

April 12, 2011

# Sandia Labs PeopleSoft 9.0 Upgrade June 2010

## A Review of the Process

**Tracy K. Jones**

Enterprise Resource Planning Manager



Sandia National Laboratories is a multi program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.



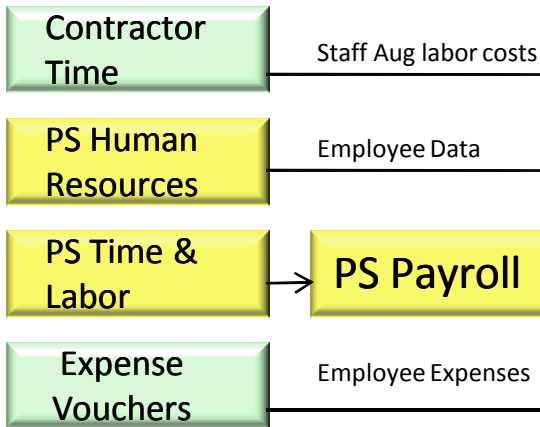
# Agenda

- **Business Case For PeopleSoft 9.0**
  - Quick Overview
- **Lessons Learned**
  - Project Management
  - Requirements Management
  - Change Control Board
  - Product Testing
  - Communication and Training
  - General
  - Technical

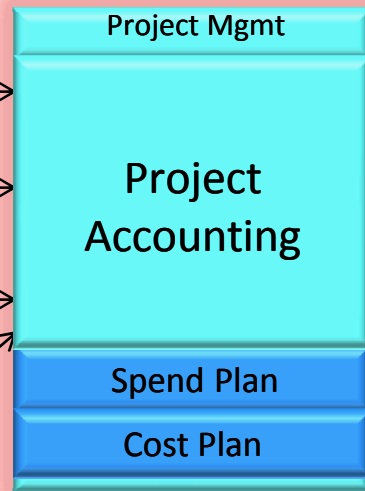
# Quick Overview

# Sandia National Laboratories Enterprise Resource Planning System

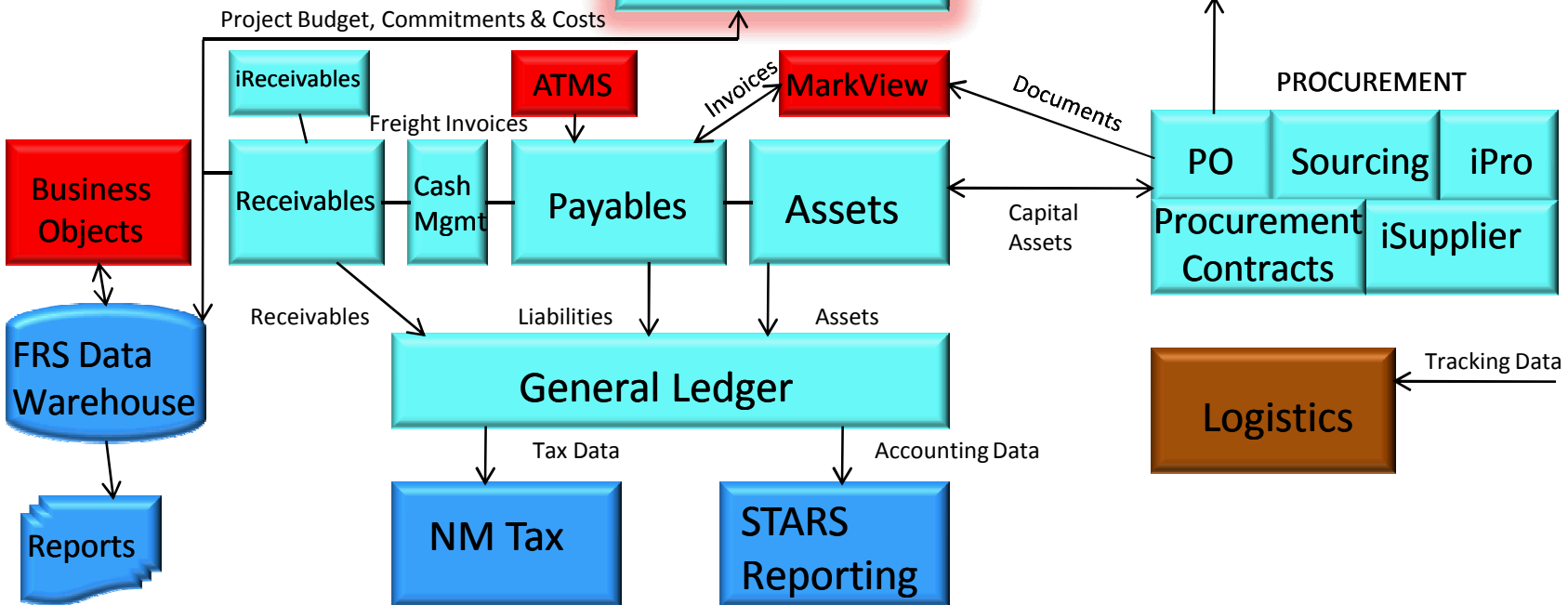
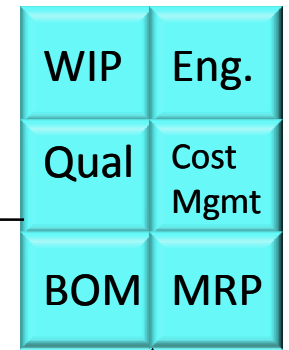
## HUMAN RESOURCES



## FINANCE



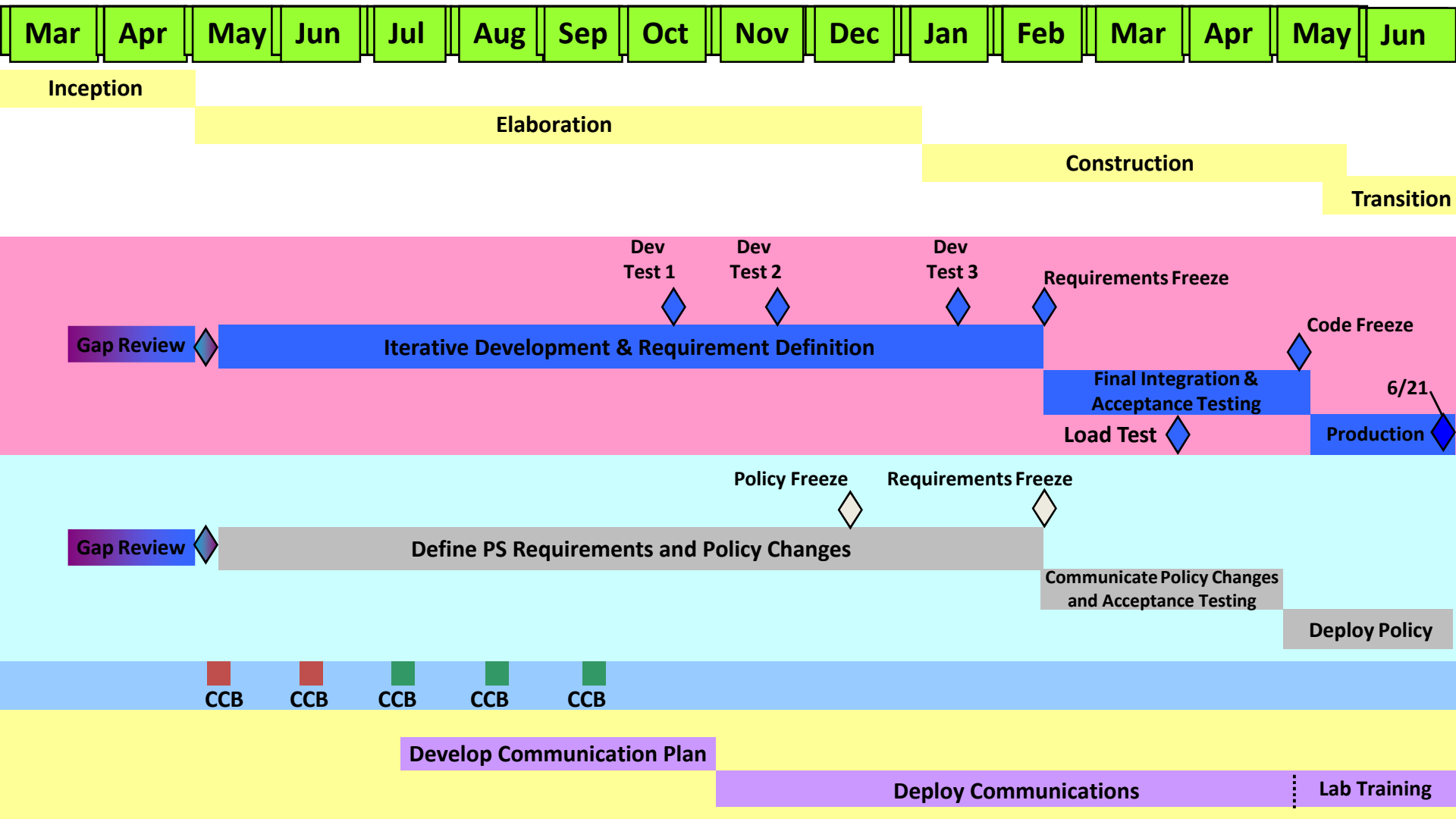
## DISCRETE MANUFACTURING



# Overview - Why Upgrade PeopleSoft?

- **Originally implemented in 1997 (v6.0) the system has become highly customized**
- **Due to customizations, the system is increasingly difficult and expensive to maintain and at risk of catastrophic failure**
- **Customizations hinder our ability to apply vendor patches or efficiently upgrade – known deficiencies are going unaddressed**
- **PeopleSoft v9.0 project was established to:**
  - **Implement a system that is as vanilla as practically possible**
  - **Implement PeopleSoft’s Talent Acquisition Management module and Time and Labor module**
  - **Deploy an integrated HR Information System (processes/applications) that reflects industry best practices – Functional areas leveraging upgrade to update processes**

# High-Level Project Schedule – 6/21 Go-Live



# Project Management

# Project Management

- Having **both** a dedicated project manager and technical lead on the project was valuable
- Involve **both** technical and functional (customer) team members in iteration planning process at the beginning of each iteration
- Updating Project Plan and creating bi-weekly status reports required extensive time from technical team
- Recurring Lessons Learned – Avoid changing code post freeze-date
- When deploying a new system/module, ensure technical and functional leads are experts in their respective areas
- Ensure entire project team receives adequate training in development lifecycle processes, requirements, and tools prior to project start
- Relying solely on Project Plan Reporting to monitor project status can result in false security
- Prior to placing a contract for consulting services, verify contractor has a large enough resource pool to support project needs and manage personnel changes/issues/etc

# Requirements Management

# Requirements Management

- **To improve the quality and comprehensiveness of the requirements set, administer training to requirement providers and developers (if needed) regarding the following:**
  - What is a requirement, what is a good requirement, what it means to sign-off on a requirement
  - Begin with the end in mind (how will you verify a requirement is satisfied)
- **Ensure all appropriate requirement providers are involved in requirement definition**
- **Recurring Lessons Learned – Adhere to the deadline on the freeze of new functional requirements**
- **Identify the appropriate time to have consulting resources join the project team**

# Change Control Board (CCB)

# Change Control Board (CCB)

- **Ensure all stakeholder areas, at the appropriate management level, are represented on the project's CCB**
  - The PeopleSoft CCB process provided an excellent means to make large project decisions. Having representation from IT, HR, Benefits and Finance was critical to making the right decision for the laboratory
- **If CCB is making decisions regarding a COTS product, provide the CCB with the right information/resources to make the best decision for the laboratory**
  - Provide demos of current, custom functionality vs. vanilla functionality when possible
  - Trace a customization request to a business process/policy – justify the customization
  - Discussions w/ Oracle: Possibility of creating a CCB focused training course to be delivered to a project's CCB prior to the start of a project
- **Avoid approving a "blanket" or "generic" CCB Request**
  - As design matures, the CCB should reconvene to review the level of customization being implemented

# Product Testing

# Product Testing

- **Allow ample time at the end of the project schedule to conduct thorough Quality integration testing**
- **Prior to the end of a consulting contract, it is critical to test pieces of the system developed 100% by a consultant**
- **Implement a rigorous process to verify adequate testing is conducted by other Sandia systems that interface with PeopleSoft data and are used by the entire labs population**
- **Ensure thorough integration testing is conducted between new system modules and the existing modules they will interface with**
- **Create a test environment that is as close to the Production environment as possible**
- **Establish an efficient testing process for Developers and Testers**

# Communication and Training

# Communication and Training

- **Conduct face-to-face training sessions with functional users not sitting at Sandia/NM**
  - Ensures a good/consistent understanding of the material is received by all users
  - Avoids the need for multiple teleconferences and follow-up emails
- **Deliver training material to functional users well in advance of go-live**
  - Most critical when there are large changes between legacy system and the new system
  - Functional users need to be "experts" in using the new system prior to go-live
- **If functional resources will be responsible for training other functional resources, the functional team needs to develop a training plan for teaching the new/changed system functionality and business processes**
  - On multiple sub-teams, only one or two functional users had an understanding of the new system/process
  - Required considerable (and unplanned) time from these users to transfer knowledge to other functional users

# General

# General

- **Minimize the number of environments**
  - Difficult to keep multiple environments in sync
  - Establish and adhere to a rigorous promotion process between environments
    - *Only permit development in Development and then move changes up to Quality*
- **Build in usability from the beginning to avoid large design changes late in development**
  - Conduct usability testing with real users as early as possible
  - Engage usability experts (UX) as early as possible
  - Even with COTS products, consider label changes when possible to improve usability
- **Vanilla implementation of a COTS system allows Sandia to leverage vendor customer support**
  - PeopleSoft team already taking advantage of ORACLE capabilities to help research and solve problems – Time to solution is dramatically reduced

# Technical

# Technical

- **Actual Upgrade Timeframe**

- Was completed in one weekend
  - *One Day Patching*
  - *One Day Post Upgrade Steps*
- Middle Tier of Virtualized Servers with Unix and NT
- Upgraded to PeopleTools 8.49.29
- Version Control with Quest STAT

- **Used Contractors For New Areas**

- CedarCrestone for GAP Analysis
- Optimum for Payroll, Talent Acquisition Management, Benefits, and Security
- Independent Contractor for PeopleSoft Time & Labor

April 12, 2011

# Sandia Labs Oracle E-Business Suite R12 Upgrade May 14, 2011

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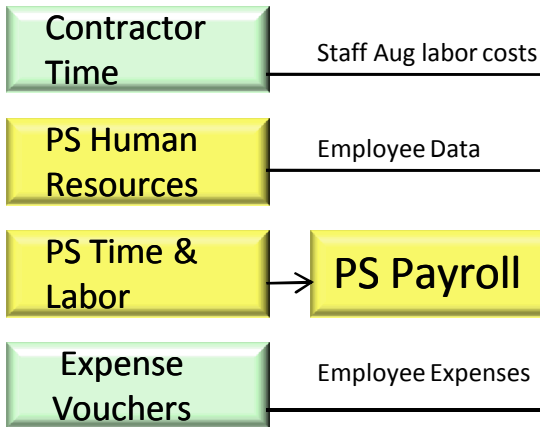


# Agenda

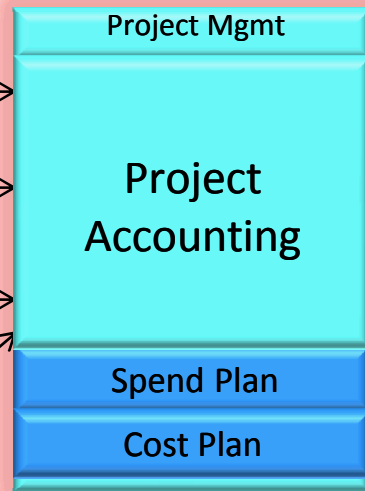
- **Business Case For R12 Upgrade**
- **Challenges**
- **Available Documentation**
- **Upgrade Planning**
- **Upgrade Best Practices**
- **Q&A**

# Sandia National Laboratories Enterprise Resource Planning System

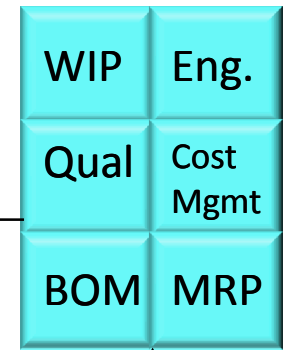
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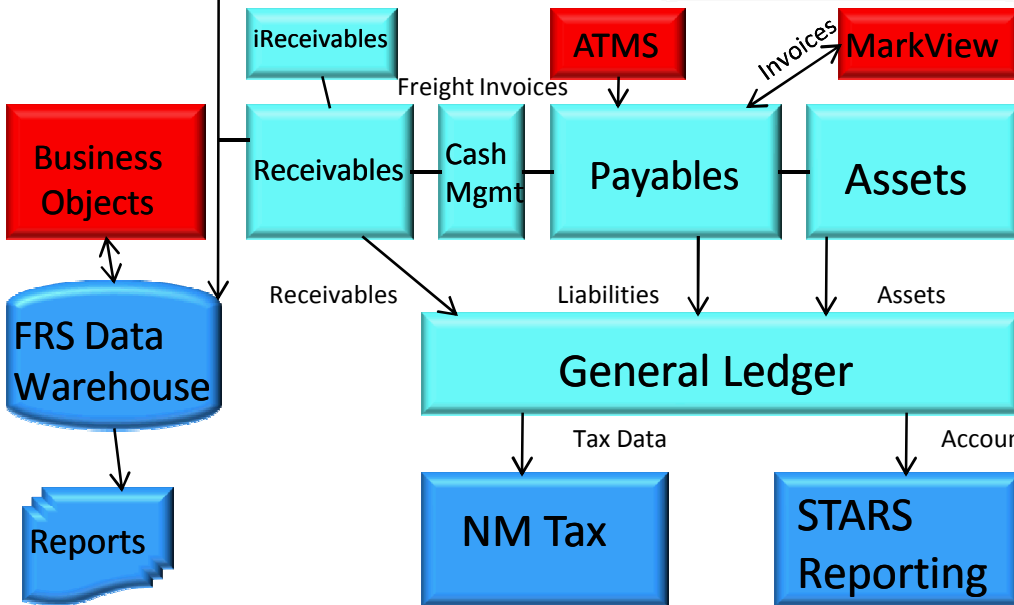
## FINANCE



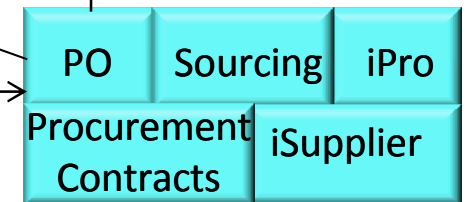
## DISCRETE MANUFACTURING



Project Budget, Commitments & Costs



## PROCUREMENT



# Business Case For R12 Upgrade –

## *Version R12.1.2 functionality can simplify the business and reduce customizations*

- New Sub Ledger Accounting (SLA)
- New Consolidated Purchasing Workbench
- New Centralized Banking Module
- New Payment Processing Module
- New BI Publisher Report Format
- New Look & Feel
- New Federal Support of Agreements
- Ability to run depreciation more than monthly
- New middle tier to support technology and security
  - Including Service Oriented Architecture (SOA) capabilities to integrate with other corporate applications

# ORACLE E-BUSINESS SUITE R12 UPGRADE

**New & Improved Menu Structure**

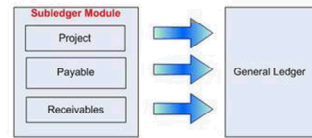
The screenshot shows the Oracle E-Business Suite home page with a new menu structure. The 'Main Menu' is organized into categories like 'Procurement', 'Sales', and 'Financials'. A 'Worklist' section is visible, showing a table with columns for 'From', 'Type', 'Subject', 'Sent', and 'Due'. Below the table, there are instructions: 'There are no notifications in this view.' and 'When you click a notification, you are taken to the notification page. Specify which users can view and set up your notifications.'

**New Buyer Workbench**

This screenshot shows the 'New Buyer Workbench' interface. It includes a confirmation message: 'Standard Purchase Order 1281235 has been submitted for approval.' Below this, there is a search area with filters for 'Buyer', 'Requisition', 'Category', and 'Supplier'. A table at the bottom shows search results with columns for 'Select ID', 'Requisition Item', 'Unit Qty', 'Unit Price', 'Currency', and 'Source Access'. The table currently shows 'No results found.'

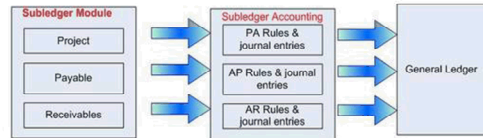
## Sub Ledger Accounting Model

Release 11i



Release 12.0

Accounting model is separated from the transaction model



# ALL IN ONE WORKBENCH

## IMPROVED REPORTING

**Oracle BI Publisher Benefits ... From Data to Destination ...**

The diagram illustrates the Oracle BI Publisher workflow. On the left, 'Data Sources' include Oracle 10g, Oracle BI EE, Oracle BI Apps SQL Server, E-Business Suite, PeopleSoft, JDE, and OLAP. These feed into 'Layout Templates' (XML) which are processed by 'ORACLE BI Publisher'. The output goes through 'Layout Tools' (Word, Acrobat, JDev, Excel, Flex, Others) and 'Output Formats' (PDF, HTML, Excel, Power Point, Flash, RTF, CSV, XML, EDI, EFT) to various 'Destinations' (Email, Printer, Fax, Repository, e-Commerce).

## DOING WORK FASTER & CHEAPER

## Sub Ledger Accounting Draft Accounting

This screenshot shows the 'Draft Accounting' interface in Oracle E-Business Suite. It displays a table with columns for 'Operating Unit', 'Type', 'Trading Partner', 'Supplier Num', 'Supplier Site Name', 'Invoice Date', 'Invoice Num', 'Invoice', and 'Invoice Amount'. Below the table, there are tabs for 'General', 'Lines', 'Holds', 'View Payments', 'Scheduled Payments', and 'View Prepayment Applications'. A 'Print Actions' dialog box is open, showing options like 'Validate', 'Cancel Invoices', and 'Create Accounting' (with sub-options for Draft, Final, and Final Post).

# Challenges

- **Oracle 11.5.10.2 went into extended support November 2010**
- **R12 vs. Fusion**
- **Support Model**
  - Process Owner, Functional Team Member, Technical Analyst
  - Change Control Boards
  - Turnover
  - Overbooking
- **Upgrade Planning**
  - Projects can be between 10 to 18 months
    - Conference Room Pilots
    - New hardware platforms
  - Funding
- **Narrow Window for Upgrade**
  - Need to minimize downtime
- **Testing**
  - Unit
  - Integrated
- **Communication & Training**
- 26• **Risk Reduction**

# Available Documentation

- **Release 12.1 Documentation Library**

[http://download.oracle.com/docs/cd/B53825\\_07/current/html/docset.html](http://download.oracle.com/docs/cd/B53825_07/current/html/docset.html)

– Oracle E-Business Upgrade Guide, Release 11i to 12.1.3 E16342-03

- **Oracle E-Business Suite Technology Blog**

<http://blogs.oracle.com/stevenChan/>

Identifying Data Model Changes Between EBS 12.1.3 and Prior EBS Releases

[http://blogs.oracle.com/stevenChan/2011/02/ebs\\_data\\_model\\_1213.html](http://blogs.oracle.com/stevenChan/2011/02/ebs_data_model_1213.html)

Four Critical Changes for Customizations in Release 12

[http://blogs.oracle.com/stevenChan/2007/01/four\\_critical\\_changes\\_for\\_cust.html](http://blogs.oracle.com/stevenChan/2007/01/four_critical_changes_for_cust.html)

- **Oracle E-Business Suite 12.1 Information Center (Oracle Support 807937.1)**
- **Oracle E-Business Suite Release 12.1 Release Content Documents (Oracle Support 561580.1)**

# Upgrade Planning

- **Initial Analysis**
- **Stand Up R12.1.3 Instance**
- **Gap & Customs Analysis**
- **Process Analysis**
- **Conference Room Pilot**
- **Design Development**
- **Build Development**
- **Test in Development**
- **Build Quality**
- **Integrated Test in Quality**
- **Communication**
- **Rollout**
- **Post Upgrade Steps**

# E-Business Tech Stack Version Changes

	E-Business Version	
	11.5.10.2	12.1.3
<b>Database RDBMS</b>	9iR2 9.2.0.6	10gR2 or 11gR2 10.2.0.4 11.2.0.2
<b>Developer Forms &amp; Reports</b>	6i 8.0.6.3	10g 10.1.2.3
<b>Web &amp; Java</b>	9iAS 1.0.2.2.2	10gAS 10.1.3.4
<b>Java (JDK)</b>	Jinitiator 1.3.1.24	Sun JRE 1.6.0_24

# Upgrade Best Practices

- **Understand and mitigate project risks**
- **Do technical upgrades ahead of the upgrade window**
  - The Upgrade Manual Script (TUMS)
  - Oracle Application Tablespace Model (OATM)
  - Database Upgrades
  - Data Cleanup
- **Size for at least 10% growth in database**
- **Conduct at least three test cycles**
- **Communicate early and often**
- **Bring in additional people for testing**
- **Contract for at least one consultant to fill in gaps**
- **Training with classes**
- **Enjoy the process**

Q & A