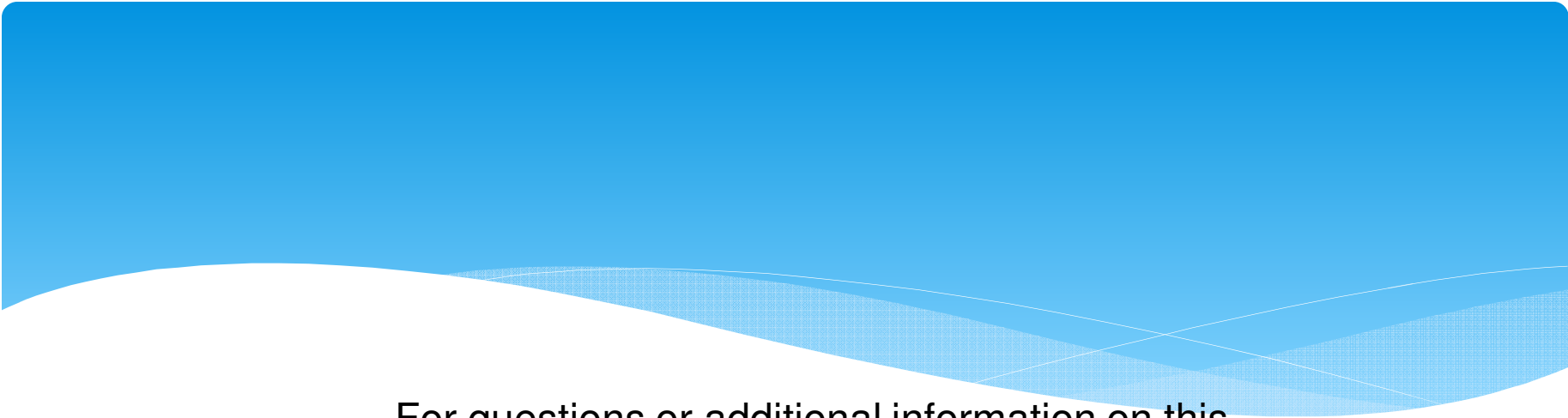
<u>Account</u>	<u>Debit</u>	<u>Credit</u>
To Subinventory Account @ Std Cost	XXXX	
From Subinventory Account @ Std Cost		XXXX

Sales Order Issue

<u>Account</u>	<u>Debit</u>	<u>Credit</u>
COGS	XXXX	
From Subinventory Account @ Std Cost		XXXX

Implementation Approach / Issues

- * Inventory Org Setups
- * Item Setups / Controls
- * BOM Setups
- * BOMs and Routings
- * WIP Setups
- * Subinventories
- * Dynamic Routings
- * New GL Accounts
- * Standards



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