

DataSource Hint for EPSG

Motivation:	Use of an EPSG Authority implementation in a Java EE environment
Contact:	Jody Garnett
Tracker:	http://jira.codehaus.org/browse/GEOT-1219
Tagline:	Publish / Find / Bind for EPSG Authority

This page represents the **current** plan; for discussion please check the tracker link above.

Description

Use of an EPSG Authority implementation in a Java EE container.

- Need to supply a Hint that an EPSG Authority can use to look up a DataSource using JNDI
- Create separate EPSGAuthorityFactory for this use

Status

Initial research completed [J2EE and Connection Pools](#), this first proposal only touches on the use of data source with respect to EPSG Authority. This proposal was reviewed and accepted:

- [IRC Meeting - 2 April 2007](#)
- [Jody Garnett +1](#)
- [martin +1](#)
- [proposal accepted by default w/ two weeks and no negative votes](#)

dynamictasklist: task list macros declared inside wiki-markup macros are not supported

Resources

File	Modified [▲]
No files shared here yet.	

Tasks

	no progress		done		impeded		lack mandate/funds/time		volunteer needed
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A target release is also provided for each milestone.

Milestone 1	2.4-M2	
	Jody Garnett	Initial Implementation for oracle-epsg
	Jody Garnett	Testing and review
Milestone 2	2.5-M1	
	Jody Garnett	test and release
	Jody Garnett	update documentation
Milestone 3	2.5.0	
		verify user documentation
		include in release

API Changes

Before this change GeoTools relies on a javadoc comment - to wit: use of the the hard coded JNDI look up String "epsg/authority".

This change involves the introduction of a new Hint to control the lookup string used.

```
class Hints {  
  
    /**  
     * The {@link org.opengis.referencing.crs.CRSAuthorityFactory} instance to use.  
     *  
     * @see org.geotools.referencing.FactoryFinder#getCRSAuthorityFactory  
     */  
    public static final Key CRS_DATASOURCE = new Key(  
        "org.opengis.referencing.cra.datasources");  
    ...  
}
```

BEFORE

This functionality was based on a documented behaviour - previously the JDBC EPSG Authority implementations would be connected based on:

- which one was included in the classpath
- lookup of "epsg/authority" in JNDI

```
public CoordinateReferenceSystem acquireCRS(){  
    return CRS.decode( "EPSG:4326", hints );  
}
```

For the above to work only a single epsg authority plugin is allowed to be on the class path, for example "epsg-postgres".

AFTER

We expect the following to work regardless of which epsg authority plugins are included on the classpath.

Example.java

```
/**  
 * Please note hints will need to be used every time.  
 */  
public CoordinateReferenceSystem acquireCRS(){  
    Hints hints = new Hints();  
    hints.add( HINTS.CRS_DATASOURCE, "epsg/authority" );  
    return CRS.decode( "EPSG:4326", hints );  
}
```

It appears that we should control the "default" (ie when Hints is null) by use of a System property.

Documentation Changes

Website:

- Update [Module matrix](#) page with oracle-epsg
- Update [Upgrade to 2.5](#) instructions

User Guide:

- Update examples to reflect changes to demo module

Issue Tracker:

- create a jira to track this proposal
- update jira when proposal is accepted
- close created jira when release is made