

Contract Pricing and Transfer Cost Compliance Using Standard Oracle

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Introduction

This paper explains how Imation Corporation, a multi-national corporation with a market presence in more than 60 countries, developed a pricing methodology for inter-company pricing to meet our legal, accounting, and audit requirements. The paper covers the shipment of goods within the United States as well as to foreign subsidiaries using standard Oracle functionality along with a few customized programs. This functionality and customizations has been reviewed with Oracle for possible inclusion in Oracle Application's Release 12.

The following points are covered in this paper:

- The business needs including the financial and regulatory requirements.
- The proposed business solution.
- The Oracle functionality used to support the business processes.
- The customizations to Oracle Applications needed to fill the missing gaps.
- The integrated business solution.
- The benefits gained from the business solution and Oracle Applications.

The Business Requirements

Imation required a system to calculate and maintain each inventory item's inter-company price for the movement of goods between Imation entities. Oracle's inter-company functionality did not meet all of our complex business requirements, so an innovative solution was needed. The result was our Contract Pricing and Transfer Cost Compliance system, referred to at Imation as the 'Landed Cost System'.

The Contract Pricing and Transfer Cost Compliance system was designed to specifically address the following business requirements:

- Price an item using the correct cost structure for the organization shipping the item to the region receiving the item to assure "arms length" transactions.
- Support realistic gross profit margin analysis.
- Carry prices in the local currency to give a fair representation of the organization's profit margin.
- Be visible and explainable to and by the business.
- Maintain one method for inter-company sales whether the sale was within one instance or between instances.
- Include an archival method for past costs.
- Provide the functionality to maintain price lists to satisfy all possible sales transactions to and from any defined organization in the currency of the shipping organization or other defined foreign currencies as required.

The business requirements for inter-company pricing are presented from the viewpoint of the shipping organization. A US frozen cost was to be established for the item. This frozen cost would be the basis for the various markups for several geographical regions, also referred to as pricing regions. Two different costs were established, the transfer cost and the contract price.

The transfer cost would consist of manufacturing cost plus other non-manufacturing cost such as laboratory, engineering, administrative, material handling, insurance, and freight expenses. The second cost was the contract price. The contract price was based on the transfer cost plus a markup cost that would allow Imation to price the item to meet the operating income target for Imation-owned foreign entities.

The contract price would be used to update the corresponding item's unit selling price in the Order Entry price lists. The calculation of the contract price needed to be specific to the product group for that item as well as the country to which the product was to be shipped. This inter-company price then became the cost basis for the Imation subsidiary receiving organizations.

In addition to the general business requirements, they were also more detailed financial and regulatory requirements that needed to be considered. They are presented below.

Financial Requirements

The finance department was primarily concerned with the accuracy, timeliness, and auditability of the method developed. Costs exclusive of corporate profit mark-ups were required to develop management reporting statements. The system developed had to allow for frequent changes in inter-company prices and markups without the involvement of technical staff. Further business requirements by the finance group include:

- Provide accurate and timely inter-company pricing based on an inventory item's standard (frozen) cost.
- Accounting staff must be able to quickly change inter-company prices.
- The system must be able to accommodate additions of product groups.
- Proper asset valuation in the General Ledger, on tax and insurance documents, and custom/ duty reporting must be maintained.
- Provide the functionality to copy the item's selling price to the receiving organization's standard material cost.
- Easily audited and explained to auditors.

Regulatory Requirements

Imation Corporation's approach to inter-company pricing is to manage a geographic region and product line to a specific operating income that represents an arms length transaction. This approach is felt to minimize audit exposure and anti-trust action (dumping). The tax department determines how countries can be grouped into pricing regions to correctly manage operating income. The tax department also determines what costs can be legally passed on to what geographic regions. The list of business requirements for regulatory purposes includes:

- The Tax department must be able to quickly change the inter-company profit markups, duty costs, freight and insurance markups.
- The solution must allow for profit markups to be applied to product lines while freight, insurance and duties are applied to geographic regions.
- Ability to add pricing regions on an infrequent basis.

The Business Solution

A business solution was developed to support the business requirements for the pricing of inter-company movement of goods. It was desired that the business solution use standard Oracle functionality. If a requirement could not be met using the standard Oracle Applications, then a functional gap was to be documented and a custom technical solution proposed and developed.

Listed below are the seventeen steps that make up the complete solution. After the listing of each step is a detailed description of the task.

1. Identify pricing regions. These pricing regions would consist of countries where Imation-owned distribution centers are located and to which we ship our products. Seven pricing regions were identified and they are listed in Figure 1 below.
2. Identify and assign Imation-owned foreign entities to the proper pricing region.
3. Identify inventory items to be sold in each pricing region.
4. Identify an inventory organization to serve as a “price originating organization” to house these items. We needed one central inventory organization where the item’s standard (frozen) cost could be maintained. This frozen cost would be the basis for all mark-ups to derive both the transfer cost and contract price.
5. Identify and set-up cost types associated with each geographic pricing region for both contract and transfer costs. Two cost type groups needed to be created. The first cost type group would be used to establish the item’s transfer cost. The second cost type group would be used to establish the contract price for the item. Within each cost type group, seven cost types were created. Each cost type related to a specific pricing region. For example, for our Asia Pacific pricing region, a transfer cost type was created called LTC_AP and a corresponding cost type for the contract price was crated called CP_AP. These cost types are listed in Figure 1.
6. Enable items to be sold inter-company in the price origination Inventory Organization (OAK).
7. Establish a standard (frozen) cost for each item in OAK organization.
8. Set-up Pricing Region category set and related categories to designate which items could be sold in which pricing regions. By setting up a category set and the corresponding category to designated which pricing regions the item could be sold and as a result what markup charges could be applied to the item.
9. Assign ‘Pricing Region’ category set and related categories to the items.
10. Set up category set Descriptive Flexfield (DFF) to capture certain transfer cost and markup percents. We needed to capture the laboratory, engineering, administrative, and handling (LEAH) charges to be applied to the item’s transfer cost. Also, we needed to capture the markup percentages that we would apply to the contract price. Because these costs and markups were directly associated with the item’s product group, we chose to use the DFF found in our Product Group category set to store this information.
11. Set-up Transfer Cost cost type DFF and assign values. As stated above, the transfer cost assigned to an item consisted of lab, engineering, administrative, handling, freight and insurance charges. The lab, engineering, administrative, and handling (LEAH) costs were captured in the category set Product Group. Because freight and insurance costs were associated with an item’s pricing region, we needed to capture this information elsewhere. We chose to use the Transfer Cost cost type and open up a DFF to store these costs.
12. Set-up contract price list in OE. This price list would be the selling price for which we ‘sold’ our goods to our Imation - owned foreign entities.
13. Programmatically calculate and update each item’s transfer cost for each pricing region. Imation sells thousands of items to our foreign entities. We needed a way to automatically compute the transfer cost. This was accomplished by developing a custom PL/SQL program to calculate the transfer cost. The transfer cost was based on the item’s US frozen cost multiplied by the LEAH rate and the freight and insurance rates.
14. Programmatically calculate and update each item’s contract price for each pricing region. The contract price was based upon the item’s transfer cost in each pricing region. The contract price was then computed by multiplying the transfer price and the markup rate. This was another gap for which a custom PL/SQL program had to be developed.
15. Update the corresponding order entry price list with the new contract price. Once an item’s contract price had been calculated, this became the basis for which we sold it to our Imation - owned entities. A different price was charged for same item in different pricing regions.
16. Create a flat file for each pricing region listing all the items with their new contract prices. Because all of our foreign operate in separate Oracle and non-Oracle instances, we had to create a flat file to transfer this information to them so they could update their systems. This also was a custom developed program.
17. Update the foreign-owned item’s standard cost with the US contract price. This was another piece of custom-developed code.

A table of the trade zones and corresponding cost types are listed below:

Pricing Region	Contract Price Cost Type	Transfer Cost Type
United State	CP_US	LTC_US
Asia Pacific	CP_AP	LTC_AP
Canada	CP_CA	LTC_CA
Europe	CP_EU	LTC_EU
Brazil/ South Africa	CP_IN	LTC_IN
Japan	CP_JA	LTC_JA
Latin America	CP_LA	LTC_LA

Figure 1: Table of Pricing Regions and Corresponding Cost Types

Business Solution Mapped To Oracle Functionality

Once the business solution was developed, the next task was to map the functional business design to the functionality of the Oracle Applications. In figure 2, we have shown the solution-fit matrix and identified the functional gaps. These gaps would need to have custom software developed for the system to comply to the business solution. More information is provided about these gaps in the following section labeled “Functional Gap Analysis and Customizations”.

	Business Solution	Oracle Functionality	Functional Gap
1	Identify pricing regions	Not Applicable	
2	Imation-owned entities assigned to pricing regions	Not Applicable	
3	Item to be sold in each pricing region identified	Not Applicable	
4	‘Price Originating Organization’ identified to house the items and standard cost	Oracle Inventory/ Organization set-up	
5	Create cost types for both the contract price and transfer cost for each pricing region	Oracle Cost/ Cost Set-up/ Cost Types	
6	Items enables in ‘price originating organization’	Oracle Inventory/ Items	
7	Standard (frozen) cost established and assigned for each item identified	Oracle Inventory/ Costs/ Cost Types	
8	Set-up Pricing Region category set and categories	Oracle Inventory/ Items/ Categories	
9	Assign Pricing Region category set and categories to items	Oracle Inventory/ Items	
10	Set-up category set DFF including appropriate value sets and assign values	Oracle Inventory/ Flexfields/ Descriptive	
11	Set-up Transfer Cost cost type DFF and assign values	Oracle Inventory/ Flexfields/ Descriptive	
12	Set-up Contract price lists in OE	Oracle Order Entry/ Pricing/ Lists	
13	Calculate transfer cost and update associated cost type for each pricing region		GAP 1
14	Calculate contract price and update associated cost type		GAP 2
15	Update the corresponding order entry price list with the new contract price		GAP 3
16	Create flat file with new contract price for each pricing region		GAP 4
17	Update foreign entity item’s standard cost with the contract price		GAP 5

Figure 2 - Solution-fit Matrix

Functional Gap Analysis and Customizations

Once the business solution was developed and mapped to the appropriate Oracle functionality (see Figure 2 Solution-fit Matrix above), we documented five functional gaps. The functional gaps identified include:

- GAP 1: The ability to automatically calculate and update the item's transfer cost for the pricing region.
- GAP 2: The ability to automatically calculate and update the contract price for the item in the corresponding pricing region.
- GAP 3: The ability to automatically update the corresponding price list in Order Entry with the new contract price.
- GAP 4: The ability to create a file containing the new contract prices for the corresponding pricing region.
- GAP 5: Update the standard cost for the item in another Oracle instance with the US contract price.

To close the five gaps we created five custom solutions. Each custom program was designed to perform the function that was identified in the documented gap. The first program calculated the transfer cost for the item based on the frozen cost and the markup percentage identified in the Product Group category set DFF for all seven pricing regions and the LEAH rate. Once the transfer cost for the item's pricing region was calculated, the program then updated the item's cost for the corresponding cost type (see Figure 1).

The second program calculated the item's contact price based on the corresponding transfer cost and markups housed in the Product Group category set DFF.

The third program copied the item's contract cost for the pricing region and updated the corresponding price list used by Order Entry for pricing the item on a sales order. The items on the sales order would be shipped to Imation business entity in the pricing region.

The fourth program copied the contract price from the price list in Order Entry and created an output file. This file was copied to the other Oracle and non-Oracle instances to be used to update the item's standard (frozen) cost.

The fifth program updated the item's standard (frozen) cost in that instance. That became the cost basis for all receipts against open PO's for the item.

Benefits of the System

Imation Corporation received several benefits from the implementation of this system. Those benefits include:

- The Tax department can change the inter-company profit markups, freight and insurance markups without the assistance of technical staff.
- The accountants can change the frozen cost in the price originating organization which triggers changes in the cost types and consequently the price tables in order entry.
- By using standard copy cost functionality the cost types can be archived.
- The system has proven to be easy to explain to the business and auditors.
- Inter-company pricing is driven both by product group and geographic region.
- The costs created in Cost Tables interfaces to the Order Entry Price List Tables.
- The Corporate foreign entities item's standard cost now quickly and accurately reflect the US transfer price.

Conclusion

In this paper we attempted to explain how Imation Corporation developed a pricing methodology for inter-company pricing to meet our legal, accounting, and audit requirements. In addition, each pricing region was on separate Oracle and non-Oracle instances so Oracle inter-company's pricing functionality could not be used.

In the paper we explained the following :

- The business needs including the financial and regulatory requirements

- The proposed business solution
- The Oracle functionality used to support the business processes
- The customizations to Oracle Applications needed to fill the missing gaps
- The integrated business solution
- The benefits gained from the business solution and Oracle Applications

About the Authors

Kurt G. Nuehring is a Technical Project Leader for Imation Corporation, a 1.3 billion dollar manufacturer of data storage and advanced color technology used in the printing and publishing businesses. He has over four years of experience with Oracle Applications and has held various leadership roles with one of the largest Oracle ERP implementations ever. Areas of expertise include project management, requirements analysis and documentation, gap analysis, functional and technical design, system setup and implementation, and support of Oracle Manufacturing and Order Entry modules. He is APICS certified at the fellow level and is also an active APICS instructor for the Twin Cities chapter. He has authored and presented several papers on ATO, BOM, EDI, OE, and ERP Implementations at various conferences throughout the United States and Europe.

Laura Carlson is the Cost Management System Analyst for Imation Corporation. She has over three years of experience with Oracle Applications and was involved in the Imation Oracle Implementation from the first meeting through implementation. Following implementation she was the Cost Management Super-User for the company and is affectionately called the "Grand Empress of Cost". She is a Certified Management Accountant and earned a double major in Accounting and Economics from the University of Wisconsin-River Falls. She has been the president of the local Institute of Management Accountants chapter as well as the regional president.

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