Validation Extension

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Status:	⭐⭐⭐⭐
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Recent Development

For the 2.2.x branch the validation module has:

- @completed goal@

Module Status

The validation module is stable.

IP Check

- http://svn.geotools.org/geotools/trunk/gt/modules/extension/validation/review.txt

Brent Owens sent the following email to the list on April 17th, 2006

> I have nearly completed the IP check on the validation module of Geotools.
>
> All the headers have been verified and corrected. I have also received word from Paul Ramsey (Refractions Research) that all the code in the module has been given to the community.
>
> Here is a list of files that had their headers changed (some had duplicate headers):
> DefaultFeatureResults.java
> DefaultFeatureValidation.java
> DefaultIntegrityValidation.java
> FeatureValidation.java
> IntegrityValidation.java
> PlugIn.java
> Validation.java
> ValidationBeanInfo.java
> ValidationResults.java
> Validator.java
> TempFeatureResults.java
> FeatureValidationTest.java
> IntegrityValidationTest.java
> RoadNetworkValidationResults.java
> RoadValidationResults.java
> UniqueFIDIntegrityValidation.java
> ValidationPlugInTester.java
> ValidationProcessorTest.java
> GazetteerNameValidationBeanInfoTest.java
> GazetteerNameValidationTest.java
> NullZeroValidationTest.java
> RangeFeatureValidationTest.java
> XMLReaderTest.java
> validation/relate/*
> PlugInDTO.java
> TestDTO.java
> TestSuiteDTO.java
> IsValidGeometryValidation.java
> LineCoveredByPolygonValidation.java
> LineNoSelfOverlappingValidation.java
> LinesNotIntersectValidation.java
> ArgHelper.java
> ReaderUtils.java
> ValidationException.java
> WriterUtils.java
> XMLReader.java
>
> –
> Brent Owens
> (The Open Planning Project)

Pertti Tapola points out that the following files contain GPL copyright notices, often in addition to the GeoTool LGPL header. **TO_RESOLVE** - this can be removed as per Chris Holmes's statement.

> ext\validation\src\org\geotools\validation\attributes\EqualityValidation.java
> ext\validation\src\org\geotools\validation\attributes\NullZeroValidation.java
> ext\validation\src\org\geotools\validation\attributes\RangeValidation.java

ext\validation\src\org\geotools\validation\attributes\UniqueFIDValidation.java
ext\validation\src\org\geotools\validation\attributes\UniquityValidation.java
ext\validation\src\org\geotools\validation\DefaultFeatureValidation.java
ext\validation\src\org\geotools\validation\DefaultIntegrityValidation.java
ext\validation\src\org\geotools\validation\dto\PlugInDTO.java
ext\validation\src\org\geotools\validation\dto\TestDTO.java
ext\validation\src\org\geotools\validation\dto\TestSuiteDTO.java
ext\validation\src\org\geotools\validation\FeatureValidation.java
ext\validation\src\org\geotools\validation\IntegrityValidation.java
ext\validation\src\org\geotools\validation\PlugIn.java
ext\validation\src\org\geotools\validation\relate\ContainsIntegrity.java
ext\validation\src\org\geotools\validation\relate\ContainsIntegrityBeanInfo.java
ext\validation\src\org\geotools\validation\relate\CrossesIntegrity.java
ext\validation\src\org\geotools\validation\relate\CrossesIntegrityBeanInfo.java
ext\validation\src\org\geotools\validation\relate\DisjointIntegrity.java
ext\validation\src\org\geotools\validation\relate\DisjointIntegrityBeanInfo.java
ext\validation\src\org\geotools\validation\relate\IntersectsIntegrity.java
ext\validation\src\org\geotools\validation\relate\IntersectsIntegrityBeanInfo.java
ext\validation\src\org\geotools\validation\relate\OverlapsIntegrity.java
ext\validation\src\org\geotools\validation\relate\OverlapsIntegrityBeanInfo.java
ext\validation\src\org\geotools\validation\relate\RelateIntegrity.java
ext\validation\src\org\geotools\validation\relate\RelateIntegrityBeanInfo.java
ext\validation\src\org\geotools\validation\relate\RelationIntegrity.java
ext\validation\src\org\geotools\validation\relate\RelationIntegrityBeanInfo.java
ext\validation\src\org\geotools\validation\relate\SpatialTestCase.java
ext\validation\src\org\geotools\validation\relate\TouchesIntegrity.java
ext\validation\src\org\geotools\validation\relate\TouchesIntegrityBeanInfo.java
ext\validation\src\org\geotools\validation\relate\WithinIntegrity.java
ext\validation\src\org\geotools\validation\relate\WithinIntegrityBeanInfo.java
ext\validation\src\org\geotools\validation\spatial\IsValidGeometryValidation.java
ext\validation\src\org\geotools\validation\spatial\LineCoveredByPolygonValidation.java
ext\validation\src\org\geotools\validation\spatial\LineNoSelfOverlappingValidation.java
ext\validation\src\org\geotools\validation\spatial\LinesNotIntersectValidation.java
ext\validation\src\org\geotools\validation\Validation.java
ext\validation\src\org\geotools\validation\ValidationBeanInfo.java
ext\validation\src\org\geotools\validation\ValidationResults.java
ext\validation\src\org\geotools\validation\Validator.java
ext\validation\src\org\geotools\validation\xml\ArgHelper.java
ext\validation\src\org\geotools\validation\xml\ReaderUtils.java
ext\validation\src\org\geotools\validation\xml\ValidationException.java
ext\validation\src\org\geotools\validation\xml\WriterUtils.java
ext\validation\src\org\geotools\validation\xml\XMLReader.java
ext\validation\test\org\geotools\validation\attributes\NullZeroValidationTest.java
ext\validation\test\org\geotools\validation\attributes\RangeFeatureValidationTest.java
ext\validation\test\org\geotools\validation\FeatureValidationTest.java
ext\validation\test\org\geotools\validation\IntegrityValidationTest.java
ext\validation\test\org\geotools\validation\relate\OverlapsIntegrityTest.java
ext\validation\test\org\geotools\validation\RoadNetworkValidationResults.java
ext\validation\test\org\geotools\validation\RoadValidationResults.java
ext\validation\test\org\geotools\validation\UniqueFIDIntegrityValidation.java

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ext\validation\test\org\geotools\validation\ValidationPlugInTester.java
ext\validation\test\org\geotools\validation\ValidationProcessorTest.java
ext\validation\test\org\geotools\validation\xml\XMLReaderTest.java
```

Future Plans

The validation module depends on an the definition of a "typeRef" basically encoding a "datastoreId:::typeName" into a string for lookup into a Registry. The registery interface is provided by GeoServer (and also by uDig) as a way of letting integrity tests lookup a feature source to verification.

The is a bad idea for two reasons:

- it is not strongly typed
- it causes confusion with the namespace:typeName used during GML output

There are two solutions:

- use the TypeName (extends Name) from GeoAPI, as provided for in 2.3 Feature Model development
- use the Catalog System IGeoResource (an actual resource handle)

Both offer strong typing and avoid the possibility of confusion.

Outstanding Issues

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.