

# DataSource Hint for EPSG

<b>Motivation:</b>	Use of an EPSG Authority implementation in a Java EE environment
<b>Contact:</b>	<a href="#">Jody Garnett</a>
<b>Tracker:</b>	<a href="http://jira.codehaus.org/browse/GEOT-1219">http://jira.codehaus.org/browse/GEOT-1219</a>
<b>Tagline:</b>	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

Name	Size	Creator	Creation Date	Comment
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## Tasks

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

<b>Milestone 1</b>	<b>2.4-M2</b>	
	<a href="#">Jody Garnett</a>	Initial Implementation for oracle-epsg
	<a href="#">Jody Garnett</a>	Testing and review
<b>Milestone 2</b>	<b>2.5-M1</b>	
	<a href="#">Jody Garnett</a>	test and release
	<a href="#">Jody Garnett</a>	update documentation
<b>Milestone 3</b>	<b>2.5.0</b>	
		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.datasource" );

    ...
}

```

## 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