



Using JBoss and Ingres

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Overview

- Introduction
- What is JBoss?
- Configuring an Ingres JDBC resource in JBoss
- JDBC Troubleshooting
- A glance at the JBoss – Ingres Bundle



Introduction

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Presenters

- **David Turner**
 - Technical Specialist

Overview of JBoss and Ingres

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About JBoss and Ingres

■ JBoss

- Division of Red Hat
- Open Source Middleware Software
- Enterprise-class
- Professional open source model



■ Ingres

- Open Source RDBMS
- Enterprise-class
- Professional open source model



■ An enterprise-class open source technology stack

Benefits of JBoss and Ingres

- **Lower total cost of ownership**
- **Reliable and safe technology**
- **Support, accountability and trust**
- **Backed by professional and expert support staff**
- **Large active community of developers**
- **Stable companies**



Configuring an Ingres JDBC resource in JBoss

Software Used in this Webinar

- **Java Standard Edition Development Kit “1.6.0_12”**
- **Ingres DBMS version 9.2**
 - Ingres JDBC Driver
 - Shipped with Ingres DBMS
 - Version 3.4 supports JDBC 3.0 API
 - Also available to download
 - http://community.ingres.com/wiki/Ingres_JDBC_Driver_Downloads
- **JBoss Application Server 5.0.0 GA**
 - <http://www.jboss.org/jbossas/downloads/>
- **Eclipse Ganymede JEE IDE version 3.4.1**

Steps Required to configure Ingres JDBC

1. Obtain the Ingres JDBC Driver
2. Copy driver to JBoss AS
3. Configure a JDBC datasource
4. Test the Ingres JDBC resource

Step 1: Obtain the Ingres JDBC Driver

- **Locate the Ingres JDBC Driver**
 - Typically located in %II_SYSTEM%\ingres\lib directory
 - The JDBC driver is a JAR file called iijdbc.jar
 - Latest driver class is com.ingres.jdbc.IngresDriver

Step 2: Copy driver to JBoss AS

- **Copy to <JBoss_Home>/common/lib directory**
 - Allows Application Server to use Ingres database
 - Parent folder to all server lib folders
 - If want to add jar for specific server profile then
 - <JBoss_Home>/server/<serverName>lib
- **(optional) Copy to <JBoss_Home>/client**
 - If developing a Java program or applet
 - JBoss Runtime libraries available to Dynamic Web Project in Eclipse

Step 3: Configure a JDBC datasource

- **Create a datasource configuration deployment file**
 - Naming convention is *-ds.xml
 - Example, ingres-ds.xml
 - Located under server profile
 - Example, <JBoss_Home>/server/default/deploy
 - DTD file is available at:
 - docs/dtd/jbosssds_1_5.dtd
- **JBoss AS connects to relational database via a datasource**

Step 4: Test the Ingres JDBC resource

- **Create a simple web application**
 - Obtain the named data source from the naming context
 - Example, “IngresDS” if global
 - Example, “java:IngresDS” if only accessible from within the JBoss server virtual machine



JDBC Troubleshooting

Setting up Ingres JDBC Driver for tracing

- **Ingres JDBC Driver looks for a configuration file at class load time**
 - Place `ijjdbc.properties` file on CLASSPATH
 - Set `ingres.jdbc.property_file` system property
- **Be aware of the class loading model for JBoss**
 - If putting on classpath place in server class loader or higher
 - E.g `common/lib` or system class loaders

Properties of the configuration file

- **ingres.jdbc.trace.log=c:/tmp/ijjdbc.log**
- **ingres.jdbc.trace.timestamp=true**
- **ingres.jdbc.trace.driv=5**
- **ingres.jdbc.trace.ds=3**
- **ingres.jdbc.trace.msg=3**
- **Refer to:**
 - http://community.ingres.com/wiki/Ingres_JDBC_Config_Utility_Documentation

Ensure JDBC driver compatibility

- **Find out which version of the JDBC Driver**
 - If logging enabled JDBC driver writes out JDBC driver version on class load
 - Otherwise, look at the IngresDriver class static initializer
- **If in doubt use the driver supplied with Ingres DBMS**



The Ingres-JBoss bundle

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The Ingres-JBoss bundle

- **Complete Enterprise Open Source Stack**
- **JBoss and Ingres fully integrated and configured**
- **Tooling**
 - JBoss Developer Studio
 - Ingres Data Tools Platform
- **Available to download shortly**