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PeopleSoft Enterprise Upgrades: Technical Road Map to Success

Presented by Diane West
PeopleSoft Enterprise Upgrade Development and Test



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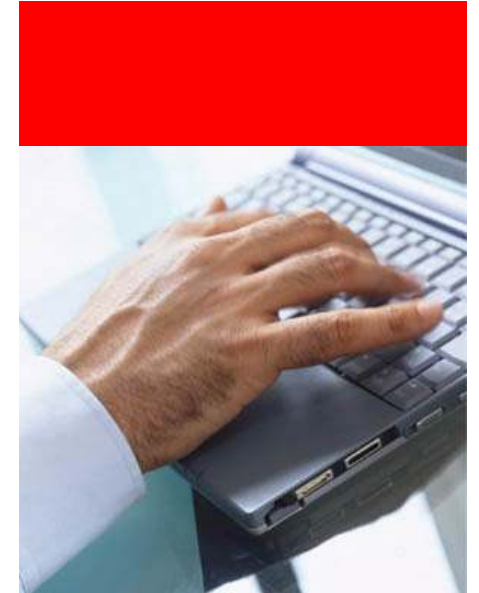
Superior Ownership Experience
Applications Unlimited

Enterprise 9.0
PeopleTools 8.48/8.49

PeopleSoft Change Assistant
Oracle User Productivity Kit
Upgrade *Plus* Paths
Application Designer Compare Tools

Agenda

- Tools and Enhancements
- Upgrade Process Overview
- Testing Strategies
- Summary
- Q&A
- Appendix



Tools and Enhancements

What is an Enterprise Upgrade?

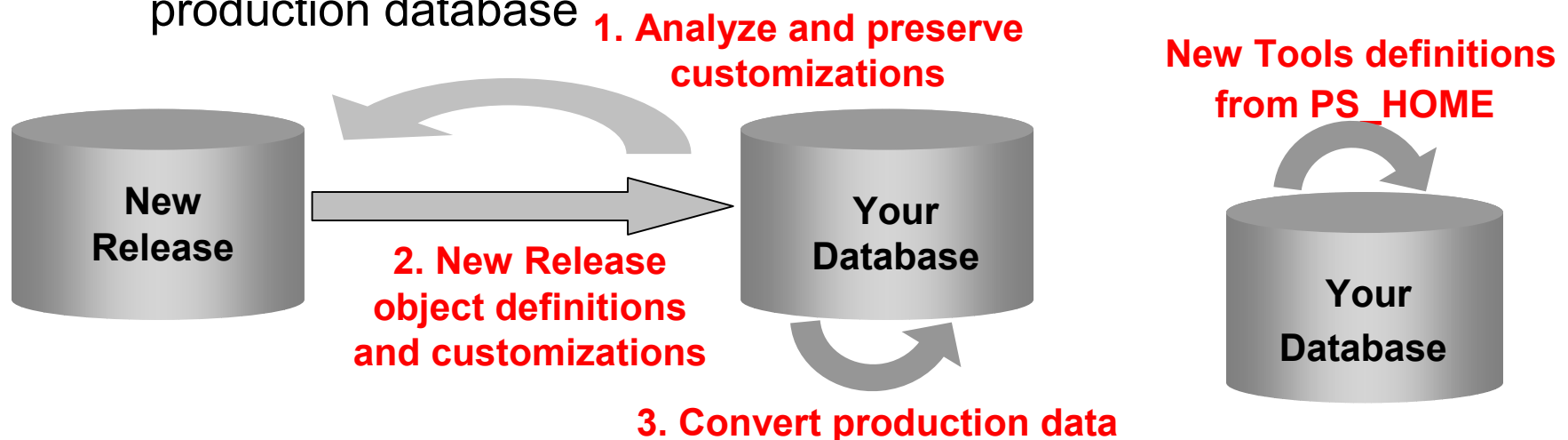
- The process of bringing the existing Enterprise production database up to the new release

Application Upgrade

- Analyze and migrate new definitions and convert transaction data on your production database

Tools Only Upgrade

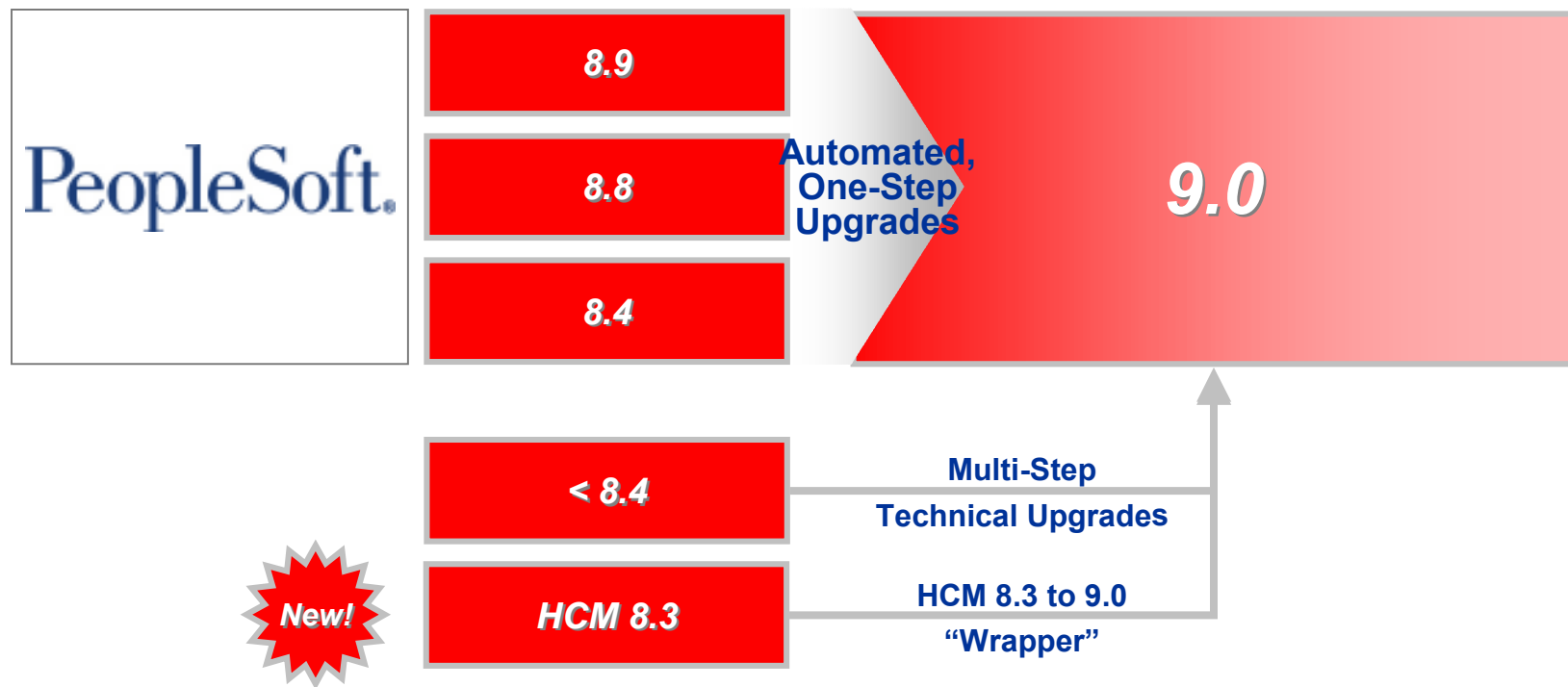
- Apply new Tools to your production database





Tools and Enhancements

PeopleSoft 9.0 Upgrade Options



Upgrade Scripts Available on Customer Connection



Tools and Enhancements

Two-Step Upgrade Guidance

- HR 8.3 to 9 two-step upgrade
 - Streamlined instructions white paper - July 2007
 - Change Assistant template and upgrade guide - August 2007
 - Provides centralized control and productivity gains
- Generic Enterprise PeopleSoft 9.0 two-step upgrade
 - Streamlined instructions white paper - November 2007
 - New terminology to facilitate project discussions
 - *Transition Upgrade*, e.g. FSCM 7.5 to 8.8sp1
 - *Destination Upgrade*, e.g. FSCM 8.8sp1 to 9.0



Tools and Enhancements

9.0 Upgrade *Plus* Path

What is it?

- Certified upgrade paths for all previously certified FROM releases to HCM 9.0, CRM 9.0 and FSCM 9.0 Maintenance Pack 5
- Maintenance Pack and current Required for Upgrade fixes are bundled seamlessly into a Change Assistant template providing a highly automated and more current direct upgrade path

Why use it?

- Provides a direct upgrade path to a more fully patched destination release (9.0 MP 5) limiting critical maintenance necessary to apply prior to Go-Live
- Includes all Required for Upgrade fixes posted as per stated date - greatly reducing manual fix application effort

Tools and Enhancements

Evaluate > Plan > Execute

PeopleSoft Home

Implement, Optimize, and Upgrade » Upgrade Guide » PeopleSoft Enterprise Upgrade Resources

Implement, Optimize + Upgrade

- Implementation Guide
- Optimization Guide
- Upgrade Guide

Updates + Fixes

Support

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Products + Services

Search

→ SEARCH

Additional Search Engines:

- » Knowledge Browser
- » SARs
- » Update Center
- » Course Catalog

[Improve search results](#) | [Site index](#)

PeopleSoft Enterprise Upgrade Resources

When considering an upgrade, it's important to ensure you have the resources necessary to help drive your business decision. These pages provide a consolidated list of information that can help you get the insight you need when considering your upgrade project.

<p>Evaluate</p> <p>Click for resources to evaluate your upgrade opportunity.</p>	→	<p>Plan</p> <p>Click for resources to plan your upgrade project.</p>	→	<p>Execute</p> <p>Click for resources to execute your upgrade project.</p>
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Evaluate - This section covers resources available to help you research the value available in a new release. These are under the *Why Upgrade* section and include Release Notes, details on functional and technical enhancements, and related benefits. In addition, there is an *Upgrade Strategies* section with information about creating and validating your strategy, including picking which release may be right for your organization.

Plan - This section contains resources to help you plan your upgrade. Key assets include a presentation delivered at OpenWorld on Evaluating and Planning Your PeopleSoft Upgrade, a site devoted to best practices, and technical information for planning your sizing and platform strategy.

Execute - This section has resources for successfully executing your upgrade. For major product areas, it covers Getting Started, Hardware and Software Requirements, Installation, and Upgrade Documentation.



Tools and Enhancements

Change Assistant Automation

- Change Assistant (CA) replaces Upgrade Assistant as of PT8.46
 - Robust, command-line driven automation for application upgrade and PeopleTools upgrade steps
 - Provides end-to-end upgrade dashboard and centralized process control
- Upgrade template contains steps for one upgrade path
 - CA template steps correspond to steps in upgrade guide
 - CA job filters template steps on user-specified settings
 - Upgrade pass type, initial or move to production
 - Database platform, products and languages installed

Tools and Enhancements

Change Assistant Automation

Progress Summary

Completed

Auto Run

Manual Stop

The screenshot shows the Oracle Change Assistant window. The left pane displays a tree view of tasks. The right pane shows a progress summary table and details for the current task.

Description	Start Time	End Time
Run the Create Tables Script	Mar 11, 2005 10:41:15 ...	Mar 11, 2005 10:4...

Run the Create Tables Script

This step runs the SQL script you generated to create all the records of the type Table . This database. The script name for your upgrade path is:

ALLTABS_CRTTBL.SQL

Properties

Database Orientation	Initial or MTP	Products

Upgrade Guide HTML



Tools and Enhancements

Comparing Customizations

- Upgrades to 9.0 releases and higher
 - Database compare
 - From Copy of Production to old release DEMO
 - Resulting project contains only customizations
 - Project compare and copy
 - From Copy of Production to new release DEMO
 - Streamlined compare report analysis
 - Quickly preserve customizations on new release DEMO
 - Data Mover Export/Import of customized metadata
 - Faster than Application Designer copy process
 - Export from new release DEMO, import into Copy of Production



Tools and Enhancements

Analyzing Customizations

- 9.0 Upgrades leverage PeopleTools 8.48 enhancements:
 - Composite Compare – 3 Way
 - Page Compare...and Merge!
 - Batch Component Compare
 - Compare and merge of Text definitions and External Text files
- Same for any application upgrade covered by Extended Support!



Tools and Enhancements

User Productivity Kit (UPK)

- Test scripts and Test Director inputs
 - Reduce QA requirement to build scripts from scratch
 - e.g., 85 vanilla test scripts delivered for Billing 9.0
- Training modules
 - Reduce training development time
 - No need to install new release training environment
- Business process documents
 - Supplement Enterprise Release Notes review
 - Reduce dependence on user community knowledge
- Download from Oracle Technology Network (OTN)
- Licensing available for Enterprise 8.9 and 9.0 content

Tools and Enhancements

User Productivity Kit (UPK)





CHALLENGES

- Gallaudet University upgraded from Oracle's client/server-based PeopleSoft 7.5
- New PeopleSoft release brought new processes and capabilities
- Needed a training tool to enable its small IT team to produce training and reference materials quickly and cost-effectively.



CAPABILITIES

- UPK captures user actions in Enterprise PeopleSoft releases 
- Enterprise PeopleSoft vanilla content licensed and delivered on OTN 
- From one UPK capture, quick, simple publication and broadcast of diverse content (training modules, test scripts, business process documents)

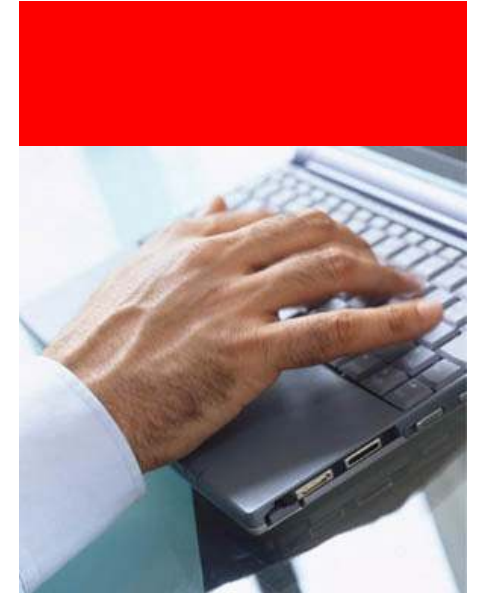


VALUE

- Developed first web-based training lesson less than a week after receiving UPK
- Time to develop one hour of training content cut from 50 to 4 hours
- Cost-effectively train users on the new release capabilities
- Develop training and reference material with a single staff member

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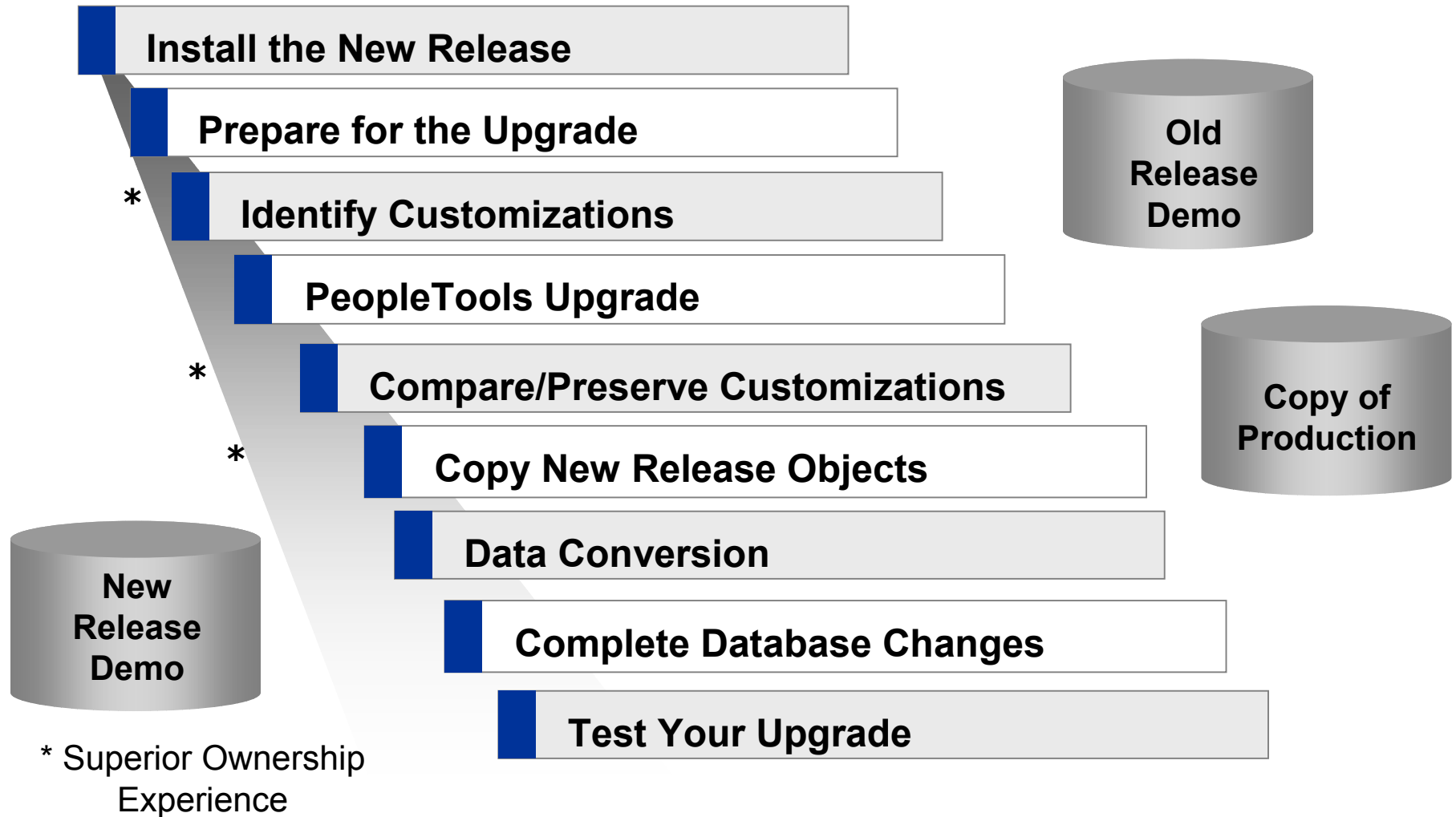


Upgrade Process Overview

What You Need to Start

- New release - available prior to the upgrade files
 - Demo database and code line
- Upgrade files
 - Upgrade pages on Customer Connection
 - Demo to Demo compare reports
 - Getting Started Guide
 - Upgrade documentation and Change Assistant templates
 - Data conversion Application Engine code and upgrade scripts
 - Objects for reports and functional analysis on the old release
- Required for Upgrade fixes
 - From Customer Connection, apply via Update Gateway and Change Assistant OR download via Updates + Fixes

Upgrade Process Overview



Upgrade Process Overview

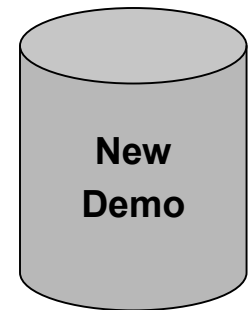
Install the New Release

UPG Technical

- Install new application release DEMO code line and database
- Install upgrade scripts, template and documentation from Customer Connection
- Install Change Assistant
 - Create a Change Assistant job using the delivered upgrade template for your path
- *Apply required for upgrade fixes only!*
 - *Product maintenance can break upgrade code*

Functional

- Understand and analyze the new release



10% automated

Upgrade Process Overview

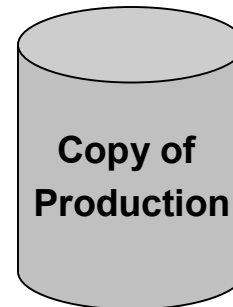
Prepare for the Upgrade

UPG Technical

- Apply upgrade-specific release objects
- Run system audits to identify integrity issues

Functional

- Run application reports to ensure consistency of data
- Perform functional analysis and pre-upgrade transaction processing



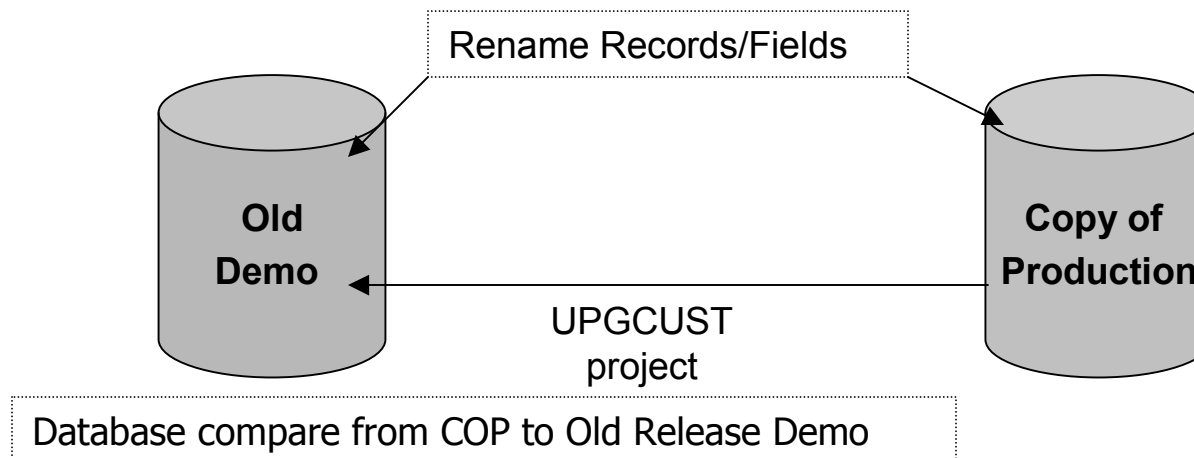
10% automated

Upgrade Process Overview

Identify Customizations

UPG Technical

- Run Rename scripts for Records and Fields
- Run a full database compare between Copy of Production and old release Demo database
 - Resultant project (UPGCUST) contains customized objects only



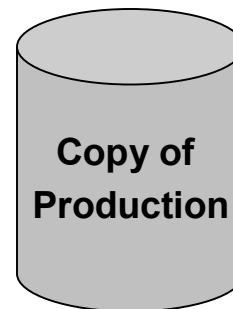
100% automated

Upgrade Process Overview

PeopleTools Upgrade

UPG Technical

- Upgrade Copy of Production database to new PeopleTools release
 - Upload new PeopleTools objects and system data
 - Convert PeopleTools data
 - Data type conversion on Oracle and MSS for 9.0
 - Integration Broker conversion



90% automated



Upgrade Process Overview

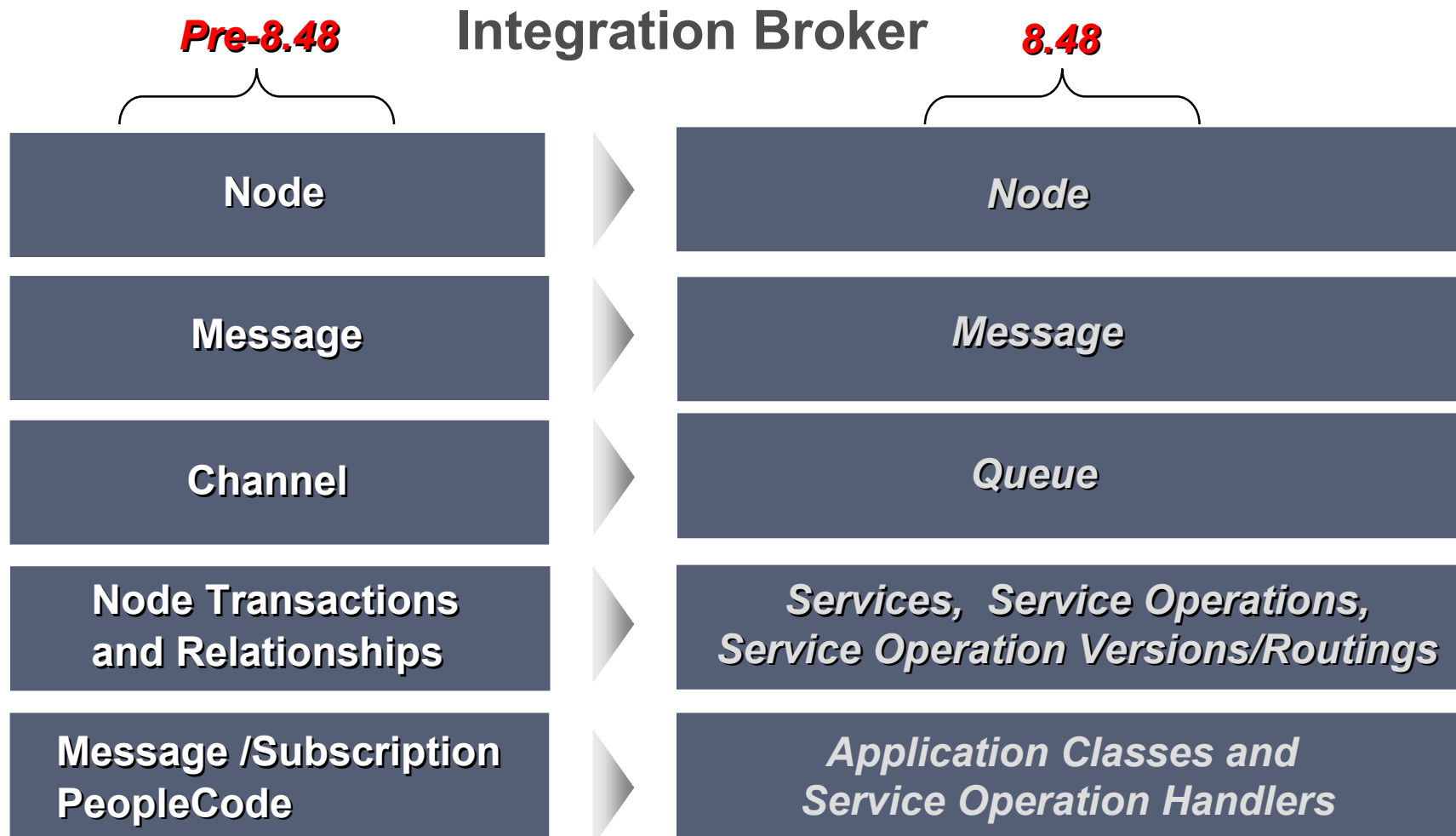
PeopleTools Upgrade

Only in Enterprise 9.0 and higher releases

- Data type conversion
- Oracle 9i and higher
 - Allow multiple LONG field type in a table
 - INSERT/SELECT type SQL and String Search is possible
- MS SQL Server 2005 and higher
 - Reduction in database size since padding blanks overhead is eliminated
 - Avoid deprecated data types

Upgrade Process Overview

PeopleTools Upgrade



Upgrade Process Overview

Compare/Preserve Customizations

UPG Technical

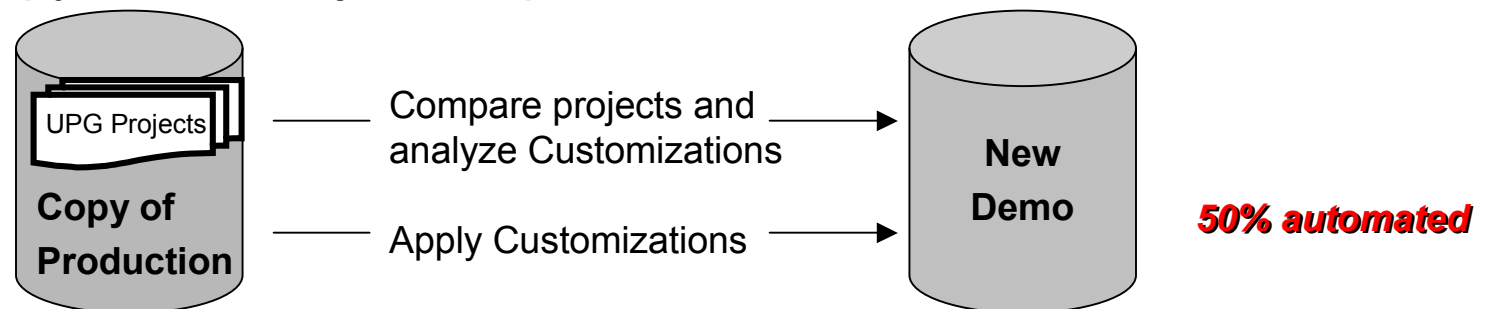
- Rename tables in COP database at the database level
- Compare objects in COP to new release Demo database
 - **UPGCUST** - project compare
 - **UPGCUSTIB** - database compare of Integration Broker objects

Technical & Functional

- Analyze compare reports for custom objects

UPG Technical

- Apply customizations to new Demo database
 - Copy custom objects to preserve them





Upgrade Process Overview

Compare/Preserve Customizations

- Comparison by Release is the default comparison option
- Vanilla Compare is the default orientation
- Object statuses are depicted in Application Designer and in upgrade compare reports

Same	Source and target definitions are identical; no differences were found
Absent	Object definition was not found on database
Changed	Object was modified by Oracle after the comparison release date
Unchanged	Object was not modified by Oracle since the comparison release date
*Changed	Object was modified by customer after the comparison release date
*Unchanged	Object was not modified by customer since the comparison release date

Upgrade Process Overview

Compare/Preserve Customizations

The new process uses Copy of Production as the source database and the Demo database as the target

Source Status	Target Status	Default Action
Same	Same	None
Any	Absent	Copy
Absent	(*)Changed or (*)Unchanged	Delete
Changed	(*)Changed or (*)Unchanged	Copy
Unchanged	(*)Changed or (*)Unchanged	Copy
Changed	()Changed or (*)Unchanged	Copy
Unchanged	()Changed or (*)Unchanged	Copy

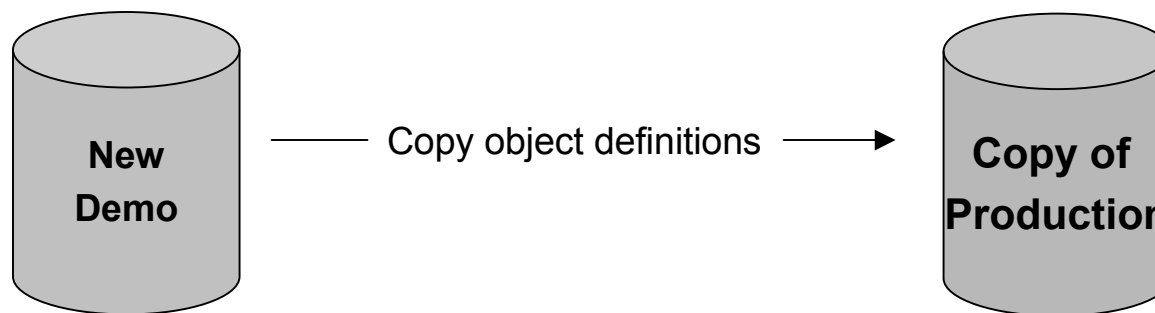
**Decide whether to take
 PeopleSoft
 Vanilla
 OR
 Keep
 Customizations**

Upgrade Process Overview

Copy New Release Objects

UPG Technical

- Migrate object definitions plus customizations from the new Demo to the Copy of Production
 - Data Mover scripts have replaced time consuming Application Designer copy
- Project copy non-comparable objects (UPGNONCOMP)
- Project copy Integration Broker objects (UPGIBCOPY)



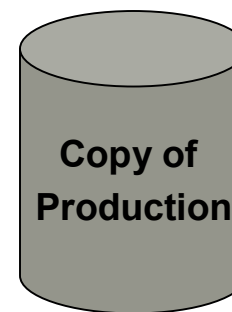
100% automated

Upgrade Process Overview

Data Conversion

UPG Technical

- Create new tables
- Alter tables without deletes
 - Database is in hybrid state – old columns still present
- Create indexes – errors expected
- Convert data with Application Engine programs
 - Programs are designed to be restartable
 - Groups can run concurrently



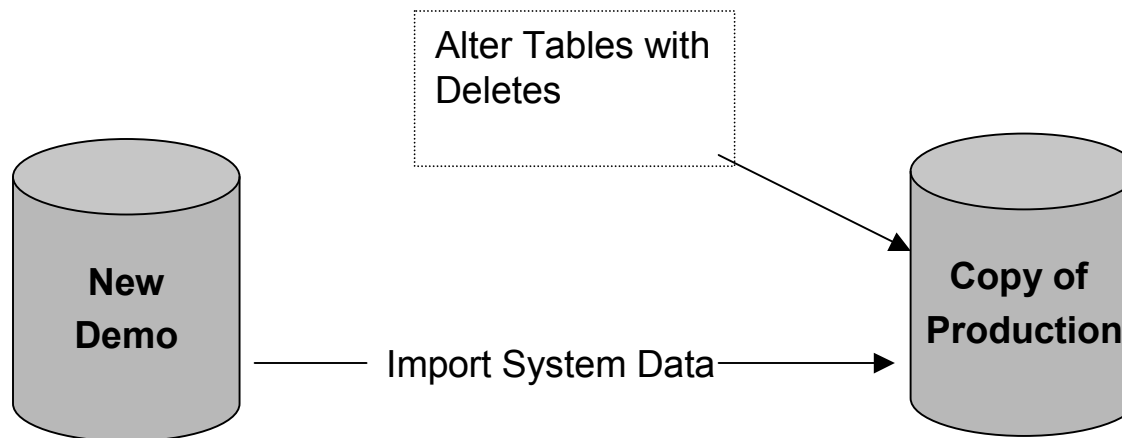
100% automated

Upgrade Process Overview

Complete Database Changes

UPG Technical

- Alter tables, deleting obsolete columns from the Copy of Production database
- Create views
- Create indexes again – resolve errors
- Import system data from new release Demo



80% automated

Upgrade Process Overview

Complete Database Changes

UPG Technical

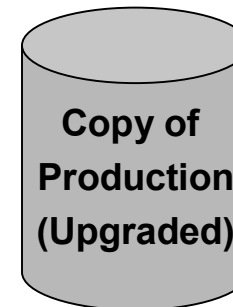
- Set up application/web server and portal
- Run final PeopleSoft audits

Technical

- Configure the new release
 - Re-apply customizations (if needed)

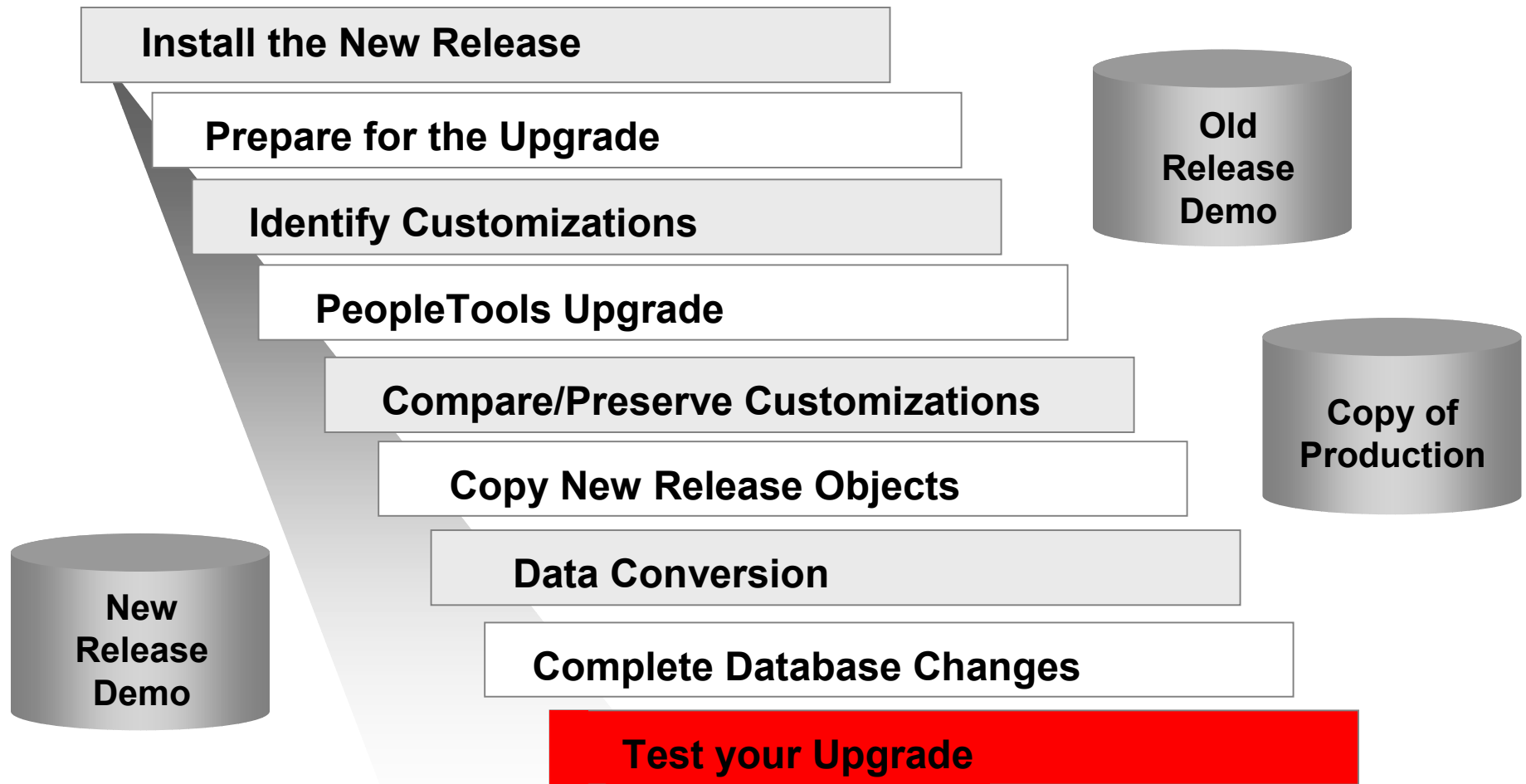
Functional

- Security needs to be updated at this time
- Some application features require steps to complete the upgrade



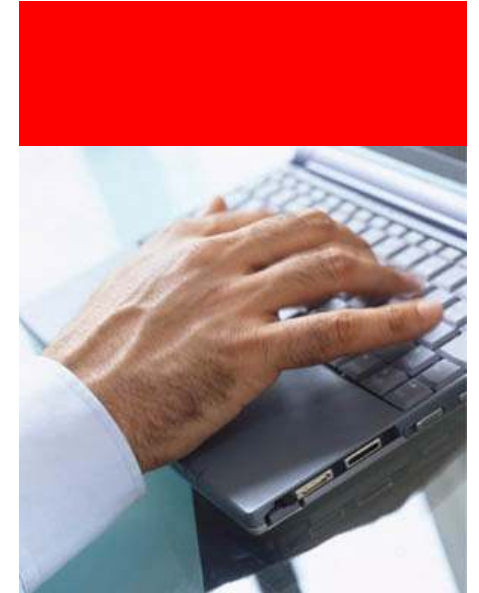
10% automated

Upgrade Process Overview



Agenda

- Tools and Enhancements
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- **Testing Strategies**
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Testing Strategies

- Move to Production (MTP)
- User Acceptance
- Other Test Considerations
 - Performance
 - Integration



Testing Strategies

Move to Production (MTP)

Initial Pass

- Typically done only once in the life cycle of an upgrade
- Most functional decisions and upgrade preparation activities
- Analyze, preserve and re-apply customizations
- Set up security
- Troubleshooting and performance tuning done here are key for time saving in MTP
- Freeze Tools objects

Move to Production

- Previously upgraded copy of production becomes the source database
- New copy of production becomes the target
- Greater degree of automation and shortcuts than in initial pass
- **Multiple “test” moves to production are completed before final**
- Goal is to minimize production outage



Testing Strategies

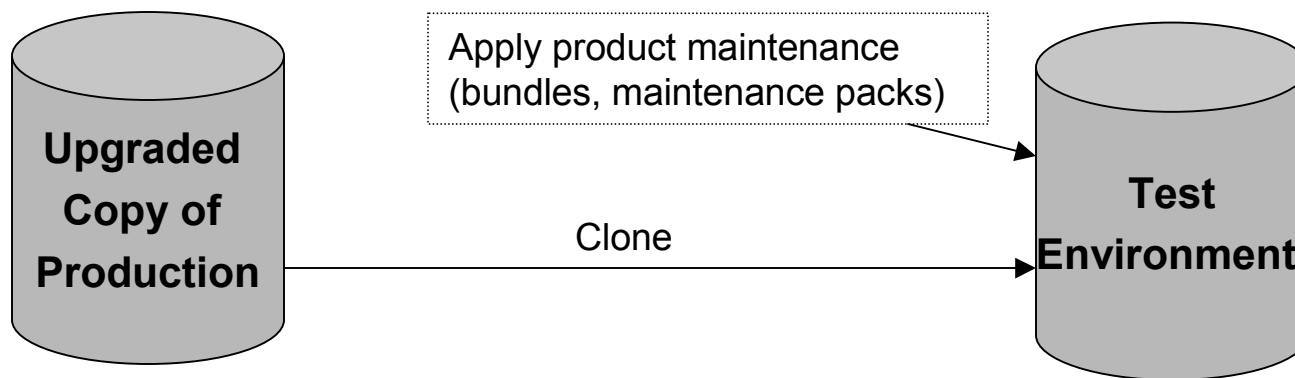
Move to Production (MTP)

- Test the move to production process **at least** twice before scheduling your production outage
- Eliminate or minimize bottlenecks
 - Resolve bad data in production, if possible
 - Run source export steps before critical path
 - Drop or alter indexes, if possible, before data conversion
 - Create and alter scripts
 - Run concurrently as generated
 - Partition generated scripts and run concurrently
 - Re-use tested scripts to avoid regenerating during final
 - Run data conversion groups concurrently, where allowed

Testing Strategies

User Acceptance

- Test after each upgrade pass
 - *Apply product maintenance to test environment **only!***
 - User Productivity Kit test scripts
 - QA can concentrate on testing the system
 - Less time spent authoring scripts
 - User Productivity Kit training modules
 - Quickly train testers and users without maintaining a separate new release environment





Testing Strategies

Other Test Considerations

- Performance Test
 - Integrated with user acceptance, or in parallel
 - Define performance success criteria
 - Do it early!
 - Results may require RDBMS patching and could then lead to additional test moves to production to minimize risk
- Integration Test (middleware, third party)
 - Define integration success criteria
 - Include test plan to cover Integration Broker delta in PeopleTools 8.48/8.49
 - Define which third party packages will be installed during user acceptance



Testing Strategies

Other Test Considerations

Customer Database Upgrade Program

Objective

- To identify and resolve upgrade performance issues related to customer data volume and composition.
 - Extends Superior Ownership Experience commitment

Benefit

- Tuned code and process improvements folded into certified upgrade paths

Participation

- Customer-initiated application
- Contact diane.west@oracle.com or your Oracle account executive
- Leave your business card with us after the session



Testing Strategies

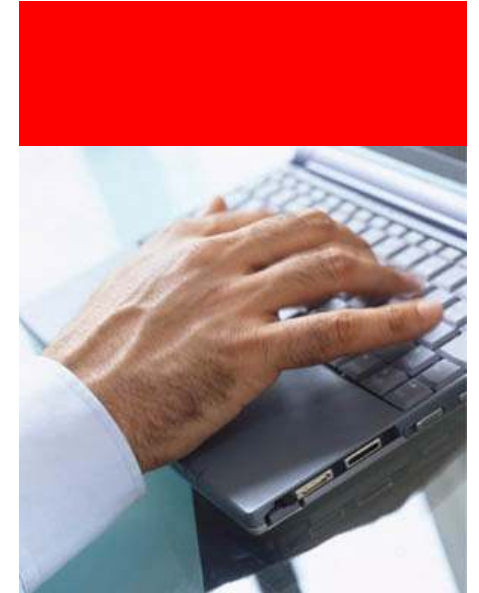
Other Test Considerations

Customer Database Upgrade Program

- Alter indexes, remove column being updated
- Drop indexes on tables with heavy processing
- Avoid full table scan on large table with small # of rows returned
- Create index on leading columns in WHERE clause
- Oracle-specific
 - Histograms - columns frequently used in WHERE clause with highly skewed data
 - Re-write of Correlated Query
 - Outer table has more Rows and is driving Inner Table
 - Leverage Temp Table & DoSelect %Select metasql
 - Row Chaining/Fragmentation – increase PCTFREE

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PeopleSoft Enterprise PeopleTools

Documentation and Curriculum

For more information about ...

Instructor-Led Training • UPK • Self-Study CDs • WebClasses
PeopleBooks • Release Notes • Cumulative Feature Overviews
Installation and Upgrade Guides • And more ...

Data sheet:

www.oracle.com/applications/peoplesoft-enterprise.html.

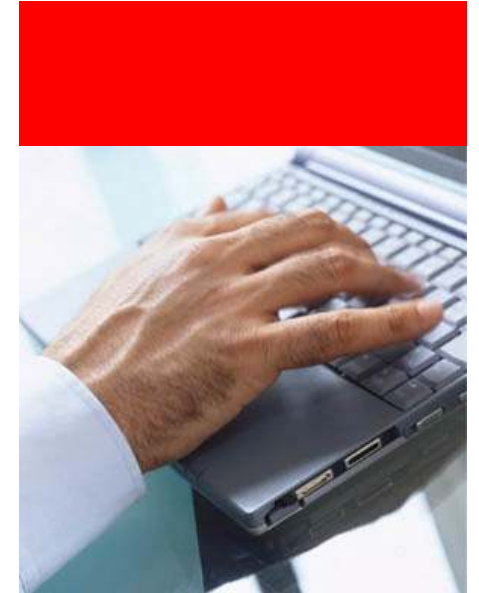
PeopleSoft Enterprise Information Development

Creating quality information solutions to help our customers succeed!

Contact us at psoft-infodev_us@oracle.com

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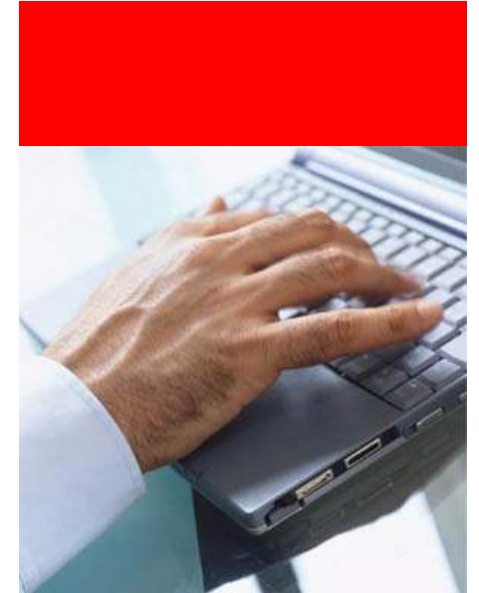




Q&A

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Appendix

Glossary

- Upgrade Resource Types:
 - UPG Technical : DBA, System Admin, Upgrader
 - Functional: Analyst, QA, End Users
 - Technical: Developer



For More Information

search.oracle.com

Upgrading Enterprise



or

oracle.com/applications/peoplesoft-enterprise.html



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