Who is using GeoTools?

GeoServer

GeoServer is an OGC "Transactional Web Feature Server" (WFS-T) that provides read/write access to numerous data sources via standard internet protocols.

http://geoserver.sourceforge.net

uDig

User-friendly Desktop Internet GIS (uDig) is an open source spatial data viewer/editor, with special emphasis on the open geospatial standards for internet GIS: the Web Map Server and Web Feature Server. uDig is built on the eclipse framework, providing a common Java platform for building spatial applications with open source components.

http://udig.refractions.net/

Institut de Recherche pour le Développement

Uses GeoTools to make custom geographic tools to analyze the relationship between tuna behaviour and its environment. This study involves statistical analysis between remote sensing data (such as GridCoverage3D, with time as the third dimension) and 150,000 fishery positions. GeoTools is also used as the kernel for an information system related to water management in some Pacific islands.

VisionOfBritain

A web site displaying historical census data as maps and graphs. The maps are served using OGC web map servers, the client is written in GeoTools and JSP. The server providing the statistical maps is also written using GeoTools.

http://www.visionofbritain.org.uk

More Information

For more information about GeoTools and related projects, please visit these sites:

- GeoTools - http://www.geotools.org
- GeoApi - http://geoapi.sourceforge.net/
- JTS - http://www.vividsolutions.com/jts/
- Open Geospatial Consortium - http://www.opengeospatial.org

Refractions Research

Refractions Research is a GIS and database consulting and development corporation, specializing in enterprise spatial databases, data integration and open-source spatial solutions.

Refractions offers consulting services in spatial systems architecture, GeoTools, uDig, MapServer, GeoServer and PostGIS/PostgreSQL.

For more information, please contact:

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GeoTools

The Open Source Java GIS toolkit

Developed in Part by
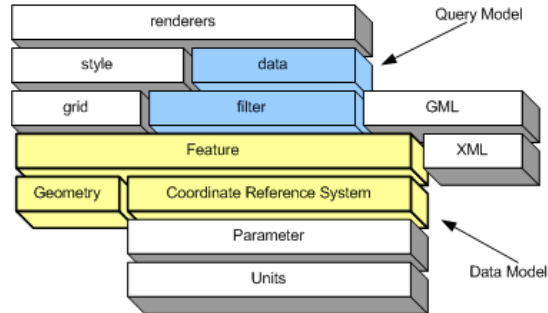
Refractions Research Inc.
Victoria - British Columbia - Canada
http://www.geotools.org | http://www.refractions.net

About GeoTools

GeoTools is an open source Java GIS toolkit providing implementations of many Open Geospatial Consortium (OGC) specifications. GeoTools is also associated with the GeoAPI project that creates geospatial Java interfaces.

renderers | Query Model
style | data
grid | filter | GML
Feature | XML
Geometry | Coordinate Reference System
Parameter | Data Model
Units

GeoTools code is built using the latest Java tools and environments, and its modular architecture allows extra functionality to be easily incorporated. GeoTools code is released under the GNU Lesser General Public License (LGPL).

GeoTools includes the following features:

- Vector data access for:

  - ESRI Shapefiles
  - OGC Geography Markup Language (GML)
  - OGC Web Feature Server (WFS)
  - PostGIS
  - Oracle Spatial
  - ArcSDE
  - MySQL

- Raster data access for:

  - OGC Web Mapping Server (WMS)
  - ArcGrid
  - GeoTIFF
  - Images georeferenced with a world file

- Support for the OGC Simple Features Specification using Java Topology Suite (JTS) as the geometry model for vector features

- OGC Grid Coverage implementation backed by Java Advanced Imaging (JAI) API

- OGC Coordinate Transformation Services, providing coordinate reference systems and coordinate transformations (map projections and datum transformations)

- Two Renderers:

  - LiteRenderer - a 'stateless', low memory renderer, particularly useful in server-side environments
  - J2D - a 'stateful' renderer with optimizations for update rate and good for interactive client-side displays

- OGC Styled Layer Descriptor (SLD) support

- Support for the OGC Filter Encoding specification to specify a subset of features to operate on based on attribute and spatial constraints

- Graphs and networks

Development Roadmap

Current GeoTools Release Version 2.0

- Released January 2005
- Above features without raster access.
- Used for GeoServer 1.2

Upcoming GeoTools Release Version 2.1

- April 2005
- Implements GeoAPI interfaces for coordinate transformations and grid coverages
- Used for uDig 1.0 and GeoServer 1.3

Future GeoTools Release Version 2.2

- Further support for GeoAPI interfaces, including the new geometry model.

Development Team

GeoTools is produced by a global team of independent developers and organizations.

Project Leader: James Macgill
Project Management Committee: maintenance and future direction of the entire toolkit
Module Maintainers: maintain and oversee a specific GeoTools module
Committers: core group of twenty four active developers with source code access
Developers: larger community that submits patches