Dali JPA Tools 2.1 (of WTP)

Introduction

This document is meant to fulfill the requirements of the Eclipse Release Review process for Dali 2.1, planned for release on Dec 19th, 2008.

History

The Dali sub-project was proposed under the Technology project in July of 2005. The project successfully graduated to the WTP top-level project in February, 2007. The following list describes the major release history:

- Dali 0.5 June, 2006 (Technology)
- Dali 1.0 June, 2007 (WTP/Europa)
- Dali 2.0 June, 2008 (WTP/Ganymede)

Goals and Features

The three main goals for this release included improving existing:

- EclipseLink support
- Usability
- Core JPA support

Notable Features include:

- EclipseLink
  - Caching
  - Converters
  - Attribute Mapping Options
  - Type Mapping Options
  - Support for the EclipseLink XML Mapping File
- Usability
  - Common menu enhancements for all JPA related artifact creation
  - UI to add database driver to project classpath on project creation
- Core JPA Support
  - Case sensitive database support based on Platform
  - Basic support for differently named/multiple XML mapping file(s)

See the standard project plan for more detail - http://www.eclipse.org/projects/project-plan.php?projectid=webtools.dali

Also see the New and Noteworthy documentation for the 2.1 release:

- http://www.eclipse.org/webtools/development/news/3.1M2/jpa.php
- http://www.eclipse.org/webtools/development/news/3.1M3/jpa.php

Non-Code Aspects

The Dali project has extensive non-code artifacts including comprehensive user documentation, context sensitive help, a full tutorial, viewlets, developer/extension docs, numerous conference presentations, and javadoc. These materials have been kept up to date and will also be updated for the 2.1 release.

In addition to the above, the Dali project is included in many of the parent WTP project's non-code aspects, including articles, wiki's, and other user/developer information.

API

Dali currently provides a Provisional API in accordance with the WTP API Policy - http://wiki.eclipse.org/WTP_API_Policy.   These API meet the Eclipse Quality API standards with the exception of some deficiencies in their evolving specifications. These deficiencies will be improved for the Galileo aligned release.

Architectural Issues

Dali has been designed from the ground up to be extensible for those wishing to change and/or add to the present functionality. A Platform concept exists to facilitate JPA providers in developing tooling specific to a given runtime. This architecture has been proven by an included exemplary extension, multiple commercial adopters, and multiple commercial extenders.

We have a small number of internal dependencies on JDT and DTP. Bugs have been filed for these issues to request public API. All internal access violations are documented – http://wiki.eclipse.org/Dali_Access_Warning_Documentation.

UI Warnings

- 188673 org/eclipse/jpt/ui/internal/prefs/JpaPreferencePage.java - 3
- 188673 org/eclipse/jpt/ui/internal/wizards/JpaFacetWizardPage.java - 5
- 156185 org/eclipse/jpt/ui/internal/xml/details/XmlJavaClassChooser.java - 8
- 156185 org/eclipse/jpt/ui/internal/xml/details/XmlPackageChooser.java - 8

DB UI Warnings

- 189800 No longer getting an access warning in the build.

Tool Usability

The Dali Tools provide a vast improvement over hand editing and runtime validation of JPA Entities. The tools are light-weight and useful, able to cater to the new user with a comprehensive, rich UI. They also cater to the power user who may choose to ignore the UI altogether, and rely only on our validation and Dali contributions to Java code completion.

End-of-Life

The following 2.0 Provisional API's are being changed in the 2.1 release - http://wiki.eclipse.org/Dali_Provisional_API_Changes.

Bugzilla

Bug statistics:

- Total Bugs: 1111
- Unresolved: 247
  - Defects – 157
    - Major – 6
    - Normal – 133
    - Minor - 18
  - Enhancements - 90
- Resolved: 865

Standards

Dali specifically supports the JCP's JSR220 - JPA 1.0 specification.

UI Usability

We are familiar with and follow the Eclipse User Interface Guidelines. Dali has also gone through a UI Walkthrough.

We also have some contributors that often open bugs for Accessibility and National Language issues so we can fix those bugs before end-users encounter them.

Schedule

The initial schedule laid out 3 milestones (in sync with the first 3 Galileo milestones) and a release date of December 19th. All milestone dates were met and the planned release is still scheduled for December 19th, 2008. Some enhancements that were originally considered have been deferred in an effort to meet the general milestone goals.

Planned Maintenance

There will only be (if necessary) 1 planned maintenance release for the 2.1 branch, targeted for the Feb-March, '09 timeframe. The expected upgrade path for adopters and consumers will be to adopt the 2.2 release, which is planned for the end of June, '09.

As always, other maintenance would be considered, especially if resources are contributed to the effort.

Communities

- Contributors (from committers to prolific bug filers)
    - Oracle
    - SAP
    - IBM
    - JBoss
    - Fujitsu
    - Individuals and others
- Commercial adopters
    - Orcacle
    - IBM
    - SAP
    - JBoss
    - Genuitec
- Users
    - Seen on the newsgroup, mailing lists, and bugzilla
    - We have a lively bug database with enhancement requests and bugs filed by end users
    - Over 80K downloads of our initial 0.5 release (before we were bundled with WTP), which gives a (historical) flavor of the interest level.
- Other interaction
    - Dali committers are active in various cross project and cross member groups, including the Eclipse Planning Council, UI Working Group, and WTP PMC.
    - We also participate in numerous conferences, including EclipseCon, EclipseWorld, JavaOne, and JavaPolis, usually with very good attendance.
    - Dali has been presented in Eclipse DemoCamps in 2007 and scheduled for 2008.

IP Issues

I verify that:

- the about files and use licenses are in place as per the [Guidelines to Legal Documentation](#)
- all contributions (code, documentation, images, etc) have been committed by individuals who are either Members of the Foundation, or have signed the appropriate Committer Agreement. In either case, these are individuals who have signed, and are abiding by, the Eclipse IP Policy.
- all significant contributions have been reviewed by the Foundation's legal staff.
  - See Appendix 1
- all non-Committer code contributions, including third-party libraries, have been documented in the release and reviewed by the Foundation's legal staff.
  - See Appendix 1
- all Contribution Questionnaires have been completed
- the "provider" field of each feature is set to "Eclipse.org"
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Appendix 1

IP Log for webtools.dali

Third-Party Code

CQ	Third-Party Code	License	Use
1889	JPA (Javax Persistence Jar) Version: 1.0 (PB CQ1616)	Common Development and Distribution License	unmodified binary
2216	New Entity Wizard	Eclipse Public License	
2763	velocity-1.5.jar Version: 1.5 (PB CQ1977)	Apache License, 2.0	unmodified binary
2778	Dali initial code contribution	Eclipse Public License	

Pre-Req Dependencies

CQ	Third-Party Code	License	Dependencies
2775	Java Persistence Frameworks (Works With)	See CQ for detailed list of packages / licenses	works with

Committers

Past and Present Active		
Name	Organization	
Max Rydahl Andersen	Jboss	
Christian Ernst	Versant	
Paul Fullbright	Oracle	
Neil Hauge	Oracle	
Markus Kuppe	Versant	
Tran Le	Oracle	
Dirk Le Roux	Versant	
Karen Moore	Oracle	

Rick Sapir	Oracle	
Shaun Smith	Oracle	
Brian Vosburgh	Oracle	

Contributors and Their Contributions

Bug	Size	Description
John Bassett (oracle.com)		
232870	686.4K	Documentation updates for Dali 2.0 JAR file cotaining JPA help.
Dimiter Dimitrov (sap.com)		
215807	1.1K	JPA Project action should appear in the New menu the create JPA Project action is introduced to New... group
216450	140.0K	Create new JPA Entity Wizard changed hashCode() method
216755	999	Warning that default package is discouraged doesn't dissapear handle method is overrided in order to process package change
228222	3.5K	warnings for .JETEmitters source files change model API and templates to return Generic collection
230414	1.0K	JPA Entity wizard exception canceling Add Entity Fields dialog return if the pressed button is Cancel
239409	1.1K	JPA Entity wizard second page should show the fully qualified name of the attribute type the type of added field is with fully qualified name in the table
Pascal Filion (oracle.com)		
127337	57.9K	Support for sequence and table generators at the Class level Added generators support to entity mappings and fixed issues at the same time for queries
128979	135.5K	Context needed on the Persistence Properties View Fixed two bugs + changes contained in previous patch
130580	135.2K	Add persistence.xml editing support First pass to add support for editing a persistence unit
130580	28.8K	Add persistence.xml editing support Bug fixes
130580	44.9K	Add persistence.xml editing support Fixed minor bugs
137799	9.6K	Add support for IdClass

		Added UI support
186439	71.9K	Add UI support for NamedQuery Merge the panes and made the property pane switches based on the query type
186439	4.2K	Add UI support for NamedQuery Added query support to entity mappings
191720	28.4K	Unable to create JPA Project without a database connection when at least one available Added to the connection combo
198982	114.8K	UI support for additional table and column settings Added the missing settings and fixed several bugs in the dialogs
202518	2.9K	JPA Details view shouldn't be gray when selecting unmapped class Fixed for pane not being white
213467	187.6K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	138.2K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	73.7K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	76.1K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	87.7K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	54.2K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	632.6K	Refactor 1.0 UI to work with 2.0 context model First pass at removing EMF
213467	338.6K	Refactor 1.0 UI to work with 2.0 context model Latest changes made to the UI widgets
213467	132.0K	Refactor 1.0 UI to work with 2.0 context model Regenerated patch, the previous one is corrupted
213467	301.9K	Refactor 1.0 UI to work with 2.0 context model Re-created the previous patch
213467	351.1K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	328.0K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	260.5K	Refactor 1.0 UI to work with 2.0 context model

		More UI changes
213467	777.4K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	50.4K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	140.5K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	29.0K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	32.9K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	84.9K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	69.6K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	96.2K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	34.6K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	105.6K	Refactor 1.0 UI to work with 2.0 context model More UI changes
213467	33.1K	Refactor 1.0 UI to work with 2.0 context model More UI changes
220801	24.1K	Metadata Complete should be a tristate checkbox Change the combo into a tri-state check box
220802	6.2K	tables in the JPA Details view need to have the flat form look Fix for flat-style table
220966	22.0K	Java Column Table selection in UI does not update list of columns for new table Fix bug
222110	10.2K	mappedBy combo box not updated on target entity changes Fixed bug
222241	956	target entity combo default does not update when attribute changes Fixed 2nd part of the bug description
222792	18.9K	unable to do text edits of schema and catalog in the orm.xml Added fix for PersistenceUnitMetadataComposite
222980	1.3K	PersistenceEditor should use IFileEditorInput instead of FileEditorInput Oops that was created by the wizard

223837	24.4K	additional settings for 'discriminator column' Added missing widgets
225428	4.6K	Combo does not render the default value when changing a setting to a default value Fix issue by setting the default value and selecting it
225639	848	tab for persistence.xml files should display file name, not Persistence XML Editor Fixed editor's title
225640	5.9K	enter first class into persistence.xml and the icon is rendered too large Changed to use a warning icon coming from JptUiPlugin
225640	338	enter first class into persistence.xml and the icon is rendered too large The warning icon
225660	2.7K	persistence.xml editor scroll bar issues Managed to find the right layout to use
225681	34.1K	persistence.xml editor needs persistence unit name widget and properties table Added missing widgets
225682	7.3K	multiple classes listed in the persistence.xml causes layout issues Fixed the AddRemoveListPane's layout and adjusted the height of the mapped classes list
227895	5.1K	orm.xml secondary tables UI enabled state is incorrect Fixed enablement
228556	707	NewNameDialog ok button enabled before name entered Fixed: disable OK button when creating dialog
228557	3.5K	Add Secondary Table action opens a dialog titled 'Edit Secondary Table' Fixed title
229511	4.7K	EclipseLink persistence.xml DDL Gen Location Browse button does not work Patch submitted by myself
230427	1.4K	When changing the attribute mapping type in the Details view, the "change mapping link" loses it's highlight Re-submitted the patch without the println
Shota Ito (aa.jp.fujitsu.com)		
245682	1.1K	Line-feed not needed to persistence.xml enters when Class Syncronize is executed. Bug patch
John Pitman (ca.ibm.com)		
246948	1.2K	[hotbug] Authentication failure due to duplicate connection profiles in DTPConnectionProfileRepository

		Proposed patch
Kaloyan Raev (sap.com)		
239581	1.4K	Fix Class name validation in Entity wizard patch
243150	1.5K	Add JPA project and Entity wizard actions to JEE perspective toolbar patch
250619	34.0K	[hotbug] Make .JETEmitter project optional patch v2
rick.sapir@oracle.com		
135070	511.2K	The Dali project needs end user documentation and context based help Dali online documentation and help jar for 0.5.0 Release