Gemini DBAccess
Graduation & 1.0.0 Release Review

Planned Review Date: TBA (early 2011)

Communication Channel: Gemini forum

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Mission

DBAccess provides database connectivity to OSGi applications by encapsulating JDBC driver access in an OSGi compliant way.

As a subproject of *Eclipse Gemini*, *DBAccess* is a building block for modular implementations of Java EE technology.

It seamlessly integrates with other modules of the *Gemini* umbrella project, especially with *Gemini JPA*, but it can also be consumed as individual module by any OSGi application.

Introduction

- Gemini DBAccess is an implementation of an OSGi specification that standardizes the way in which an application can access JDBC drivers within an OSGi framework
- Major use case are:
  - OSGi applications that want to access a database via JDBC.
  - Frameworks as Gemini JPA that use DBAccess as their underlying database connectivity service.

Features

DBAccess enables to write applications such that they do not require any reference to a specific JDBC driver implementation: there is no need to import vendor specific driver classes.

For each vendor JDBC driver, an associated JDBC DBAccess bundle is created that exposes the vendor DataSource as an OSGi Service.

- So far, following JDBC drivers are supported:
  - Apache Derby

Release Contents

The current release has the following contents:

- DBAccess OSGi bundle for Java DB
- Unit and integration tests
- User documentation
- Sample application (source)

Development

Gemini DBAccess is an active project, open for participation. The committer guidelines outline the preffered way of co-operation. Until now, commiters and contributions come from two companies:

- Committers: 3 (SAP AG, Oracle)
- Non-committer code contributors: 2

Non-Code Aspects

User documentation:

- Basic usage instructions on the Gemini DBAccess wiki
- Sample application in the delivered archive
- OSGi 4.2 JDBC Service Specification Version 1.0

Internationalization

- I18n not relevant as there are no end user oriented messages

APIs

Supported Standard APIs

- OSGi Service Platform Enterprise Specification, Release 4, Version 4.2, section 125 (*JDBC Service Specification Version 1.0*)
- Integrates with: OSGi 4.2 Core and Compendium Service
- Can be used with: JDBC 3 and JDBC 4

Native API

- None

Architectural Issues

Each provided DBAccess module is based on the presence of an associated JDBC driver. If the license permits, that driver can be packaged together with the DBAccess module:

- DBAccess for Apache Derby: Delivered with Derby JDBC driver 10.5.1.1.

Tool Usability

- DBAccess is a set of bundles that is developed using the Eclipse PDE. Users who consume the bundles can also do that within the Eclipse PDE; but they free to use any tool of their choice. DBAccess does not provide specific tools or plugins that assist development or usage.

Bugzilla

- The project has following bugzilla status:

		Status				
		NEW	REOPENED	RESOLVED	CLOSED	Total
Severity	normal	2	.	1	1	4
	trivial	.	.	1	.	1
	enhancement	5	1	1	.	7
	Total	7	1	3	1	12

- CQ Approved - 5

Standards

- Gemini DBAccess requires Java 5 or later
- Compliant with OSGi Service Platform Enterprise Specification, Release 4, Version 4.2
- Integrates with Java Database Connectivity, JDBC 3 and JDBC 4

Schedule

- March 10, 2011 target for 1.0.0
- One milestone produced and download made available

Communities

- Bugzilla in active use by users and contributors
- Gemini forum
- Gemini developer mailing list: gemini-dev

IP Log

- Eclipse IP policies and procedures have been followed
- The approved IP Log:
  - http://wiki.eclipse.org/Gemini/DBAccess/IPLOG_1_0

Credits and Kudos

- Thanks to Mike Keith for
  - His initial contribution to the project
  - Leading the project until December 2010.

Graduation

- The project is open and transparent
- The community is small but active
- The project is used by other Gemini subprojects
- The team is adhering to the Eclipse development process and IP policy and relates well to other RT projects.