

O2 Works

Putting Oracle to Work

Oracle E-Business Specialists

Managing a successful E-Business Suite Upgrade
A Repeatable, Holistic Methodology to Ensure Success

NCOAUG Training Day Summer 2008

Art Dowd

Mark Clark



8/16/2008



Overview

- Introductions
- Audience / survey
- Why upgrade?
- The Challenges
- Upgrade process
- Keys to Success
- Resources
- Methodology
- Other Recommendations

Introduction - Speakers

- Art Dowd, Consulting Director, O2Works
 - Former VP IT for Hospitality Company
 - Implemented / Upgraded Oracle eBus Suite
 - 10 years with Oracle Applications
- Mark C. Clark, Senior Partner , O2Works
 - 18 years with Oracle Applications
 - Upgrade team leader – O2Works
 - OAUG Volunteer, NCOAUG, SCOUG
 - Working with Oracle Applications since Product Launch

Audience survey

- Role
 - Technical – DBA
 - Technical – Developer
 - Project Manager
 - Business Process Owner
 - Super user
 - End user
- Application Release level
 - 10.7 >>> R12

Why Upgrade?

- Per Oracle, when there is compelling business reason to do so
 - New features and functionality to assist business
 - Change in business direction; keep IT aligned
 - Replace customizations and bolt ons with standard features
- Take advantage of Tech. stack improvements
- Obtain better support when patched current
- Be “Fusion ready”
- Stay “in” support

Application support

Release	GA Date	Premier Support Ends	Extended Support Ends	Sustaining Support Ends
11.0.3	May 1999	Feb 2007	Not Offered	Jan 2009
11.5.1 – 11.5.6		Jul 2006	Not Offered	Indefinite
11.5.7	May 2002	May 2007	Not Offered	Indefinite
11.5.8	Nov 2002	Nov 2007	Not Offered	Indefinite
11.5.9	Jun 2003	Jun 2008	Not Offered	Indefinite
11.5.10	Nov, 2004	Nov, 2010	Nov, 2013	Indefinite
R 12	Jan, 2007	Jan, 2012	Jan, 2015	Indefinite

** If below release 11.5.7, an upgrade would entail move to 11.5.10 CU2 before upgrading further.*

Application support

Premier Support – covers five years from the general availability date

• Provides maintenance and support of your Oracle Database, Oracle Fusion

Middleware, and Oracle Applications covering:

- Major product and technology releases
- Technical support
- Updates, fixes, security alerts, data fixes, and critical patch updates
- Tax, legal, and regulatory updates
- Upgrade scripts
- Certification with most new third-party products/versions
- Certification with most new Oracle products

Extended Support - an extra three years of support for specific Oracle releases for an additional fee.

Sustaining Support – With sustaining Support, you receive technical support, including access to online support tools, knowledge bases, and technical support experts. (Metalink and phone support)

Database & Fusion Middleware Support

Release	GA Date	Premier Support Ends	Extended Support Ends	Sustaining Support Ends
DB 9.2	Jul, 2002	Jul, 2007	Jul, 2010	Indefinite
DB 10.1	Jan, 2004	Jan, 2009	Jan, 2012	Indefinite
DB 10.2	Jul, 2005	Jul, 2010	Jul, 2013	Indefinite
DB 11.1	Aug, 2007	Aug, 2012	Aug, 2015	Indefinite
Fusion	GA Date	Premier	Extended	Sustaining
<i>9iAS R2 9.0.2</i>	Apr, 2002	Jul, 2005	Not Offered	Jul, 2008
<i>9iAS R2 9.0.3</i>	Oct, 2002	Jul, 2005	Not Offered	Jul, 2008
<i>10g 9.0.4</i>	Dec, 2003	Dec, 2006	Dec, 2008	Dec, 2009
<i>10gR2</i>	Jan – Oct, 2005	Dec, 2009	Dec, 2011	Indefinite
<i>10gR3</i>	Jan – Oct, 2005	Dec, 2009	Dec, 2011	Indefinite

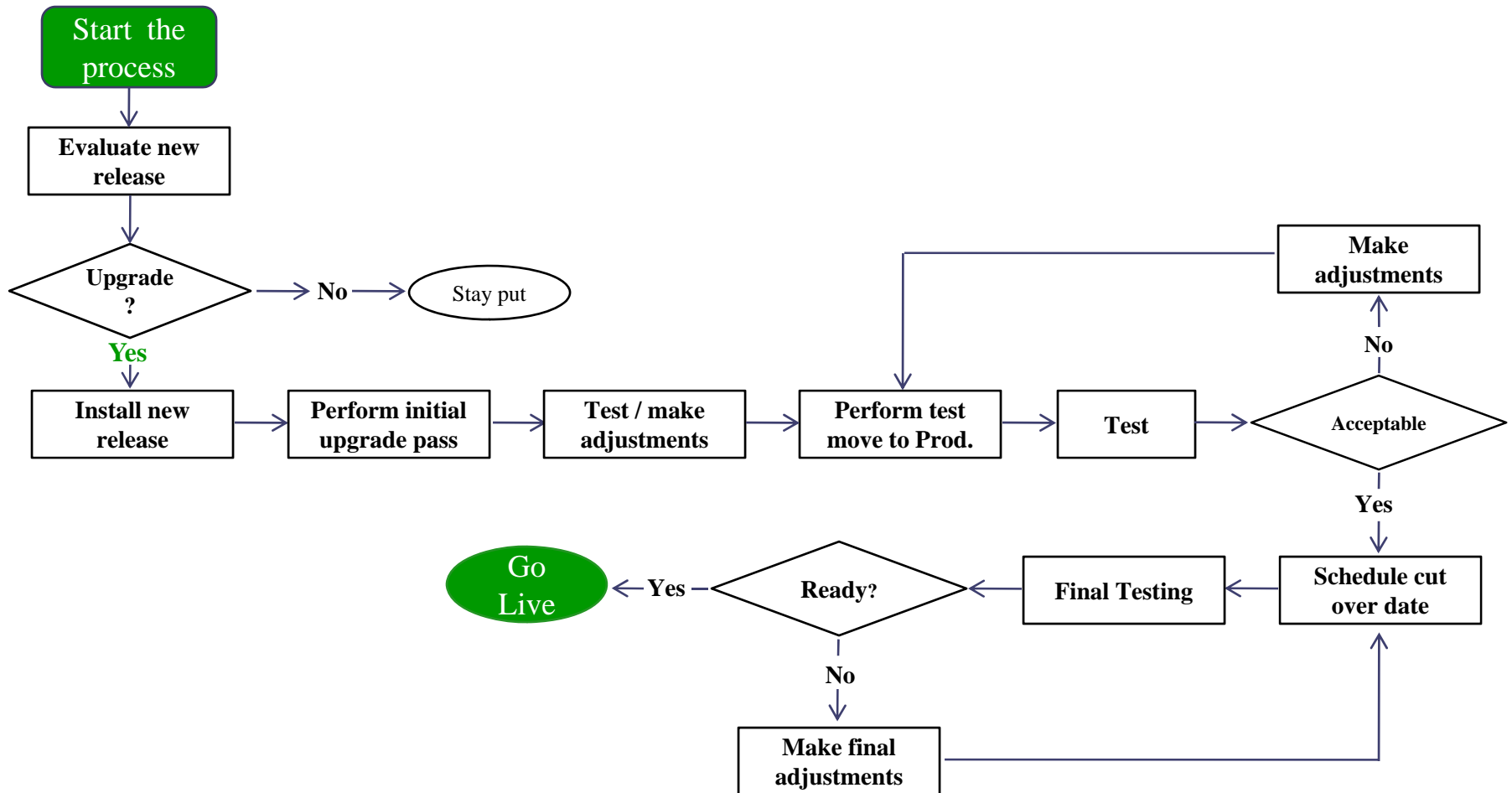
The Challenges - Technology

- Potential impact to existing production operations
 - Customizations, extensions, modifications, interfaces
 - 3rd party bolt-ons
 - Changes to standard functionality
- Sometimes things don't always work the first time
- Other components of the technology stack could change or require change
- Hardware / Infrastructure may be inadequate
- Downtime window could be prohibitive
- Bad data / lots of it

The Challenges - Resources

- Executive sponsorship
- Not enough staff to handle the project and day to day business as well as support
- Hardware Environments
- Training capacity
 - Resources & skills
 - Tools
 - Understanding of new features / functionality
- Testing
 - Knowledgeable testers
 - Relevant scripts

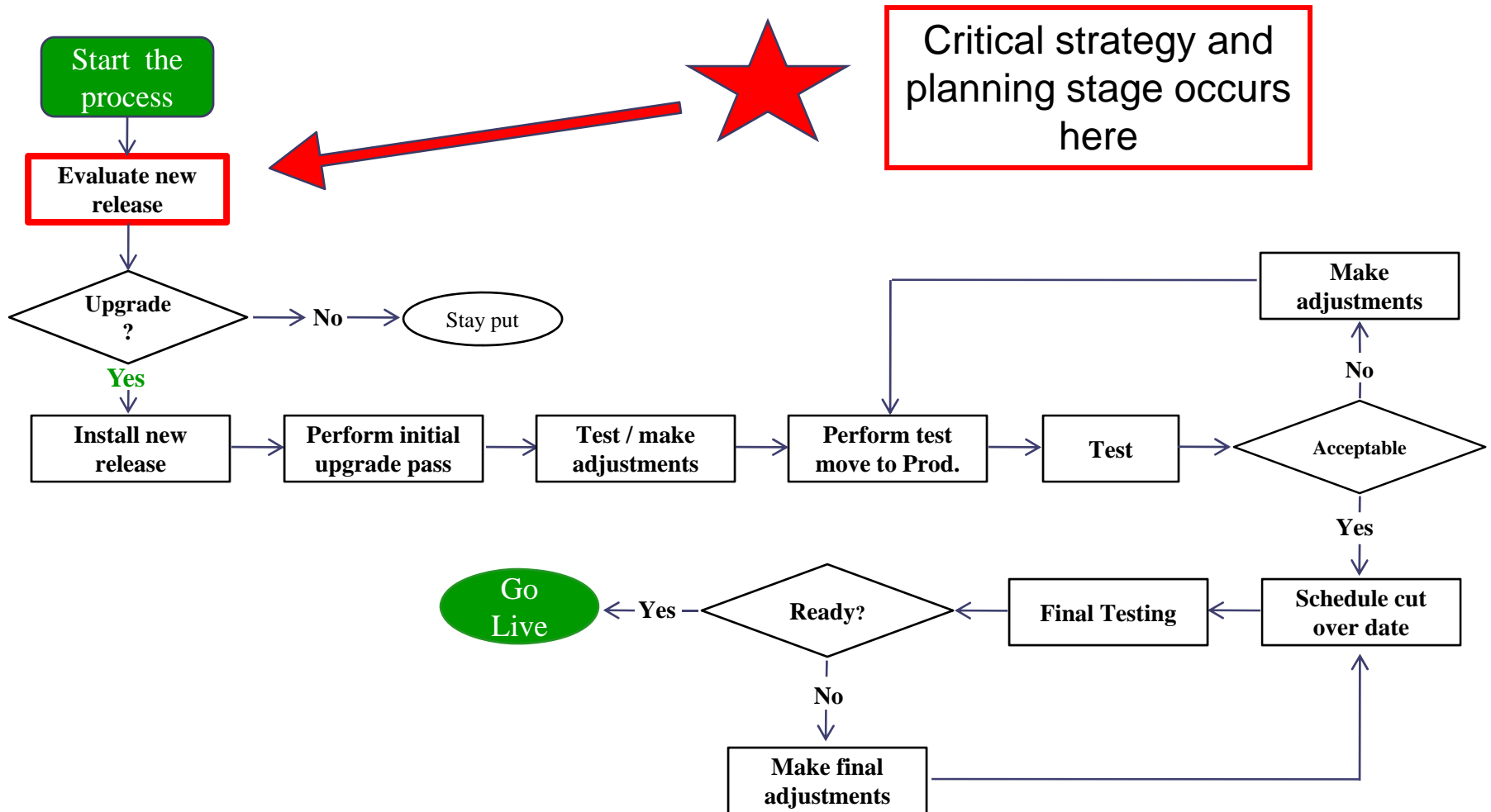
Typical Upgrade Flow



Upgrade Type

- **Technical upgrade only**
 - Focus on the tech stack
 - Lead by DBA / Tech team
 - Functional impact = testing and potentially training
 - Less expensive option
- **Full Business-led Upgrade**
 - Aligned with Business objectives
 - Inclusive, wide-ranging project across IT and Business
 - Requires more Executive Sponsorship
 - Investment in the IT / Business needs

Upgrade Flow – Key step



Upgrade Planning

Planning process needs to be comprehensive and inclusive of Business alignment and technical aspects

- Areas to evaluate include:
 - Upgrade extent
 - Business alignment
 - Hardware / platform / network capacity
 - Human resource availability – who and when
 - Training capacity and tools
 - Application support
 - Testing strategy and experience
 - Oracle product strategy
 - Project planning and management capacity

How to Ensure Success - Build a Repeatable Process

- Secure - Active Executive sponsorship and support
- Communicate – Transparent reporting on Progress
- Gather - Proper Materials
- Recruit - The Right Team Members
- Organize - Create and Update Critical documents
- Analyze and Plan - **Iterative Method**
- Execute -A Serious and Dedicated Testing Process
- Experience - Have a leader , bring back the vets
- **Tip - Archive work from previous iteration**

Secure Executive Sponsorship

- Who is the 800 lb. Gorilla?
 - High visibility buy-in
 - Support – active is better
 - When you really have to have a decision...
 - Helps control scope creep
- Does the project have legs?
 - aligned to the current business objectives
 - Strategic
 - return on investment

Communication

- Have a plan
 - Understand the frequency
 - By what method / means
- Know your audience
 - What are they interested in
 - Share relevant knowledge
- Set the tone
 - Be transparent
 - Positive
 - Recognize the value
 - Focus on what upgrade will provide to business

Gather Proper Materials

- From Metalink:
 - Release Content Documents for all Releases between where you are and where you want to be.
 - Latest *Implementation* guides for each module in production or moving to production
 - Latest *User* guides each module in Production or moving to production
 - Passwords and Access for whole team
 - Upgrade Guides

Proper Materials (cont.)

- List of Customizations and Extensions
 - Include all reports, forms, views, extracts, triggers, etc
 - List of custom reports (in all forms)
 - Interfaces
 - Workflow/Account Generator Definitions
 - Oracle supported extensions
 - Anything that touches Oracle that didn't come shipped from Oracle Corporation
 - Disconnected Spreadsheet (for OIE)
- Detailed design documents for all of above
- Be prepared for some “unknown” customizations

Proper Materials – Tools

- Library of Test Cases
 - Detailed test scripts
 - Include and use cases from past 11i Implementation or upgrades
 - Be prepared to add some test cases for new features or functionality
 - Modify test cases to reflect new or changed functionality
 - Make sure your test cases have specifics about test data and expected results
 - Check them back in to the library for next time

Proper Materials - Hardware

- Hardware, Software, and Network
 - Space for Test, Dev, Training Environments
 - Cloning skills
 - Scale-able instance strategy
 - Adequate high speed storage / recovery capabilities
 - Shared Project Folder or Space
 - Mac and PC if necessary
 - Ability for Oracle Support Access if Necessary (ODC or Net meeting)
 - Adequate network bandwidth / throughput
 - Remote access via secure VPN

Proper Materials – Hardware (cont.)

Definition of Current State of Production

- All components of the tech stack
 - Browser Version
 - Database
 - App server
 - Discoverer
 - Self Service Framework
 - Approvals Manager
 - Desktop OS
 - Version of ADI
 - Version on tools

Extended Team

Management / Executive Sponsor

Project Manager

Technical Lead	Business Analyst Fin. Apps	Business Analyst SC & Other	Trainer
DBA / Sys. Admin	Developer / Analyst	Business Process Owners	Super Users

Help Desk / Network Support

End Users / Testers

Team Members and Skills - Technical

- DBA(s) and Duties
 - To review Patching instructions, current state and prerequisites
 - Create test environment
 - Perform initial timings for patch application
 - To apply Patches for the Patch
 - Creation of Testing Environments
 - Incremental Backups
 - Production Cutover

Team Members and Skills – Tech (cont.)

- Technical lead
 - Develop technical plan
 - Review architecture
 - Schedule development work
 - Assess technical training needs
- Developer Analysts
 - Review customizations, extensions, interfaces
 - Work with functional resources to reconstruct necessary CEMLI's
 - Modify / update /remove CEMLI's
 - Develop and test code

Team Members and Skills – Tech (cont.)

- Network Specialists
 - Troubleshoot, and resolve any network bandwidth issues
 - Push out new versions of any necessary client software
 - Participate in load testing sessions
 - Provide remote Access for non-employee personnel
- Help Desk Personnel
 - Assist with Testing New Features
 - Help create a FAQ list for users
 - Update Account and Description

Team Members and Skills

- Project Manager / Team Leader
 - Construct Initial Project Plan and Budget
 - Obtain Necessary Materials
 - Recruit, Build and Manage Project team
 - Develop and Administer Communication Plan
 - Log, Escalate, and report on Issues and Risks
 - Develop Cutover Plan
 - Manage Adjustments to the Plan
 - Drive the Development of Master Impact List

Team Members and Skills – Functional

- Super Users (Functional)
 - Review RCDs for new features and changes
 - Review draft of Master Impact List
 - Input to and Execution of Test Cases and Test Scripts
 - Go to Person for knowledge of New Functionality
 - Develop and Deploy New Features Training and Documentation
 - Interact with end users for module to gain understanding of issues and needs

Team Members and Skills – Functional

- Trainers
 - Assist Business Process Owners and Super Users develop new training materials covering new features
 - Update training material for new users
 - Develop training for new features
- Additional Optional Resources
 - Oracle Support Representative
 - Internal or Outside Consultants
 - Documentation Specialists

Tip – Approach this like a cross functional project

Organize – Create & Update Critical Documents

Identify and Pull together key information

Get prepared for your analysis

Two Critical Documents

Master Checklist – Build a Master list for the upgrade and list every step.

TIP: Download the Upgrade Wizard to a spreadsheet. Capture timings for pre, during, and post patching. LIST and Assign EVERYTHING.

Master Impact List – Complete full listing of all potential changes that should require investigation or retesting - Drives new features use and all testing – Standard Oracle and Customers create impacts

Master Impact List

- Some Examples:
 - 3rd Party Check Printing System may need to be retested
 - Custom Form may need to have customization reapplied to standard Oracle form
 - Account Generator changes might get overwritten, and it may be necessary to reapply changes
 - New Report available as standard functionality, we may want to review as a potential business solution
 - Standard Interface may have new parameters, may need to resubmit for recurring submission (scheduling)

Example of Master Impact List

Master Impact Analysis - Initial version 1/11/04

Updated -
1/19/2004



Item	Module Impact Description	Classification	Status Assigned (N/A)	Back?	Ranking (U,M,L)	Notes
PO						
	Support for Vendor Managed Inventory	Optional		11.5.0		
	Automate sourcing instrument using blanket agreement approval	Optional		11.5.0		
	Enhanced Requisition Modification Capabilities	Mandatory		11.5.0		
	Enhancements to E-mail PO Integration with Oracle Sourcing	Mandatory		11.5.0		e-mails can be sent in preferred language of supplier
	Enhancements to Procurement of Configured Items	Optional		11.5.0		purchase configured assemblies
	Global Purchasing Agreements	Optional		11.5.0		
	Consigned Inventory	Optional		11.5.0		Supplier portal is used for online visibility to the consigned stock quantities
	Renegotiable Blanket Agreements in Oracle Sourcing	Optional		11.5.0		
	Pricing Improvements	Optional		11.5.0		requires use of Blanket Agreements
	Receiving Improvements	Mandatory		11.5.0		
	Currency and Contract Price Terminated POs	Optional		11.5.0		
	Outbound XML Purchase Order Improvements	Optional		11.5.0		
	API Additions - PO Cancel and PO Change	Optional		11.5.0		
	PO Approval Workflow	Workflow		Current		
	PO Approval Tolerances	Workflow		Current		modified s/q package so full re-approval wouldn't be triggered on minor changes
ENG						
	"Transfer to Mfg" & "Copy to Mfg" processes integrated with SCC	Mandatory		11.5.0		New buttons on form
WIP						
	Concomitant business impacts to closed orders	Optional		11.5.0		
	Lead Time calculation enhancement	Optional		11.5.0		
	Support for additional pick methodologies	Optional		11.5.0		
	Enhanced warnings when completing, canceling or closing jobs	Mandatory		11.5.0		
	Additional data choices on Closed Jobs SRS	Mandatory		11.5.0		
	Finite scheduler modifications	Optional		11.5.0		recognizes simultaneous resources
SCM						
	On-Site Structured Item Worksheet with L data entry enabled folder (Items)	Mandatory		11.5.0		
	New Item Attributes	Mandatory		11.5.0		
	Category Grants (Items)	Optional		11.5.0		
	Enhancements to Item Relationships	Optional		11.5.0		
	"Transfer to Mfg" & "Copy to Mfg" processes integrated with SCC	Mandatory		11.5.0		

Analyze and Plan – Iterative Method

Analyze, Plan, Estimate, Repeat

*Use as a Tool to Build your Project
Plan*

The Method – First Iteration

- Check for new Materials from Metalink , Alerts, etc
- Master Checklist - Read and Document each required Step – some functional some technical resources required – Some are pre-requisites, some are post patching steps
- Get Clarification on any unclear steps –Upgrade manual or Patch– internally or with Oracle Support – missed steps are costly

The Method – First Iteration (cont.)

- DBA team creates the test environment
- Refine Master Checklist – Timings for Pre-Requisite Steps – DBA Portion
- DBA applies patches – gather good timing estimates (challenge in test environment)
- Gather timing on additional patching, Gather Statistics, post patching, etc

The Method – First Iteration (cont.)

- Begin Assembly of Master Impact List - (could be parallel with previous steps)
 - List of Customizations and Extensions
 - List of “configurable” items like Workflow
 - Review cumulative RCD documents for functionality changes, even bug fixes
 - Bolt-on products and interfaces
 - Mandatory and Optional New Features

Gives us a robust list of potential changes or points of failure – Drives Testing Effort

The Method – First Iteration (cont.)

- Meet with Technical and Functional team to refine Master Impact list
 - Add missed impacts
 - Remove unnecessary impacts
 - Prioritize – High to Low
- **Critical** - Tie Test cases from Library to items left on Master Impact List
- Create New Test Cases and Scripts or update to include new features and functionality

The Method – First Iteration (cont.)

- Assign Technical Impacts to developer(s) for Research
 - Interfaces, Extensions, etc
 - Research table and other changes
 - Get estimate of rework time if necessary
 - Refer back to design documents
 - Ensure it is still used, still a requirement
 - Optimizer Changes - Performance
- Assign test cases to Testing team members for Execution – Have test cases for all items on Master Impact List

The Method – First Iteration (cont.)

- Issue Resolution and Verification of Functionality
- Finalize “Footprint” of new features
- Develop Re-Training Materials and Communication Plan if necessary
- **Plan and Execute Additional Iterations – More the Better - 3 minimum recommendation – include a dress rehearsal for “time”**
- Plan Production Cutover
- Communication of Cutover Plan – Know your time to perform tasks!

The Method (cont.)

- Cutover
- Post Cutover Support
- Update and File Library of Test Cases and Scripts for future use
- Archive:
 - Master Impact List
 - Materials for next upgrade
 - Redevelopment timings, etc

Testing Process – Special note

- Bring back your vets – they are better and faster
- Know expected results – Use real Data
- Assign individual test cases
- Have a procedure or systems for issue logging/resolution
- Screen Shots – Proof
- Signoff – Accountability
- Testing Tools can provide additional value ...
BUT, they cannot replace user involvement

Some Suggestions based on Experience

- Get REAL timings – Everyone Fudges a bit
- Insist on Upper Management approval of user involvement for testing
- Invest in a Library of *applicable Test Cases*
- Watch Email Notifications during testing
- Plan for environmental issues due to cloning
- Don't underestimate 3rd party bolt-on impacts

Suggestions based on Experience (cont.)

- Re-Use of Team members speeds successive iterations
 - Concept of Upgrade Tiger team
 - Plan can be re-used
- Scrub Oracle Docs on New features before giving to End users – make easy and less scary
- Communicate the complexities to management and team members each iteration
- Systems for managing testing provide value but can be expensive

For More Information

- Metalink
- Appsnet – Good Summary on New Features
- <http://www.oracle.com/appsnet/technology/upgrade/docs/features.html>
- Online Help – (New Features Section)
- Reference Manuals
- Blogs: Stephen Chan: <http://blogs.oracle.com/schan/>
- User Groups / Conferences

Slides Available

O2Works – Knowledge Base:

www.o2works.com

Art Dowd
Consulting Director
214-725-2828

adowd@o2works.com

O2Works LLC

Dallas – Chicago - Denver

Mark Clark
Sr. Partner
972-466-2260

mclark@o2works.com

O2Works LLC

Dallas – Chicago - Denver