GeoServer

the Open Source server for the dissemination of geospatial data

http://geoserver.geo-solutions.it

GeoServer is an Open Source product developed to ingest, manage and serve both raster and vector geospatial data as well as to create and disseminate georeferenced maps obtained overlaying rendered versions of data previously ingested. It provides the basic functionalities to create interoperable Spatial Data Infrastructures (SDI) according to standards by the Open Geospatial Consortium (OGC) and the ISO Technical Committee 211 (ISO TC 21 1).
GeoServer is built with Java Enterprise technologies therefore it works on Windows, Linux and Mac platform either 32 or 64 bit, it is simple to install and to deploy and it is manageable through a user-friendly web interface.

GeoServer is …

Open Source
GeoServer is distributed under GPL licence. It is available with its own source code without any upfront costs. Say no to vendor lock-in and complex licensing schemes.

Designed with standards in mind
GeoServer has been created to be a valid tool for the creation of distributed interoperable spatial data infrastructures: it supports a wide range of standards both edited by internationally renowned bodies like OGC and ISOTC211 (mandatory for INSPIRE) as well as de-facto like GEOJson.

Developed according to Enterprise Class Principles
GeoServer has been developed with best-of-breed JAVA Enterprise frameworks. GeoServer is highly modular, extensible and configurable.

GeoServer will allow you to …

Connect to and serve from a variety of sources
GeoServer supports a multitude of data sources both raster and vector which include the most important formats as Oracle Spatial, Shapefile, ESRI, ArcSDE, Geotiff, ECW. It is also possible to connect to new data sources by using the extension points available for the software developers.

Create beautiful maps
GeoServer provides great support for map rendering through the WMS and KML services both for raster and vector data.

Leveraging on style documents created according to the OGC SLD standards and with the support of a large number of extensions it allows users to create stunning cartographic renderings.

Create powerful business processes
GeoServer allows the user to create complex business geoprocesses to provide functionalities to expose to the web in an interoperable way through the OGC WPS protocol.

Access to your data safely from anywhere
GeoServer provides a robust and configurable security subsystem of services and data able to integrate itself with existing Enterprise systems such as LDAP, CAS and Active Directory.

Configure layers via user interface or REST API
GeoServer can be used as standalone tool for the data managing and publishing as well as inside complex workflows controlled programmatically through its REST API.

Never feel alone!
You will have at your disposal a large and active Open Source community as well as the possibility of purchasing one of our professional Enterprise Support Plans.

GeoSolutions
Your one-stop-shop for geospatial open source software

Standards Supported

OGC WFS 1.0.0, 1.1.0, 2.0
OGC WMS 1.1.1, 1.3.0
OGC WCS 1.0.0, 1.1.1
OGC WMTS 1.0
OGC WPS 1.0.0
OGC KML
OGC SLD 1.0, SE 1.1
TMS 1.0.0
WMS-C 1.1.1
OGC Filter Encoding
Simple GeoRSS
GeoJSON
GeoSearch
LDAP
CAS
FTP

Input Formats

ESRI ShapeFile
Spatialite
PostGIS
Sql Server
Oracle 10, 11
MySQL
IBM DB2
GeoTiff
Tiff
PNG
JPEG
ESRI Ascii Grid
ESRI Binay GRID
ECW
MrSID
JPEG2000
DOQ1
DOQ2
GTOPO30
DTED
CADRG
ESRI ArcSDE
H2
ImageMosaic
ImagePyramid
Teradata
VPF
ERDAS Image
ENVI HDR
ESRI HDR
NITF
RPFTOC
OGC WMS 1.1.1, 1.3.0
OGC WFS 1.0.0, 1.1.0
GeoCouch
MongoDB
Matlab MAT File 5

Output Formats

GML 2, 3.1, 3.2 (GZIP)
GeoRSS
GeoJSON
Excel
PDF
PNG
JPEG
GeoTiff/Tiff
GIF
KML
CSV
ShapeFile
AtomPub

Technological Stack

Java Enterprise
Spring
Java Topology Suite
GeoTools
Java Advanced Imaging
Java ImageIO/ ImageIO-Ext
GDAL/OGR
Kakadu
Apache Wicket
OpenLayers

Available Extensions

Enteprise Clustering
Enteprise Security
OGR Output Formats
ImageMap output
GeoSearch
Control Flow
Enterprise Monitoring
Web Based Importer
Vector Styler
WorldWind Integration
INSPIRE Compliance
Printing
CSS Styling
Google Like Charts
Complex Feature Support
Freemarker Templates

Rendering Options

OGC SLD 1.0 rendering for raster and vector data
CSS like rendering for vector data
Scale Based Rendering
Google Like Charts
Raster ColorMaps
Raster-To-Vector (point)
Raster Contouring
Polygonalization
Dynamic Symbolizer
Label followLine Option
Label conflict Resolution
Label repeat Option
Label group Option
DPI Customization
Palette Based Rendering
Efficient Palette inversion

Metatiling
Real world units of measure
Geometry Transformations

Available GeoProcesses

JTS:area
JTS:boundary
JTS:buffer
JTS:centroid
JTS:contains
JTS:convexHull
JTS:crosses
JTS:densify
JTS:difference
JTS:dimension
JTS:disjoint
JTS:distance
JTS:endPoint
JTS:envelope
JTS:equalsExact
JTS:equalsExactTolerance
JTS:exteriorRing
JTS:geometryType
JTS:getGeometryN
JTS:getX
JTS:getY
JTS:interiorPoint
JTS:interiorRingN
JTS:intersection
JTS:intersects
JTS:isClosed
JTS:isEmpty
JTS:isRing
JTS:isSimple
JTS:isValid
JTS:isWithinDistance
JTS:length
JTS:numGeometries
JTS:numInteriorRing
JTS:numPoints
JTS:overlaps
JTS:pointN
JTS:relate
JTS:relatePattern
JTS:simplify
JTS:startPoint
JTS:symDifference
JTS:touches
JTS:union
JTS:within
gs:AddCoverages
gs:Aggregate
gs:AreaGrid
gs:BarnesSurface
gs:Bounds
gs:BufferFeatureCollection
gs:Centroid
gs:Clip
gs:CollectGeometries
gs:Contour
gs:CropCoverage
gs:Feature
gs:GeorectifyCoverage
gs:GetFullCoverage
gs:Grid
gs:Heatmap
gs:Import
gs:InclusionFeatureCollection
gs:IntersectionFeatureCollection
gs:LRSGeocode
gs:LRSMeasure
gs:LRSSegment
gs:MultiplyCoverages
gs:Nearest
gs:PointStacker
gs:PolygonExtraction
gs:Query
gs:RangeLookup
gs:RasterAsPointCollection
gs:RasterZonalStatistics
gs:RectangularClip
gs:Reproject
gs:ReprojectGeometry

Reference Users

NATO CMRE
FAO - NRL
FAO - ESTG
FAO - CIOK
FAO - FIGIS
GMES
USGS
NOOA
City of Prato
City of Florence
City of New York
City Of Wien
World Food Program
County of Florence
County of Bozen
County of Treviso
Trimet Portland
The World Bank
SFMTA
MASSGis
Landgate
GEM
BAE Systems
Astrium UK
FCC
CSI Piemonte

Minimal Requirements

2 Cores, 2GHz each
2 GB RAM
2 GB Disk Space (data not considered)
Oracle JDK 1.6.x
Apache Tomcat 6.0.x *or*
JBOSS *or*
GlassFish *or*
Jetty *or*
WebLogic

GeoSolutions

Your one-stop-shop for geospatial open source software