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11i Inventory's Cost Cutoff Date –
Defer Costing Until Your Standard Costs Have Been Updated!

By Eric Guether

Editor's Note: At ORAtips, we pride ourselves in providing content that brings clear, immediate value to our readers. For our first cover story, Eric Guether illustrates this objective. In this article Eric shares with us the process of cost deferring until standard costs are updated using cost cut off date functionality introduced in 11.5.7. What follows is a blueprint of trouble spots, lessons learned, and the impact of uncosted transactions to your bottom line. Eric provides examples of functional set-up for the Inventory Organization Parameter and an excellent overview of transaction costing. As Eric points out "users responsible for standard cost updates and intercompany price lists should understand the impact of uncosted transactions on intercompany invoicing and the accuracy of historical balances on standard inventory reports."

Introduction

Opnext updates its standard costs every six months as of April 1st and October 1st. Opnext uses the cost cutoff date functionality in 11i Inventory to defer the costing of April or October Inventory, WIP, and PO Receiving transactions for 10 days or more until standard cost updates have been completed. The cost cutoff date is an optional inventory organization parameter whose functionality was introduced in release 11.5.7. This article explains the cost cutoff date functionality through several examples and shares lessons learned, such as the impact of uncosted transactions on standard inventory reports and intercompany invoicing.

Business Case

Opnext's company practice is to update standard costs every six months as of April 1st and October 1st. The new costs should apply to all transactions in the cost period, for example, from April 1, 2005 to September 30, 2005, or from October 1, 2005 to March 31, 2006, etc. But the new costs are typically not finalized until a few days into the new cost period. Opnext usually does not complete its standard cost updates until around April 10th or October 10th. However, all material transactions dated in April or October need to be valued at the new costs, even though those new costs are not updated to become the frozen costs until the second or third week in April or October.

Retroactive entry of transactions raised many issues.

The dilemma facing Opnext before release 11.5.7, therefore, was how to record early April or October transactions (quantities) in the new cost period before the standard cost updates. Opnext needed to cost, or value, those transactions after the standard cost update at the new frozen standard costs. Opnext could not simply shut off the Cost Manager for a few weeks starting on April 1st or October 1st, because any late March or September transactions created in early April or October needed to be valued at the current old period costs prior to the standard cost updates.

Opnext's factories and warehouses had developed a workaround for two years while Opnext remained on 11.5.3. Users would record inventory, WIP, shipping, and PO receiving transactions offline – outside of EBS 11i – on spreadsheets from April 1st or October 1st until the standard cost updates were completed. Then users would retroactively record those transactions in EBS 11i after the standard cost updates so that transactions were valued with the new frozen costs. But retroactive entry of transactions raised many issues:

- Unnecessary control weaknesses.

- Risk of data inaccuracy.

- Extra, unnecessary data entry for users.

- Unreliable inventory quantities in EBS 11i for a week or more.

- Manual preparation of shipping and export documents – not via EBS 11i – for a week or more.

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Opnext needed Oracle® standard costing functionality to be more flexible to allow material transactions in the new cost period to remain uncosted until Opnext was ready to perform its standard cost updates. Oracle added this functionality in release 11.5.7 with the introduction of the cost cutoff date.

The Solution: Cost Cutoff Date

The cost cutoff date functionality is designed around an optional date parameter on the Inventory Organization's Costing Information tab (refer to Figure 1 below).

The cost cutoff date functionality essentially stops material transactions in the organization from being costed if their transaction date is on or after the cutoff date. Any transactions dated before the cost cutoff date will be costed using the current frozen costs, even if such transactions were created after the cutoff date. All transactions dated on or after the cost cutoff date remain uncosted until the cost cutoff date is changed to a future date. The idea is that an inventory organization would not push its cost cutoff date to a future date until it completes its standard cost updates.

The cost cutoff date can be used for all perpetual costing methods in EBS 11i, including standard costing, average costing, FIFO, and LIFO. The scope of this article is limited to standard costing.

The cost cutoff date functionality can be used most effectively in conjunction with the timing of a standard cost update. This is accomplished by setting a cutoff date to the first day on which the new costs should be effective, for example, April 1, 2005. Then a typical standard cost update sequence under this example would be:

1. Complete all March 2005 transactions by early April (valued at current "old period" frozen costs) and begin entry of April-dated transactions on April 1, 2005 (costing deferred by the cutoff date).

2. Close the March 2005 inventory period for the organization in early April.

3. Perform standard cost updates for the organization in early to mid-April.

The cost cutoff date can delay the costing of many types of transactions across 11i modules.

4. Change the cost cutoff date for the organization to a later date, such as 01-OCT-2005.

5. The Cost Manager then costs all existing April 2005-dated transactions at the updated frozen costs ("new period" costs).

From a database perspective, when the cost cutoff date defers the cost of a transaction, the transaction still inserts a record on the MTL_MATERIAL_TRANSACTIONS table upon entry. This allows the transaction quantities to be recognized by the EBS 11i modules. But the record's COSTED_FLAG = "N", which indicates that the record has not yet been costed and that no accounting entries, or "distributions", have been created for the transaction.

The cost cutoff date can delay the costing of many types of transactions across 11i modules. Some primary examples are shown below in Figure 2 (not a complete list):
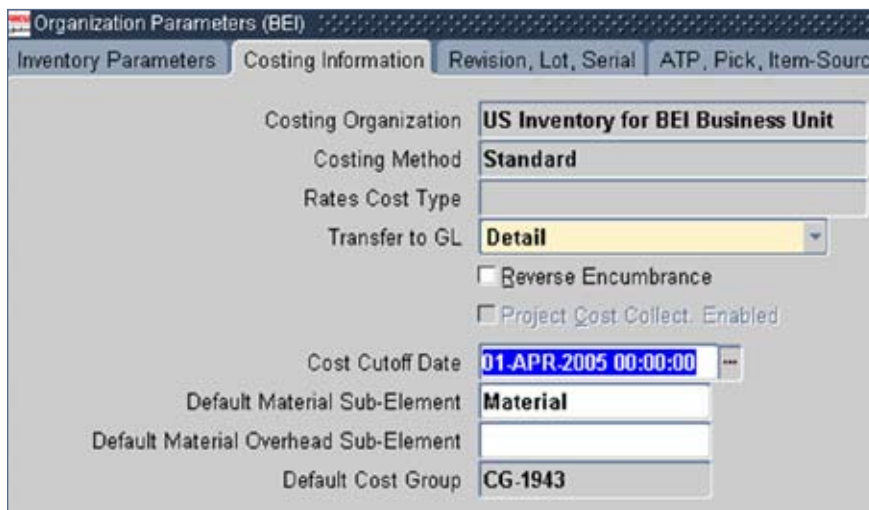
Figure 1 – Inventory Organization Costing Information

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Module	Transaction
Inventory	Miscellaneous / Account Alias Receipt
Inventory	Miscellaneous / Account Alias Issue
Inventory	Subinventory Transfer
Inventory	Interorg Transfer
Inventory	Receiving
Inventory	Pick Confirm
Inventory	Ship Confirm / Sales Order Issue
Inventory	Create Intercompany AR Invoices
Purchasing	PO Receiving (including PPV)
Purchasing	Return to Supplier
Work in Process	Discrete WIP Assembly Completion
Work in Process	Discrete WIP Component Issue
Work in Process	Workorderless Completion

Figure 2 – Transaction Type Examples

Example # 1: INV Miscellaneous Receipt– Costing Deferred

On April 1, 2005, a miscellaneous receipt will record the receipt of 5 units of item LASER123. The standard cost for LASER123 will not be updated to $1,000 until April 4, 2005. The transaction date of the receipt is 01-APR-2005, which is the same as the cutoff date of 01-APR-2005.

Figure 3 shows the transaction for Example # 1:

Figure 4 shows the standard cost update run on April 4, 2005 to update the cost for LASER123 from $1,200 to $1,000:

The cost cutoff date for the organization is then changed on April 6, 2005 from 01-APR-2005 to 01-OCT-2005, as shown in Figure 5:

Receipt of the 5 units is recorded immediately upon entry but remain uncosted until April 6th, as depicted in the chart shown in Figure 6.
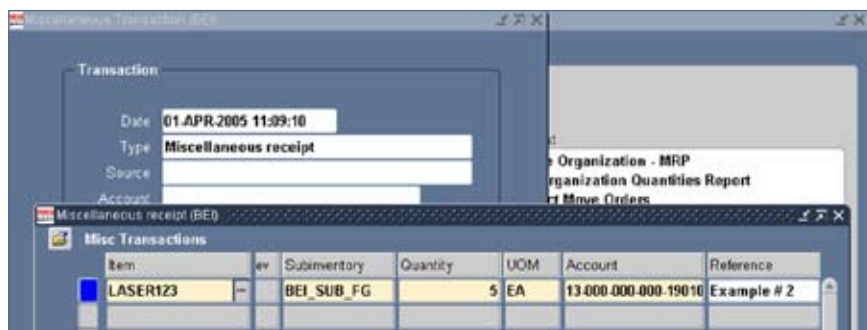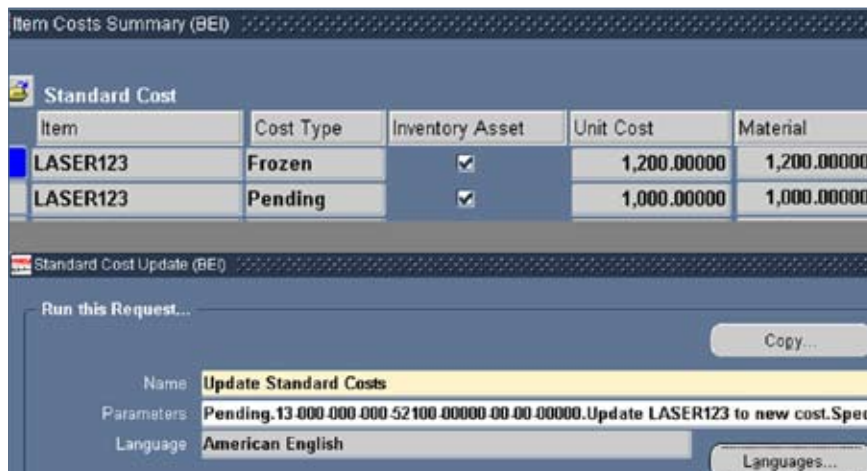

Figure 3 – Miscellaneous Receipt

Figure 4 – Items Cost Summary and Standard Cost Update

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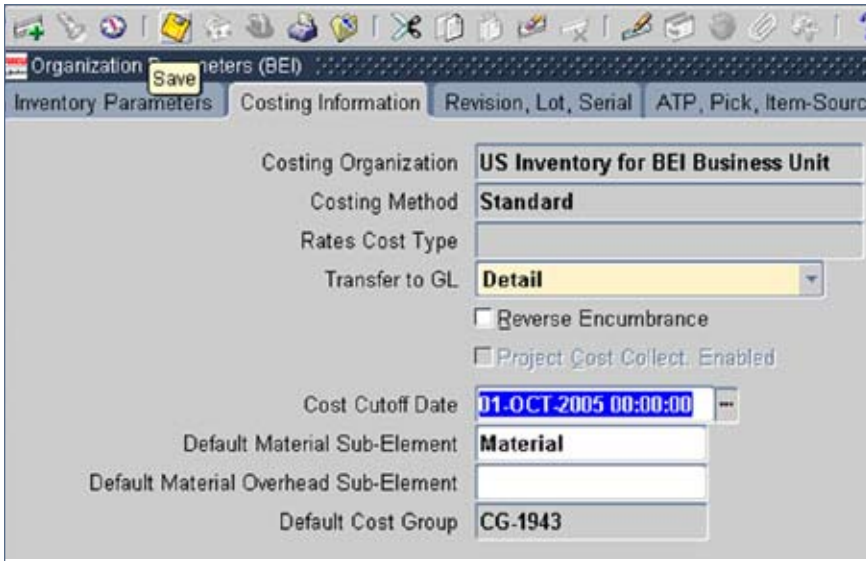▶ **on Manufacturing - Inventory**

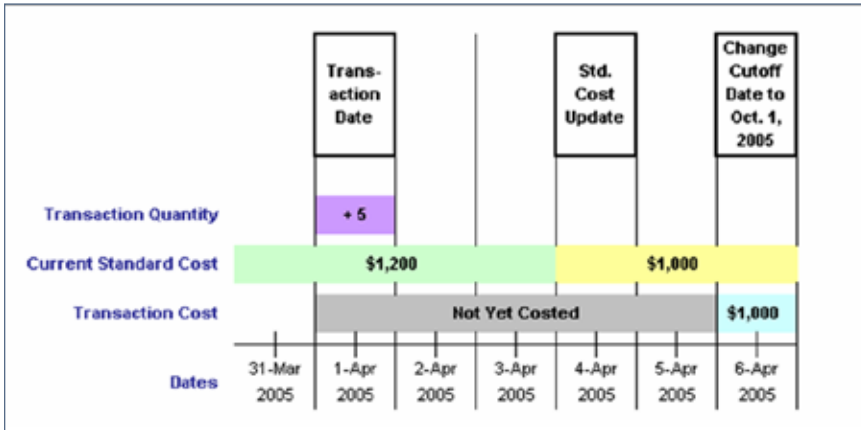Figure 5 – Costing Information

Figure 6 – Transaction Costing

Costing is deferred, because the transaction date is on the cost cutoff date. The creation date of the transaction does not matter, since the April 2005 inventory period is open. The transaction is costed on April 6th at the new period cost of $1,000, since that is the item's frozen standard cost on April 6th. Material distributions, as shown in Figure 7, are created on April 6th as soon as the transaction is costed.

Figure 7 – Material Transaction Distribution

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Example # 2: PO Receiving into Inventory– Costing Deferred

In this example, 200 units of DIODE-5002 will be received directly into inventory through a PO Receipt in the Purchasing module. The PO price of the item is $0.90. Its standard cost is $1.25 through the end of March 2005 and $1.00 starting on April 1st. The cost for DIODE-5002 will not be updated to $1.00 until April 4th. The transaction date of the receipt is 02-APR-2005, which is after the cutoff date of 01-APR-2005. The transaction is shown in Figure 8:
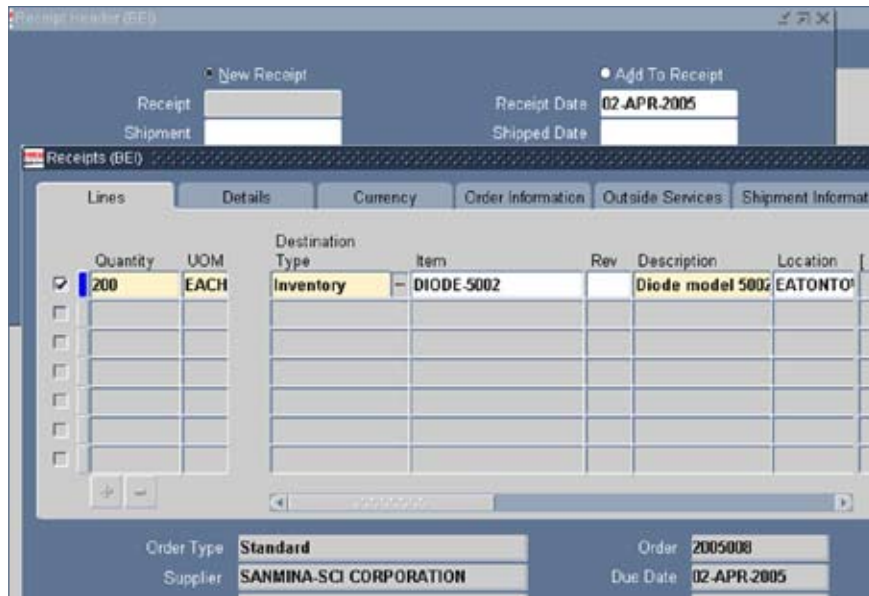
The receipt of 200 units is recorded upon entry but remains uncosted until April 6th, as depicted in the Figure 9 chart. Costing is deferred, because the transaction date is after the cost cutoff date. The transaction is costed at the new period cost of $1.00 on April 6th, because that is the frozen cost on April 6th.

When the material distributions are created on April 6th, a favorable purchase price variance (PPV) will be calculated at $0.10 per unit or $20.00 in total. This PPV is the difference between the PO price of $0.90 and the new standard cost of $1.00 – not the old period cost of $1.25 that was the frozen cost when the transaction was created.

The reports fail to estimate the value of some uncosted WIP transactions when backing into an item's historical balance.

Figure 8 – Receipts

Figure 9 – Transaction Costing Overview

Lessons Learned: Impact on Reports

Most standard inventory reports are not affected by having uncosted transactions when the reports are run. Material distributions, of course, are not created until a transaction has been costed; therefore, uncosted transactions will not appear on inventory accounting reports.

One lesson Opnext learned by using the cost cutoff date functionality was its adverse impact on historical balances on a key standard Inventory report, "Transaction Historical Summary" (short name INVTRHAN version 115.13). Opnext users rely on this report for historical inventory balances. Opnext discovered in its release 11.5.8 version of these reports that an item's beginning balance might be inaccurate when the cutoff date is causing the item to have uncosted transactions, especially WIP completions or WIP component issues.

The reports fail to estimate the value of some uncosted WIP transactions when backing into an item's historical balance. These reports derive

an item's balance on a historical date by valuing the item's current quantity on hand using the current frozen standard cost. Then the reports subtract the value of all material transactions for the item in order to back into the balance as of the historical date. If the item has uncosted transactions, the reports use a "proxy" cost, most often the frozen cost of the item on the transaction creation date, to estimate the transaction value.

Figure 11 – Transaction Value Historical Summary

Opnext found that its version of these standard reports valued some uncosted WIP transactions at zero. Therefore, no estimated value for these uncosted transactions was used to derive the item's historical balance. Figure 10, for example, shows the Transaction Value Historical Summary report created on 03-APR-2005 when item LASER7777 had an uncosted WIP component issue transaction. A $-480,000 estimate of the uncosted WIP component issue of LASER7777 is missing from the Job or Schedule column. As a result, the 28-FEB-2005 value of $-480,000 is incorrect; the balance should be zero. In fact, Opnext does not allow items to have negative quantities in this organization, so the negative historical value is quite shocking!

Fortunately, the inaccuracies in these reports are corrected when the reports are rerun after the cost cutoff date is changed to a future date and the items no longer have uncosted transactions. Figure 11 shows the report when it was rerun on April 7th; after the cost cutoff date was changed to a future date and item LASER7777 no longer had any uncosted transactions. This April 7th version of the report derives the correct 28-FEB-2005 value of LASER7777, because it reflects a non-zero value for the WIP component issue transaction dated between 01-APR-2005 and 03-APR-2005.

Opnext opened a TAR in 2004 to request a fix for this bug, but Oracle Support never acknowledged the bug in Opnext's instance (reference: MetaLink Bug # 3585268 and 3585271).

Lessons Learned: Impact on Intercompany Invoicing

Another lesson learned was the positive impact that the cost cutoff date functionality had on the creation of Intercompany AR Invoices when a customer sale is sourced from a different operating unit. Intercompany Invoicing is standard functionality in EBS 11i. It occurs when the "shipping" operating unit is different from the "sales" operating unit and both operating units are linked through an intercompany relation.

The "Create Intercompany AR Invoices" program does not create a record until its parent record has been costed. This parent record is the underlying shipment – the "Sales order issue" material transaction type (action = "Issue from stores") when the warehouse ships the order. The cost cutoff date, therefore, indirectly defers the creation of the intercompany receivables invoice in the new cost period, because the cutoff date directly defers the costing of the "Sales order issue" parent record.

Figure 12 shows the flow for an example where an external customer sales order in the Japan Sales operating unit is sourced and shipped from a U.S. inventory organization that is associated with the U.S. Manufacturing operating unit.

The transaction flow for Figure 12 is:

1. The customer order in the Japan Sales operating unit is sourced against the BEI inventory organization, which is associated with the U.S. Manufacturing operating unit.

Figure 10 – Transaction Value Historical Summary
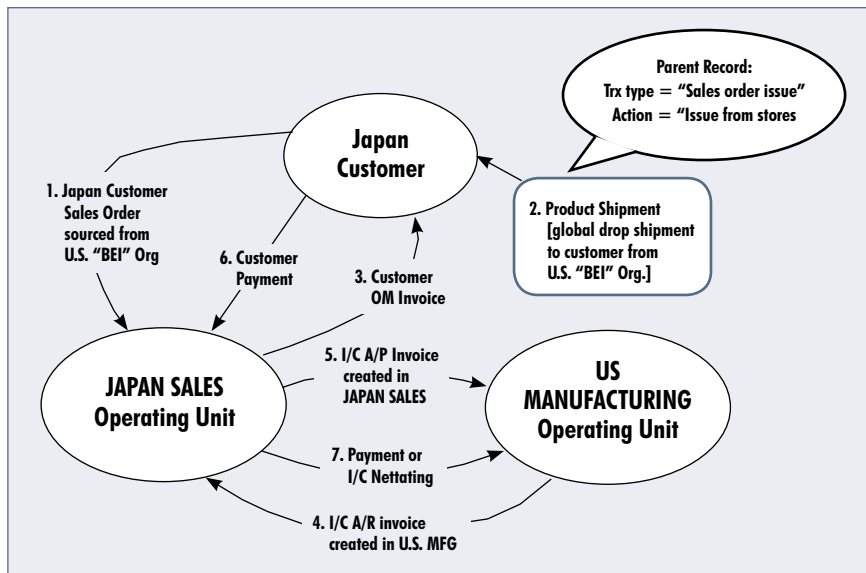
Figure 12 – External Customer Sales Order Flow

pany payable are relieved through a wire transfer payment or a manual intercompany netting process. This is dependent on the completion of steps 4 & 5.

The creation of the intercompany payables invoice in the "sales" operating unit (step 5) is dependent on the creation of the corresponding intercompany receivables invoice. So the cost cutoff date also indirectly affects the creation of the intercompany payables invoice.

The deferring of the intercompany invoicing allows Opnext to update the price list used to value the intercompany sales and payables transactions after April 1st or October 1st. Opnext updates these transfer prices every six months at the start of a new cost period. Because Opnext's intercompany prices are transfer prices derived from the new standard costs, the new period transfer prices might not be set until the second week of April and October.

So the cost cutoff date also indirectly affects the creation of the intercompany payables invoice.

Opnext enters its new transfer prices with a 03-APR or 03-OCT start date, as shown in Figure 13 below. This allows the "Create Intercompany AR Invoices" program, for example, to create March 2005-dated intercompany invoices through April 3, 2005 using the old period

2. The product for the Japan customer order is shipped from the BEI inventory organization. This transaction has a type = "Sales order issue" and action = "Issue from stores". If the cost cutoff date for BEI is deferring the costing of this transaction, then the "Create Intercompany AR Invoices" program will not create an invoice in step 4 until this "Sales order issue" transaction has been costed in BEI.

3. The customer invoice in the Japan Sales operating unit can be created via AutoInvoice once the "Sales order issue" transaction in step 2 has been created, regardless of whether the "Sales order issue" has been costed.

4. The "Create Intercompany AR Invoices" program creates an intercompany receivables invoice in the US Manufacturing operating unit. The invoice will not be created until the "Sales order issue" transaction in step 2 has been costed. The customer on the invoice is intercompany customer "Opnext Japan". The invoice is valued from a price list defined for the customer location selected in the intercompany relation. The program uses the price from that price list which is in effect as of the creation date of the intercompany invoice, even though the transaction date of the invoice might be an earlier date; the invoice transaction date is set to the same transaction date as the "Sales order issue" in step 2.

5. The "Create Intercompany AP Invoices" program creates an intercompany payables invoice in the Japan Sales operating unit. The payables invoice will not be created until the intercompany receivables invoice has been created in step 4. The payables invoice is valued at the same amount as the intercompany receivables invoice in step 4. The supplier on the invoice is intercompany vendor "Opnext U.S.".

6. The Japan customer payment is received. This is dependent only on the completion of step 3.

7. The U.S. Manufacturing intercompany receivable and corresponding Japan Sales intercom-

transfer prices with end date of "03-APR-2005". All April 2005-dated intercompany invoices will be valued using the new period transfer prices so long as the cost cutoff date of the ship from organization does not cost the April-dated "Sales order issue" transactions until April 4th or later.

Conclusion

The cost cutoff date functionality introduced in release 11.5.7 is a wonderful enhancement that eliminated Opnext's need to record transactions outside of EBS 11i during the first few weeks of a new cost period. The functionality is very easy to configure in an inventory organization and appears to be simple to understand. Yet, users responsible for standard cost updates and intercompany price lists should understand the impact of uncosted transactions on intercompany invoicing and the accuracy of historical balances on standard inventory reports.

Figure 13 – Price Lists

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