



eBusiness Applications Change Management Automation

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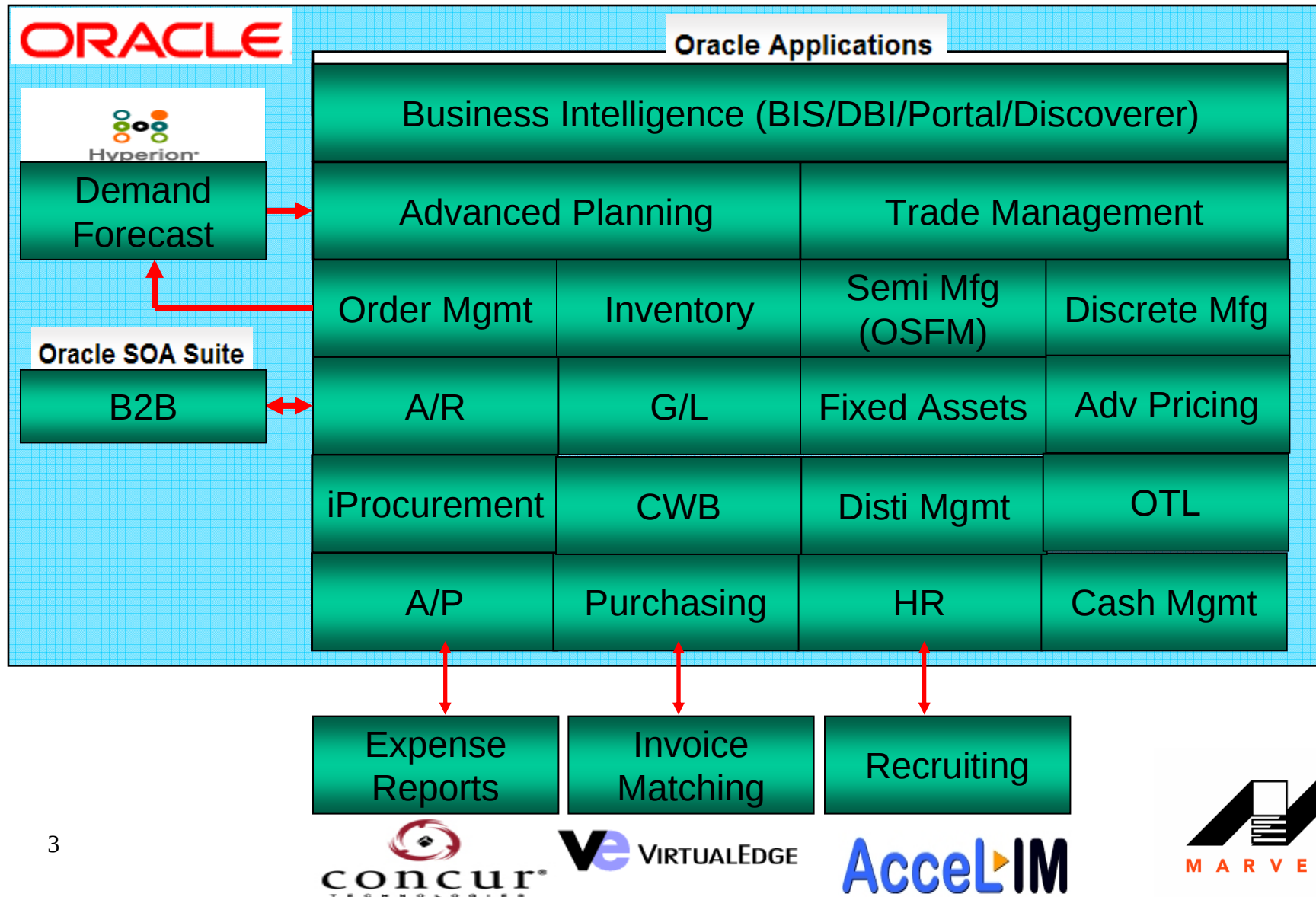
Product Support Manager
Unitask Inc.

MOVING FORWARD
FASTER®

About Marvell

- An Industry Leader in Storage, Communications, and Consumer Silicon Solutions
- Global operations, 5,000+ employees
 - Headquarters in Santa Clara, California
 - Israel
 - Europe (Germany, Italy, Switzerland)
 - Asia Pacific (Singapore, India, China)
- FY 2007 revenue of \$2.24B

Marvell's Enterprise Business Applications



MIS Teams, Roles & Access privileges

Promotion Path

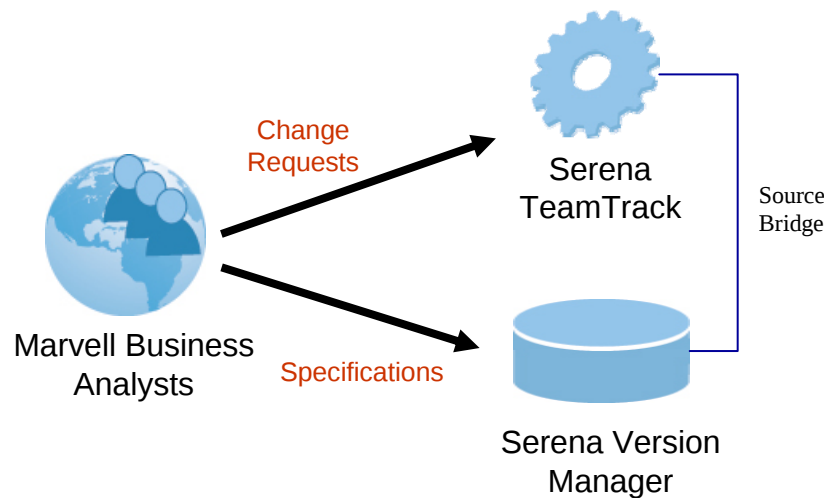
Instance/ Team	PATCH	DEVELOPMENT	PROJECT	STAGING	PRODUCTION
Production Control			✓ QA Review ✓ Test Automation ✓ Regression Testing	✓ Change Migration ✓ Business Process Testing ✓ Promotion Scheduling	✓ Release Management ✓ Change Migration
DBA Team	✓ Manage Databases & Applications ✓ Patching, Maintenance, Monitoring & Support				
Business Systems Analysts			✓ Prototype Design ✓ Integration Testing ✓ User Training	✓ Conduct UAT ✓ GO-Live Clearance	✓ Inquiry Access
Technical Team Leads		✓ Technical Design	✓ Code Review ✓ Integration Testing		
Development Team		✓ Develop code ✓ Unit Testing			

MIS – Operational Challenges

- **Single Global Business Applications**
 - Multiple Reporting Currency, Multi-lingual & 24x7 Operational
 - Continuous data feeds from Trading Partners B2B (Rosettanet /XML)
 - 70% transactions are processed by Automation Adapters
- **Change Requests to Production**
 - Weekly release cycles for changes involving no downtime
 - Narrow downtime windows during 2nd & 3rd weekends (14 hours Max)
 - Authorized P1/P2 changes can move to PROD within 24/48 hours
- **Global Support Teams in US, Singapore, Israel, Europe**
 - 6 Major teams (Reporting, B2B, Finance, Logistics, Supply Chain, Manufacturing)
 - Shared Technical Operations Team for 24x7 support (DBAs, Development & Production Control)
 - Approval hierarchy includes Application Program Managers for each Team, MIS Management & Compliance
 - 4 Major workflows for System Changes (Total – 13 workflows)

Change Control Automation – Step I: Requirements Gathering

- Business Analysts gather User Requirements
- Requirements are categorized as ‘Projects’ / ‘Support’
- System Change Requests (SCRs) are opened / tracked using Serena Team Track
- Functional Specifications are maintained /managed using Serena Version Manager
- Serena SourceBridge manage automated relation between SCRs & Versioned Objects



Change Control Automation – Step II: Change Approval Workflow

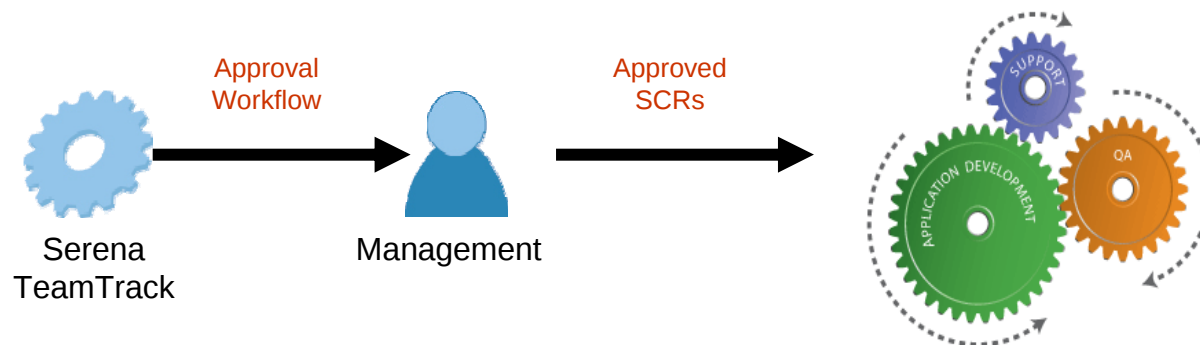
- Automated Business Rules route SCRs to relevant Management for approval
- Approved SCRs are routed to relevant MIS Team

e.g. Patches/Installation tasks are routed to DBAs;

Programming tasks are routed to DEV Team;

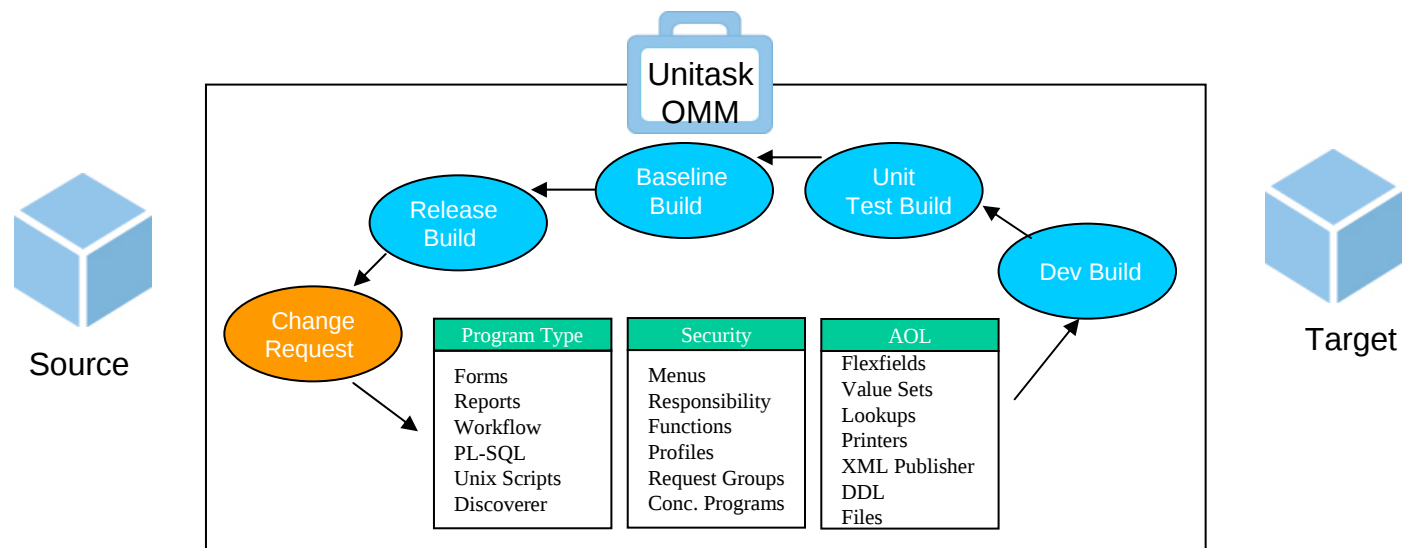
Regression and Business Process Testing tasks are routed to QA;

Business Setup/Configuration tasks are routed to Business Analysts



Change Control Automation – Step III: Automated Build Process

- Unitask's Object Migration Mover (OMM) is used to generate packages
- When Build is ready to move; Final OMM Package is checked into Version Manager
- Integration between OMM, Version Manager consolidates build information into SCR
- Business Analysts/ Team Leads used OMM download/upload feature to package and promote changes automatically without having any access to Servers/Database or Applications. Change Migration Logs are logged into Team Track



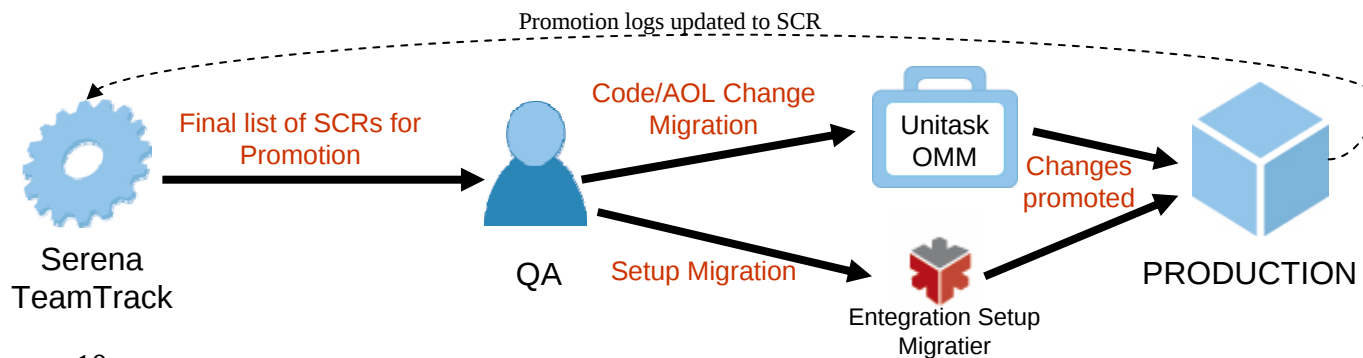
Change Control Automation – Step IV: Automated Test/Release Management

- Automated Business Rules routes SCRs ready for promotion to QA.
- STAGING/UAT instance gets cloned from Production Instance every weekend
- All Changes are scheduled/applied by QA on weekly basis in STAGING/UAT Instance
- QA executes Business Process Tests using Entegration Test Management Tool for all Key Modules to perform end-to-end testing
- QA schedules regression testing to ensure changes are validated for Performance
- BPT and Load Run Tests are uploaded to Team Track SCR



Change Control Automation – Step V: Promote Changes to PROD

- Automated Business Rules routes SCRs ready for promotion to QA.
- STAGING/UAT instance gets cloned from Production Instance every weekend
- All Changes are scheduled/applied by QA on weekly basis in STAGING/UAT Instance
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Benefits of Automated Change Control

- **End-to-End Application Lifecycle Management Automation**
- **Enables Tracing/Auditing Application Changes from first request to validated code**
- **Automated and Coordinated Change Approval Process**
- **One Stop solution for Incident, Issue & Change Management**
- **Hetrogeneous best of the breed Integrated Solutions help reduce Implementation, Operational & Maintenance Costs**
- **Rapid Application Development & Deployment**
- **Fully compliant with SOX & Separations of Duties Control (SOD)**
Improve and optimize processes
- **Provide visibility, control and transparency**

Sample Screen#1 – Team Track SCR

SERENA Software, Inc. (http://www.serena.com) - Windows Internet Explorer provided by Yahoo! Currently Sharing

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites

Address http://localhost:8080/tmtrack/tmtrack.dll? Go Links

TeamTrack™ Launch Page SERENA

Bill Admin Manage Data Administrator About TeamTrack Help Exit

Issue Management HR Requests Incident Mgmt IT Help Desk

Home Submit Search Reports Settings ID Search: Add Link to Your Favorites

Active Items

Issues

- Change Requests
- Software Development
- Hardware Manufacturing
- Tasks

Change Requests Issue 00109: test OMM Integration

Close Tech Assessment Send to CRB Update Delete

Actions: (select one)

State Change History

Submit New

08/01/2007 05:03:08 PM

by Bill Admin Owner: Melanie Prod Manager

Standard Fields

Issue Id: 00109

Issue Type: (None)

Title: test OMM Integration

Description:

Product: (None)

User Fields

Unitask OMM Package URL: OMM Package

Product Manager: Melanie Prod Manager

Advanced Fields

Technical Assessor: (None) Reviewers: (None)

Approvers: (None) Rejectors: (None)

Manager Fields

Active/Inactive: Active Owner: Melanie Prod Manager

Secondary Owner: (None)

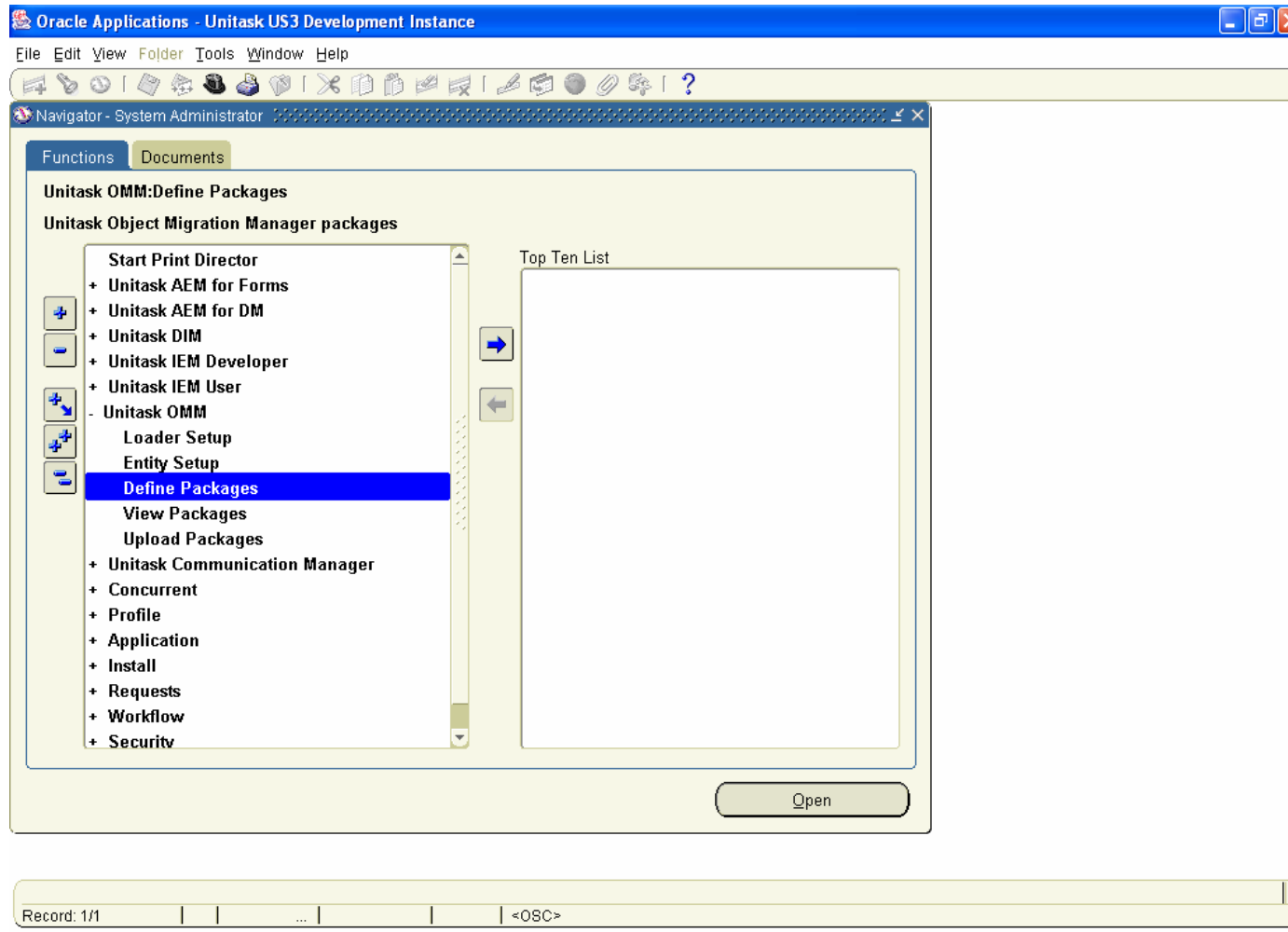
Show My Projects | Manage My Projects

Reload | Save | Help

- Browse reports
- Favorites
- Public Folders
- Knowledge Base

Local intranet

OMM Menu



Define Packages

Oracle Applications - Unitask US3 Development Instance

File Edit View Folder Tools Window Help

Unitask Object Migration Manager Define Packages

Package

Number Name of Package []

Description

Lines

Line Num	Entity	Description	[]
10	Profile		RE
20	Trigger in APPS schema		X

☒ Freeze Package

+ instan
+ Requests
+ Workflow
+ Security

Record: 68/? | ... | <OSC>

Create Package Line

Oracle Applications - Unitask US3 Development Instance

File Edit View Folder Tools Window Help

Unitask Object Migration Manager Define Packages

Package

Number Name of Package []

Description

Lines

Line Num	Entity
10	Profile
20	Trigger

☒ Freeze Package

iSetup Migrator Download

+ instanc
+ Requests
+ Workflow
+ Security

Open

Unitask Object Migration Manager package line parameters

Custom Mode Regular

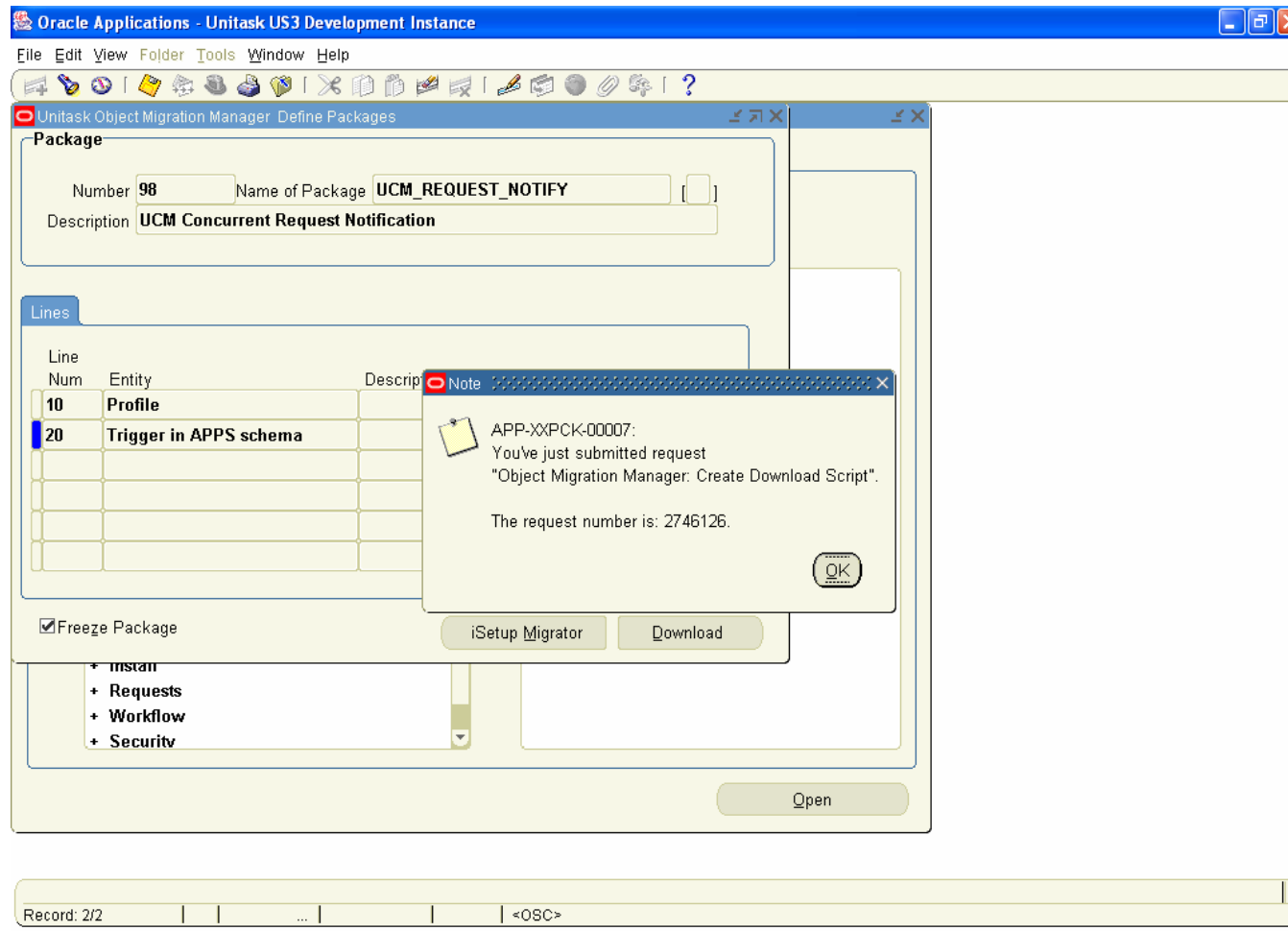
Application Short Name Unitask Communication Manager

Profile Name Unitask Communication Manager: Concurr

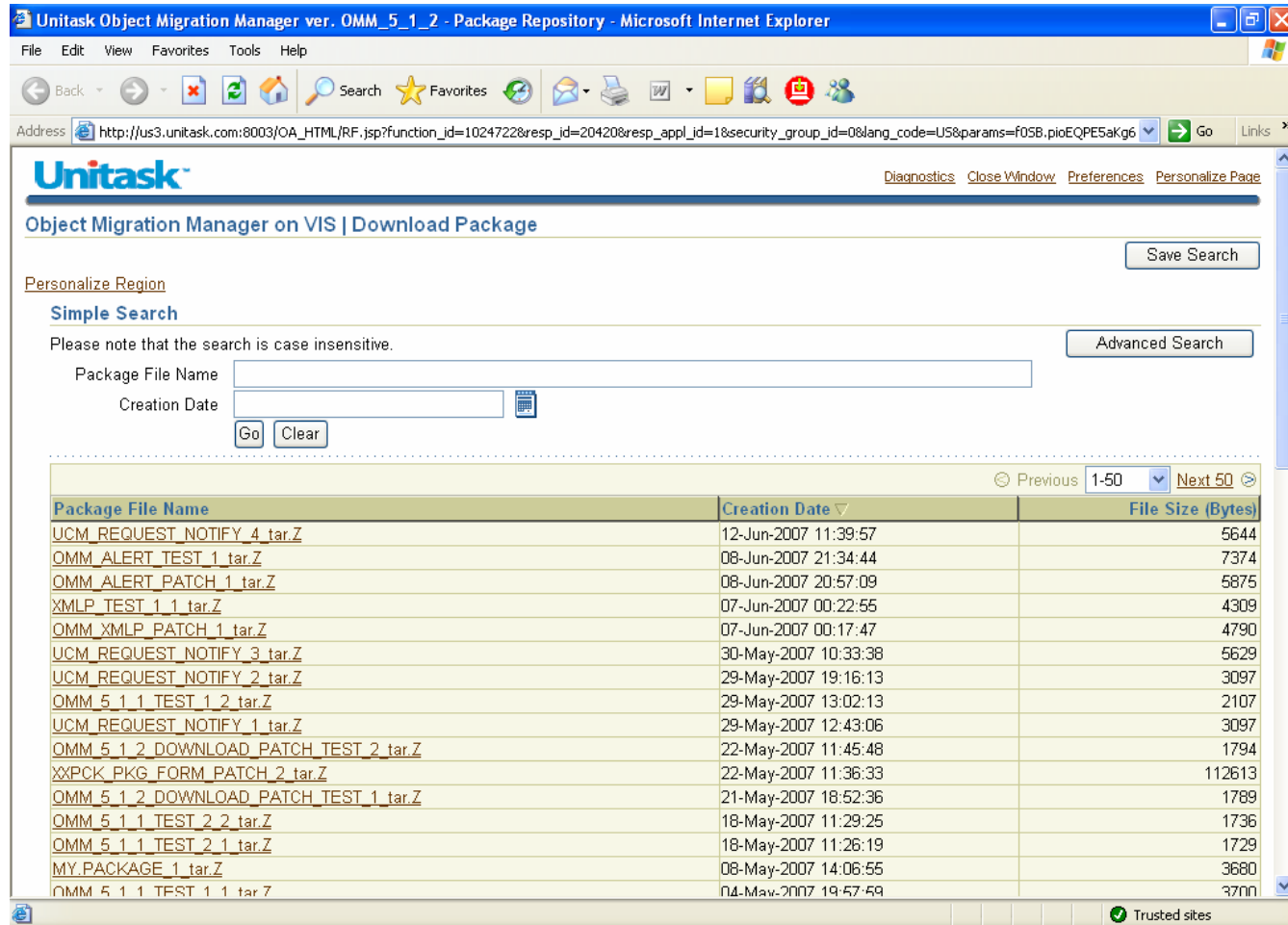
OK Cancel Clear Help

Record: 68/? ... <OSC>

Download Package



View Downloaded Packages



Unitask Object Migration Manager ver. OMM_5_1_2 - Package Repository - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://us3.unitask.com:8003/OA_HTML/RF.jsp?function_id=1024722&resp_id=20420&resp_appl_id=1&security_group_id=0&lang_code=US¶ms=f058.pioEQPE5aKg6 Go Links »

Unitask™ [Diagnostics](#) [Close Window](#) [Preferences](#) [Personalize Page](#)

Object Migration Manager on VIS | Download Package

[Save Search](#)

[Personalize Region](#)

Simple Search

Please note that the search is case insensitive.

Package File Name

Creation Date

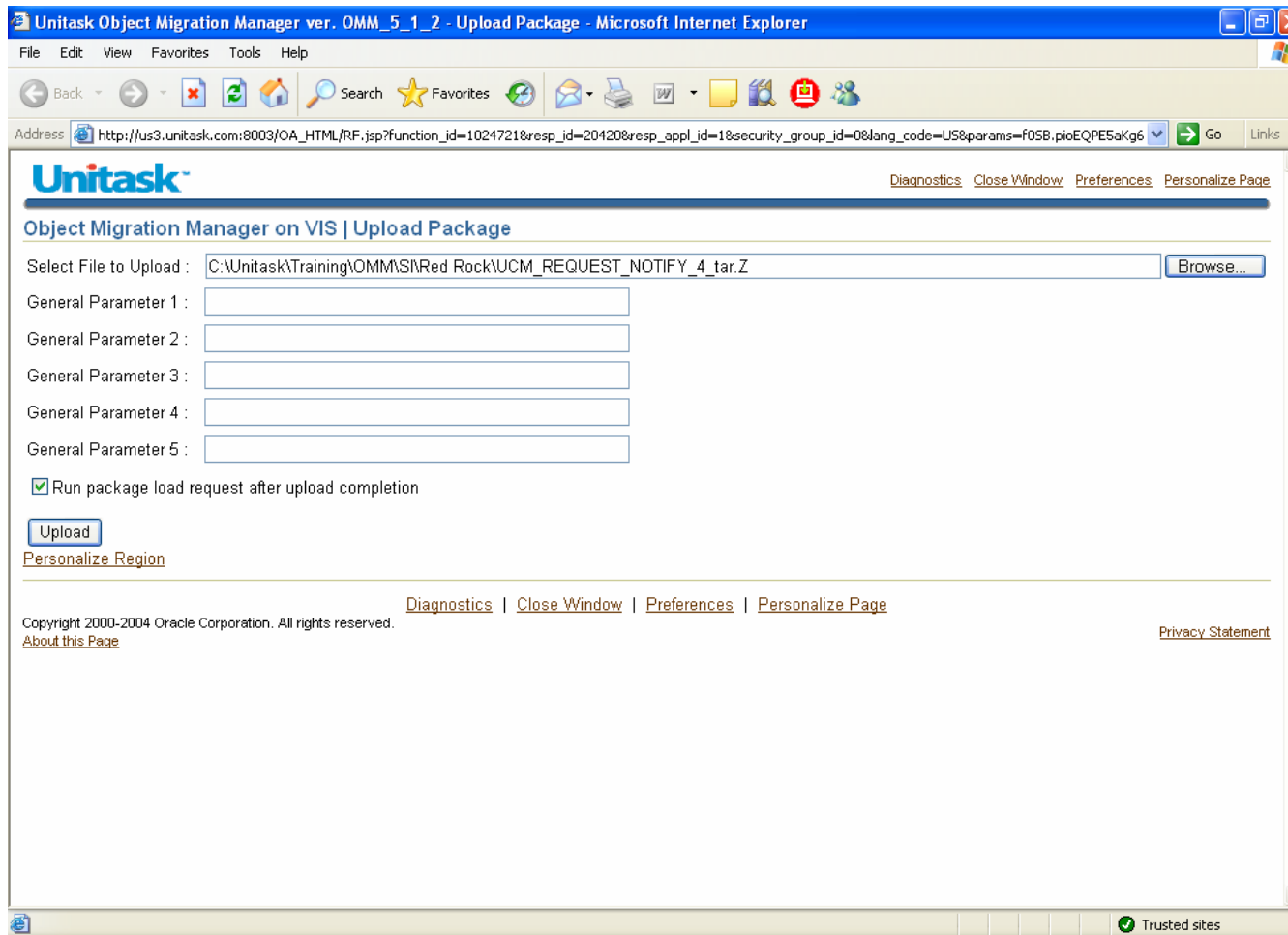
[Go](#) [Clear](#) [Advanced Search](#)

Previous 1-50 Next 50

Package File Name	Creation Date	File Size (Bytes)
UCM_REQUEST_NOTIFY_4.tar.Z	12-Jun-2007 11:39:57	5644
OMM_ALERT_TEST_1.tar.Z	08-Jun-2007 21:34:44	7374
OMM_ALERT_PATCH_1.tar.Z	08-Jun-2007 20:57:09	5875
XMLP_TEST_1_1.tar.Z	07-Jun-2007 00:22:55	4309
OMM_XMLP_PATCH_1.tar.Z	07-Jun-2007 00:17:47	4790
UCM_REQUEST_NOTIFY_3.tar.Z	30-May-2007 10:33:38	5629
UCM_REQUEST_NOTIFY_2.tar.Z	29-May-2007 19:16:13	3097
OMM_5_1_1_TEST_1_2.tar.Z	29-May-2007 13:02:13	2107
UCM_REQUEST_NOTIFY_1.tar.Z	29-May-2007 12:43:06	3097
OMM_5_1_2_DOWNLOAD_PATCH_TEST_2.tar.Z	22-May-2007 11:45:48	1794
XXPCK_PKG_FORM_PATCH_2.tar.Z	22-May-2007 11:36:33	112613
OMM_5_1_2_DOWNLOAD_PATCH_TEST_1.tar.Z	21-May-2007 18:52:36	1789
OMM_5_1_1_TEST_2_2.tar.Z	18-May-2007 11:29:25	1736
OMM_5_1_1_TEST_2_1.tar.Z	18-May-2007 11:26:19	1729
MY_PACKAGE_1.tar.Z	08-May-2007 14:06:55	3680
OMM_5_1_1_TEST_1_1.tar.Z	04-May-2007 19:57:59	3700

Trusted sites

Upload Package to Target Instance



Unitask Object Migration Manager ver. OMM_5_1_2 - Upload Package - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://us3.unitask.com:8003/OA_HTML/RF.jsp?function_id=1024721&resp_id=204208&resp_appl_id=1&security_group_id=0&lang_code=US¶ms=f05B.pioEQPE5aKg6 Go Links

Unitask™ [Diagnostics](#) [Close Window](#) [Preferences](#) [Personalize Page](#)

Object Migration Manager on VIS | Upload Package

Select File to Upload : [Browse...](#)

General Parameter 1 :

General Parameter 2 :

General Parameter 3 :

General Parameter 4 :

General Parameter 5 :

☒ Run package load request after upload completion

[Upload](#)

[Personalize Region](#)

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OMM vs. Manual Migration

Object Migration Manager	A/M	N	Manual Migration	A/M	N
Create OMM package header	M	1			
For each object to migrate:			For each object to migrate:		
- Create package line	A	N	1. Identify lct file for object type.	M	N
			2. Write DOWNLOAD statement	M	N
			3. Type and run FNDLOAD download command	M	N
Download OMM package	A	1			
Copy OMM package to client	A	1	For each object to migrate:		
			- ftp ldt file to target instance.	M	N
Upload OMM package to target	A	1	For each object to migrate:		
			- Type and run FNDLOAD upload command	M	N

A/M = Automated/Manual: Automated operations use LOVs to select values; Manual operations require typing, more work, greater chance of error.

OMM vs. Manual Migration Quantification

Number of Manual Operations vs. Number of Automated Operations

	OMM	Manual Migration
Manual Operations	1	5 x N
Automated Operations	3 + N	0

Number of Operations as the Number of Objects Increases

	OMM		Manual Migration	
Number of Objects	Manual	Automated	Manual	Automated
1	1	4	5	0
10	1	10	50	0
50	1	50	250	0

Object Migration Manager Summary

- Reduces effort
- Decreases migration time
- Improves manageability
- Increases control and security
- Eliminates errors