

Add delete support on StructuredGridCoverage2DReader

Contact:	Daniele Romagnoli
Tracker:	http://jira.codehaus.org/browse/GEOT-4640
Tagline:	

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Children:

Description

This proposal aims on adding the capability to do a cleanup/delete of a coverageStore/GridCoverageReader. Some readers/stores like the imageMosaic one, deal with a set of ancillary files and create a set of new files as well when configured. Right now there is no way to fully purge a store/reader. The user have to manually delete all the granules, the auxiliary files as well as to remove the records from the database/feature store if any (as in the imageMosaic case). A delete method will allow to do all these cleanup through a simple method invocation. The Reader, which is the only one which has full knowledge of the data structure, will do that cleanup operation by also potentially delegating some jobs to the underlying readers. As an instance, an ImageMosaic made of NetCDFs, will delegate some cleanup to the underlying NetCDF readers (which implements the StructuredGridCoverage2DReader too) to delete hidden files and purge quick access DBs.

Implementation changes

The updated **StructuredGridCoverage2DReader** will define a new **delete** method to cleanup everything associated to the reader. Moreover, the **removeCoverage** method will be updated by adding a *delete* parameter to specify whether the coverage Removal should also take care of deleting the referred files. Finally, a new **FileSetManager** interface will be defined in order to take note of sidecar/auxiliary files, remove or purge them. Specific FileSystem related implementation will also physically remove or purge files from disk.

Status

Voting has started:


- [Andrea Aime](#)
- [Ben Caradoc-Davies](#)
- [Christian Mueller](#)
- [Ian Turton](#): +1
- [Justin Deoliveira](#)
- [Jody Garnett](#)
- [Simone Giannecchini](#)

Tasks

This section is used to make sure your proposal is complete (did you remember documentation?) and has enough paid or volunteer time lined up to be a success

no progress		done		impeded		lack mandate/funds/time		volunteer needed
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1. API changed based on BEFORE / AFTER
2. Remove deprecated code from GeoTools project

3. Implement it on imageMosaic and test it against H2 
4. Update the user guide

API Changes

StructuredGridCoverage2DReader

BEFORE:

```
public interface StructuredGridCoverage2DReader extends GridCoverage2DReader {
    ...
    boolean removeCoverage(String coverageName) throws IOException,
    UnsupportedOperationException;
    ...
}
```

AFTER:

```
public interface StructuredGridCoverage2DReader extends GridCoverage2DReader {
    ...
    /**
     * @deprecated use {@link #removeCoverage(String, boolean)}
     */
    boolean removeCoverage(String coverageName) throws IOException,
    UnsupportedOperationException;

    /**
     * removes a granule store for the specified coverageName. Also tries to delete
     the related files if requested
     */
    boolean removeCoverage(String coverageName, boolean delete) throws IOException,
    UnsupportedOperationException;

    /**
     * delete all stuff (database content, indexer files, property files, associated
     auxiliary files and so on).
     * The deleteData parameter specifies whether data should be deleted too or not.
     */
    void delete(boolean deleteData) throws IOException;
    ...
}
```

FileSetManager

AFTER:

```
public interface FileSetManager {
    /**
     * Add a file to the file set manager
     */
    void addFile(final String filePath);
    /**
     * Return the list of all the files currently added to the manager
     */
    List<String> list();
    /**
     * Remove a file from the manager (An implementation may also physically remove
the file)
     */
    void removeFile(final String filePath);
    /**
     * Remove all the files from the manager (An implementation may also physically
remove all the files)
     */
    void purge();
}
```

Usage Examples

```
final File file = new File("/data/mosaic");
StructuredGridCoverage2DReader reader = new ImageMosaicReader(file);

// delete all files associated to that mosaic (granules, auxiliary files, DB
entries, ...)
reader.delete(true);
```

Documentation Changes

list the pages effected by this proposal

- [Module Matrix page](#)