Tracking Your Consignment Inventory in Chile

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Introduction

This paper deals with a situation that requires the ability to track inventory that moves from supplier to user to supplier, with no payment until the liquidation process at the end of the season, with the ability to provide localization information to the government, with the ability to collect rentals, provide monthly accounting information, collect for lost inventory and balance Accounts Payable and Accounts Receivable at the end of the season.

In Latin America Customer/Supplier relationships can be very complex especially when your customers can be your suppliers. At a subsidiary of an International Fresh Fruit Company, which we will refer to as "company" in this paper, the contracted growers are the suppliers of the finished goods, and the company is the supplier of their production inventory. This special relationship is managed by a contract, which is eventually completed with a Liquidation process. This liquidation process is typically netting of Accounts Receivable and Accounts Payable activity, after fruit is bought and sold and production supplies are bought and distributed. How do businesses keep track of their inventory while it is in consignment with a third party, and how is the required liquidation information captured in a systematic way so that it can be processed by Accounts Receivable? At this company, production inventory is loaned to growers until the end of the fruit season when they run a liquidation process, charging the grower for the inventory they have used all year. The distributed production inventory can easily be lost if it is not tightly controlled while in consignment with the grower. This inventory has a high value and movements to non-related growers needs to be tracked. Additionally, in Chile there is a legal requirement for every inventory movement to be accompanied by a special customized packing list, called a Guia de Despacho. This Guia is required for any type of inventory movement, whether it be intercompany or external to a third party. Finally, information such as pricing, quantity and description of items is required in a systematic format for the liquidation process. How did we quickly resolve this "localization" issue and effectively control exact consignment inventory balances per plant? We decided to use the natural functionality of Oracle Order Entry and Inventory to control the inventory movements, to generate the information needed for the localization, to accurately liquidate Accounts Receivable and Accounts Payable for each grower at the end of the season and to apply to a similar situation were the company wished to rent inventory.

Reasons for this Solution

The primary issue that led to this design was the need to quickly and accurately track quantities of consignment inventory, especially since this inventory has a high value. The company loans inventory to contracted growers during the season. This is consignment inventory, owned by the company and in the possession of the contracted grower. The inventory could be a harvest box, packing material, or any other production inventory that is loaned to the grower, but not yet invoiced. Once the contracted farmer picks up the production inventory the company would no longer have control of it, even though it still owns the inventory. The inventory is issued out of the system controlling on-hand quantities so that it is not considered for future production. While the inventory is issued out, it could be lost or stolen and since it is a company asset it needs to be accurately accounted for.

Another issue that we encountered which led to this solution was that Chilean Localizations were not developed for the Inventory module in version 11. There are various legal requirements, one being the production of the "Guia de Despacho", which is a packing list with many localized fields. Required fields on this document include customer information, shipping information and item quantity and price. It is also important to know that this is a document that is produced in high volumes.

This leads to our final reason for deciding on this solution. Even though the company did not physically have the inventory on hand, the inventory value needed to be transferred to the General Ledger on a monthly basis. Since the inventory has been issued out it is not accounted for in the system, requiring the creation of manual journal entries to the General Ledger monthly, increasing the accounting department's manual work load.

Explanation of the Solution

To solve all of these issues we decided to use Oracle Order Entry and Oracle Inventory to handle the physical and logical inventory movements and to later create the required accounting distributions. The first issue that we looked at was how to handle the consignment inventory. By using Oracle Order Entry, the users could book and ship confirm items from any subinventory in their organization. The ship confirm for the Sales Order reduces quantities from the selected subinventory so that it is not considered for future use within the company's organization. We created a special subinventory called "Consignment" whose purpose was to capture item and quantity information that is currently on consignment. A customized trigger was created that used miscellaneous receipts to keep the Consignment subinventory in sync with the real quantities that were issued out to a contracted grower. In order to do this we created a special sales order type called "Deducible". The trigger would monitor the inventory Transaction Open Interface table for this sales order. Once a Deducible sales order was processed through the table, the trigger would automatically make a miscellaneous issue in the Consignment subinventory eliminating any manual effort that is required to keep track of this inventory. Depending on the volume of transactions, a custom concurrent program can achieve the same outcome as the trigger and can be programmed to run at certain times of the day. The disadvantage to this is that Consignment inventory information may not be real time, however, the server will be impacted less than with the event driven trigger.

This solution also takes care of our issue related to the "Guia de Despacho" localization. Rather than use Oracle Inventory for inventory movements, we took advantage of Order Entry´s shipping functionality, which naturally captured all the information required for the localized packing list and what was not captured in a a standard field was captured in Descriptive Flexfields. The deducible sales orders were all non-invoiceable sales orders where shipment functionality was used but invoice information was not interfaced to Accounts Receivable. This allowed us to systematically have all information that was required for the liquidation process at the end of the season: items, quantities, pricing, and customers. Another key point encouraging us to use Order Entry was that each contracted grower was shipped inventory associated with specific price lists. Reports listing sales order history would capture all of the required information to complete the AP/AR netting at the end of the season so that one itemized invoice could be sent to each grower.

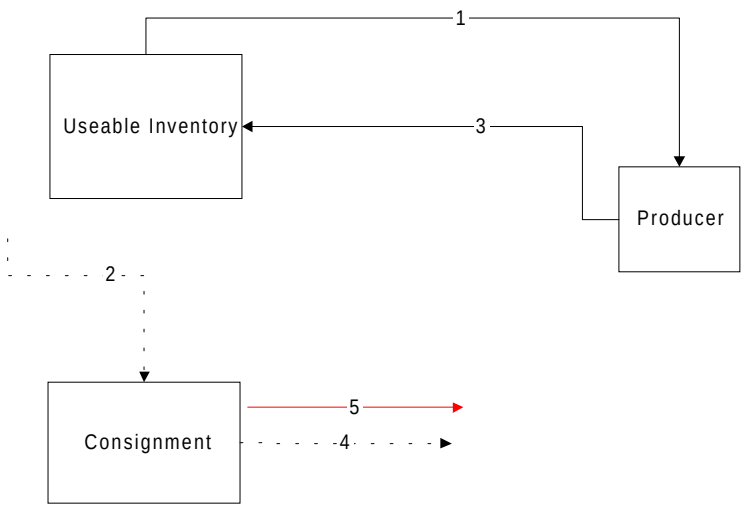
By using the "Consignment" subinventory, the required accounting information exists in the system in detail. This information is transferred on a monthly basis to the General Ledger automatically from the Inventory subledger as part of the standard close processes. For the miscellaneous issues used by the trigger to update the Consignment subinventory, a specific account combination was created. This account combination allows Accounting to distinguish between these transactions and others.

At any time during the growing season the grower can return inventory. When it is returned, it could be that grower decided not to use it, likewise it could be returned because it is damaged and he would like to return it for an exchange. This can be handled by the Customer Returns functionality in Inventory. The Customer Returns functionality works with Order Entry sales orders. The grower must request an RMA, Return Material Authorization, which is associated with a particular sales order number. The grower must indicate the quantity and item he wishes to return. Once returned, the material can go through an inspection process and it can be replaced or a credit to the account can be issued depending on what the grower wishes to do. This return is an inventory transaction that runs through the inventory Open Transactions Interface table as well as the Sales Orders and another trigger has been programmed to monitor for the Customer Returns. In the event that the trigger finds a Customer Return, it searches to see if it is associated with a Deducible sales order. If it is related to this special Sales Order, the program will make a miscellaneous issue out of the

"Consignment" subinventory so that it stays in sync with the real amount of inventory that is in the hands of the third party.

The following process flow depicts the whole deducible process. The box entitled "Useable Inventory" indicates the subinventory from which the Deducible Sales Order is Shipping from. The box entitled "Consignment" indicates the subinventory that is keeping track of consignment inventory. The box entitled "Producer" represents the third party grower that is using the material during the season.

Figure 1 The Deducible Process Flow.



1. A sales order line with an order type Deducible in Order Entry is processed by the inventory Transactions Open Interface, and are shipped out of the "Useable" subinventories. Line #1 indicates the ship confirm from the subinventory, lowering the quantity on hand of the item shipped for the quantity indicated on the order.
2. The trigger will make a miscellaneous receipt in the Consignment subinventory (Inventory: Navigation/Transactions/Miscellaneous Transactions), using the transaction type Miscellaneous receipt for the same item and the same quantity.
3. The Producer may decide to return some of the inventory during the year. (Inventory: Navigation/Transactions/Customer Returns/RMA Receipt) If this is the case, the user will receive the inventory back into any subinventory in the original organization.
4. The quantities that are received back into the subinventory in #3 must be removed from the Producer subinventory to keep the inventory on hand correct. The trigger will perform a miscellaneous issue (Inventory: Navigation/Transactions/Miscellaneous Transactions), using the transaction type Miscellaneous issue from the subinventory Producer for the same item and the quantity returned.
5. Finally at the end of the season, while the liquidation process is being run, the grower is going to be charged for the inventory that he used. Once he is charged, company will no longer own the inventory and there is no reason for it to remain in inventory. The system must know what inventory transaction information as it relates to a sale is interfaced with the liquidations system. In Order Entry, it is necessary to run a customized report, itemized by grower (customer) for the season to see the items and quantity of those items for which the grower should be charged. The liquidation personnel will need to manually do a miscellaneous issue of the items that the grower used, issuing it to a specific grower account. This will remove from the company's inventory the correct items and quantities that are included in the liquidation process. This also ensures that during the season, the correct inventory value is transferred to the General Ledger at the end of each month.

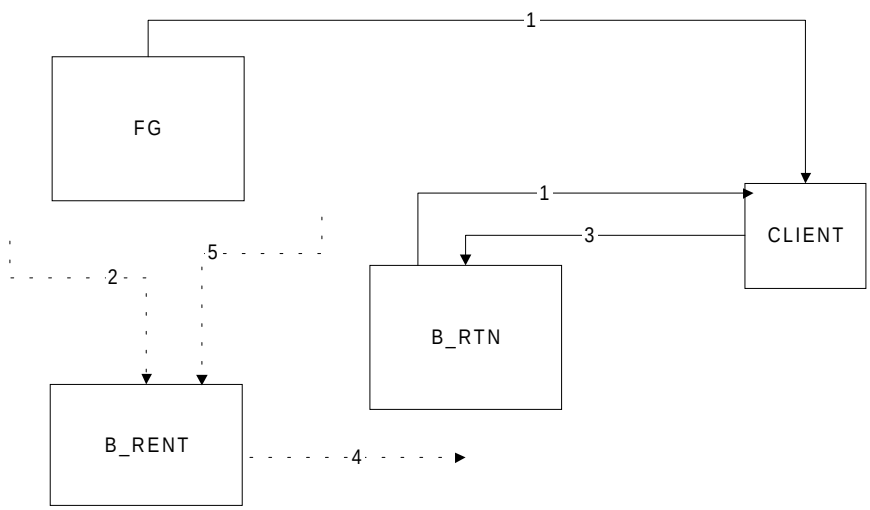
Additional Use: The Bin Rental Solution

The previously discussed solution was also incorporated at another subsidiary, where plastic products are manufactured for the fruit producing company. At this location there was a need to rent plastic bins to clients, keeping track of the quantity rented. The rented bins are a type of consignment inventory in which the customer will pay for the use of the bin and eventually return it. The customer will not be charged for the bin unless he decides to keep it, or has damaged it. The same type of trigger in the previous explanation is used for this solution.

The Sales department handled the rentals for the plastic company. They created a special Sales Order type called Bin Rental. This order was also considered a "non-invoiceable" order because the agreement between the customer and the company was payment for the use of the bins and not the purchase of the bins. However, the sales order was a binding agreement between the plastic company and the customer, in the event that that client damaged or did not return the bins, that they would be charged the full price for them. Additionally, listing the items on the rental sales order guarantees that the system can accurately list these items on the Guia de Despacho, the localization requirement. This rented inventory is a type of consignment inventory as well, owned by the plastic company and in the possession of the client that is renting it. When the bin is rented and finally returned, the manufacturer separates the used bins from the rented and new bins. As with the production inventory, the company wanted to accurately and automatically show the inventory in the General Ledger at the end of each period.

The following process flow depicts the rental process. The box entitled "FG" indicates the subinventory containing Finished Goods (new bins) which may be rented or sold. The box entitled "B_RENT" indicates the subinventory that is keeping track of rented bins. The box entitled "B_RTN" represents another subinventory from which bins may be rented and contains used bins. The box entitled "Client" represents the client renting the bins.

Figure 2. Bin Rental



1. A sales order line with an order type Bins Rental in Order Entry is processed by the inventory Transaction Open Interface and the trigger is executed. The sales order line will indicate the Inventory Organization, the subinventory, the item and the quantity. The bin is shipped out to the client and the inventory of bins on hand will be lowered by the quantity indicated on the sales order. The bins rental process occurs only in the Plastic Manufacturing Operating Unit Organization. The shipments occur only out of the FG or B_RTN subinventory.

2. At the time of dispatching the rental, a trigger will make a miscellaneous receipt (Inventory: Navigation/Transactions/Miscellaneous Transactions) in the subinventory B_RENT for the same item and the same quantity.
3. The Client renting the bins will eventually return the bins. (Inventory: Navigation/Transactions/Customer Returns/RMA Receipt) In this case, the user will use the Customer Returns functionality and receive the inventory into the used bins subinventory called B_RTN.
4. When quantities are received back, the B_RENT subinventory needs to be updated to keep it in sync with real rented inventory. The trigger will make a miscellaneous issue for the quantity and items returned and accepted in the Customer Returns transaction.
5. The Sales department will need to monitor returns of their bins. If they see that bins have not been returned from a customer by the promised return date, they may decide to go ahead and charge them the full price of the bins. In this case, the bins are no longer the company's "consignment" inventory. They are now property of the client, therefore, the B_RENT subinventory must be updated manually to issue out the bins that no longer belong to the company. A simple query of the sales order or a report will give the user the information that they need to update the B_RENT subinventory.

Conclusion

A solution was developed to track loaned and rented inventory to customers, the return of the inventory to the supplier and to provide the documentation required for localizations, credits and billings. This solution used the natural functionality of Oracle's Order Entry and Inventory with a customized trigger and gave the client an accurate and effortless solution for tracking inventory which it did not physically have control of .