TRINITI

Automated Commercial Transactions through Triniti Commercial Flow

White Paper
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Business Needs

Multi-unit companies require automatic creation of various commercial transactions such as multiple accounts receivable invoices and accounts payable invoices for multiple operating units for a single shipments, creation of purchase requisitions and purchase orders for internal shipments or external shipments (to foundries and BAT houses/subcontractors) in a sequential manner to maximize the commercial benefits and minimize the manual effort, and many others. The post-shipment, post-sub-inventory transfers, post-customer returns, post-advance vendor shipment notices and other similar commercial transactions normally go through various business processes and require automation to cut the time delay and reduce/eliminate the paper work, manual operations etc.

Current Business Environment

Current business environment encompasses the following:

- Large Corporations transact business in different countries
  - (Manufacturing, Design Centers, Sales Offices, Corporate Offices)
- Doing business requires multiple legal entities within each country and around the world – mainly for profit maximization purposes
- Legal entities maintain their own set of books to manage accounting and financial transactions.
- Sales, Manufacturing and Distribution facilities may operate as distinct legal entities even when located in the same country or region.
- Producing products usually involves multiple factories in different parts of the world – based on technology and cost.

As a result of this environment;

- A large volume of transactions between legal entities is generated – requiring a substantial amount of manual effort to process, especially in IT systems that are not integrated and are in-flexible,
- Transaction processing lead-time is larger than desired, reducing the accuracy of the Supply Chain Plan's Output,
- Maintaining an accurate view of current financial status is very difficult.

Current Challenges

Current Challenges to meet the business objectives includes:

- Managing and Automating high volume of transactions between legal entities and sets of books.
- Replacing manual processes that are inadequate for synchronizing and reconciling multiple legal entities on a daily basis.
- Speedy monthly reconciliation between multiple sets of books.
- Effectively process reverse-transactions for Customer Returns.
- Provide real-time financial results to the corporation.
- Provide audit trails.
- Provide a flexible solution that can easily change as business changes

Current Issues

Currently, Oracle Business Suite provides the functionality to create individual commercial transactions. These transactions will require continuous exchange of information between various units of the company and manual intervention to record the reciprocal transaction sets. As a consequence, the process includes multiple manual operations, increases communication and coordination costs, increases the possibility error, and increases the lead-time to deliver the orders to customers.

Following are the typical issues involved when commercial transactions required to be created in Non-Automated System

- Inflexible / Hard Coded System Solutions
- Spending enormous man hours in recording and reconciling
- Excessive communication
- High Volume of Paper Work
- Time Delays in Receiving Paper Work for Onward Documentation
- Human Errors during accounting / recording of Transactions

Solution Expectations

Customers worldwide require a solution which overcomes the previously mentioned issues, and provide the following features:

- Completely Automated Solutions - No Manual Intervention.
- High Flexibility in setting the system parameters as needed.
- No Hard Coded Custom solutions.
- Various Commercial Patterns should be possible with stopping and starting the process at pre-determined events.
- High Security
- Immediate processing of Transactions
- Front End Error Handling and Resolution.

How TCF meets Customer Expectations?

TCF is a unique product, completely integrated with Oracle Applications, addressing the requirement of creating commercial transactions. TCF is a configurable product which identifies the suitable commercial transaction patterns and executes the various transactions under the selected pattern. TCF accommodates any type of transaction covering all operating units, inventory organizations, sets of books, customers, suppliers, etc.

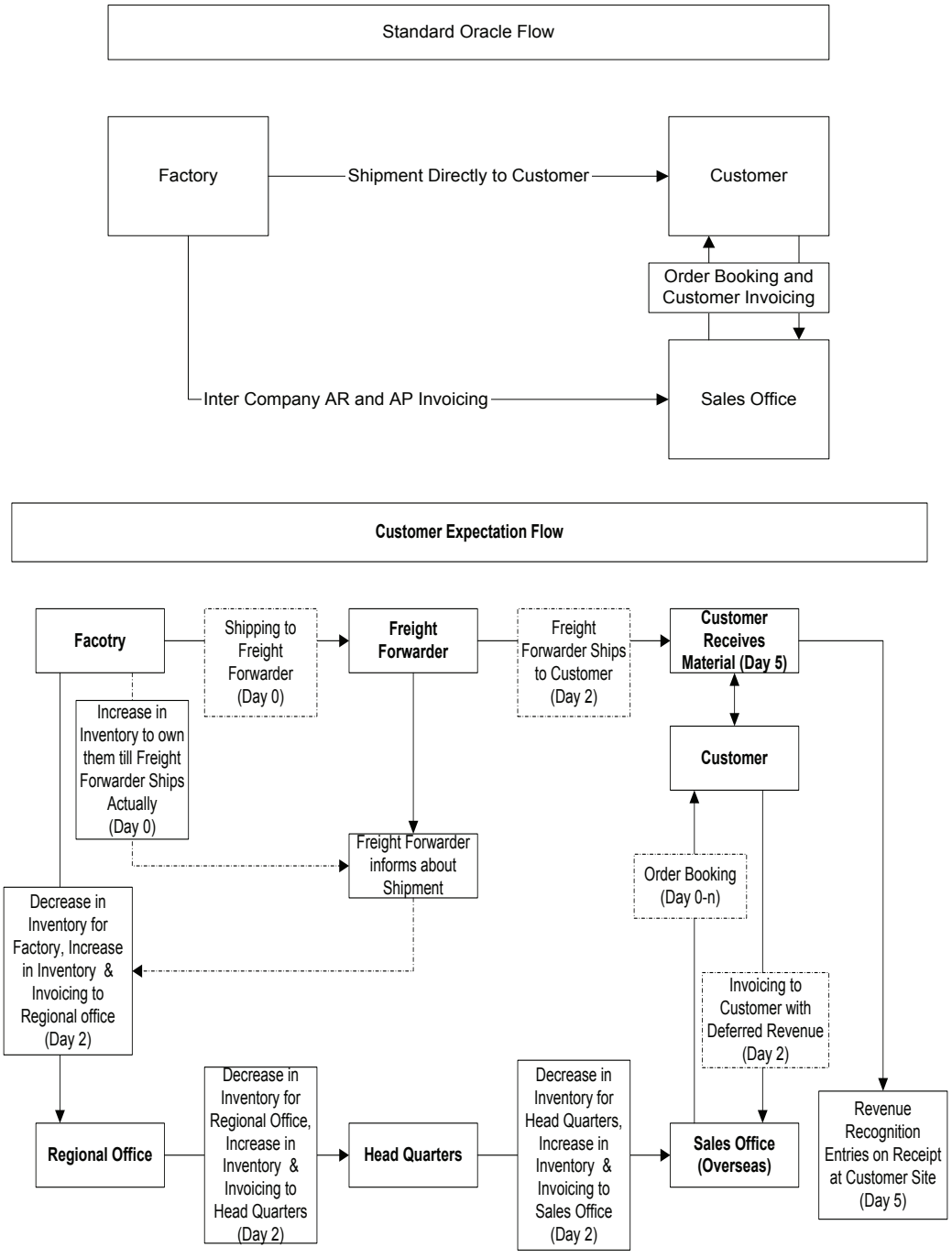
Features and Benefits of TCF

- Automated transaction processing to synchronize multiple sets of books across legal entities.
- Workflow driven (sequential, parallel)
- Configurable trigger points such as shipment, purchase order receipt, sub-inventory transfer, customer returns, etc. to initiate transaction processing. More can be easily added.
- Defined lead-times as part of the workflow. Subsequent transactions processed after the lead time is exhausted.
- Monitoring of all the activities through a special workbench.
- Correction of errored record and resubmission through the workbench.
- Control security levels
  (only certain users can access/configure selective patterns).
- Integrated with Oracle Applications – R11i.
- Ability to process thousands of transactions per day
- Defining and Managing an unlimited number of commercial patterns. These are commercial routes (transactions between/within sets of books) that your business needs to perform effectively.
- Automatically identify patterns based on hierarchical parameters.
- Manage an unlimited number of Commercial Transaction (Receivables, Payables, Inventory Movements, Internal Order, Internal Requisitions etc.,) under any one pattern.
- Trigger sequential processes within a pattern based on configurable events.
- Schedule all the jobs and reduce or eliminate manual intervention requirements.
- The dependent transaction can use the value of predecessor transactions in the transaction processing
- Operation for particular pattern stops if error records found
- Add or alter patterns at any time.

Case Study - Post-Shipment

Sales office books the sales order from customer A. Shipment happens from the factory directly to the customer. But the invoices are routed from the factory directly to HQ, HQ to sales office and sales office to Customer A.

Business Flow (Oracle Standard and Customer Expectation)



There may be one or more operating units involved in the process of invoicing between Shipping Operating Unit and Order Booking Operating Unit with varying prices. A large number of Multi-National Companies are adopting the above strategy to maximize their overall group commercial benefits.

Consider the example given in the Customer Expectation Flow, the following sequence of transactions can be created through TCF.

1. On shipment of Materials to Freight Forwarder from Factory, Increase in Inventory will take place to own the inventory till the freight forwarder ship actually.
2. Check program constantly checks the data whether shipment had taken place from Freight Forwarder. Check program stops the further transactions till Actual Shipment take place.
3. Decrease in Inventory on Actual Shipment from Freight Forwarder.
4. Receivables Invoice creation by Factory to Regional Office
5. Increase Inventory in Regional Office
6. Payables Invoice creation by Regional Office to Factory
   (With the same Receivables Invoice Number from Factory)
7. Decrease Inventory in Regional Office
8. Receivables Invoice creation by Regional Office to Head Quarters
9. Increase Inventory in Head Quarter
10. Payables Invoice creation by Head Quarters to Regional Office
11. Decrease Inventory in Head Quarters
12. Receivables Invoice creation by Head Quarters to Sales Office
13. Increase Inventory in Sales Office
14. Payables Invoice creation by Sales Office to Head Office
15. Decrease Inventory in Sales Office
16. Receivables Invoice creation by Sales Office to End Customer, creating Receivables, but Deferred Revenue, since Revenue need to be recognized only on receipt at Customer Site.
17. Customer Inform about the Receipt of Goods / Pre-Determined formula to arrive at Receipt of Goods at Customer Site
18. Check Program constantly check whether the Receipt at Customer Site had taken place
19. Revenue Recognition Entries Passed at the time of Receipt of goods at customer site.

Any of the transactions can be stopped and started based on configurable events. One example could be, AP Invoice creation should not start unless AR Invoice is successfully created, since AP Invoice Number and AR Invoice Number should match. Another example could be AR Invoice should not be created unless Decrease in Inventory transactions is completed as to synchronize the reduction of inventory at the time of creating AR Invoice.

Time Effort and Accuracy for the above Pattern

Standard Operations (Approximately)

4 Receivables Invoices in 4 different places	4 Hours
3 Payables Invoices in 3 different places	3 Hours
8 Inventory Transactions in 4 different places	4 Hours
Lead-time between First and Last Transaction	3 Days
Accuracy of Data	approx. 80%

Using TCF (Approximately)

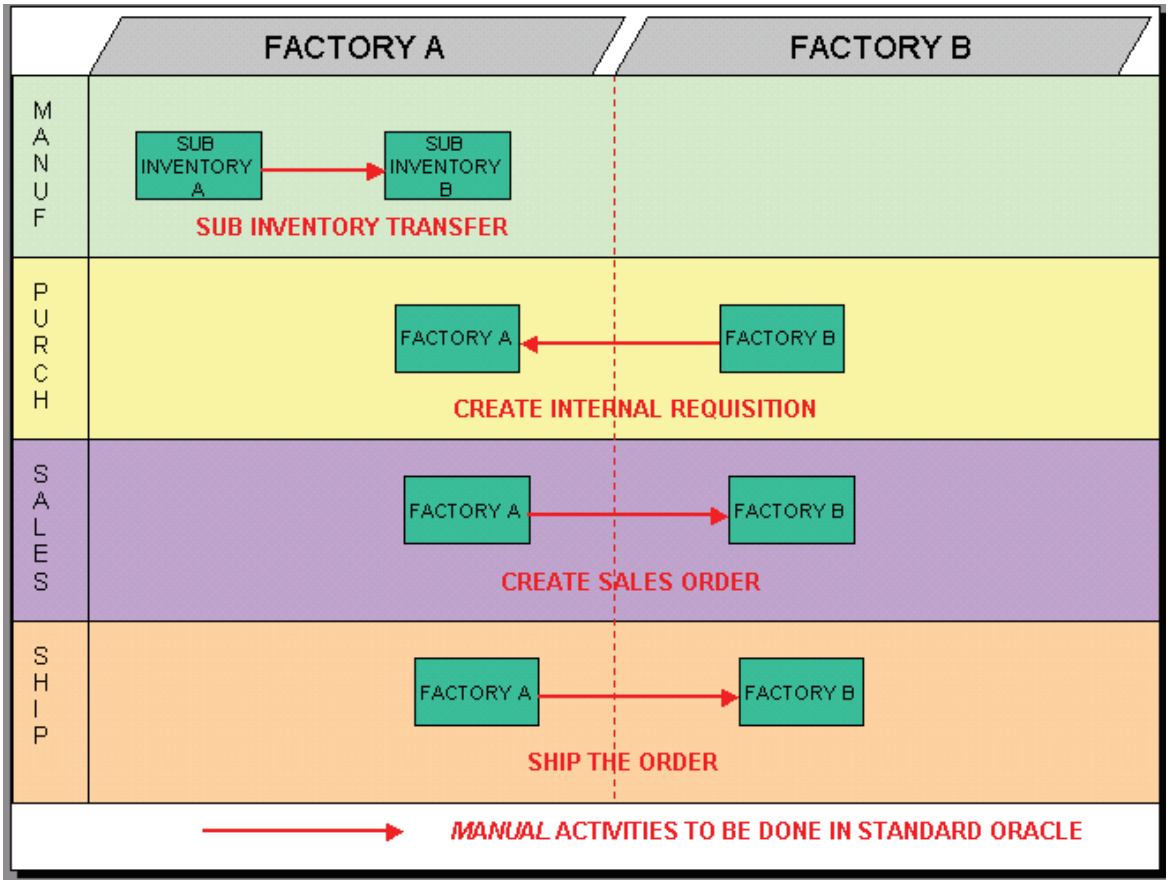
Receivables, Payables, Inventory Transaction	Immediate
Total Time Gap between First and Last Transaction	2 Hours
Accuracy of Data	100%

Case Study 2 – Semi Finished Goods Transfer

Business Requirement

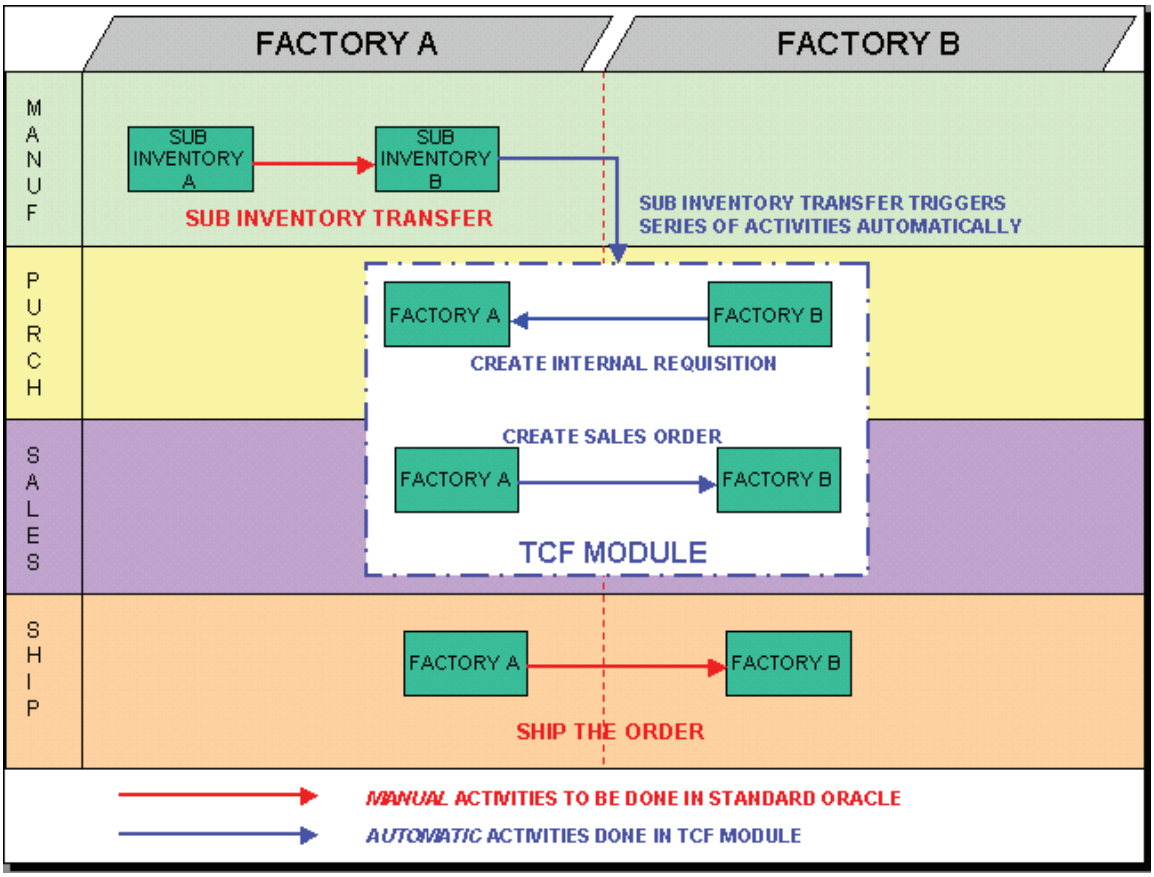
Often semi-finished goods are manufactured in one plant and shipped to another plant for Finished Goods manufacturing (Ex- Semiconductor Industry).

As is System Flow in Oracle



The standard Oracle involves many manual steps across different Operating Units which consumes lot of time. There are set of requests to be run to carry out above operations. The chances of error or mistake are high since it involves manual intervention.

As is System Flow in Oracle



As can be seen from above flow, TCF automates the Semi-Finished Goods between two plants. It reduces the manual intervention by making lot of Oracle Operations as automatic.

The sub-inventory transfer of semi-finished goods automatically triggers the Requisition creation and Order Creation process. The standard Oracle requests of Requisition creation, Order Import and Creation of Sales Orders are launched by TCF in the correct sequence checking for the dependency if it exists between two requests. Also TCF has inherent feature of checking for the successful completion of a request, and only then the subsequent dependant request(s) is/are launched.

How TCF Works

TCF employs the following methodology for operations.

Master Data Setup

Header Level

Entering the Header Details such as Shipping Operating Unit, Ordering Operating Unit, Shipping Inventory Organization, Customer Group etc., There are number of Fields available, all or any of them can be used as desired for each Event Trigger. Event Trigger can be any event. For Example, Shipment, Customer Returns, PO Receipt, ASN etc., can be different Even Triggers. Each commercial pattern should have unique name for identification purpose.

Line Level

Entering the relevant concurrent programs built for TCF purposes with the requisite parameters for each of the concurrent program in the sequential manner. Sequence No, Precedence No, conditions for next program to commence, grouping attributes where grouping of data is required etc., need to be entered as relevant.

Processing

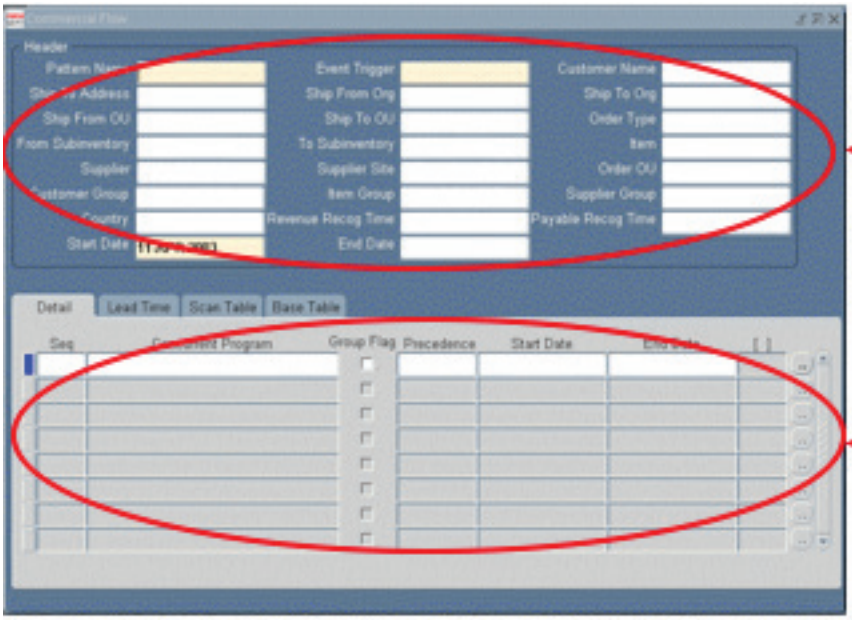
Data Population to TCF Tables

Each event trigger should populate the requisite data to the custom table built for TCF. For example, Workflow will pass the data from sales order, delivery details etc., for Shipment event once the order status is closed. Another example is Trigger populates data to custom table for PO Receipt Event once the deliver to sub-inventory is done.

Processor

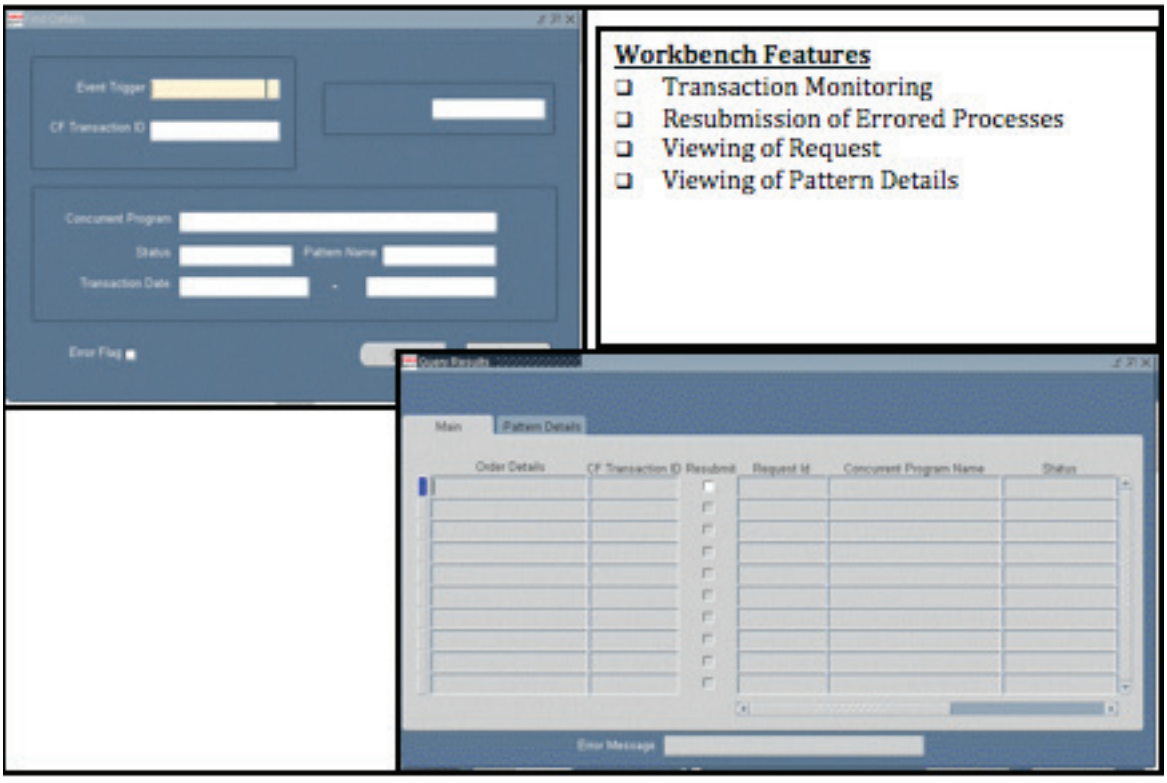
TCF Processor will scan the data from the custom table and automatically identify the relevant commercial pattern and launch the concurrent programs defined under that pattern. The concurrent programs will be launched in the sequence number defined and stops when conditions mentioned for any of the concurrent program is not reached. Once the specified condition for particular concurrent program is fulfilled, processor will launch the next program in the sequence.

TCF Screenshots



Business Pattern's Parameters Definition

Transactions associated with Business Pattern Definition



Conclusion

In Today's world of speedy information exchange and real time data availability requirement, TCF plays a major role in achieving the customer's expectation at minimum effort with maximum accuracy along with complete flexibility. It bridges the gap between standard product and customer's demands of commercial transactions at the requisite timing with virtually no maintenance.