



“Two for the Price of One” Application Upgrade and Platform Migration (DB2/UDB → Oracle)

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Introduction

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Agenda

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- Introduction
- Project Overview
- Business Drivers
- Project Timeline
- Project Game Plan
- Platform Conversion Mechanics
- Issues Encountered
- Upcoming Projects
- Questions & Answers



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- Tallahassee, FL - 1851
- Current enrollment 39,136
- National High Magnetic Field Laboratory
- Birthplace of Anti-Cancer Drug Taxol



Project Overview

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Directives

- Application upgrade from PeopleSoft Financials 8.9 Maintenance Pack 5 to 9.0 Maintenance Pack 5
- Convert the underlying application database platform from DB2/UDB version 8.2 to Oracle 10.2.0.4

Constraints

- Must occur within a 6 month time window to avoid collisions with fiscal year end close (June) and calendar year end close for HR (December).
- Limited budget to bring in external resources to assist with the project
- Must use existing equipment to complete the project.



Business Drivers for the Project

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On the application side:

- Take advantage of delivered enhancements in the 9.0 release, specifically in Accounts Payable and Purchasing
- Unending desire to stay “pseudo” current on maintenance

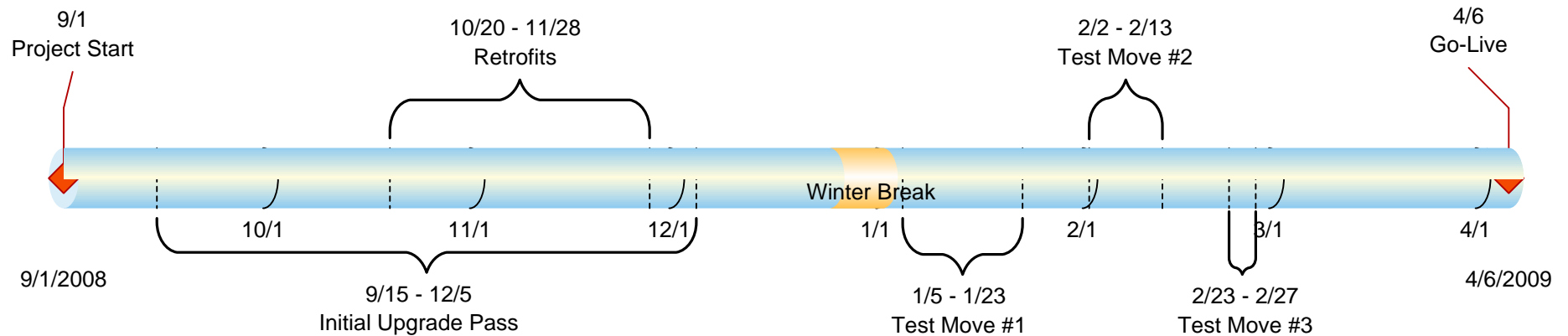
On the database side:

- Previously established fiscally attractive Oracle licensing agreement
- Strategic initiative within the central technology organization to consolidate relational database platforms.
- Shh.... I like Oracle better!



Project Timeline

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- Initial Upgrade Pass: 9/15 – 12/5
- Test Move #1: 1/5 – 1/23
- Test Move #2: 2/2 – 2/13
- Test Move #3: 2/23 – 2/27
- Go-Live: 4/6



Project Game Plan

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- Conduct Application upgrade on the DB2/UDB platform
 - Conservative Approach
- Conduct platform migration after the upgrade is fully complete
 - 9.0 DB2/UDB → 9.0 Oracle
- What was our platform conversion tool of choice...?
 - PeopleSoft Datamover of course



- Run as much in parallel as possible
- Custom SQR to build Datamover scripts
 - 40 export scripts
 - 10 shell scripts to run exports in parallel across 3 physical servers
- Custom Datamover scripts focused on application level data only (non-Tools tables)
- Exports complete in about 5 hours



- Taking care of the “Tools” related data
 - Run PeopleTools export script (mvprdexp.dms)
 - Run PeopleTools import script (mvprdimp.dms)
 - Run DDLORA.dms script
 - Drop all views and indexes
 - Create and build the Initial Audit Project
- Imports complete in about 6 hours
 - Used “replace_data *” instead of “import *”
 - 40 import scripts/10 shell scripts/3 physical servers



- “Wrap up” upgrade process on Oracle database platform
 - Run create index and create trigger scripts
 - Run createvw.dms script
 - Execute RUNSTATS on database tables/indexes
 - Configure the upgrade environment
 - Online configurations/FSU customizations
 - Security migration
 - Post-upgrade SQL's
 - Migrate any projects that were created after the “freeze”



Issues Encountered

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- Database Object Sizing
 - Difficult to predict sizing
 - DB2 360 GB
 - Oracle 164 GB
- Performance of the data mover scripts
 - Carefully order run of export/import scripts to avoid concentration in one tablespace.
 - Use “replace data *” instead of “import *”



Issues Encountered

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- Database syntax nuances
 - Some developers unfamiliar with Oracle
 - SYSDATE vs. CURRENT DATE
 - Date math
 - Use meta-SQL functions!!!
- Re-tooling DBA team for Oracle
- Duplicating the infrastructure to get realistic timings



What's Next for FSU?

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- Platform migration for our 9.0 HCM application
 - DB2/UDB → Oracle
- Implementation of Oracle RAC
- Expansion of our DataGuard Implementation
 - Intelligent Log Shipping
- Enterprise Identity Management
- Structured Integration using SOA (ESB/BPEL)



Questions & Answers

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THANK YOU!

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