EGL Development Tools

www.eclipse.org/edt

EDT 0.8 Stakeholder Meeting SQL JNDI Data Sources

February 8, 2012



















Stakeholder Meeting

- EDT 0.8 is currently under development
 - For more on EDT 0.8 plans, see http://wiki.eclipse.org/EDT:0.8.0_Planning
- Meeting Goal Discuss the design and implementation of a particular feature to ensure it meets stakeholder needs
- Plans are subject to change (mostly based on your input!)
- Feel free to ask questions via the phone or chat to All.
- Press *6 to mute / unmute your phone. Please mute your phone unless you are asking a question.

Resource bindings

- Bind (or access) a resource, like a database or service.
 - Connection details are separate from the application logic
- Configured via the deployment descriptor
- Allows you to make changes to resources without changing your application logic
- For more information, see the Resource Bindings Introduction wiki page:
 - http://wiki.eclipse.org/EDT:Resource_Binding_Introduction

JNDI basics

- What is JNDI?
 - "Java Naming and Directory Interface"
 - Allows lookup of objects by name, in this case SQL data sources
- Main benefits of using JNDI:
 - Applications do not hardcode connection information, it is configured as a server administration task
 - Connection pooling has significant performance improvements
- Authentication
 - ▶ Container-based: the data source has the credentials, application provides no credentials
 - Application-based: The application provides credentials to the data source
 - Not all drivers support application-based! e.g. Tomcat's BasicDataSource class.
 - If unsure which type to use, container-based is preferred



New SQL type

- Resource bindings are recommended but it's still possible to write the EGL code to connect to a database using JNDI.
- The new type is eglx.persistence.sql.SQLJNDIDataSource
- It extends eglx.persistence.sql.SQLDataSource
- It has no new API, just connects in a different way.
- Using container-based authentication:
 ds SQLDataSource? = new SQLJNDIDataSource("jdbc/myDB");
- Using application-based authentication: credentials Dictionary{user="myUser", password="myPassword"}; ds SQLDataSource? = new SQLJNDIDataSource("jdbc/myDB", credentials);



Updated Deployment Descriptor Editor

Name:	NewDB2forLinuxUNIXandWindows		
Use a connection	profile		
New DB2 for Linu	x, UNIX, and Windows	0	New
Specify connection	i information		
SQL Database:	Control of the Contro		
JDBC Driver Class			
Connection URL:			
User ID:			
User Password:			
Default Schema:			
Class Locations:			
		Test C	onnectio
✓ Connect using a J	NDI data source		
The application will	use JNDI for this binding to access the	data source.	
JNDI Name:	jdbc/NewDB2forLinuxUNIXandWindov	ws	



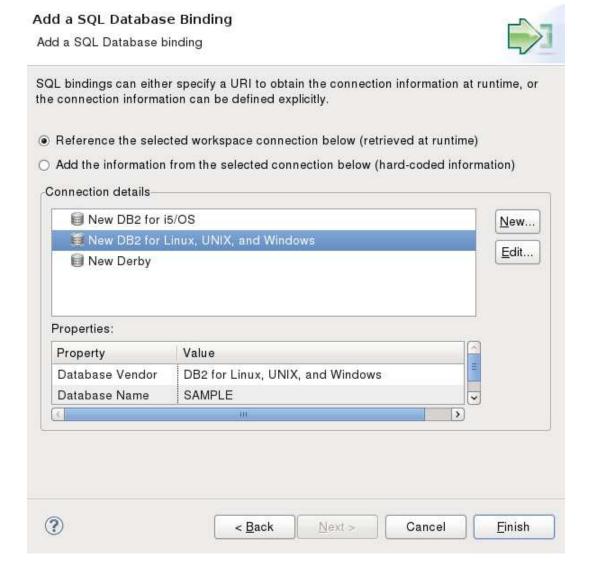
IDE Test Server

- Jetty-based server for running services inside the IDE without deploying
- Supports a true JNDI environment
- Uses SQL bindings from deployment descriptors to configure the available data sources
- Configure Apache Tomcat runtime in the workspace via Preferences > Server > Runtime Environments.
- If Tomcat is defined, connection pooling is supported using BasicDataSource
 - Just need to define an Apache Tomcat runtime in the workspace and it will be found



Question for the community

- Should we configure all database bindings to use JNDI by default?
- Or provide an option to configure it in the wizard?



- Questions or comments on JNDI support?
- JNDI enhancement in Bugzilla
 - https://bugs.eclipse.org/bugs/show_bug.cgi?id=361030

Be part of the open-source process!

- Look at EDT's Bugzilla, used to track enhancements and bugs
 - EDT components https://bugs.eclipse.org/bugs/describecomponents.cgi?product=EDT
 - All EDT .8 items query https://bugs.eclipse.org/bugs/buglist.cgi?query_format=advanced;version=0.8.0;classification=Tools;product=EDT
 - If you're interested in a Bugzilla item, add yourself to the cc: list
 - Add comments (after signing on with Eclipse ID)
- Ask questions on the EDT Forum
 - http://www.eclipse.org/forums/index.php?t=thread&frm_id=190
- Familiarize yourself with the Wiki documents
 - http://wiki.eclipse.org/EDT
- Read the EDT team blog, available via the Community page, http://eclipse.org/edt/#community
- Next stakeholder meeting IBM i support
 - Watch for forum for an announcement
- THANKS!!