



Case Study Overview: JD Edwards to Maximo 7 Integration

Implementation of Maximo 7, Maximo for Oil and Gas, and integrations with JD Edwards World software

The customer uses JD Edwards World Software for the financial and inventory operations. The refinery purchased Maximo Asset Manager v7 with the Oil and Gas industry solution. Aquitas Solutions conducted the implementation of Maximo 7 and the integration with JD Edwards World Software. There was no additional software or licensing needed for this integration; the standard Maximo Integration Framework (MIF) was used to develop and deploy the solution. Also, no additional subscription & support costs were required as no new software was needed.

Aqitas Role

- Integration Architect
- Functional SME
- Solution Architect.

External Vendors

The customer partnered with Aquitas Solutions. Additional JD Edwards consultants were brought to the project. The project was managed by the customer and Aquitas Solutions.

Project Requirements

The project staff identified in addition to the implementation of Maximo 7 for Oil and Gas, a series of integrations to be designed between Maximo 7 and JDE World. The following integrations were identified, analyzed, designed, developed, tested and deployed. These interface points are user definable and can be changed based upon business rules for a given customer. All these integrations are in Production:

JDE World to Maximo 7 Oil and Gas

- GL Components (General Ledger segments)
- Chart of Accounts (GL Accounts)
- Vendor Master File
- Item Master
- Inventory Balances
- Inventory Transactions
- Inventory Adjustments
- Material and Service Receipts
- Inventory Issues/Transfers
- Purchase Orders
- Invoices

Maximo 7 Oil and Gas to JDE World

- Work Order transactions to JDE World Purchase Requisitions
- Labor Transactions

LDAP to Maximo

- Master of Labor
- Master of Users

Project Challenges

There were a series of challenges among them:

- JDE World Software runs over DB2 and AS/400. This is a mainframe, a self-contained implementation that creates challenges when integrated with newer J2EE applications (Deployment/Web Server/Database Server) such as Maximo 7.
- The MIF uses a complex XML structure for messaging which needed to be configured so it could be interpreted by JDE World.
- Maximo 7 does not support DB2 for Z/OS (AS/400), only DB2 for LUW (Linux/Unix/Windows) is a supported database. This creates restrictions on the architecture for the integrations.
- For all inbound interfaces (JDE ==> Maximo) programs were needed to be developed to convert information from the JDE World files into XML files expected by Maximo. The Maximo XML structure is complex.

Software Versions

- JDE World software v8A9.1 over DB2 v5.4 and O/S 400 v5.4.
- Maximo 7 for Oil and Gas over SQL Server 2008 and Windows Server 2008.

Additional Technology Deployed

In addition to the JDE World and Maximo 7 Enterprise applications, the project implemented HTTP (web communication) for the integrations using WebSphere queues, XML messaging and enterprise java beans (ejb). This additional technology brought state of the art integration mechanisms between JDE World and Maximo 7 for Oil and Gas.

Results Achieved

The project was implemented in year 2011 and all the objectives were completed to entire customer satisfaction.

Despite of the large number of integrations, the design approach used, allowed for all the inbound and all outbound integrations to use a common methodology, supported by the MIF (Maximo Integration Framework). The use of the standard MIF allows the customer to monitor all the integrations in near real-time, and provides facilities for logging, auditing, re-processing, tuning.

Tools used

SQL Server 2008, PL/SQL (DB2 objects to write to JDE World), WebSphere Queues, MIF, Cron tasks (Batch jobs), http web server, DB2 on z/OS, xml and RPG for coding in OS/400.