Introduction of getInfo

Contact:	Jody Garnett, Johann Sorel
Tracker:	http://jira.codehaus.org/browse/GEOT-1657
Tagline:	What is this? No really...

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

Description

We need to access a description of what a spatial resources is. The goal is to make this information available to GeoTools developers:

- will give widgets swing pending some more information to display and describe;
- will allow uDig to back port some code. In some cases it will allow uDig to close up some anonymous subclasses: JDBC DataStores often subclassed for connection, WFSDataStore subclassed for capabilities information.

This is NOT catalog

Previous work focused on making the description available for searching, this proposal is about making the description available on the classes directly.

What is the Description

What the description is is well understood; it is: "Dublin Core plus a little bit more" (ie bounds and crs). In GeoTools 2.4.x this ideas is represented as GeoResourceInfo and ServiceInfo.

ServiceInfo	shapefile	postgis	wms	wfs	description
title					for display in user interface
keywords					
description					
publisher					
schema					type of service
source					
icon					for display in user interface
	shapefile	**postgis**	**wms**	**wfs**	**additions**

access fees					do not care

ResourceInfo	shapefile	postgis	wms	wfs	notes
title					for display in user interface
keywords					
description					
name					already part of data access api?
schema					type of data
source					
icon					for display in user interface
bounds					
crs					matches bounds crs
	shapefile	**postgis**	**wms**	**wfs**	**additions**
latlonextent					do we care?

These info classes will be moved into **org.geotools.data** as part of the proposal (see This is NOT catalog above).

There have been two suggestions on how to extend this core set:

- add a Map of some kind to the data structure, with static final constants for known keys
- extend the interface specifically

Status

This proposal has been accepted:

- Andrea Aime +1
- Ian Turton +0
- Justin Deoliveira +0
- Jody Garnett +1
- Martin Desruisseaux +1 with comments (see below)
- Simone Giannecchini +0

Community support:

- Gabriel Roldán +1
- Jesse Eichar +1

Tasks

	no progress	✅	done	❌	impeded	⚠️	lack mandate /funds/time	❓	volunteer needed

1. ✅ Move catalog stuff out of the way to an unsupported/module to prevent confusion
2. ✅ Add **org.geotools.data.ServiceInfo** and **org.geotools.data.ResourceInfo** (remove a few stray getTile methods)
3. ✅ Add getInfo methods to WFSDataStore for gabriel to review
4. ✅ Add getInfo methods to ShapefileDataSTore for Jesse to review
5. ✅ Add getInfo method to AbstractGridCoverage2DReader
6. ✅ Add getInfo method to DataStore and stub at the AbstractDataStore, JDBCDataStore, ContentDataStore, Implement for stand alone implementations like ArcSDE
7. ✅ Take the best of geotools or udig getInfo code as the implementation
8. ✅ Cut over uDig to use this code as the final sanity check
   This was done to communicate WFS GetCapabilities information
9. ✅ Provide an example use in the user guide: http://docs.geotools.org/latest/userguide/library/api/datastore.html

API Changes

BEFORE

```
package org.geotools.catalog;
interface ServiceInfo {
    ...
}
```

```
package org.geotools.catalog;
interface GeoResourceInfo {
    ...
}
```

AFTER

Move ServiceInfo to org.geotools.data.ServiceInfo

```
package org.geotools.data;
interface ServiceInfo {
   String getTitle();
   String getDescription();
   Icon getIcon();
   Set<String> getKeywords();
   URI getPublisher();
   URI getSchema();
   URI getSource();
}
```

Move GeoResourceInfo to org.geotools.data.ResourceInfo:

```
package org.geotools.data;
interface ResourceInfo {
  // Dublin Core
  String getName();
  String getTitle();
  String getDescription();
  Icon getIcon();
  Set<String> getKeywords();
  URI getSchema();

  // And a little bit more
  ReferencedEnvelope getBounds();
  CoordinateReferenceSystem getCRS();
}
```

ServiceInfo can be accessed from DataStore:

```
import org.geotools.data.ServiceInfo;
interface DataStore {
    ServiceInfo getInfo();
}
```

ResourceInfo can be accessed from FeatureSource:

```
import org.geotools.data.ResourceInfo;
interface FeatureSource {
    ResourceInfo getInfo();
}
```

ServiceInfo and ResourceInfo can be accessed from AbstractGridCoverageReader2DReader:

```
import org.geotools.data.ServiceInfo;
import org.geotools.data.ResourceInfo;
interface
AbstractGridCoverageReader2DReader{
   ServiceInfo getInfo();
   ResourceInfo getInfo( String subname );
}
```

ServiceInfo and ResourceInfo can be accessed from WebMapServer:

```
class WebMapServer extends
AbstractOpenWebService {
  ServiceInfo getInfo();
}
class Layer {
  ResourceInfo getInfo();
}
```

Documentation Changes

list the pages effected by this proposal

- http://svn.geotools.org/geotools/trunk/gt/demo/example/
- Home