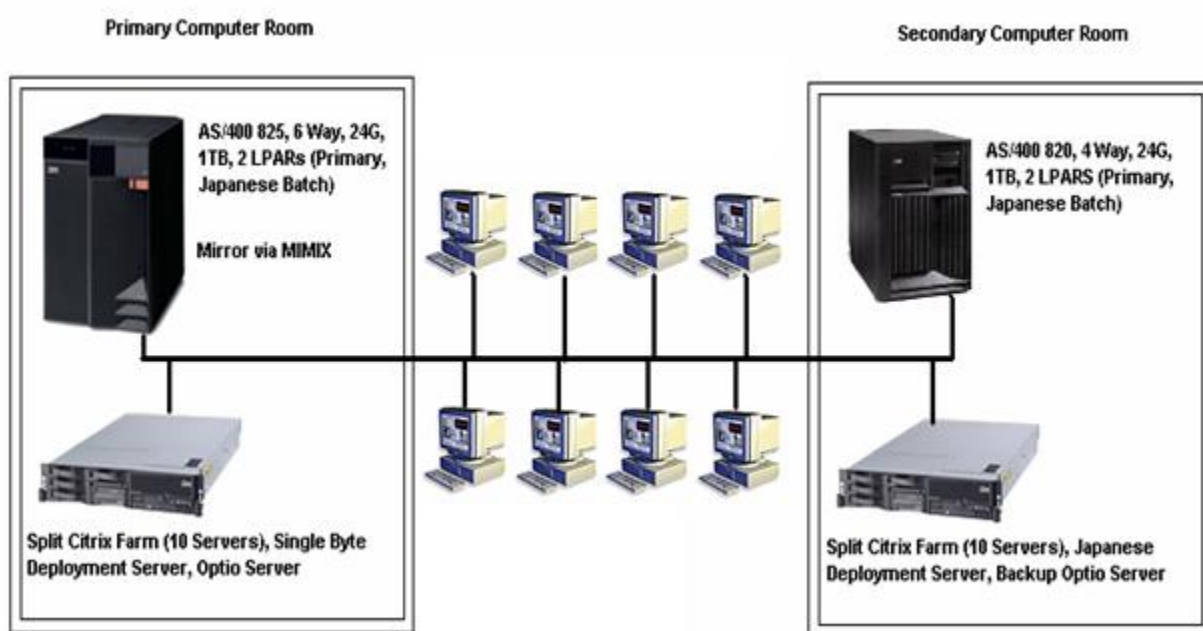


J D Edwards Enterprise One 8.12 Migration Case Studies

Background

- The client is world's leading supplier of high quality super abrasives and Industrial Diamond materials, including synthetic and natural diamond and the complementary super abrasive cubic boron nitride (cBN)
- Diamond and cBN products are mainly used in the manufacture of tools for applications including drilling, sawing, cutting, grinding and polishing of different materials such as ferrous and non ferrous metals, natural stone and concrete, wood based materials, plastics, glass and ceramics.
- Manufacturing Units are located at British Isles, China, Ireland, Netherlands, South Africa, Sweden, Ukraine and Wales.
- Research Laboratories are located at South Africa and England
- Also it has got 10 wholly owned sales offices and 6 independent distribution offices guarantee worldwide technical support and dedicated services.

ERP 8 Network Structure



Why Upgrade from ERP 8 to E1 8.12

- Current Position :
 - JDEdwards Enterprise One ERP 8.0 (Service Pack 22)
 - 939 Users in 13 sites
 - Multilingual Implementation (Single & Double byte)
 - iSeries 825
 - 6 CPU (6600 CPW)
 - 32 GB Memory + 1 TB of Disc
 - 2 Partitions (Primary + Japan)

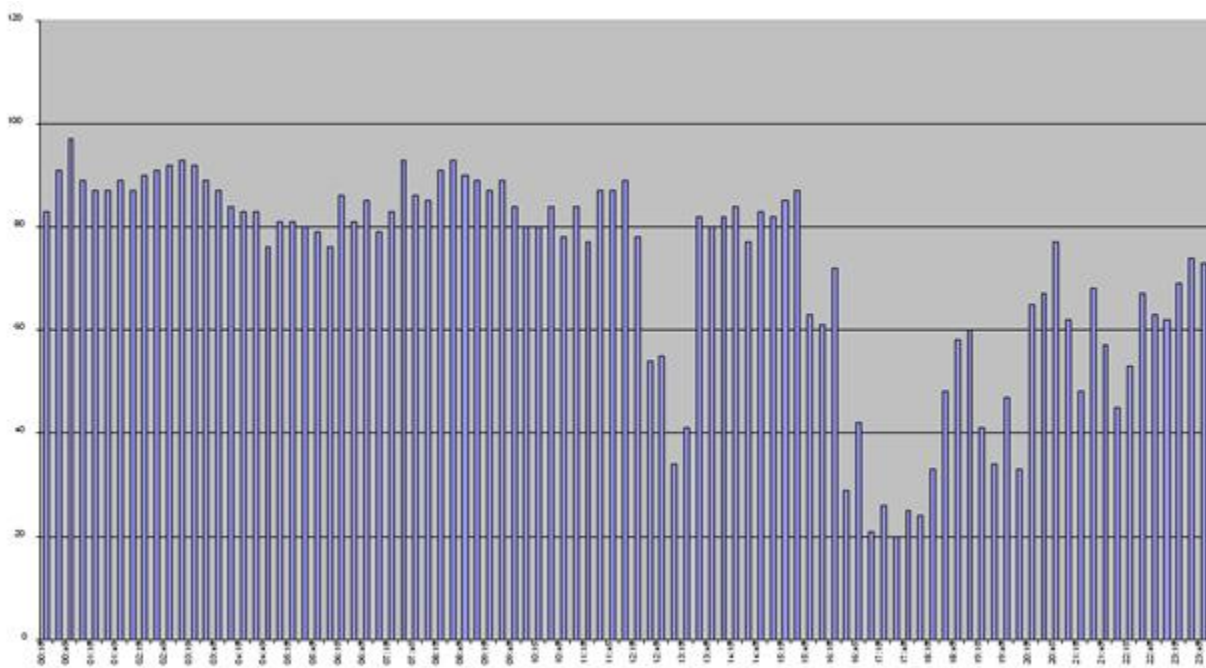
- The IBM guidelines for iSeries performance is (shown in next Chart)

Average CPU Usage \leq 65%

Average page faulting \leq 100

They are consistently breaching these guidelines with the resultant user performance issues – particularly during normal working hours

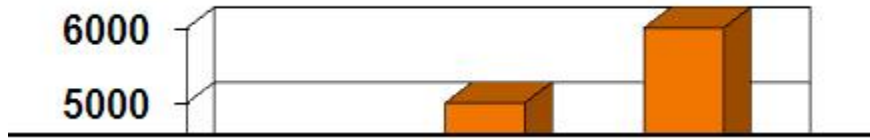
Heavy CPU Usage in ERP 8



Why 8.12 ?

- Last Sizing (Q1 2004)
- Volume of Batch jobs (100% increase since Q2004)
- Complexity of Batch jobs
- User Count (initial limit 750 – Now 939)
- Impact of New sites
- JDE system Integrity Reports (Not expected to need)
- Business Requirements for more information
- Success of JDE

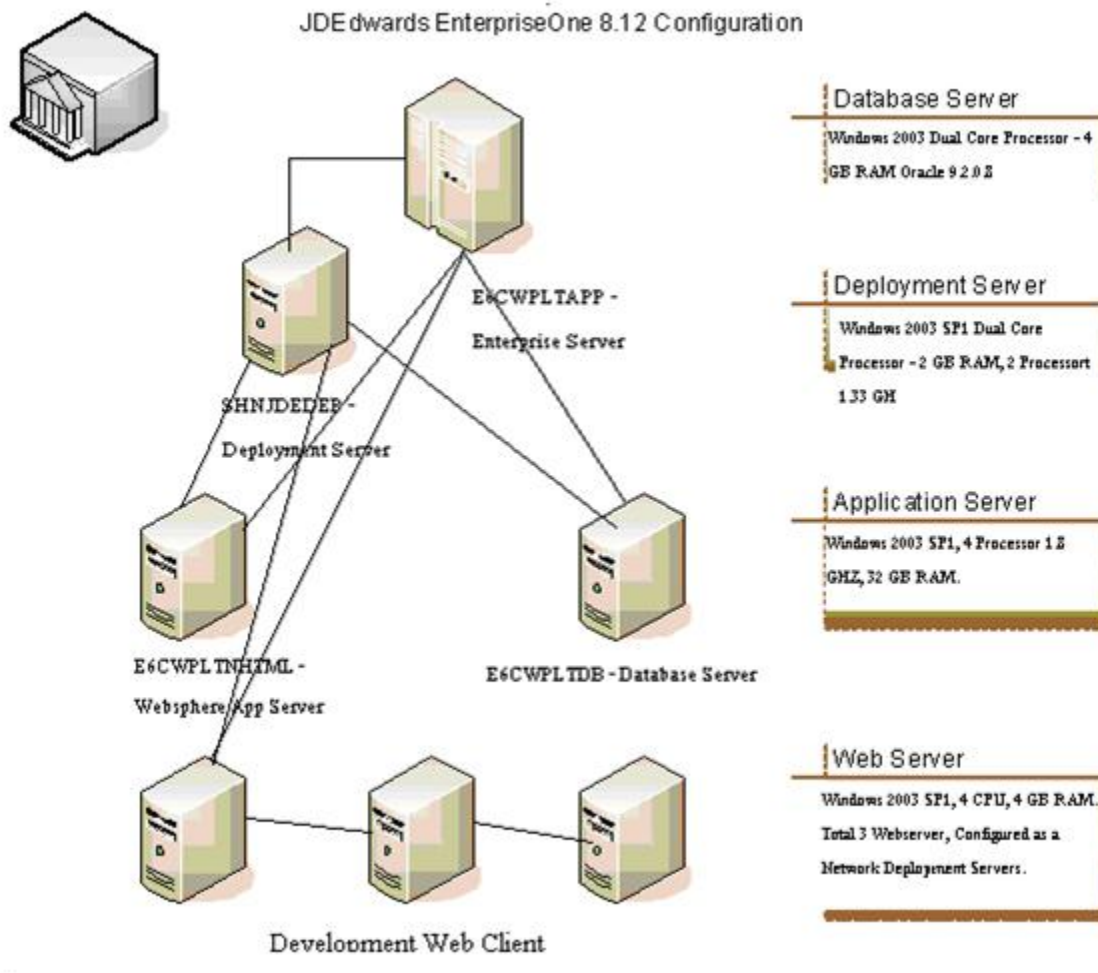
Average Daily Batch Jobs



System Design Goals

- Be as simple and transparent as possible
- Customized as far as possible(and sensible) to match the needs/practices of the different production areas
- Integrate related production areas while leaving them a large degree of autonomy
- Implement the BPR principles where appropriate/possible
- System should not impose any barriers to efficient/sensible operation

E8.12 Network Structure



- Enterprise Server Cum Application Server
 - 8 CPU, 16 GB RAM Enterprise Server.
 - Capable of Handling Load of 2000 Users Concurrently.
 - Database Server
 - Oracle 9.2.0.8 on Unicode Platform.
 - 4 GB RAM using AWR Technology of Windows.
- Deployment Server
 - Dual Core Processor for fast Package Build and Development Operation.
 - Web sphere Server (X3)
 - 3 Web sphere server configured in Network Deployment Mode to share a load of 1000 Users.

Scope of the Project E8.12

- System Study of New Servers. Load Balancing for 1000 users currently, expected to grow twice in next 3 years.
- Upgrading the ERP8 Prototype Environment to E8.12 Development Environment.
- Migrating the data from Backup Production Server of ERP8 to E8.12 DV Environment.
- Unicode of DV Business Data.
- Copying DV 8.12 to PY 8.12 for Functional Testing.
- All Development was hold during the upgrade process.
- Draw up detailed test scenarios to ensure the business processes are tested completely on Release 8.12. Complete testing is required for normal day to day, end of day, month end and year end activities.
- Particular emphasis is required to Identify and check current workarounds and Check for resolution to known issues.
- Integration of tests across functional boundaries is also pre-requisite.
- Functional and User Acceptance testing approved.
- Go – Live

Production Planning – Background Concepts

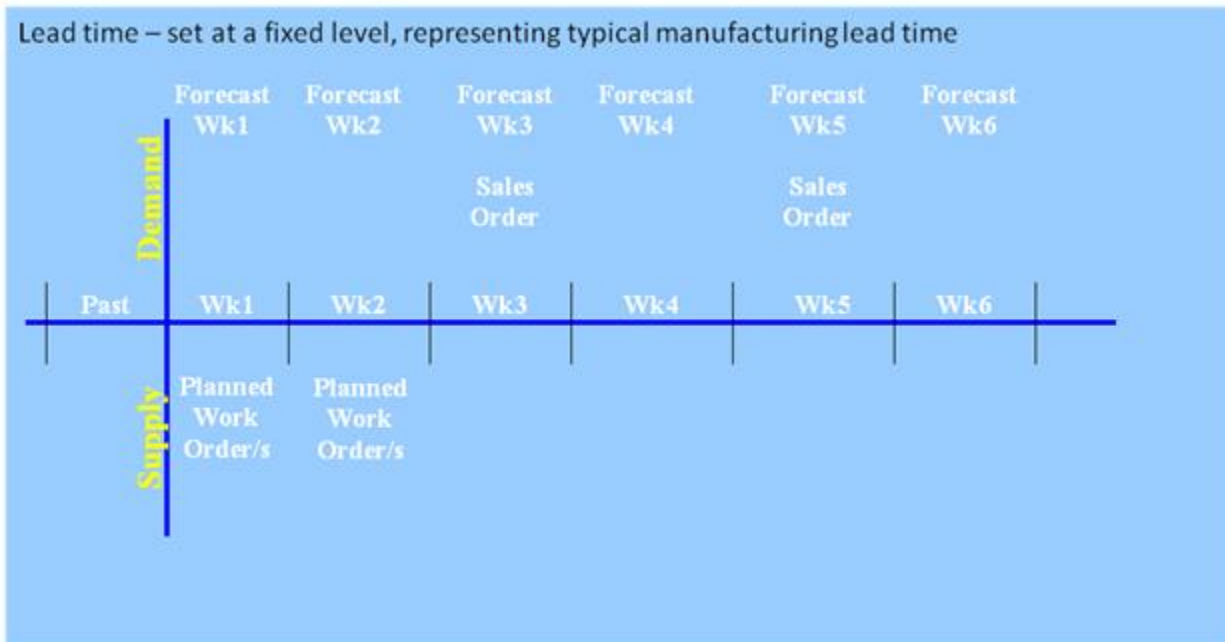
- Goals
- Planning Concepts
- Supply Models

Goals

- Match Supply to Demand
 - System generates “messages” or suggested WO’s
- Implement Planning Policies
 - Target stocking levels/safety stock
 - Batch Sizes
 - Link to BPR
- Provide useful production Information
 - Through careful choice of planning policies
 - Additional production reports
- Integrated Planning
 - Across related production areas

- Capture all planning Information

Planning Concepts

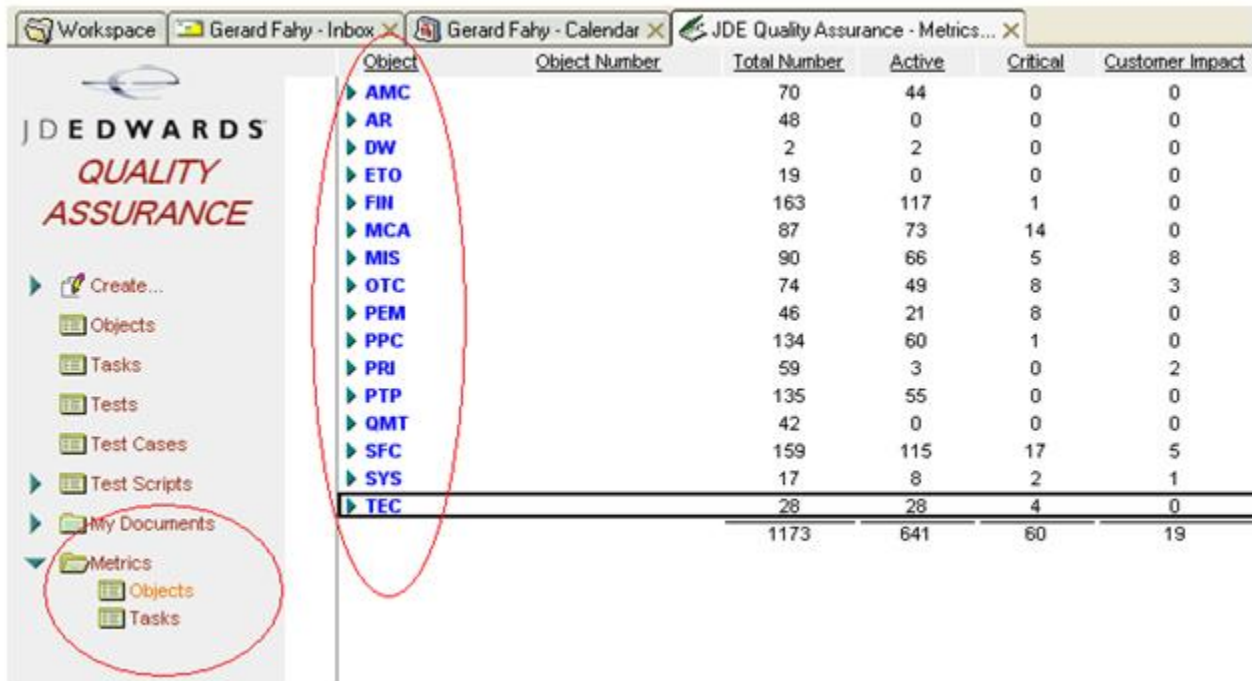


Supply Models

- Make to Order
 - Respond only to sales orders
- Make to Forecast
 - Responds primarily to forecast
 - Need to be aware of large sales orders
- Kanban (Replenishment Items)
 - Set target stock level
 - Replenishment signal when stock drops below target
- Safety Stock
 - Set target stock level
 - Replenishment signal when stock drops below target
- Need to Select correct models to match
 - Demand pattern for an item
 - Desired Customer service level
 - Needs of Production area
- Different effects achieved by different combination of settings within the system
 - Can in principle be set by item
 - Better to manage these groups of items
- Maintenance of planning settings
 - Ongoing Issues (as is all data maintenance)

Project Tasks

- Document the existing process in lotus notes database. The purpose of this database is to become a repository of all information we have in relation to how the JDE system operates. Each business process (OTC,SFC) has its own sections in the database.



Object	Object Number	Total Number	Active	Critical	Customer Impact
▶ AMC		70	44	0	0
▶ AR		48	0	0	0
▶ DW		2	2	0	0
▶ ETO		19	0	0	0
▶ FIH		163	117	1	0
▶ MCA		87	73	14	0
▶ MIS		90	66	5	8
▶ OTC		74	49	8	3
▶ PEM		46	21	8	0
▶ PPC		134	60	1	0
▶ PRI		59	3	0	2
▶ PTP		135	55	0	0
▶ QMT		42	0	0	0
▶ SFC		159	115	17	5
▶ SYS		17	8	2	1
▶ TEC		28	28	4	0
		1173	641	60	19

- Review task views and scheduled jobs
- Identify current issues workarounds, deficiencies with the plant team
- Identify plant specific scenarios where required with the plant team
- Document scenarios required to fully test current business process
- Review scenarios with the Project Review team

Testing

- Perform three levels of testing so as to make sure that the new Release functions without any issues
- The three levels of testing are Unit testing, Vertical Scenario testing and Integration Testing
- A Unit test is the performance of a single test definition on a version of an object
- A Vertical test is the performance of a string of unit tests with in a single business process . For eg: - Process MRP and Verifying the messages
- An Integration test is the performance of a string of unit tests across business processes
- Identify and resolve Release 8.12 Issues in conjunction with SRL Functional consultants
- Identify required developments and test to functional completion

Manufacturing Model

Standard Work Order processing

Includes the following Types of work order

- Discrete
- Process
- Outside Processing

Manufacturing Model

Functionality

Work Order Header creation

- Batch Attach
 - Batch Attach using R5531410
 - Batch Attach using R31410
 - Batch Attach Interactive (esp backflushing from Specific Location)
- Print Shopfloor traveller
 - Std R5531415
 - Print Shopfloor traveller R5531410
 - Print Shopfloor traveller R5531415 via Optio (Syndrill)
 - Print Shopfloor Labels
 - Box Labels IDD,IDP,other
- Process work order using Super backflush
 - Partial Completion
 - Full Completion
 - Enter Quality Results
 - Receive Outside Processing into Stock
- Complete to stock
 - Partial Completion
 - Full Completion
 - Enter Quality Results
 - Print Inventory Labels
 - Run R553111A integrity
 - Create Error with R553111C report and Fix

Benefits of Manufacturing Model

- Named calendar allows for a work center-specific calendar to be created and tied to work centers or rate lines.
- Client can create more than 1,000 records in a bill of material, attach more than 1,000 records in a parts list, and perform more than 9 engineering change order swaps to a bill of material line.
- Interactive outside purchase orders allows clients to create purchase orders for make/buy decisions without having to request that work orders be processed or re-processed by R31410.
- During Work Order Completions, processing option controls whether the system commits the related material to the sales order and/or splits the sales order into subsequent detail lines when partial completions occur



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- Super Backflush processing options have been changed to include a default employee number and shift identifier
- The branch identifier for manufacturing work centers & lines has been moved from the Shifts & Hours tab of the work center detail to the form header and is now a key on the record. This enhancement allows users to have the same work center in multiple branch/plants
- The inventory commitment to work center locations software function has been enhanced to include work center commitments for lot-controlled items
- The functionality to calculate operation yield when reporting quantities in Hours & Quantities program has been added