



Integrating PA and the Manufacturing applications

Determining what you need to do

The Oracle Applications are very expansive. There are many places and items which we use to run our business that we may have the desire to include in our projects. The primary manufacturing applications are composed of Inventory, Order Entry and Purchasing. Within these applications there are a large number of transactions that we may wish to include. Primarily, items in which we would like to include within projects would typically be included either on a purchase order or an Order Entry order. Since purchasing is already integrated to a large extent with the Project application, our primary gap is integration with Order Entry Orders. Of course, if you need to integrate directly with Inventory, that could be accomplished as well through the use of descriptive flexfields and other identifiers.

I would suggest defining the application irrespective of the planned interface with the secondary interaction acknowledged as a background thought. Make sure that there is a liaison between your Projects group and your manufacturing group in order to identify the potential means for interaction.

The example used in this exercise is one to interface Order Entry Orders with Project Accounting Tasks. The costs will be brought out of Inventory on an item/organization basis and brought into Project Accounting as Usages. Order information was transferred to Project Accounting in summary. Zooms were created from the View Expenditures form into the Order Entry View Orders form to allow the user to understand order cost composition. Costs were pulled from Inventory and not directly from the order, since the order carries customer price, rather than organizational cost.

Example Background

The corporation used is a national distributor of commercial and residential building products. Customers purchase products which are installed and maintained over a contract life span. Task types have been defined to identify contract types within a product category. Product orders are created using order types that coincide with project task types.



Getting Started

Pre Requisites

In order for smooth interaction between the Order Entry and Project Accounting, we must ensure that all required items for a project are defined. This includes:

1. Project Definition
2. Task Definition
3. Customer and site definition
4. Linkage between Order and Project Task

Questions that must be answered

Will there be manual entry into the Project Accounting Application?

How much of the project accounting data is related to manufacturing applications transactions? If most or all of the transactions associated with a specific type of project or task is associated with the Manufacturing applications, it may be worth while to consider automating the process of setting up the projects and or tasks. This could save time in the delay of project data being recorded, due to the fact that the first transaction is within either Order Entry, or Inventory.

Does the project need to exist prior to the manufacturing interaction?

This question stems from the level of costs incurred outside of the manufacturing transactions. If there is a significant level of labor costs, or pre-order work that must be recorded, then the answer is probably 'Yes'. However, if the initiation of work done is either through an Order Entry order, or other manufacturing transaction, then the project may not exist in advance. This may also yield to the consideration of automated project/task creation to reduce potential delays between order creation and the record of those transactions within the Project Accounting application.

Do I need the Project to be automatically be created based upon a manufacturing transaction?

See the above two questions to determine this need.

Do I need a task to be created automatically based upon a manufacturing transaction?

See the above two questions to determine this need.

Should the transactions take place through the transactions interface, or should a special interface be created for these transactions? - - Does the transaction interface allow for the transactions you need to include for successful integration? What is the real time need for viewing the transactions in project accounting - after they have been created in their respective applications?



You must identify the transactions and level of detail you intend to transfer to Project accounting. Based on these requirements, does the transaction interface allow for these transactions or must alternatives be considered.

How will AutoAccounting Integrate with the transactions made to date?

Since the goal of this exercise is to integrate manufacturing transactions with Project Accounting we run into an obstacle. Up until now, there has been no design to integrate these two areas within Oracle, which means that both of these types of transactions will attempt to create General Ledger transactions. Since we do not want to create duplicate transactions, we must look at our options.

1. Customize the applications to handle this - We probably only want to do this as a last resort.
2. Define the system options so that the particular transactions - usually 'Usages' are not transferred to the General Ledger.
3. Send the transactions to either a suspense or transition account to allow for easy identification. This can be done if the AutoAccounting rules are based upon expenditure Categories/Types, through which the manufacturing transactions can be identified.

Do I have all the expenditure types/categories necessary for the project creation?

Depending on the level of detail necessary for capture within the Project Accounting application, additional types and/or categories may be necessary. These may also be necessary for AutoAccounting Purposes.

Our goal is to minimize duplication of transactions, while still allowing our users as much access as possible to the data they need. In most cases, we should be able to summarize the manufacturing transactions into a minimal number of project transactions; then use links such as Zooms to allow the users to view all of the details of the source transaction.

Are the project and task types in line with the manufacturing transactions we are expecting to make?

You must decide the level of integration that the manufacturing transactions will have within the projects application. You may have differing needs for each type of transaction. But where possible, it would probably be good to identify where and how the manufacturing transactions fit with your project 'Work Breakdown Structure'.

In our example each customer address represented a project. Further, each separate contract represented a task. Often labor costs were incurred prior to the creation of the order which required the existence of the project prior to Order creation.

This gave us a straightforward mapping in our environment with a link of Order type to task service type and contract number to task attribute.



Verification of project existence

In order to ensure that all of our components existed prior to the insertion error handling must be defined. First the customer must exist. In our sample, since we were using Oracle Order Entry, we knew that the customer existed. Second, we had to check that the customer ship to site was defined as the customer for a project. Third, we had to check for a task being defined for the project in question that was associated to the current order.

Error Handling

There are a couple of ways to allow for and handle unexpected situations, primarily either programmatically correcting/getting around the issue or writing a report to correct the issues through user interaction.

In many cases a report is necessary due to the resulting required work. Typically, if you get unexpected results from an automated function, you want to find out why and what happened before you proceed. However, if you have some exceptions that are expected, you may find that handling them programmatically may be easier.

Since we had a small project accounting data entry team, it was decided that we would automate as much of the data transfer as possible. Since we were using Order Entry, we don't have to worry about creating the customer addresses, since they must exist to be eligible for the order. From there though, error handling becomes an issue. First we need to find a project for the customer our rules defined that there should be one and only one project per customer site. Therefore, we check for a single project per site for new orders. If none exists, we run a routine to create a project. If more than one project is returned, an error report is generated. Secondly, we look for a task existence associated with the contract. We allow for multiple orders to the same contract. If a task does not exist for the project associated to the customer site, for the particular contract, a new task is created using the organizational definitions defined within the associated order. If a task does exist, than only new charges are loaded.



PA to OE interface

Technical

Zooms

Programs

Triggers

interface program

Direct Tables vs Transaction interface

Synchronization to orders

Synonyms

Tables

Data

Functional

Why?

What processes?

OE integration

 Sourcing order cycle

 Installation order cycle

Inventory

 Cost

 Std vs Avg costing

 GL transactions

Project Definition

Usages

AutoAccounting

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