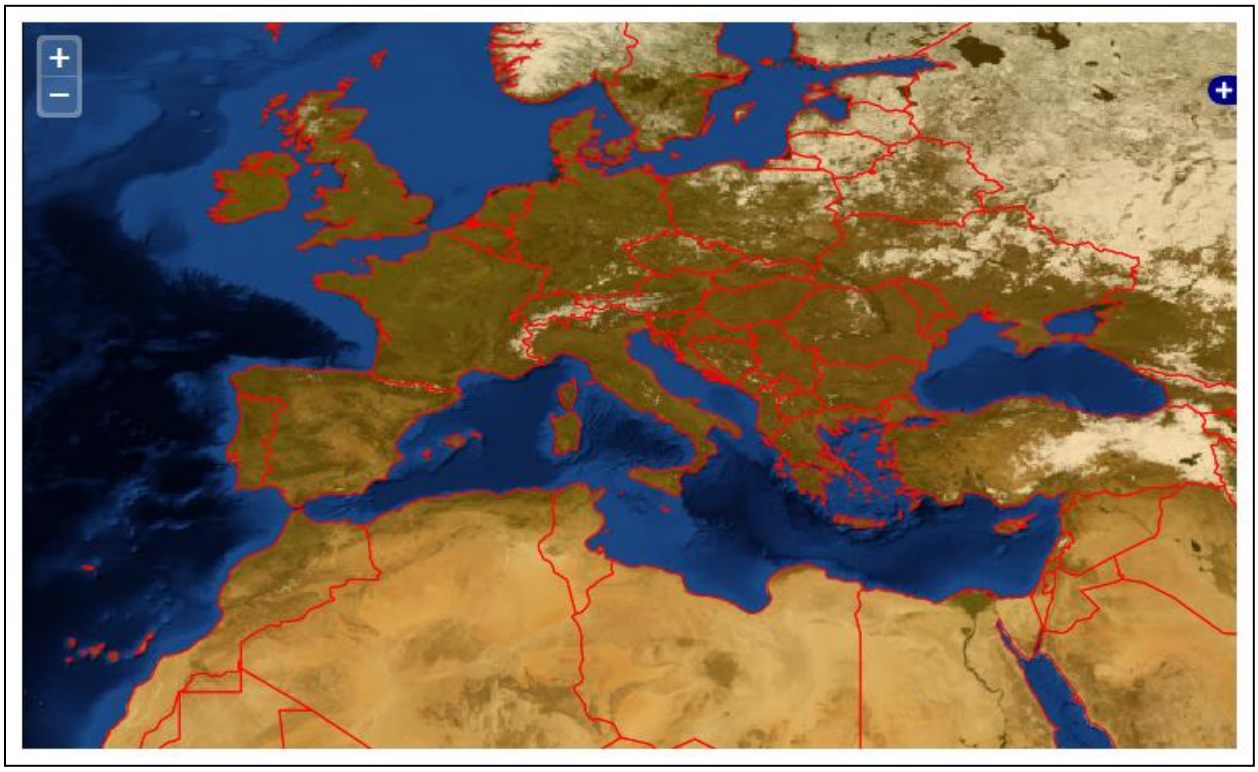
GeoServer Cookbook

Chapter 1: Working with Vectors

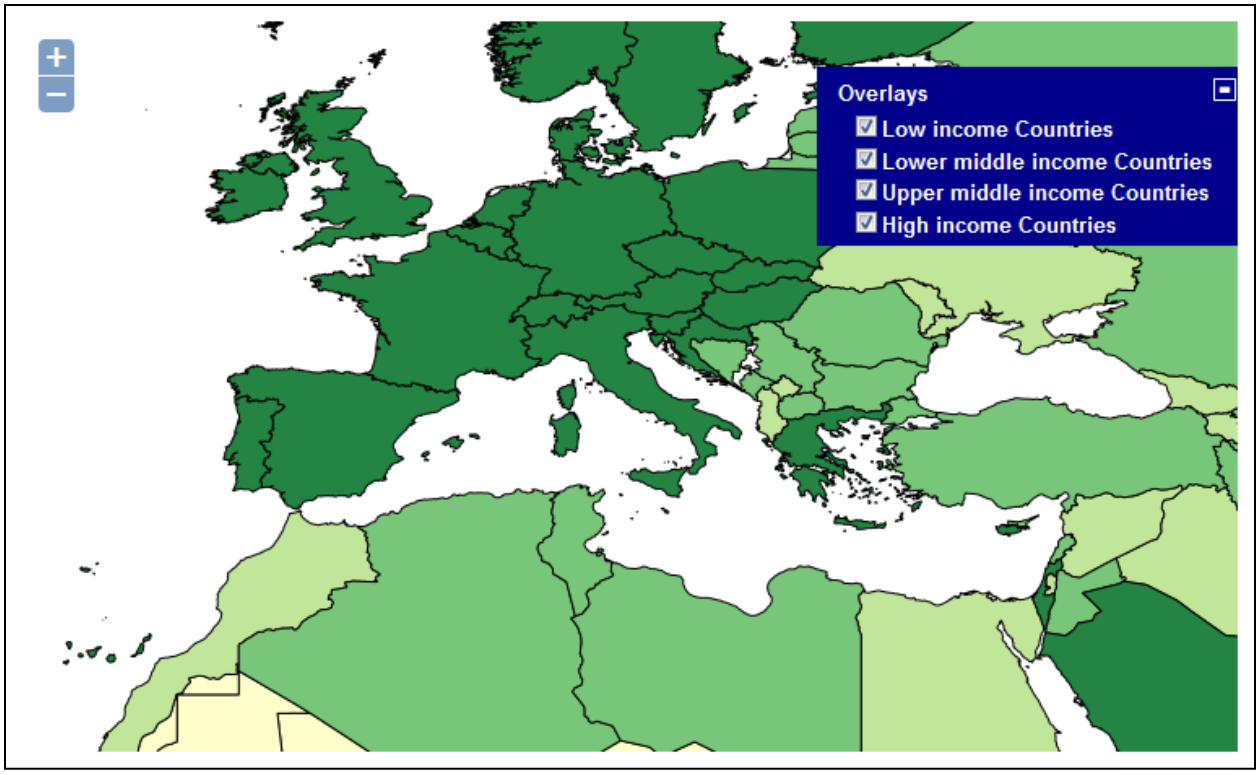


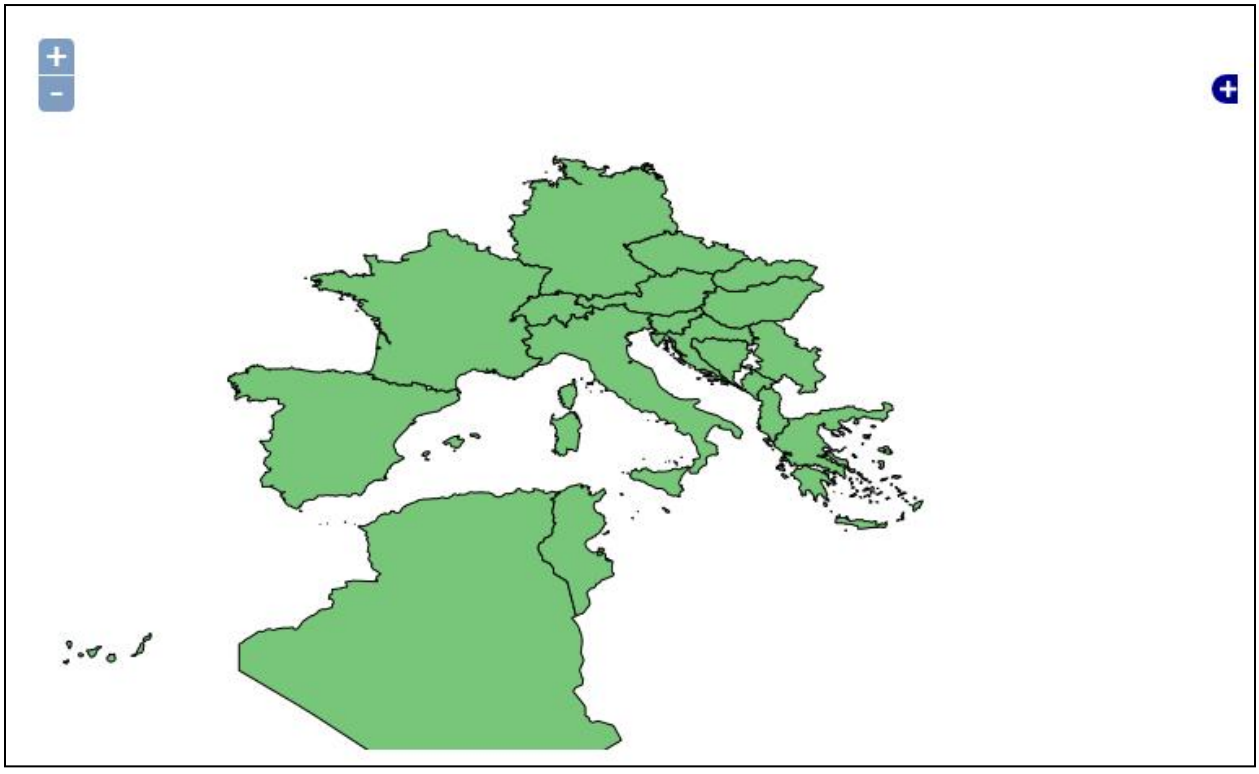
POST wfs 200 OK ubuntu1204x64vm:8080 3,3 MB 192.168.150.11:8080 13,8

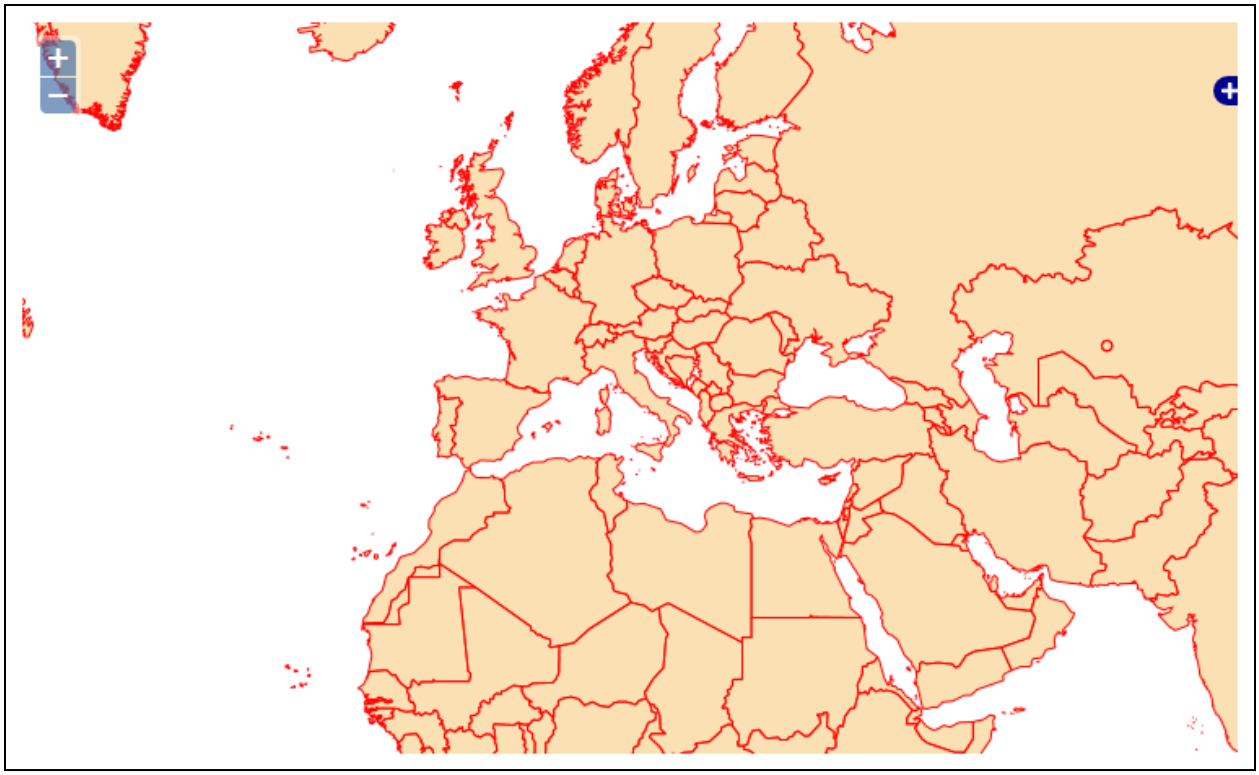
Intestazioni | Post | Risposta | XML | Cache | Cookie

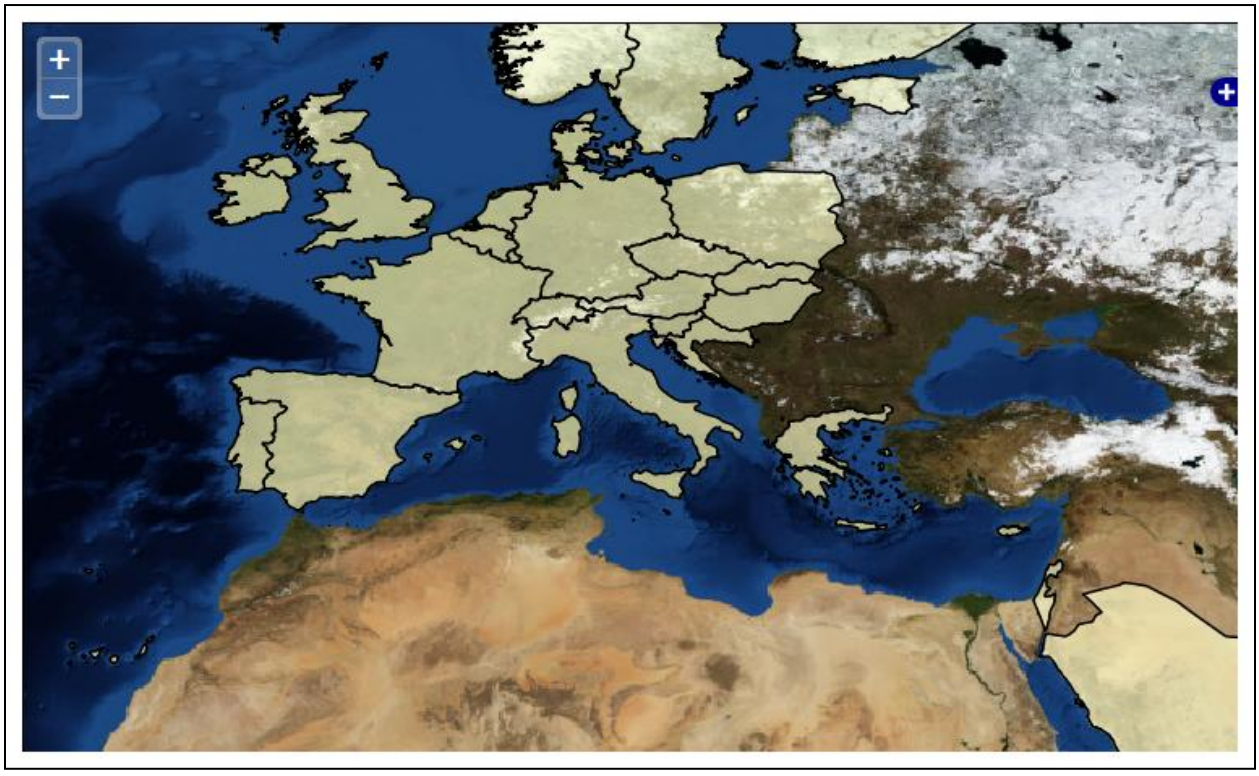
XML

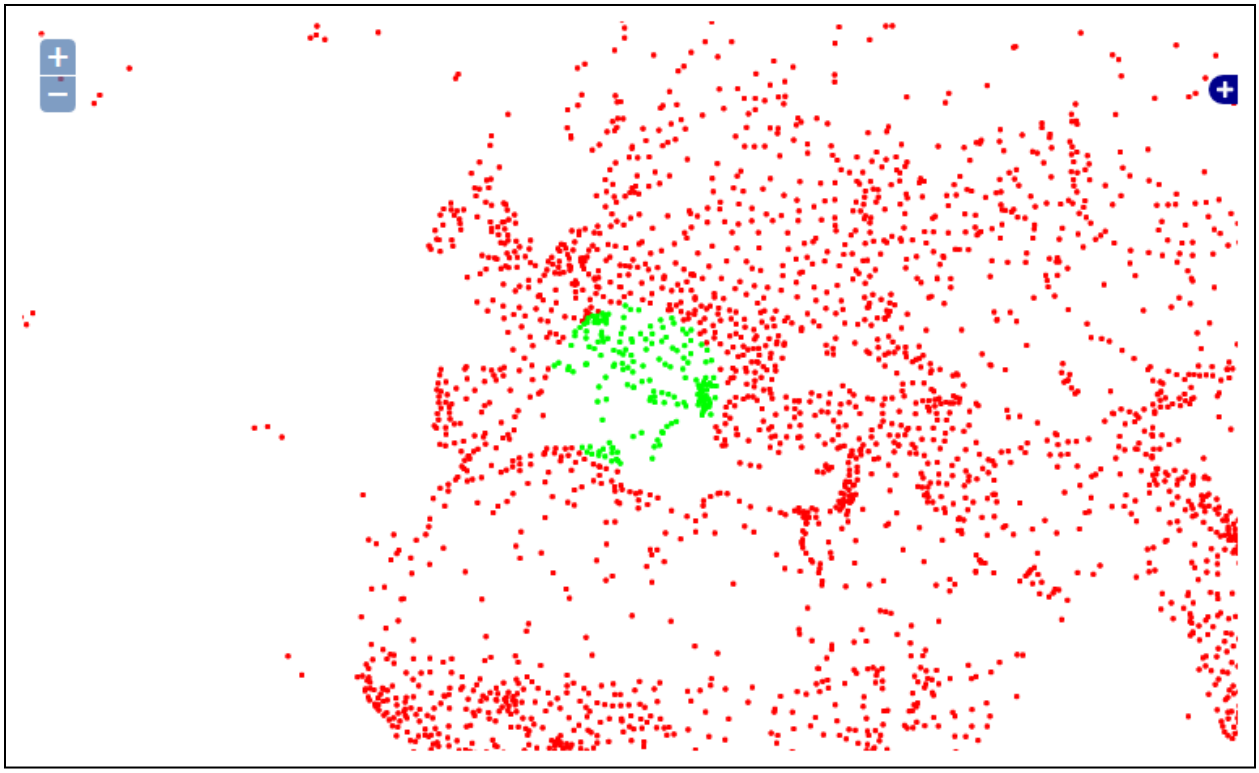
```
<wfs:GetFeature xmlns:wfs="http://www.opengis.net/wfs" service="WFS" version="1.0.0" xsi:schemaLocation="http:
//www.opengis.net/wfs http://schemas.opengis.net/wfs/1.0.0/WFS-transaction.xsd" xmlns:xsi="http://www.w3.org
/2001/XMLSchema-instance">
    <wfs:Query typeName="feature:countries" xmlns:feature="http://www.naturalearthdata.com/">
        <ogc:Filter xmlns:ogc="http://www.opengis.net/ogc">
            <ogc:BBOX>
                <ogc:PropertyName>geom</ogc:PropertyName>
                <gml:Box xmlns:gml="http://www.opengis.net/gml" srsName="EPSG:4326">
                    <gml:coordinates decimal="." cs="," ts=" ">-53.43796875,3.04921875
                    78.39796875,82.15078125</gml:coordinates>
                </gml:Box>
            </ogc:BBOX>
        </ogc:Filter>
    </wfs:Query>
</wfs:GetFeature>
```


Overlays
Low income Countries
Lower middle income Countries
Upper middle income Countries
High income Countries









Layers

Manage the layers being published by GeoServer

Add a new resource

Remove selected resources

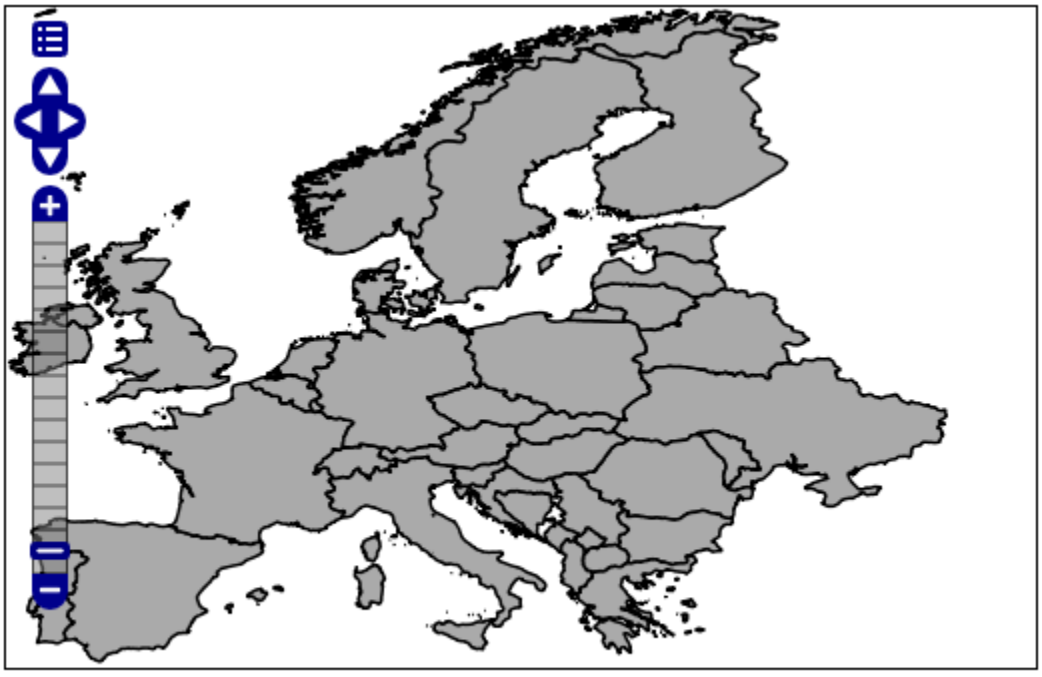
Add layer from NaturalEarth:PostGISLocal

You can create a new feature type by manually configuring the attribute names and types. **Create new feature type...**
On databases you can also create a new feature type by configuring a native SQL statement. **Configure new SQL view...**
Here is a list of resources contained in the store 'PostGISLocal'. Click on the layer you wish to configure

Attributes

Refresh ☑ Guess geometry type and srid

Name	Type	SRID
admin	String	
geom	MultiPolygon	4326



Scale = 1 : 43M 10.73966, 48.01890

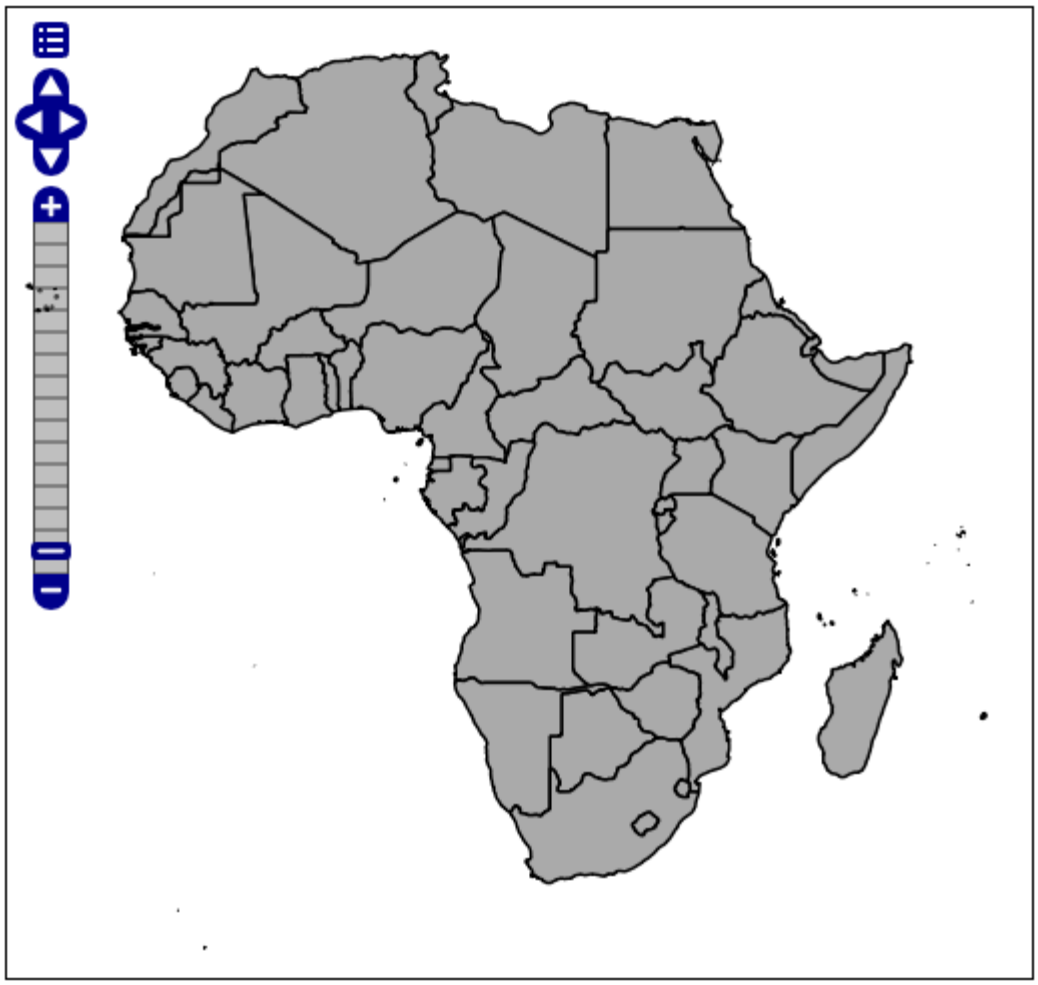
Click on the map to get feature info

SQL view parameters

Guess parameters from SQL Add new parameter Remove selected

	Name	Default value
	continent	Africa

Escape special SQL characters



Scale = 1 : 69M 4.31554, 17.02498

Click on the map to get feature info

Vector Data Sources

- Directory of spatial files (shapefiles) - Takes a directory of shapefiles and exposes it as a data store
- Generalizing data store - Data store supporting generalized geometries
- PostGIS - PostGIS Database
- PostGIS (JNDI) - PostGIS Database (JNDI)

Connection Parameters

RepositoryClassName *

org.geoserver.data.gen.DSFinderRepository

GeneralizationInfosProviderClassName *

org.geoserver.data.gen.info.GeneralizationInfosProvide

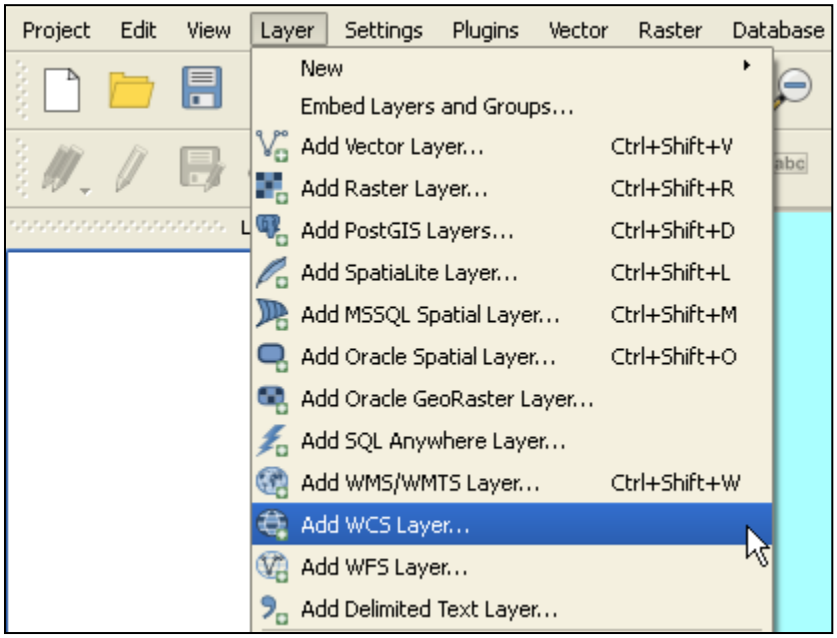
GeneralizationInfosProviderParam

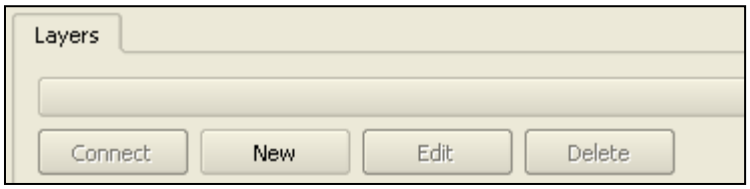
file:data/geninfo_postgis.xml

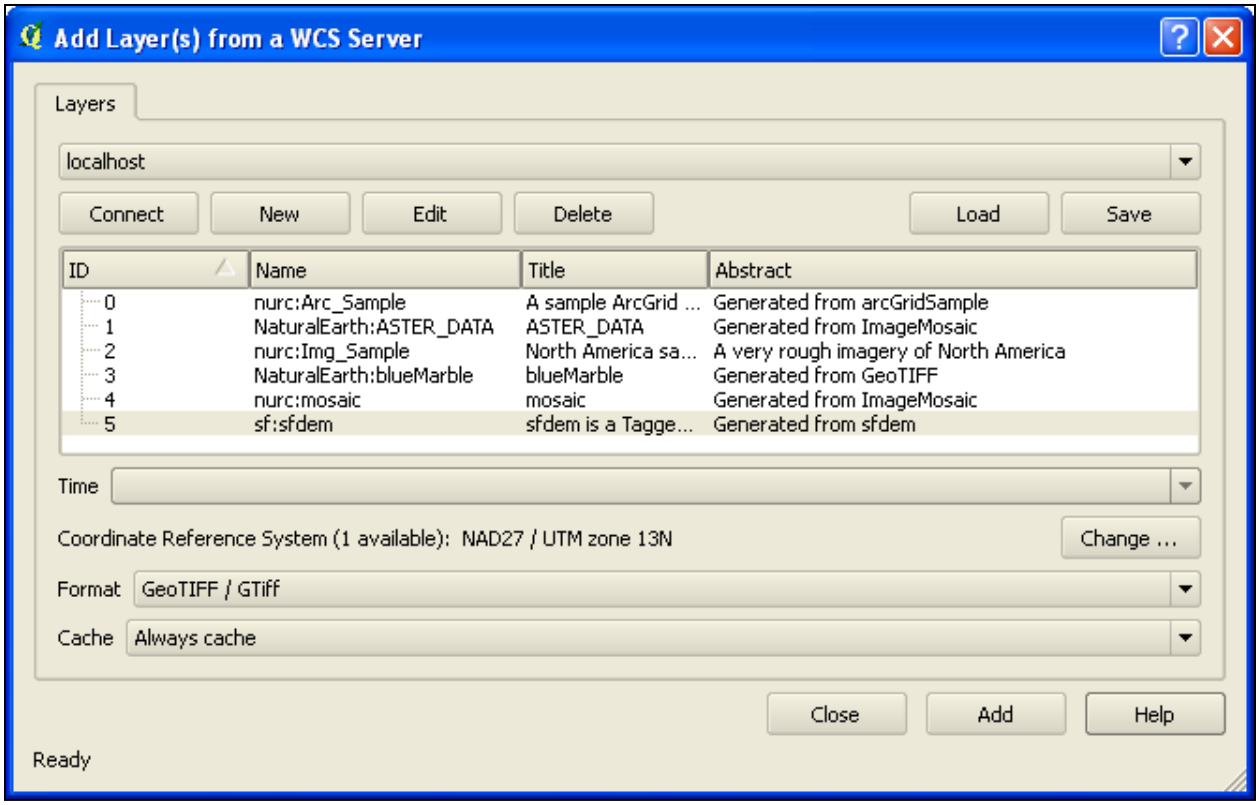
Namespace *

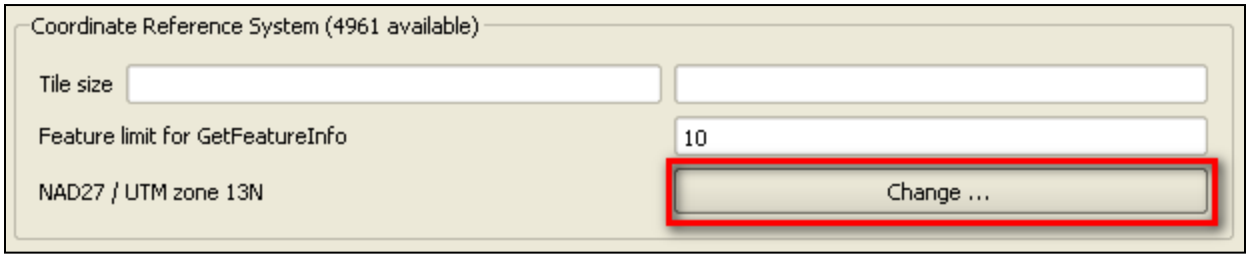
http://www.naturalearthdata.com/

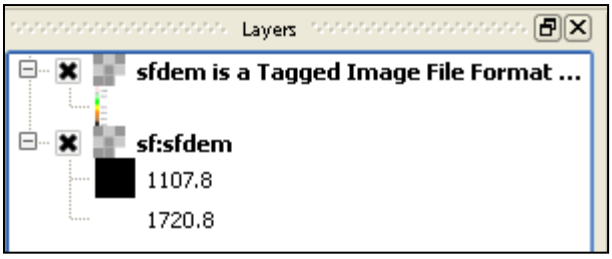
Chapter 2: Working with Rasters

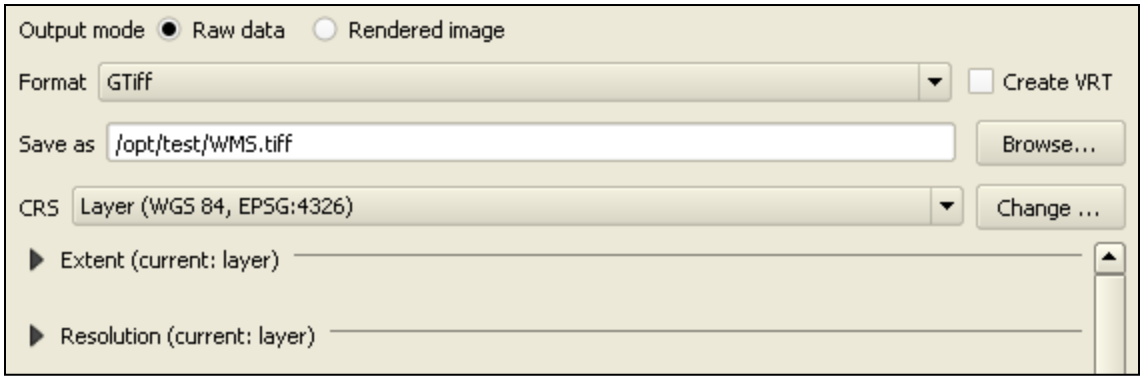


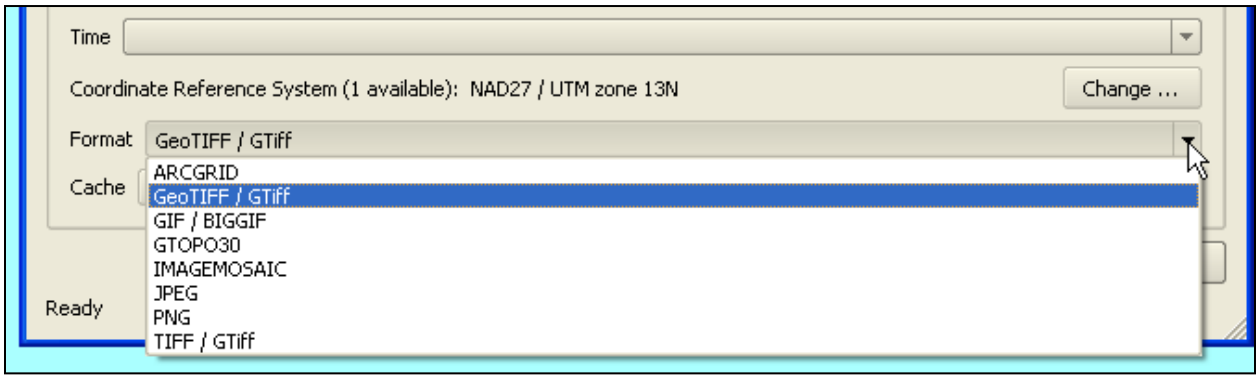


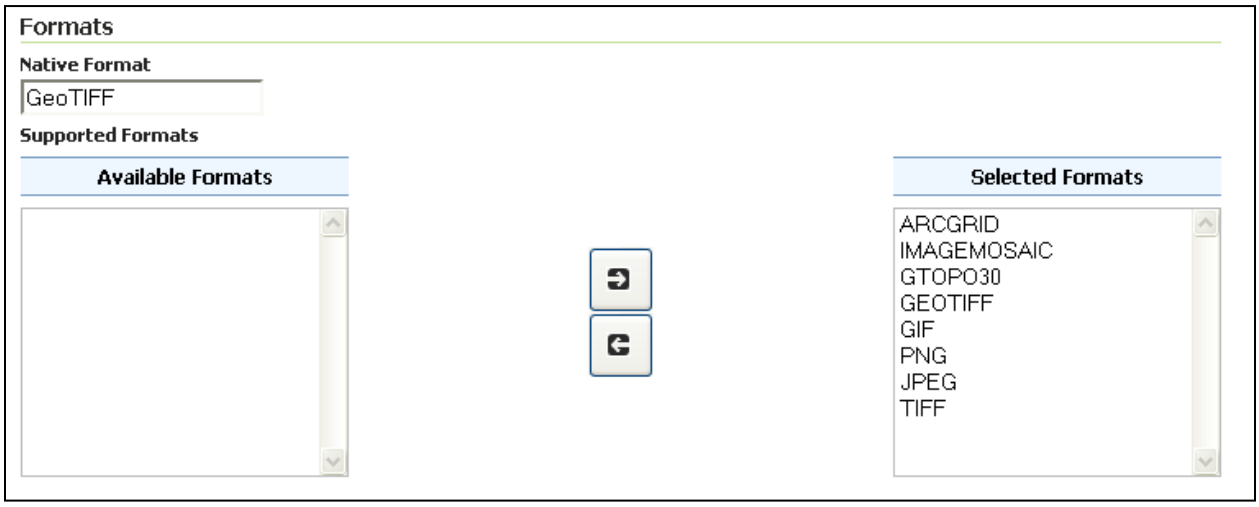

Add Layer(s) from a WCS Server
Layers
localhost
Connect
New
Edit
Delete
Load
Save
ID
Name
Title
Abstract
0 nurc:Arc_Sample A sample ArcGrid ... Generated from arcGridSample
1 NaturalEarth:ASTER_DATA ASTER_DATA Generated from ImageMosaic
2 nurc:Img_Sample North America sa... A very rough imagery of North America
3 NaturalEarth:blueMarble blueMarble Generated from GeoTIFF
4 nurc:mosaic mosaic Generated from ImageMosaic
5 sf:sfdem sfdem is a Tagge... Generated from sfdem
Time
Coordinate Reference System (1 available): NAD27 / UTM zone 13N
Change ...
Format GeoTIFF / GTiff
Cache Always cache
Close
Add
Help
Ready

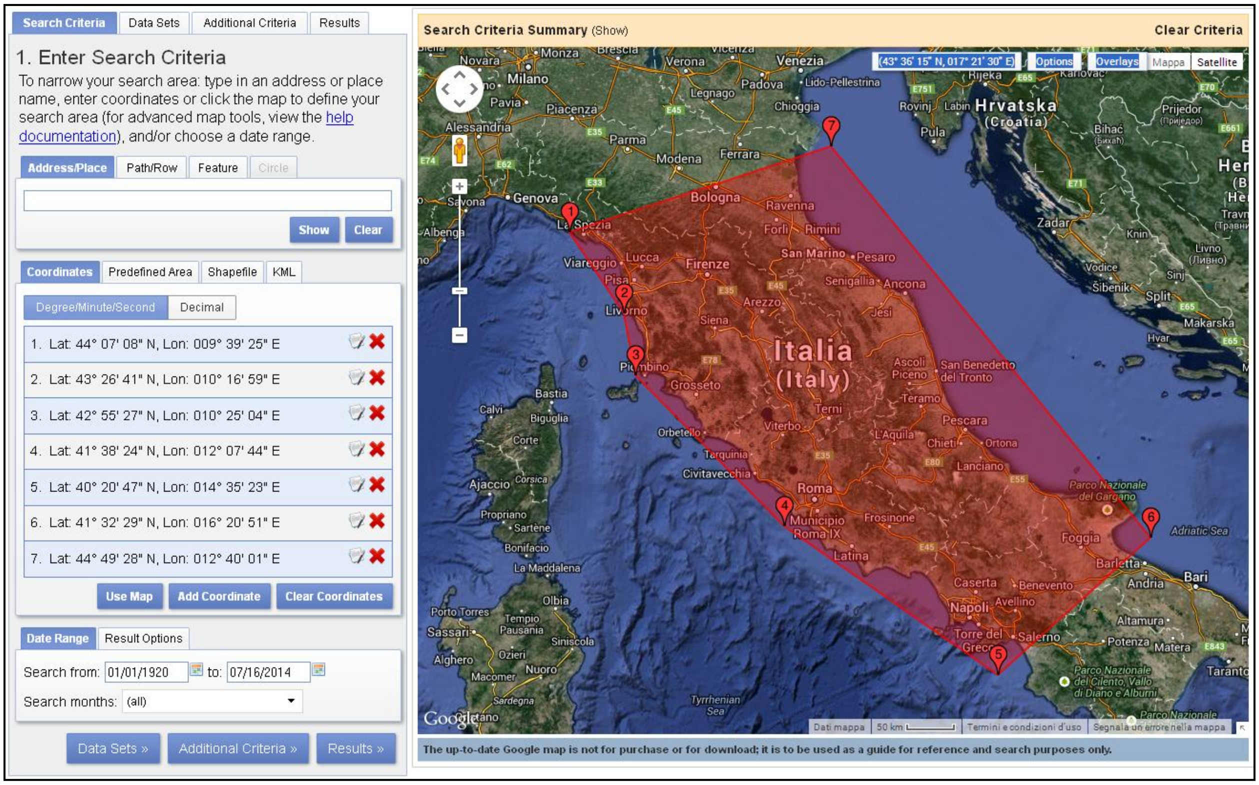

Coordinate Reference System (4961 available)
Tile size
Feature limit for GetFeatureInfo
10
NAD27 / UTM zone 13N
Change ...

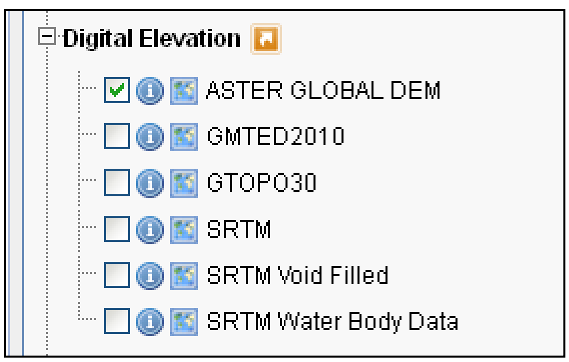

Layers
sfdem is a Tagged Image File Format ...
sf:sfdem
1107.8
1720.8

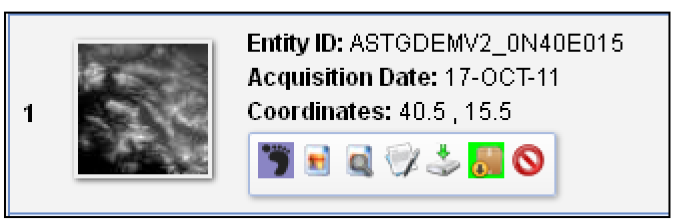

Output mode
Raw data
Rendered image
Format
GTiff
Create VRT
Save as
/opt/test/WMS.tiff
Browse...
CRS
Layer (WGS 84, EPSG:4326)
Change ...
Extent (current: layer)
Resolution (current: layer)

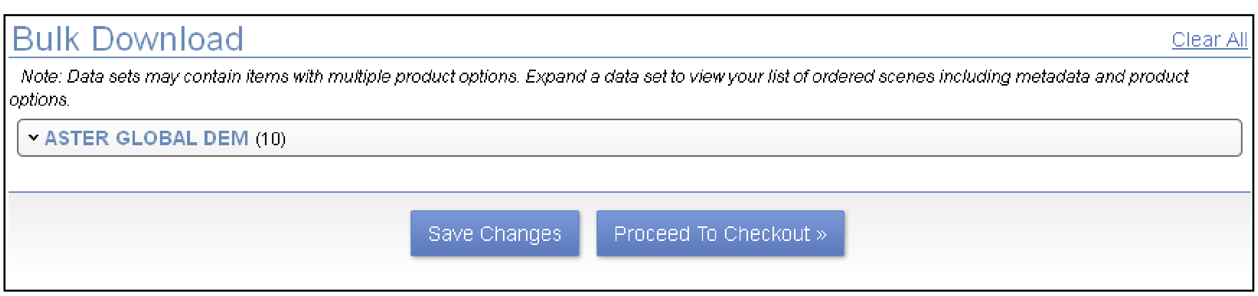

Time
Coordinate Reference System (1 available): NAD27 / UTM zone 13N
Change ...
Format
GeoTIFF / GTiff
Cache
ARCGRID
GeoTIFF / GTiff
GIF / BIGGIF
GTOPO30
IMAGEMOSAIC
JPEG
PNG
TIFF / GTiff
Ready

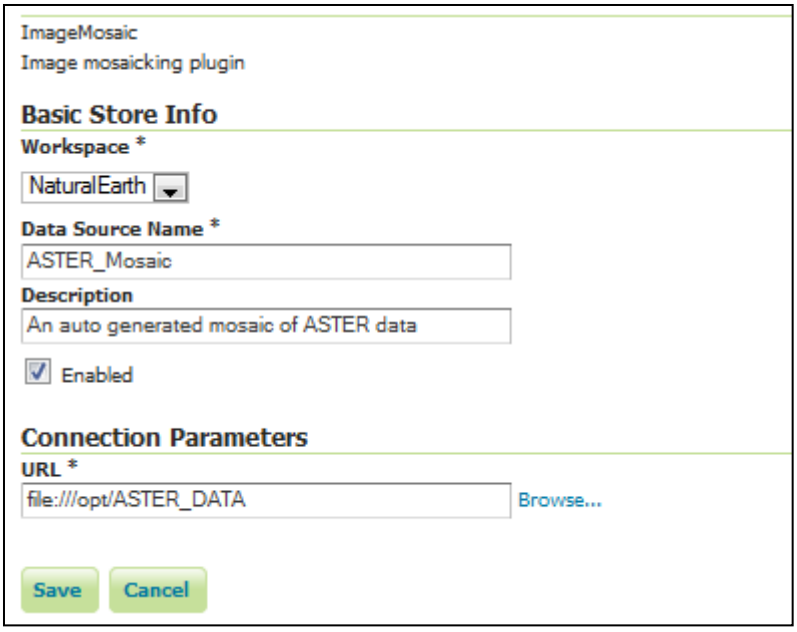

Formats
Native Format
GeoTIFF
Supported Formats
Available Formats
Selected Formats
ARCGRID
IMAGEMOSAIC
GTOPO30
GEOTIFF
GIF
PNG
JPEG
TIFF

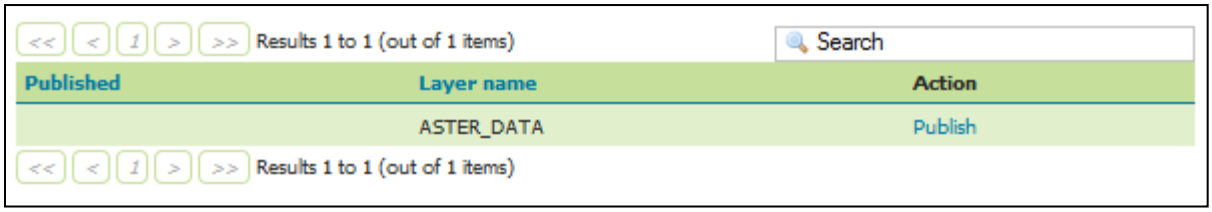

Search Criteria
Data Sets
Additional Criteria
Results
1. Enter Search Criteria
To narrow your search area: type in an address or place name, enter coordinates or click the map to define your search area (for advanced map tools, view the help documentation), and/or choose a date range.
Address/Place
Path/Row
Feature
Circle
Show
Clear
Coordinates
Predefined Area
Shapefile
KML
Degree/Minute/Second
Decimal
1. Lat: 44° 07' 08" N, Lon: 009° 39' 25" E
2. Lat: 43° 26' 41" N, Lon: 010° 16' 59" E
3. Lat: 42° 55' 27" N, Lon: 010° 25' 04" E
4. Lat: 41° 38' 24" N, Lon: 012° 07' 44" E
5. Lat: 40° 20' 47" N, Lon: 014° 35' 23" E
6. Lat: 41° 32' 29" N, Lon: 016° 20' 51" E
7. Lat: 44° 49' 28" N, Lon: 012° 40' 01" E
Use Map
Add Coordinate
Clear Coordinates
Date Range
Result Options
Search from: 01/01/1920 to: 07/16/2014
Search months: (all)
Data Sets »
Additional Criteria »
Results »
Search Criteria Summary (Show)
Clear Criteria
(43° 36' 15" N, 017° 21' 30" E)
Options
Overlays
Mappa
Satellite
Italia
(Italy)
Hrvatska
(Croatia)
Roma
Napoli
Bologna
Firenze
Venezia
Genova
Bari
Tyrrhenian Sea
Adriatic Sea
The up-to-date Google map is not for purchase or for download; it is to be used as a guide for reference and search purposes only.

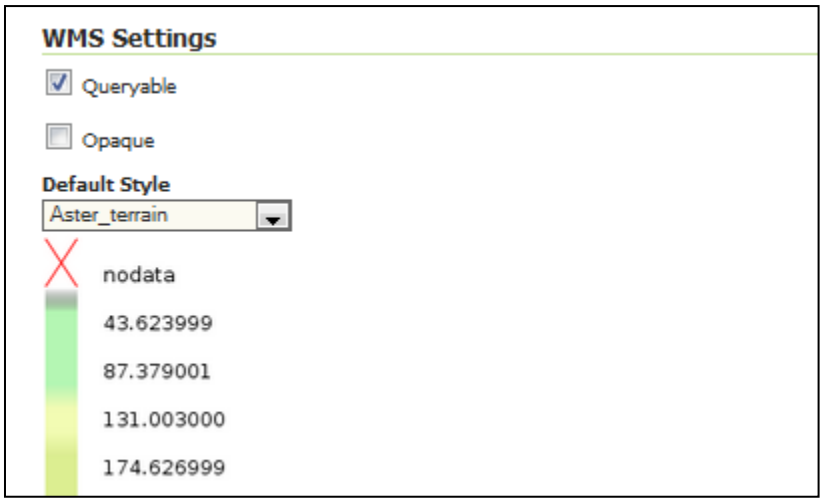

Digital Elevation
ASTER GLOBAL DEM
GMTED2010
GTOPO30
SRTM
SRTM Void Filled
SRTM Water Body Data

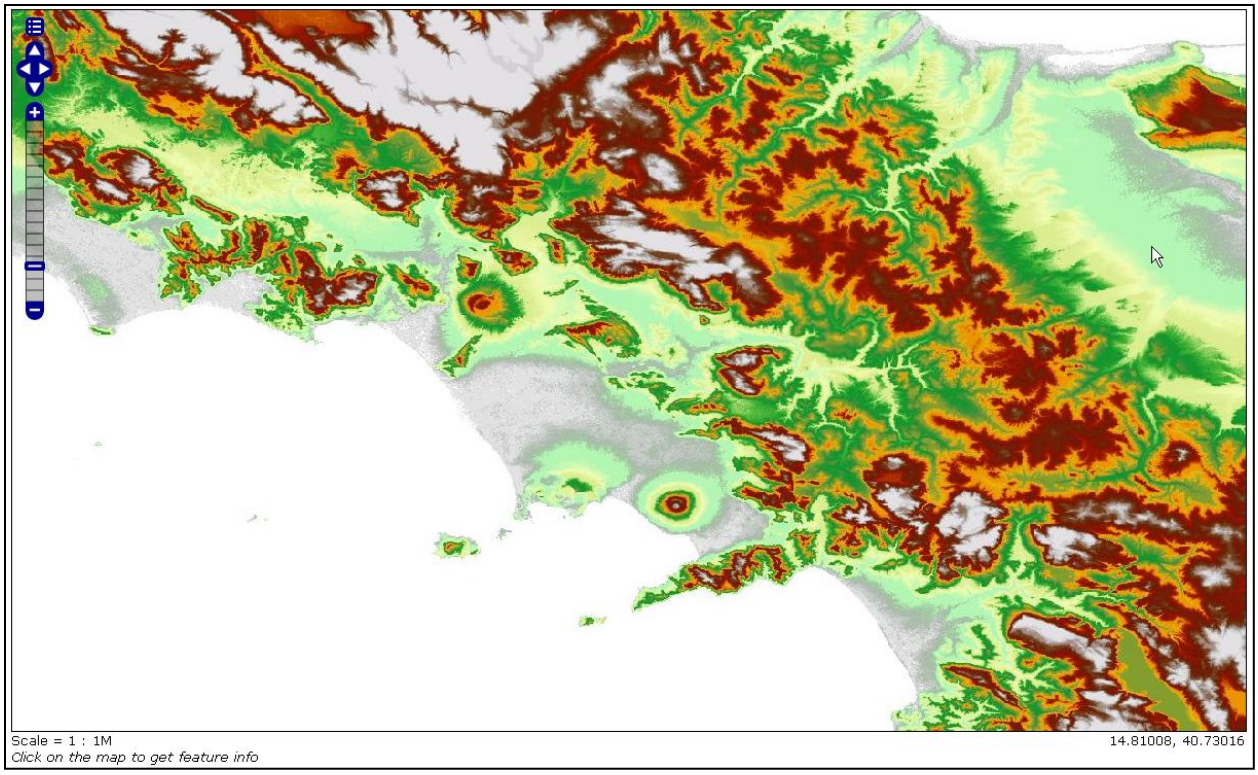

1
Entity ID: ASTGDEMV2_0N40E015
Acquisition Date: 17-OCT-11
Coordinates: 40.5 , 15.5


Bulk Download
Clear All
Note: Data sets may contain items with multiple product options. Expand a data set to view your list of ordered scenes including metadata and product options.
ASTER GLOBAL DEM (10)
Save Changes
Proceed To Checkout »


ImageMosaic
Image mosaicking plugin
Basic Store Info
Workspace *
NaturalEarth
Data Source Name *
ASTER_Mosaic
Description
An auto generated mosaic of ASTER data
Enabled
Connection Parameters
URL *
file:///opt/ASTER_DATA
Browse...
Save
Cancel


Results 1 to 1 (out of 1 items)
Search
Published
Layer name
Action
ASTER_DATA
Publish
Results 1 to 1 (out of 1 items)


WMS Settings
Queryable
Opaque
Default Style
Aster_terrain
nodata
43.623999
87.379001
131.003000
174.626999



Coverage Formats

- GDAL
- Image Pyramid
- JPEG2K
- JDBC Image Mosaic

Basic Store Info

Workspace *

NaturalEarth

Data Source Name *

atser_pyramid

Description

Enabled

Connection Parameters

URL *

file:/opt/pyramid_aster/pyramids

Save Cancel

Raster Data Sources

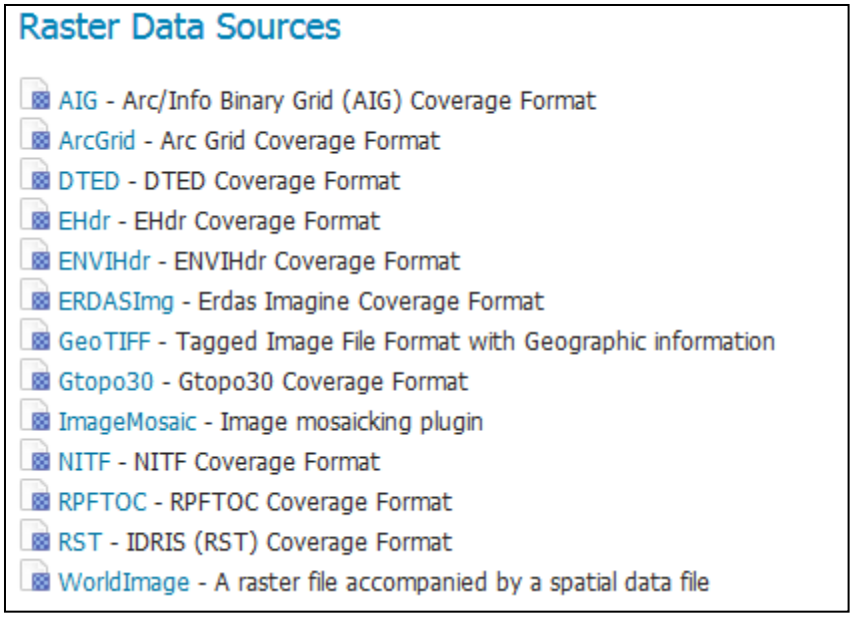
- ArcGrid - Arc Grid Coverage Format
- GeoTIFF - Tagged Image File Format with Geographic information
- Gtopo30 - Gtopo30 Coverage Format
- ImageMosaic - Image mosaicking plugin
- WorldImage - A raster file accompanied by a spatial data file

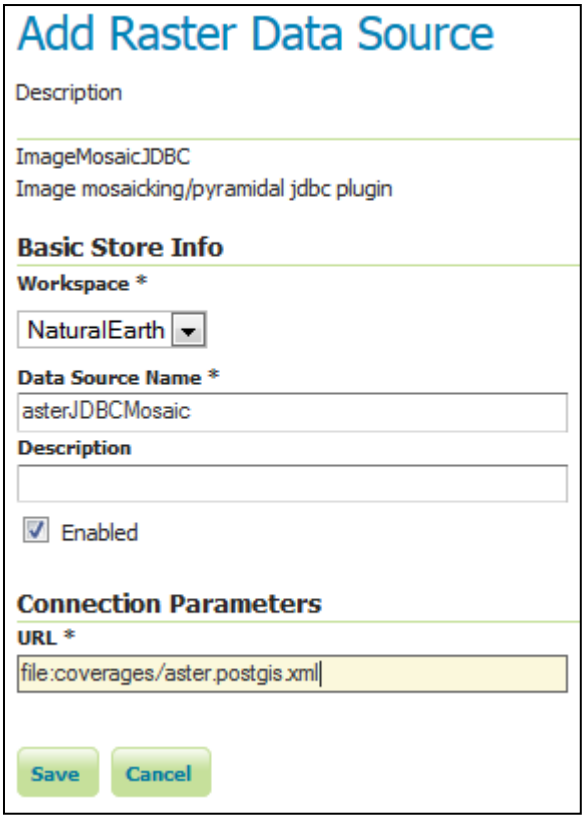
Parent Directory		-
gdal-1.9.2-MSVC2010-x64.zip	11-Aug-2013 21:10	17M
gdal-1.9.2-MSVC2010.zip	11-Aug-2013 21:09	15M
gdal-19-1600-ecw.msi	11-Aug-2013 21:09	1.2M
gdal-19-1600-mrsid.msi	11-Aug-2013 21:10	2.3M
gdal-19-1600-x64-ecw.msi	11-Aug-2013 21:10	1.3M
gdal-19-1600-x64-mrsid.msi	11-Aug-2013 21:10	2.6M
msi-installer-license.txt	11-Aug-2013 21:10	1.1K

Parent Directory		-
ECWEULA.txt	11-Aug-2013 21:11	21K
gdal192-CentOS5.8-gcc4.1.2-i386.tar.gz	11-Aug-2013 21:11	16M
gdal192-CentOS5.8-gcc4.1.2-x86_64.tar.gz	11-Aug-2013 21:11	16M
gdal192-Redhat6.0-gcc4.4.4-x86_64.tar.gz	11-Aug-2013 21:12	18M
gdal192-Ubuntu11-gcc4.5.2-i386.tar.gz	11-Aug-2013 21:12	17M
gdal192-Ubuntu11-gcc4.5.2-x86_64.tar.gz	11-Aug-2013 21:11	17M
gdal192-Ubuntu12-gcc4.6.3-i386.tar.gz	11-Aug-2013 21:11	17M
gdal192-Ubuntu12-gcc4.6.3-x86_64.tar.gz	11-Aug-2013 21:12	18M
notes_on_ECW_and_JP2ECW.txt	11-Aug-2013 21:12	612

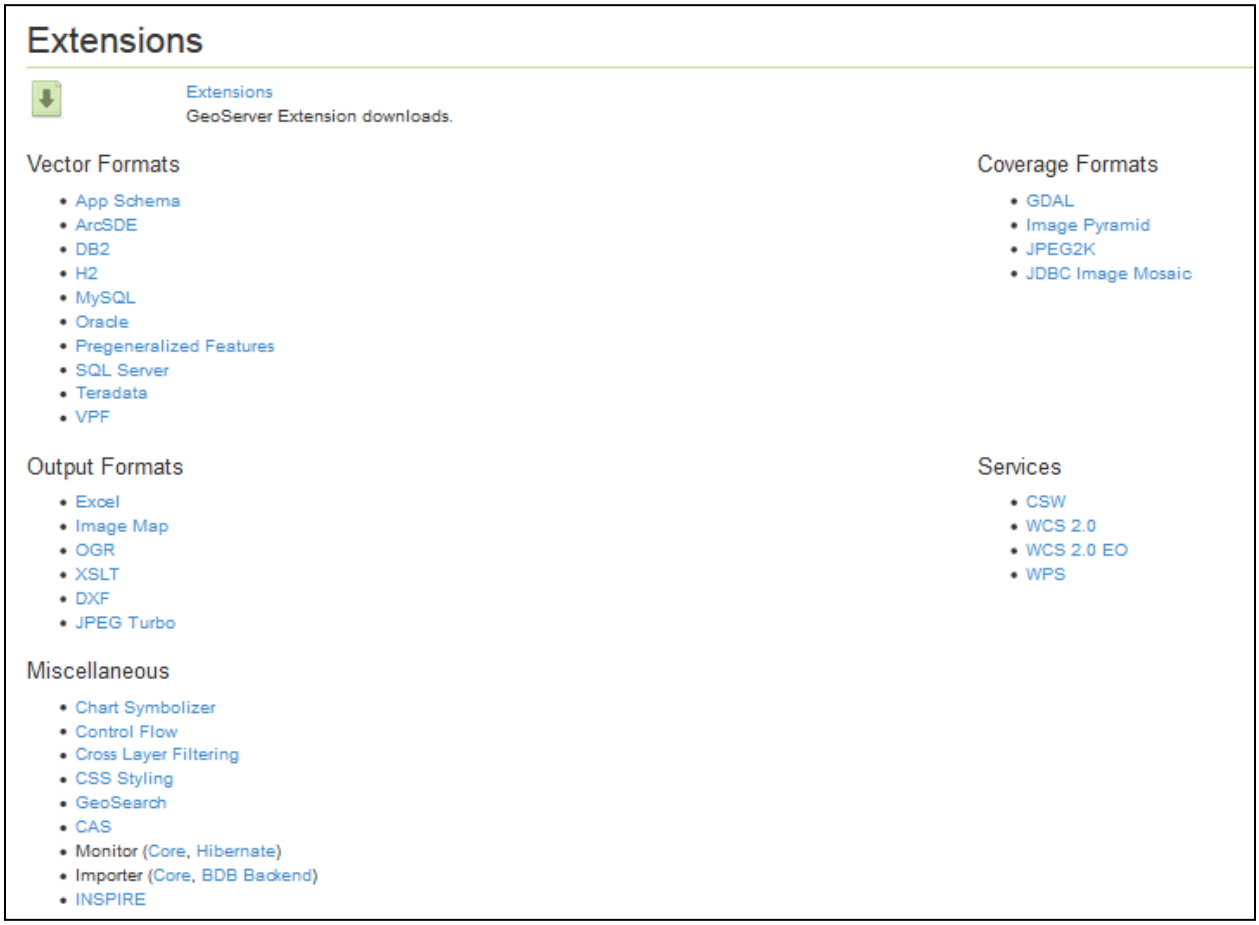
Coverage Formats

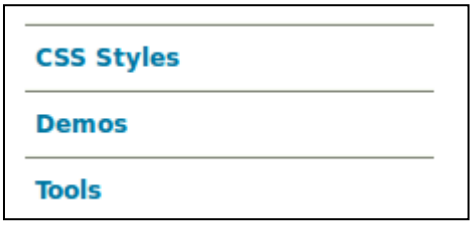
- GDAL
- Image Pyramid
- JPEG2K
- JDBC Image Mosaic

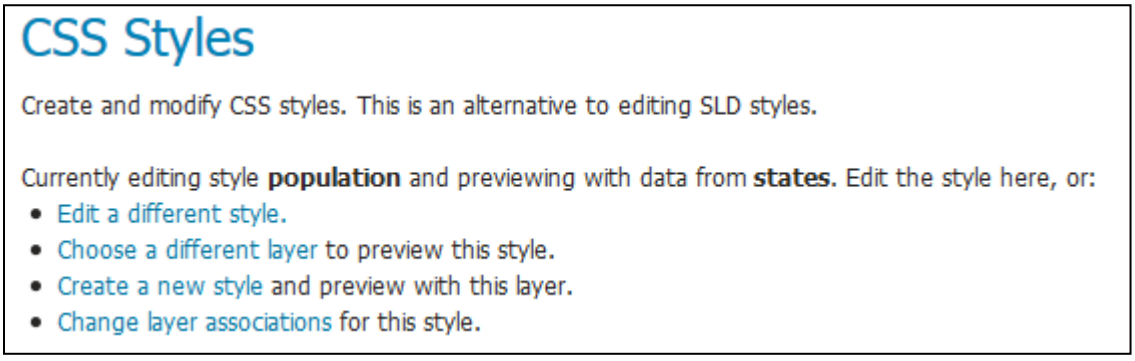

Raster Data Sources
AIG - Arc/Info Binary Grid (AIG) Coverage Format
ArcGrid - Arc Grid Coverage Format
DTED - DTED Coverage Format
EHdr - EHdr Coverage Format
ENVIHdr - ENVIHdr Coverage Format
ERDASImg - Erdas Imagine Coverage Format
GeoTIFF - Tagged Image File Format with Geographic information
Gtopo30 - Gtopo30 Coverage Format
ImageMosaic - Image mosaicking plugin
NITF - NITF Coverage Format
RPFTOC - RPFTOC Coverage Format
RST - IDRIS (RST) Coverage Format
WorldImage - A raster file accompanied by a spatial data file


Add Raster Data Source
Description
ImageMosaicJDBC
Image mosaicking/pyramidal jdbc plugin
Basic Store Info
Workspace *
NaturalEarth
Data Source Name *
asterJDBCMosaic
Description
Enabled
Connection Parameters
URL *
file:coverages/aster.postgis.xml
Save
Cancel

Chapter 3: Advanced Styling





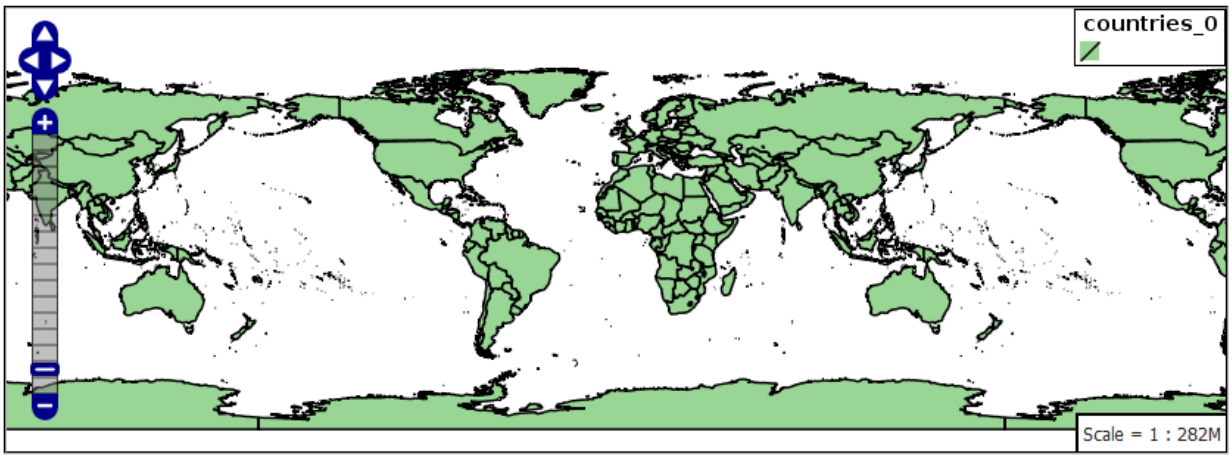


Generated SLD | Map | Data | CSS Reference

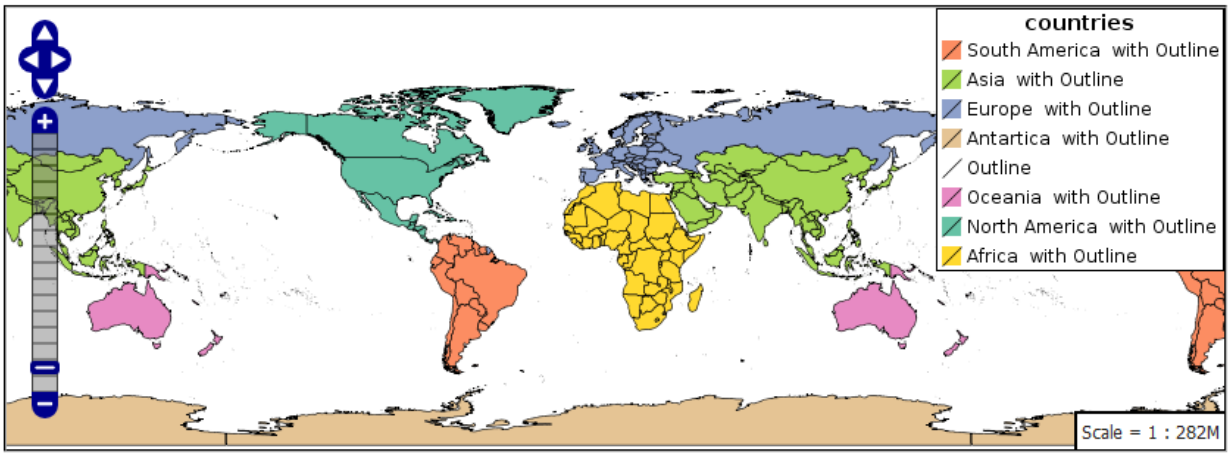
For reference, here is a listing of the attributes in this data set.

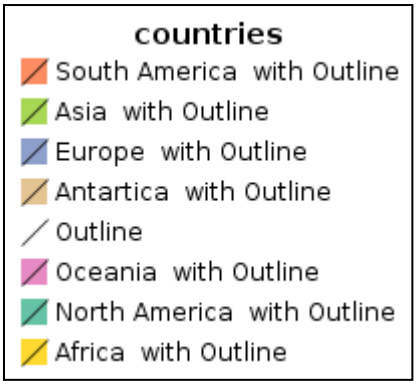
Name	Type	Sample value	Min	Max	Compute stats
the_geom	MultiPolygon	MULTIPOLYGON (((-88.071564 37.51099000000001, -88.087883 37.476273000000006, -88.311707 37.442852, -88.359177 37.40930899999999, -88.419853 37.420292, -88.467644 37.400757, -88.511322 37.296852, -8...			Compute
STATE_NAME	String	Illinois			Compute
STATE_FIPS	String	17	01	56	Compute
SUB_REGION	String	E N Cen			Compute
STATE_ABBR	String	IL	AL	WY	Compute
LAND_KM	Double	143986.61	159.055	688219.07	Compute
WATER_KM	Double	1993.335	17.991	30456.797	Compute
PERSONS	Double	1.1430602E7	453588.0	2.9760021E7	Compute

Generated SLD | Map | Data | CSS Reference

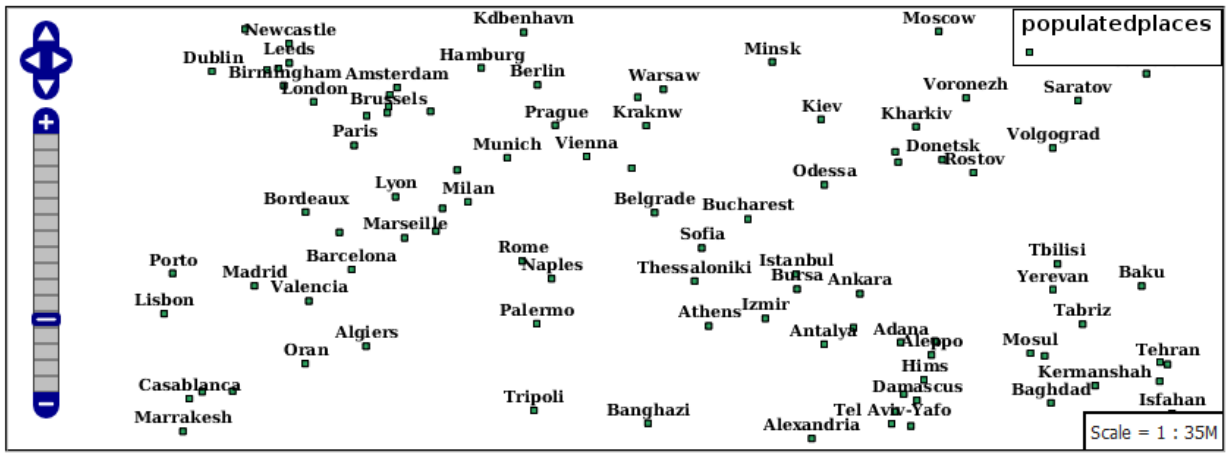


Generated SLD | Map | Data | CSS Reference

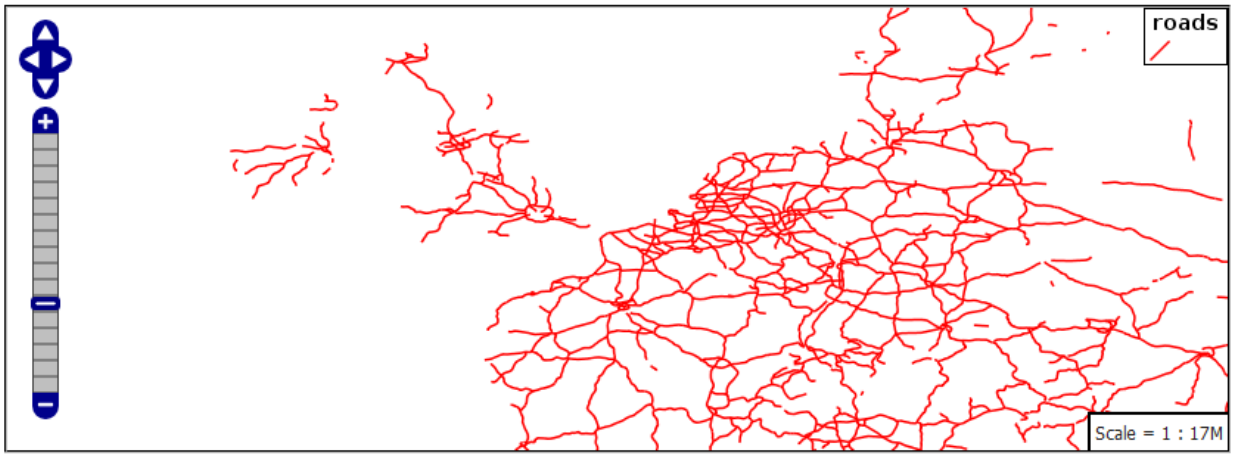




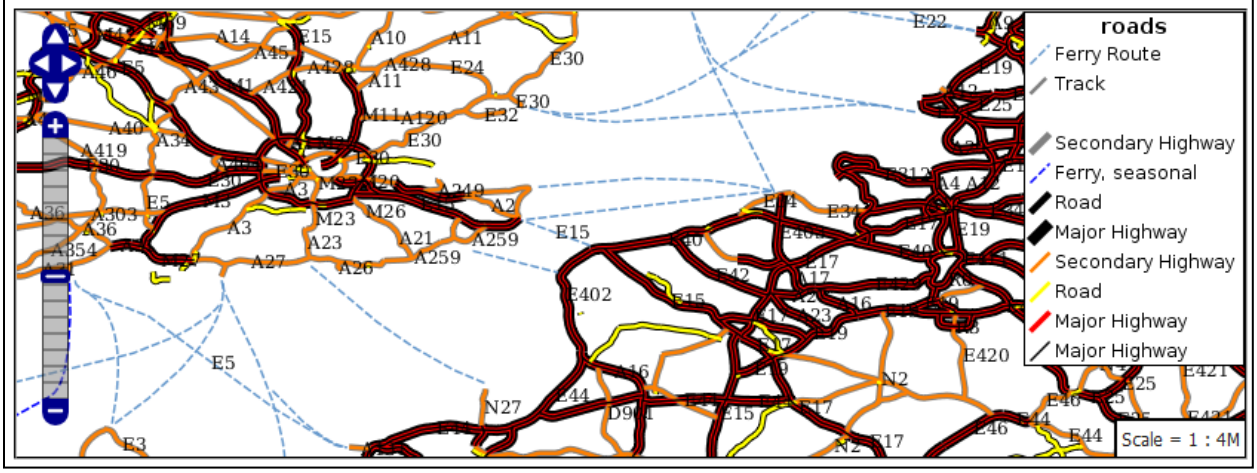
Generated SLD | Map | Data | CSS Reference

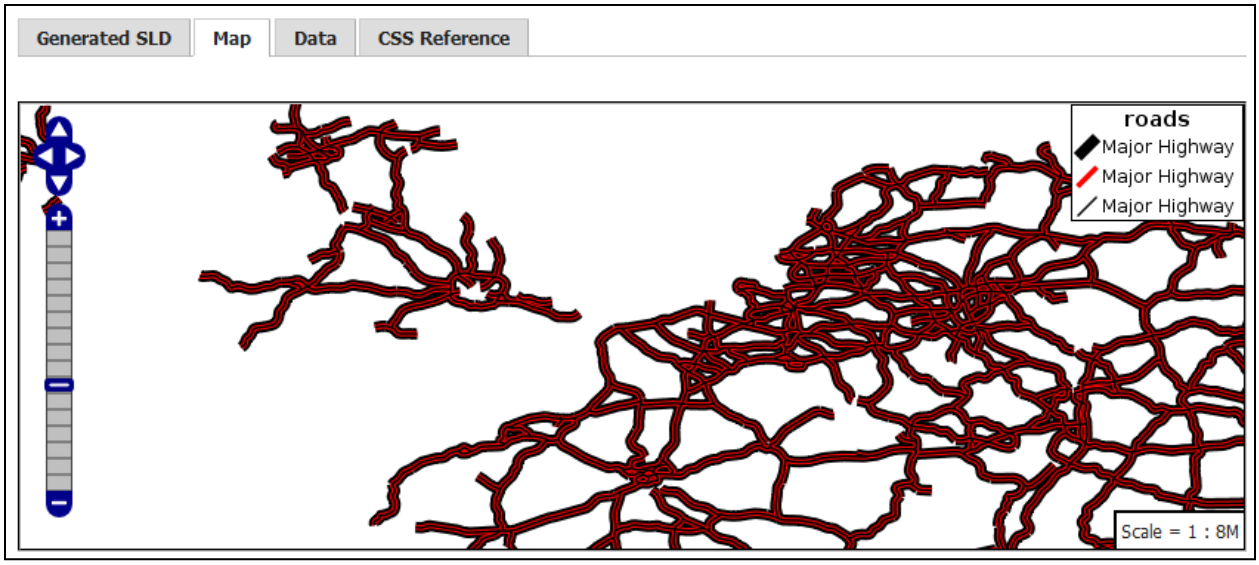


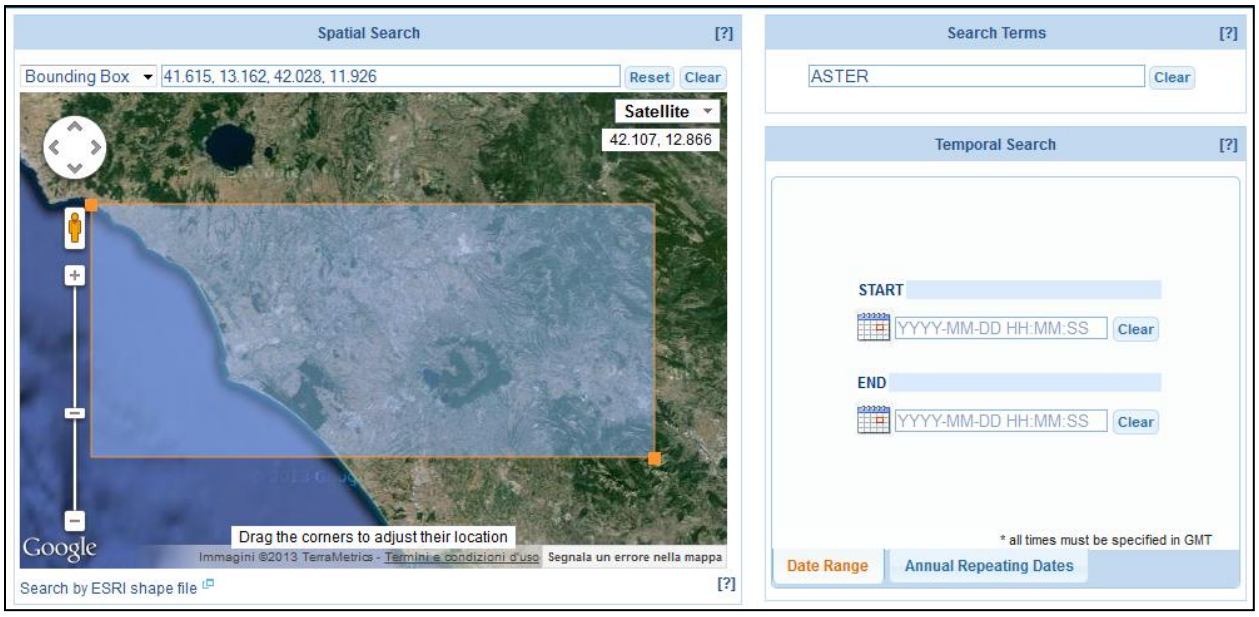
Generated SLD | Map | Data | CSS Reference

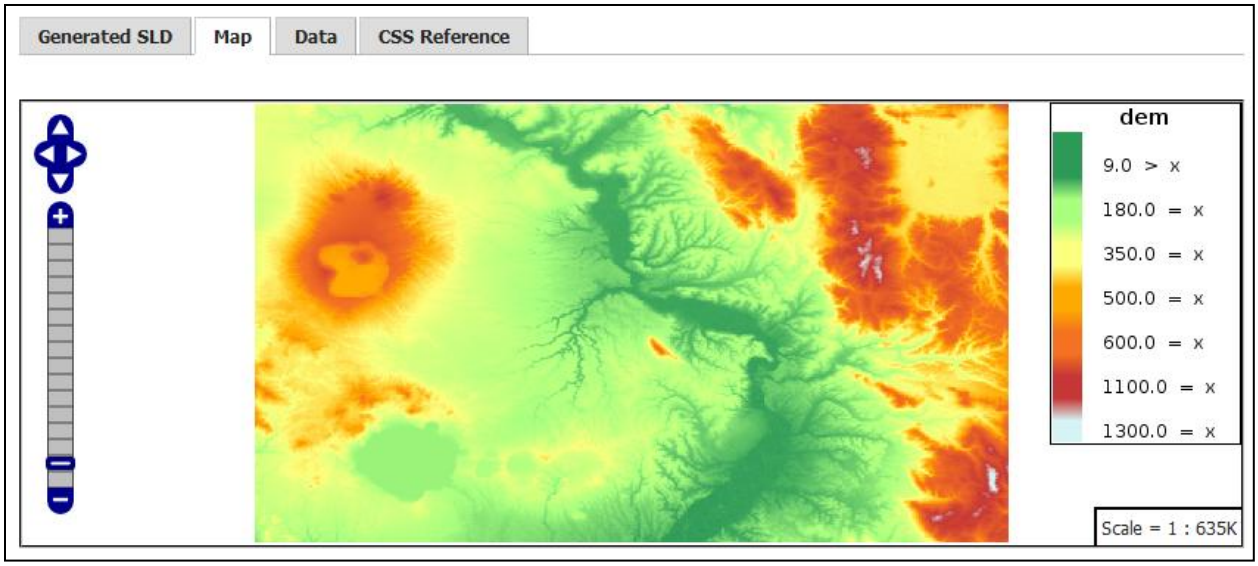


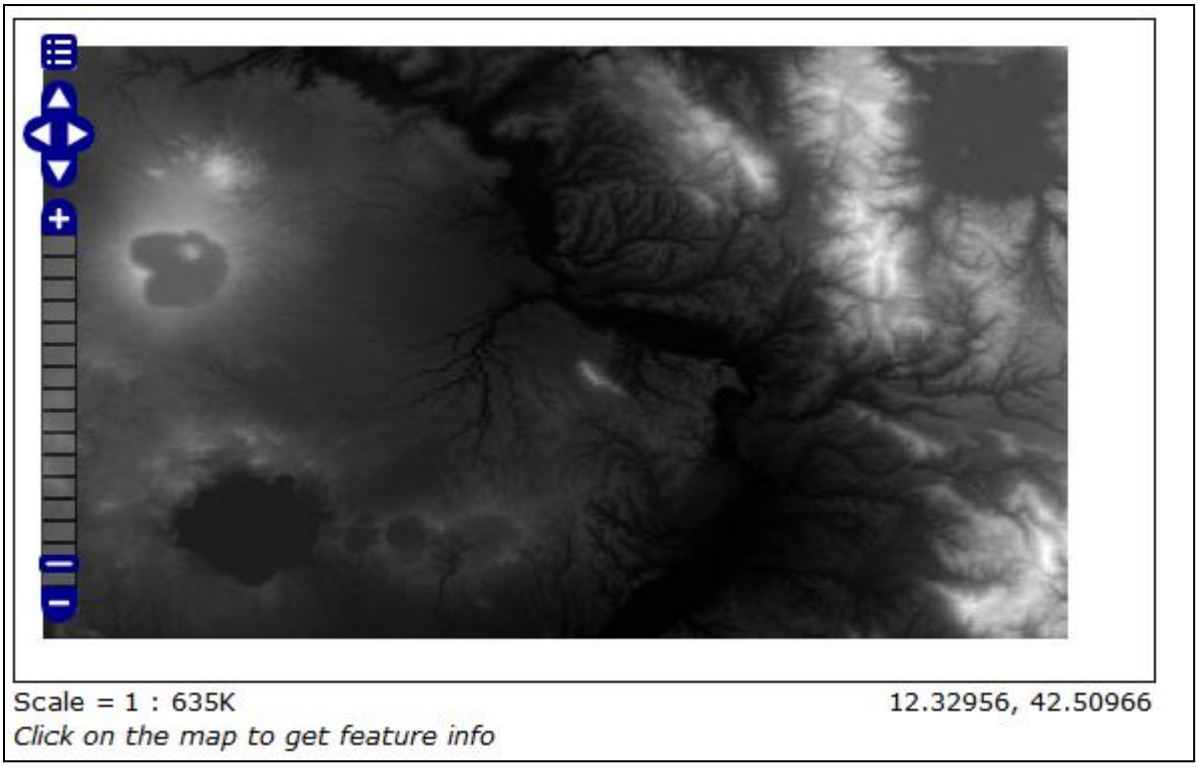
Generated SLD | Map | Data | CSS Reference

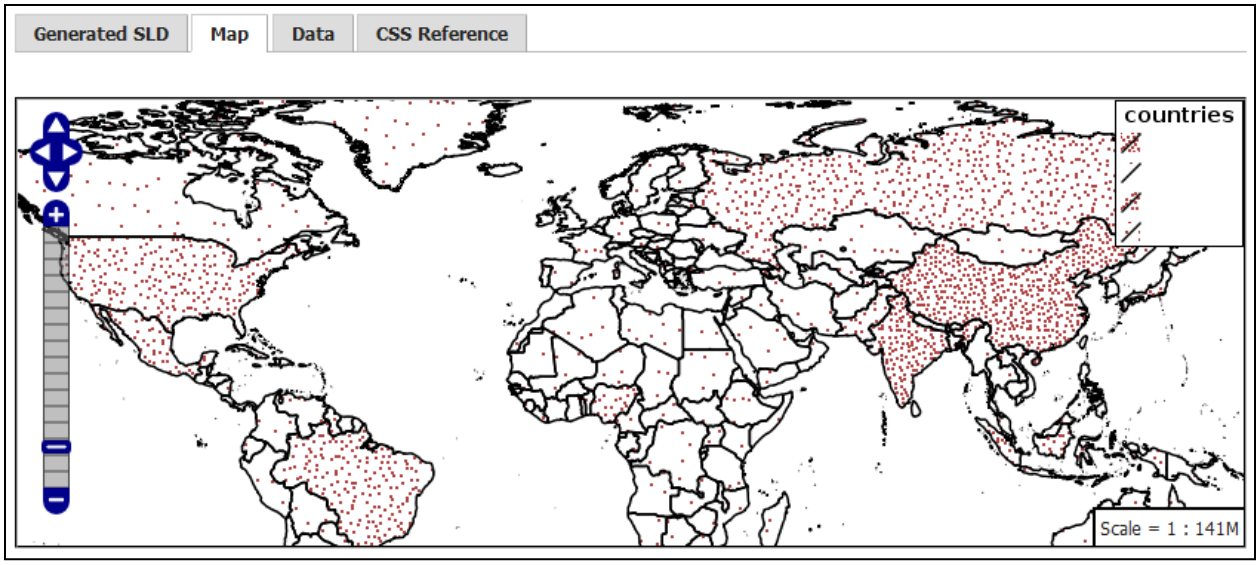


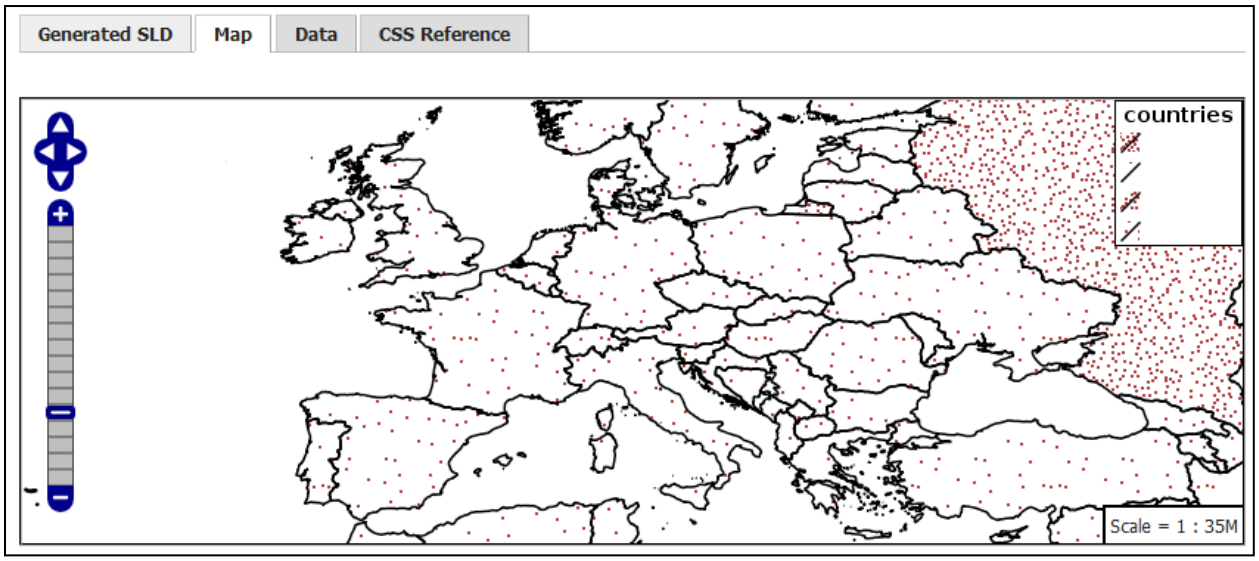

Generated SLD
Map
Data
CSS Reference
roads
Major Highway
Major Highway
Major Highway
Scale = 1 : 8M


Spatial Search
[?]
Bounding Box
41.615, 13.162, 42.028, 11.926
Reset
Clear
Satellite
42.107, 12.866
Drag the corners to adjust their location
Google
Immagini ©2013 TerraMetrics - Termini e condizioni d'uso
Segnala un errore nella mappa
Search by ESRI shape file
[?]
Search Terms
[?]
ASTER
Clear
Temporal Search
[?]
START
YYYY-MM-DD HH:MM:SS
Clear
END
YYYY-MM-DD HH:MM:SS
Clear
* all times must be specified in GMT
Date Range
Annual Repeating Dates

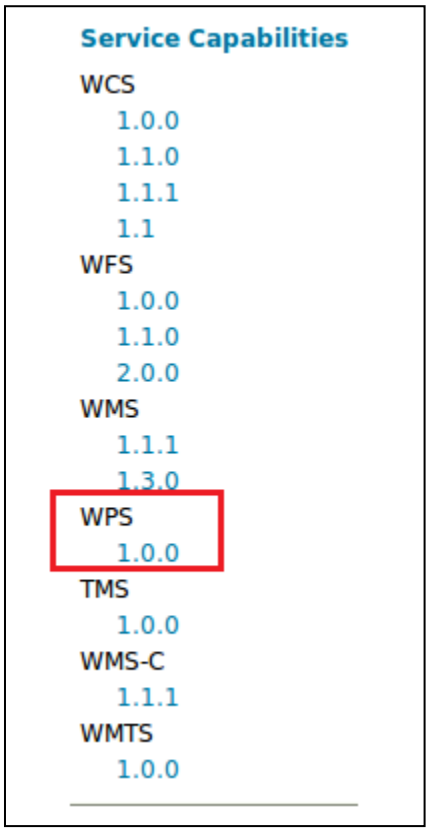

Generated SLD
Map
Data
CSS Reference
dem
9.0 > x
180.0 = x
350.0 = x
500.0 = x
600.0 = x
1100.0 = x
1300.0 = x
Scale = 1 : 635K


Scale = 1 : 635K
12.32956, 42.50966
Click on the map to get feature info


Generated SLD
Map
Data
CSS Reference
countries
Scale = 1 : 141M


Generated SLD
Map
Data
CSS Reference
countries
Scale = 1 : 35M

Chapter 4: Geoprocessing



GeoServer Demos

Collection of GeoServer demo applications

- Demo requests Example requests for GeoServer (using the TestServlet).
- SRS List List of all SRS known to GeoServer
- Reprojection console Simple coordinate reprojection tool
- WCS request builder Step by step WCS GetCoverage request builder
- WPS request builder Step by step WPS request builder

WPS request builder

Step by step WPS request builder.

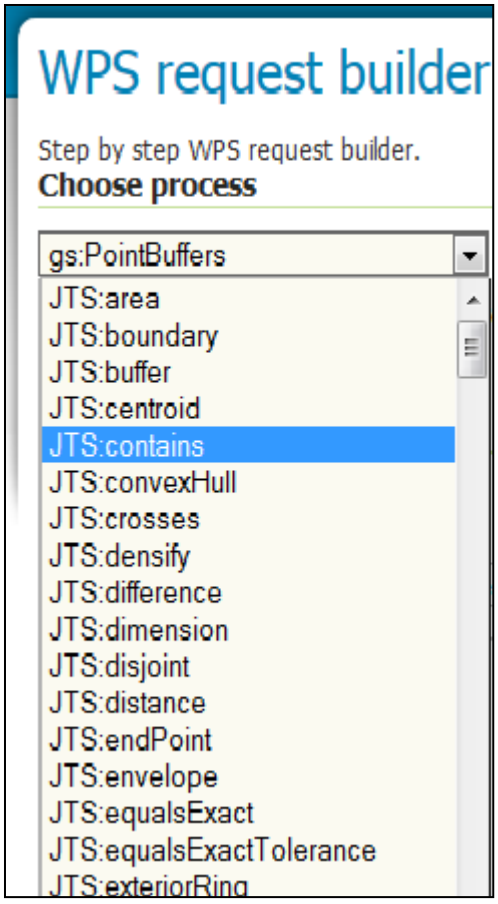
Choose process

Choose One

Authentication

Authenticate (will run the request as anonymous otherwise)

Execute process | Generate XML from process inputs/outputs



Process inputs

geom* - Geometry

Input geometry

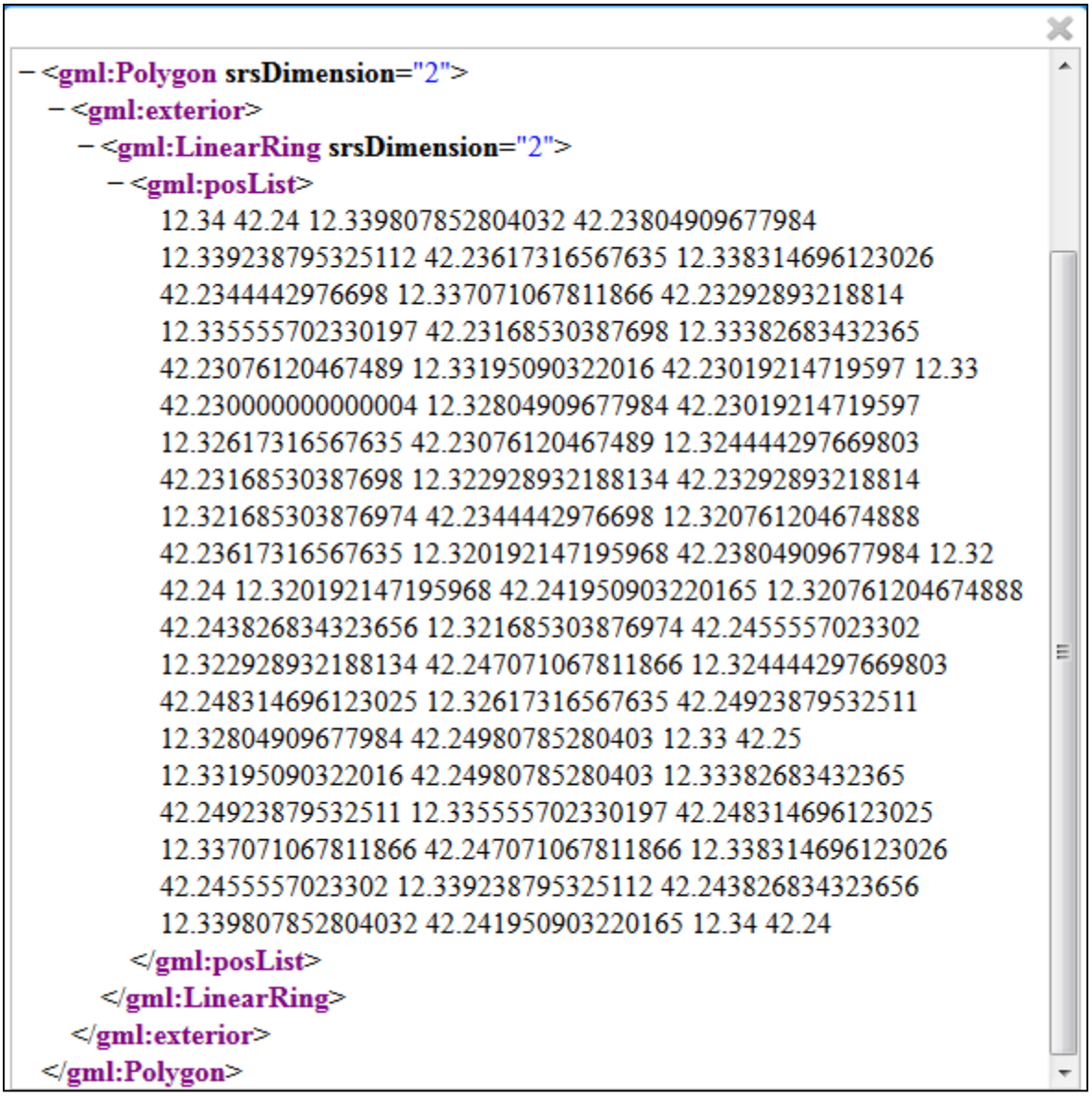
TEXT | application/wkt

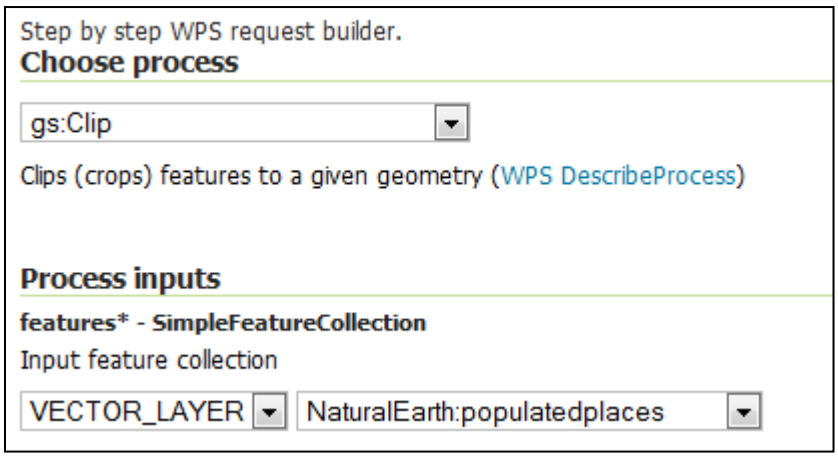
```
POINT(12.33 42.24)
```

distance* - Double

Distance to buffer the input geometry, in the units of the geometry

0.01


−<gml:Polygon srsDimension="2">
−<gml:exterior>
−<gml:LinearRing srsDimension="2">
−<gml:posList>
12.34 42.24 12.339807852804032 42.23804909677984
12.339238795325112 42.23617316567635 12.338314696123026
42.2344442976698 12.337071067811866 42.23292893218814
12.335555702330197 42.23168530387698 12.33382683432365
42.23076120467489 12.33195090322016 42.23019214719597 12.33
42.230000000000004 12.32804909677984 42.23019214719597
12.32617316567635 42.23076120467489 12.324444297669803
42.23168530387698 12.322928932188134 42.23292893218814
12.321685303876974 42.2344442976698 12.320761204674888
42.23617316567635 12.320192147195968 42.23804909677984 12.32
42.24 12.320192147195968 42.241950903220165 12.320761204674888
42.243826834323656 12.321685303876974 42.2455557023302
12.322928932188134 42.247071067811866 12.324444297669803
42.248314696123025 12.32617316567635 42.24923879532511
12.32804909677984 42.24980785280403 12.33 42.25
12.33195090322016 42.24980785280403 12.33382683432365
42.24923879532511 12.335555702330197 42.248314696123025
12.337071067811866 42.247071067811866 12.338314696123026
42.2455557023302 12.339238795325112 42.243826834323656
12.339807852804032 42.241950903220165 12.34 42.24
</gml:posList>
</gml:LinearRing>
</gml:exterior>
</gml:Polygon>


Step by step WPS request builder.
Choose process
gs:Clip
Clips (crops) features to a given geometry (WPS DescribeProcess)
Process inputs
features* - SimpleFeatureCollection
Input feature collection
VECTOR_LAYER
NaturalEarth:populatedplaces

clip* - Geometry

Geometry to use for clipping (in same CRS as input features)

SUBPROCESS Define/Edit

Choose process

gs:CollectGeometries

Collects the deafult geometries of the input features and combines them into a single geometry collection (WPS DescribeProcess)

Process inputs

features* - FeatureCollection

Input feature collection

SUBPROCESS Define/Edit

Choose process

gs:Query

Queries a feature collection using an optional filter and an optional list of attributes to include. Can also be used to convert feature collection format. (WPS DescribeProcess)

Process inputs

features* - SimpleFeatureCollection

Input feature collection

VECTOR_LAYER NaturalEarth:EuropeCountries

attribute - String(0-2147483647)

Attribute to include in output

filter - Filter

The filter to apply

TEXT text/plain; subtype=cql

```
admin = 'Switzerland'
```

clip* - Geometry

Geometry to use for clipping (in same CRS as input features)

SUBPROCESS Define/Edit

```
http://schemas.opengis.net/wps/1.0.0/wpsAll.xsd">
  <ows:Identifier>gs:CollectGeometries</ows:Identifier>
  <wps:DataInputs>
    <wps:Input>
      <ows:Identifier>features</ows:Identifier>
      <wps:Reference mimeType="text/xml"
xlink:href="http://geoserver/wps" method="POST">
        <wps:Body>
          <wps:Execute version="1.0.0" service="WPS">
            <ows:Identifier>gs:Query</ows:Identifier>
            <wps:DataInputs>
              <wps:Input>
                <ows:Identifier>features</ows:Identifier>
```

```
- <wfs:FeatureCollection>
  - <gml:boundedBy>
    - <gml:Box srsName="http://www.opengis.net/gml/srs/epsg.xml#4326">
      - <gml:coord>
          <gml:X>6.03000890974238</gml:X>
          <gml:Y>45.8999747915411</gml:Y>
        </gml:coord>
      - <gml:coord>
          <gml:X>9.76670158807428</gml:X>
          <gml:Y>47.7504044790487</gml:Y>
        </gml:coord>
      </gml:Box>
    </gml:boundedBy>
  - <gml:featureMember>
    - <feature:populatedplaces fid="populatedplaces.106">
        <gml:name>Delemont</gml:name>
      - <gml:boundedBy>
        - <gml:Box srsName="http://www.opengis.net/gml/srs/epsg.xml#4326">
          - <gml:coord>
              <gml:X>7.3449994876432925</gml:X>
              <gml:Y>47.36999712580081</gml:Y>
            </gml:coord>
          - <gml:coord>
              <gml:X>7.3449994876432925</gml:X>
              <gml:Y>47.36999712580081</gml:Y>
            </gml:coord>
          </gml:Box>
```

Step by step WPS request builder.

Choose process

gs:Query

Queries a feature collection using an optional filter and an optional list of attributes to include. Can also be used to convert feature collection format. (WPS DescribeProcess)

Process inputs

features* - SimpleFeatureCollection

Input feature collection

VECTOR_LAYER | NaturalEarth:roads

attribute - String(0-2147483647)

Attribute to include in output

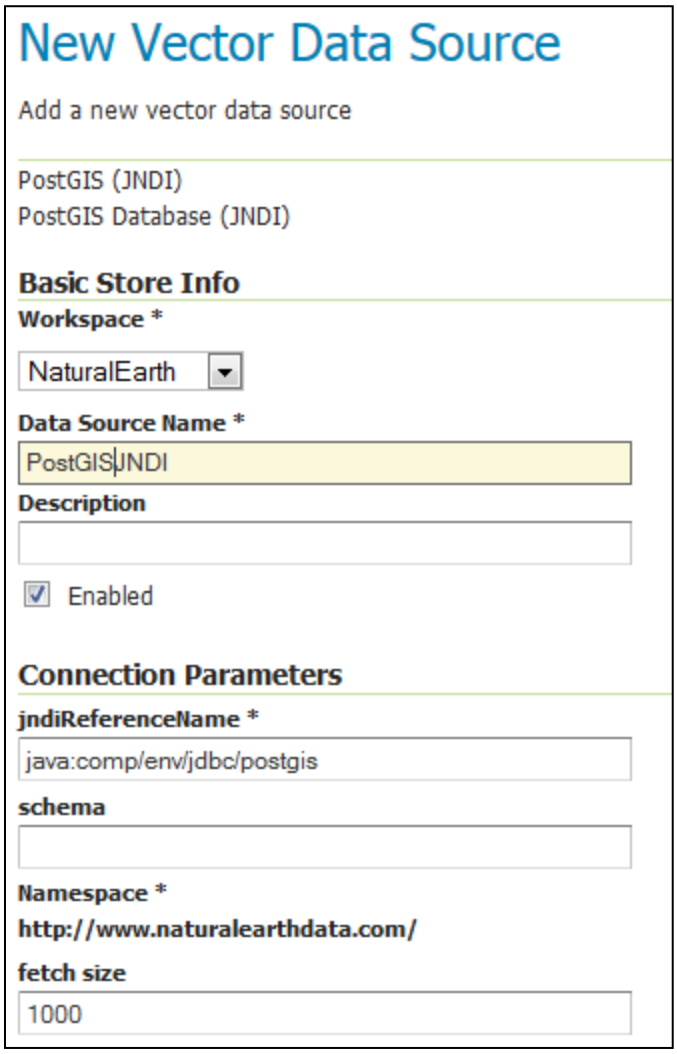
filter - Filter

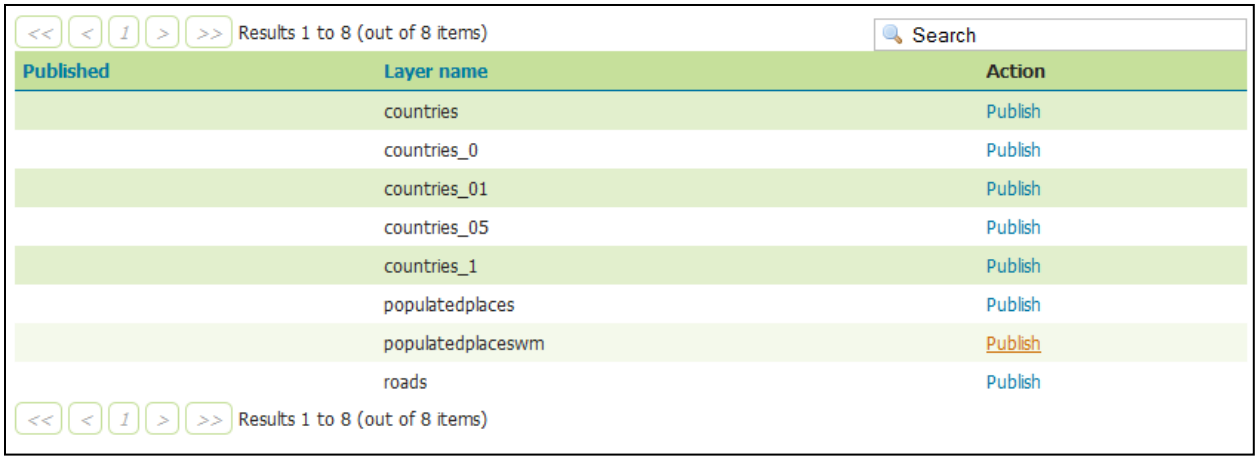
The filter to apply

TEXT | text/plain; subtype=cql

```
routeraw = 'M11'
```

/geoserver	*None specified*	GeoServer	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

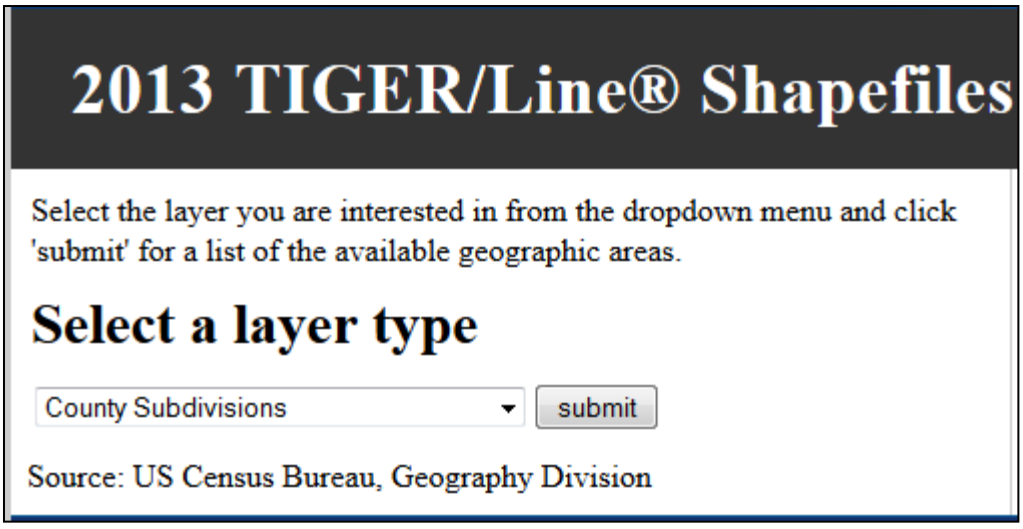




<< < 1 > >> Results 1 to 8 (out of 8 items) Search

Published	Layer name	Action
	countries	Publish
	countries_0	Publish
	countries_01	Publish
	countries_05	Publish
	countries_1	Publish
	populatedplaces	Publish
	populatedplaceswm	Publish
	roads	Publish

<< < 1 > >> Results 1 to 8 (out of 8 items)



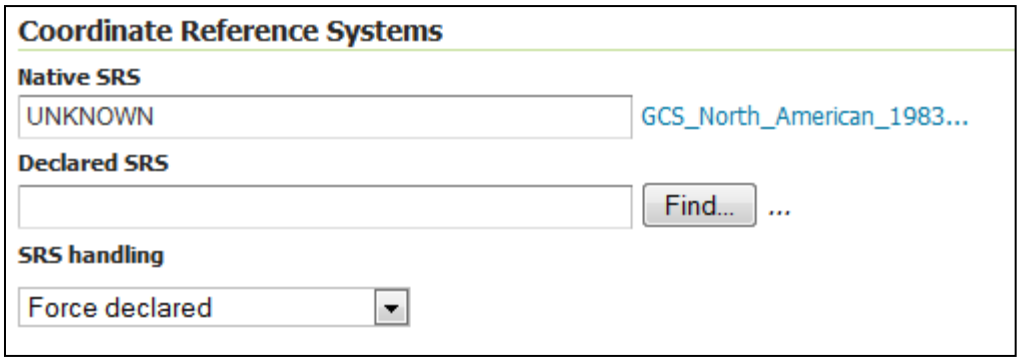
2013 TIGER/Line® Shapefiles

Select the layer you are interested in from the dropdown menu and click 'submit' for a list of the available geographic areas.

Select a layer type

County Subdivisions submit

Source: US Census Bureau, Geography Division



Coordinate Reference Systems

Native SRS

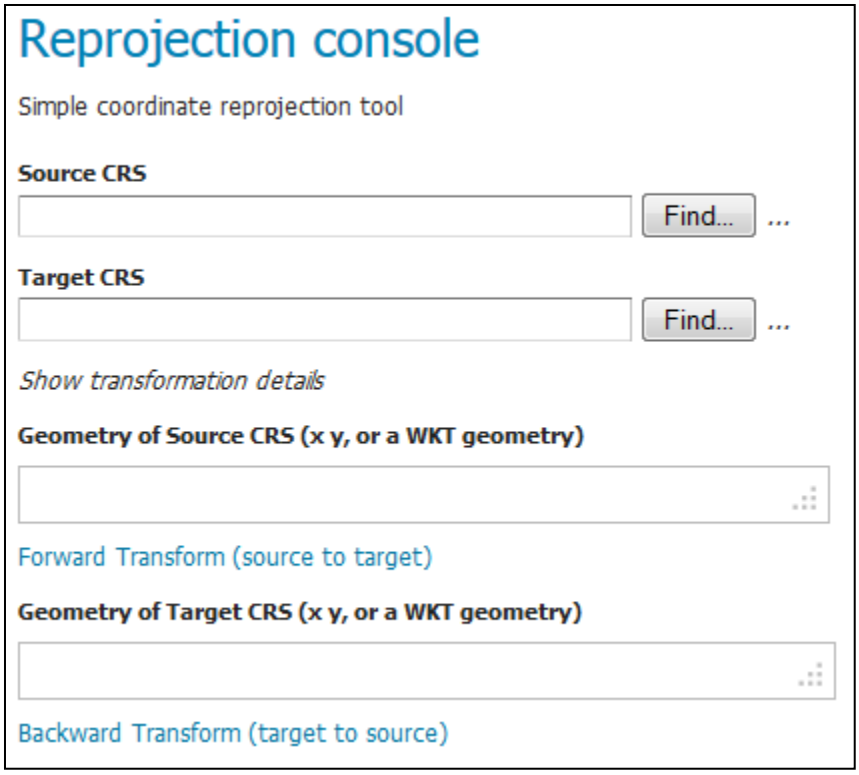
UNKNOWN GCS_North_American_1983...

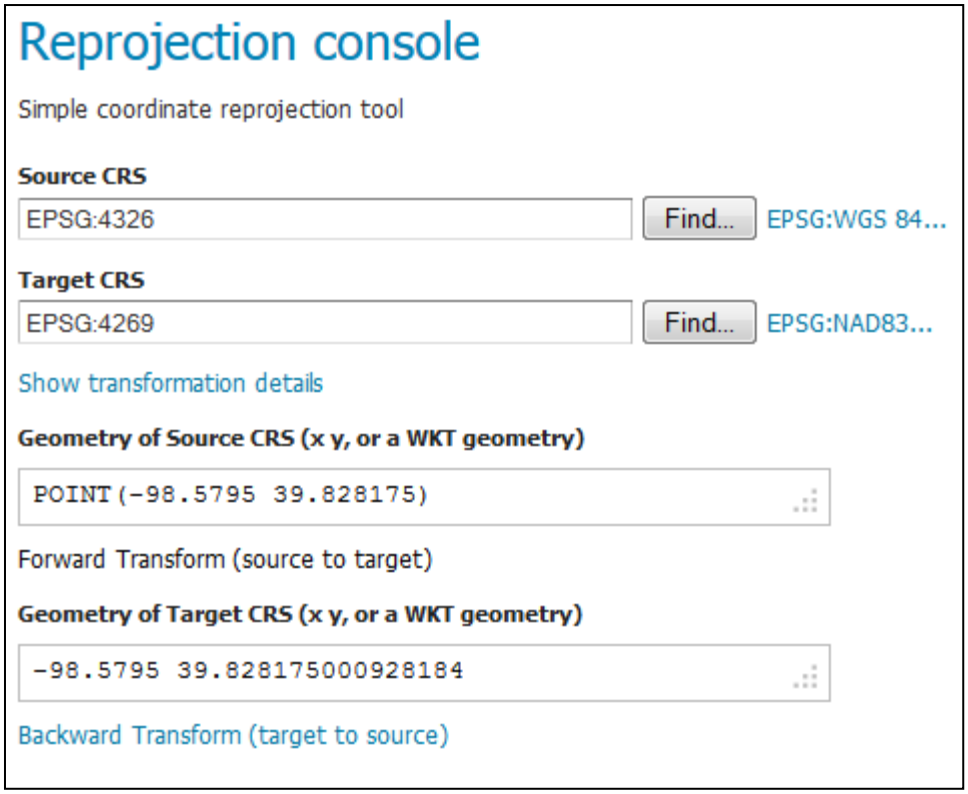
Declared SRS

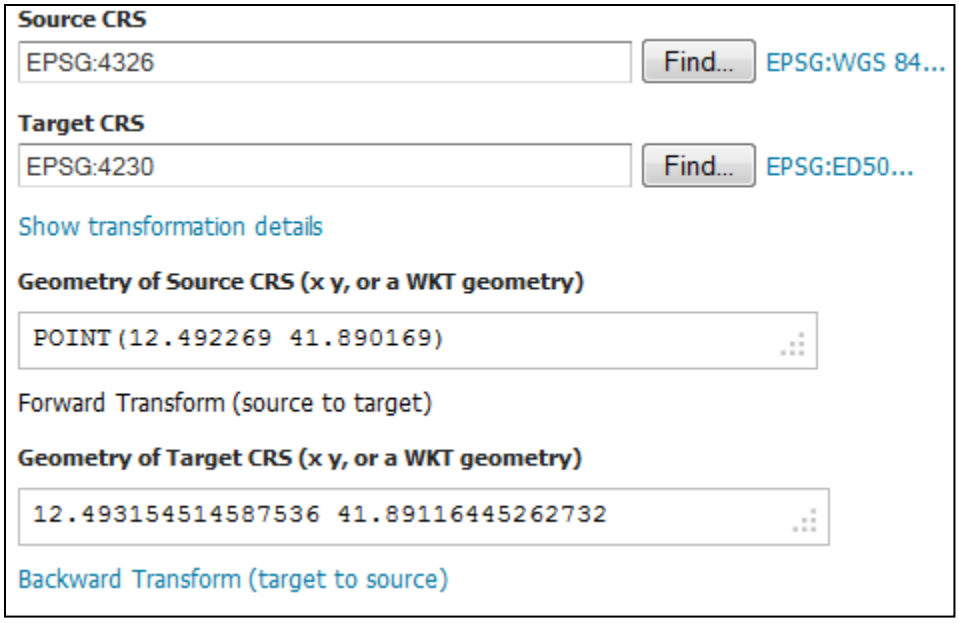
Find... ...

SRS handling

Force declared

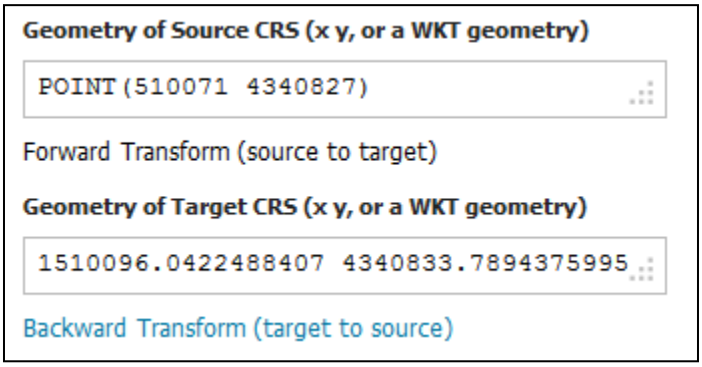

Reprojection console
Simple coordinate reprojection tool
Source CRS
Find...
...
Target CRS
Find...
...
Show transformation details
Geometry of Source CRS (x y, or a WKT geometry)
Forward Transform (source to target)
Geometry of Target CRS (x y, or a WKT geometry)
Backward Transform (target to source)


Reprojection console
Simple coordinate reprojection tool
Source CRS
EPSG:4326
Find...
EPSG:WGS 84...
Target CRS
EPSG:4269
Find...
EPSG:NAD83...
Show transformation details
Geometry of Source CRS (x y, or a WKT geometry)
POINT(-98.5795 39.828175)
Forward Transform (source to target)
Geometry of Target CRS (x y, or a WKT geometry)
-98.5795 39.828175000928184
Backward Transform (target to source)




```
DATUM["North American Datum 1983",
  SPHEROID["GRS 1980", 6378137.0, 298.257222101, AUTHORITY["EPSG","7019"]],
  TOWGS84[0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0],
  AUTHORITY["EPSG","6269"]],
```

```
DATUM["European Datum 1950",
  SPHEROID["International 1924", 6378388.0, 297.0, AUTHORITY["EPSG","7022"]],
  TOWGS84[-116.641, -56.931, -110.559, 0.893, 0.921, -0.917, -3.52],
  AUTHORITY["EPSG","6230"]],
```



Geometry of Source CRS (x y, or a WKT geometry)

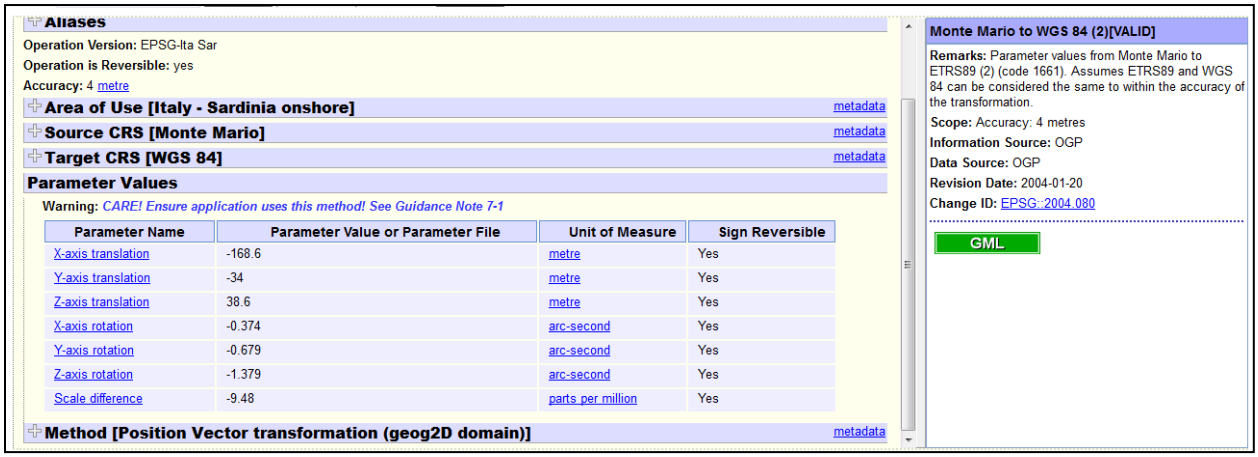
```
POINT(510071 4340827)
```

Forward Transform (source to target)

Geometry of Target CRS (x y, or a WKT geometry)

```
1510102.1184072776 4340892.124602812
```

Backward Transform (target to source)



Aliases

Operation Version: EPSG-Ita Sar
Operation is Reversible: yes
Accuracy: 4 metre

Area of Use [Italy - Sardinia onshore] metadata
Source CRS [Monte Mario] metadata
Target CRS [WGS 84] metadata

Parameter Values

Warning: *CARE! Ensure application uses this method! See Guidance Note 7-1*

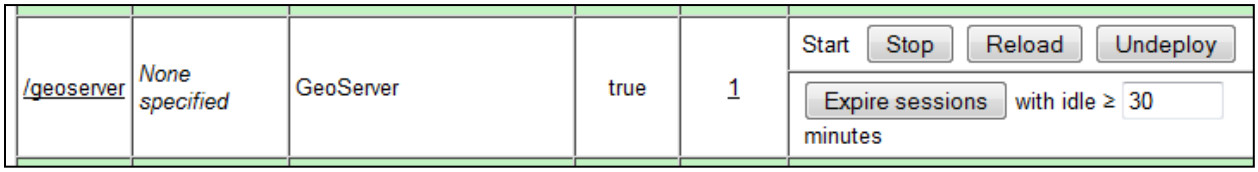
Parameter Name	Parameter Value or Parameter File	Unit of Measure	Sign Reversible
X-axis translation	-168.6	metre	Yes
Y-axis translation	-34	metre	Yes
Z-axis translation	38.6	metre	Yes
X-axis rotation	-0.374	arc-second	Yes
Y-axis rotation	-0.679	arc-second	Yes
Z-axis rotation	-1.379	arc-second	Yes
Scale difference	-9.48	parts per million	Yes

Method [Position Vector transformation (geog2D domain)] metadata

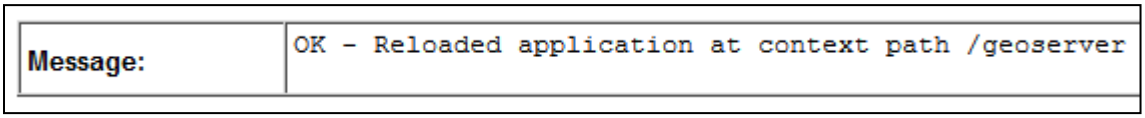
Monte Mario to WGS 84 (2)[VALID]

Remarks: Parameter values from Monte Mario to ETRS89 (2) (code 1661). Assumes ETRS89 and WGS 84 can be considered the same to within the accuracy of the transformation.
Scope: Accuracy: 4 metres
Information Source: OGP
Data Source: OGP
Revision Date: 2004-01-20
Change ID: EPSG::2004.080

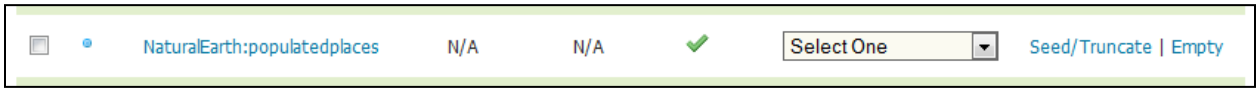
GML



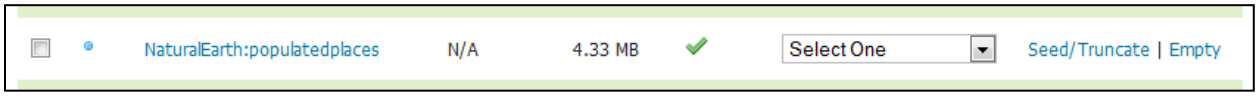
/geoserver	*None specified*	GeoServer	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes



Message:	OK - Reloaded application at context path /geoserver



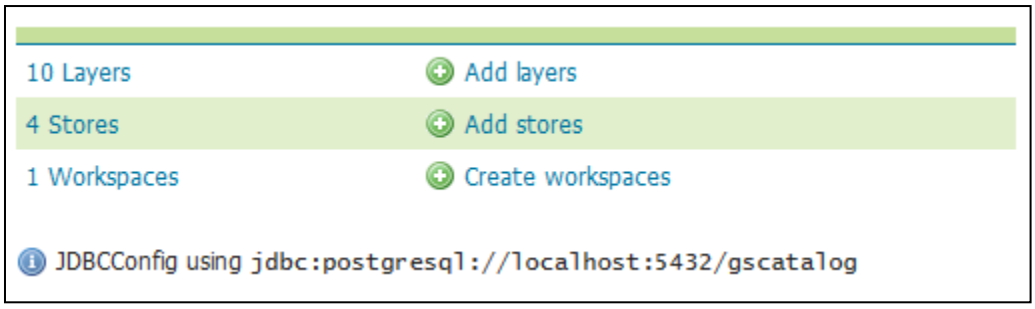
☐	NaturalEarth:populatedplaces	N/A	N/A	✔	Select One	Seed/Truncate | Empty

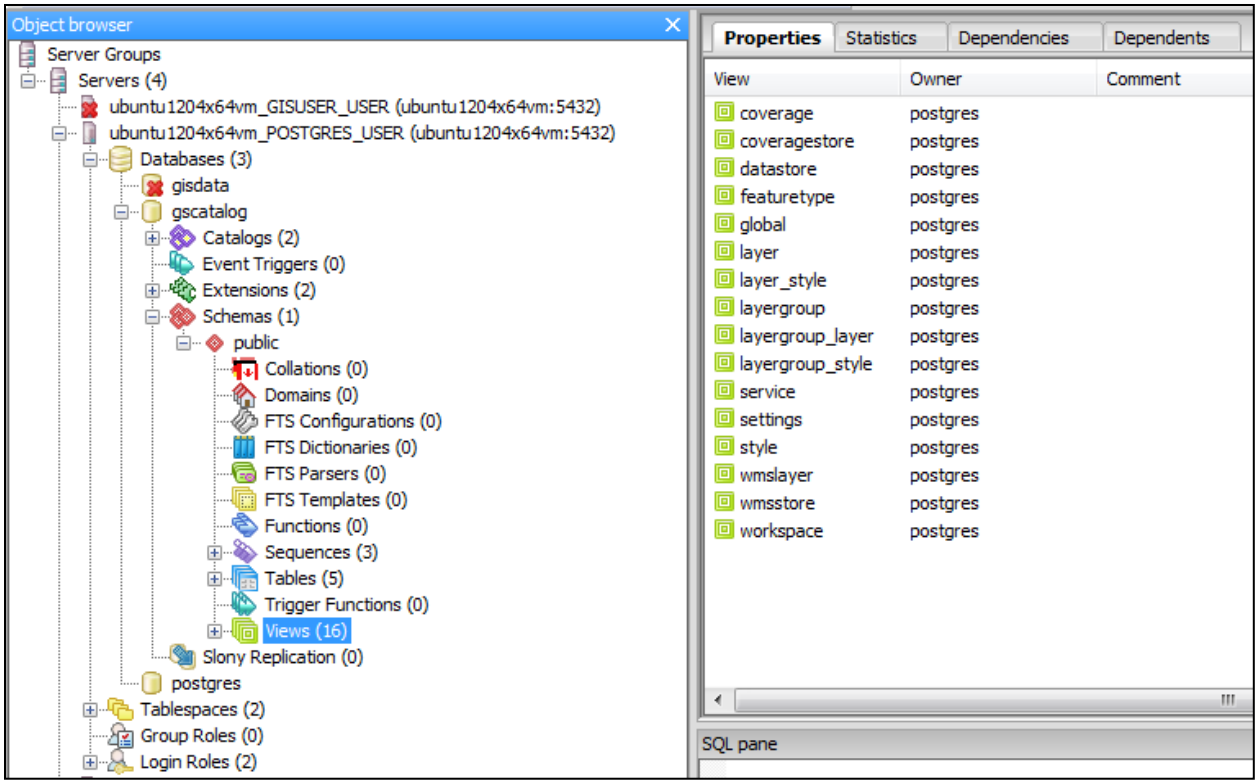


☐	NaturalEarth:populatedplaces	N/A	4.33 MB	✔	Select One	Seed/Truncate | Empty

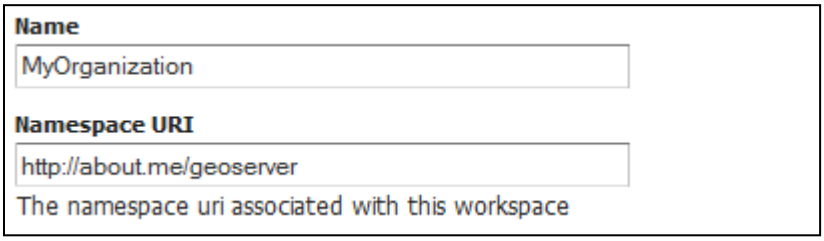
Index of /geoserver/2.5.x/community-latest

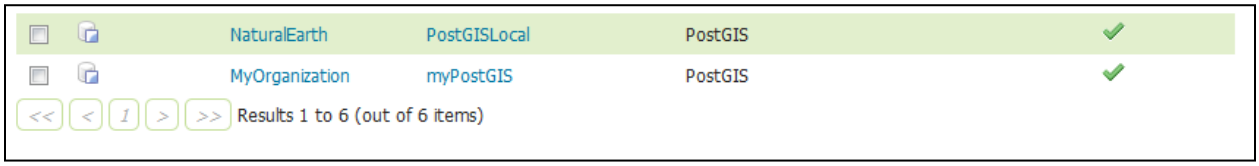
Name	Last modified	Size	Description
Parent Directory		-	
geoserver-2.5-SNAPSHOT-aggregate-plugin.zip	14-Apr-2014 16:34	65K	
geoserver-2.5-SNAPSHOT-authkey-plugin.zip	14-Apr-2014 16:34	28K	
geoserver-2.5-SNAPSHOT-colormap-plugin.zip	14-Apr-2014 16:34	17K	
geoserver-2.5-SNAPSHOT-dds-plugin.zip	14-Apr-2014 16:34	6.1M	
geoserver-2.5-SNAPSHOT-ftp-plugin.zip	14-Apr-2014 16:34	868K	
geoserver-2.5-SNAPSHOT-geopkg-plugin.zip	14-Apr-2014 16:34	4.9M	
geoserver-2.5-SNAPSHOT-groovy-plugin.zip	14-Apr-2014 16:34	20M	
geoserver-2.5-SNAPSHOT-javascript-plugin.zip	14-Apr-2014 16:34	1.8M	
geoserver-2.5-SNAPSHOT-jdbcconfig-plugin.zip	14-Apr-2014 16:34	96K	
geoserver-2.5-SNAPSHOT-mbtiles-plugin.zip	14-Apr-2014 16:34	4.9M	

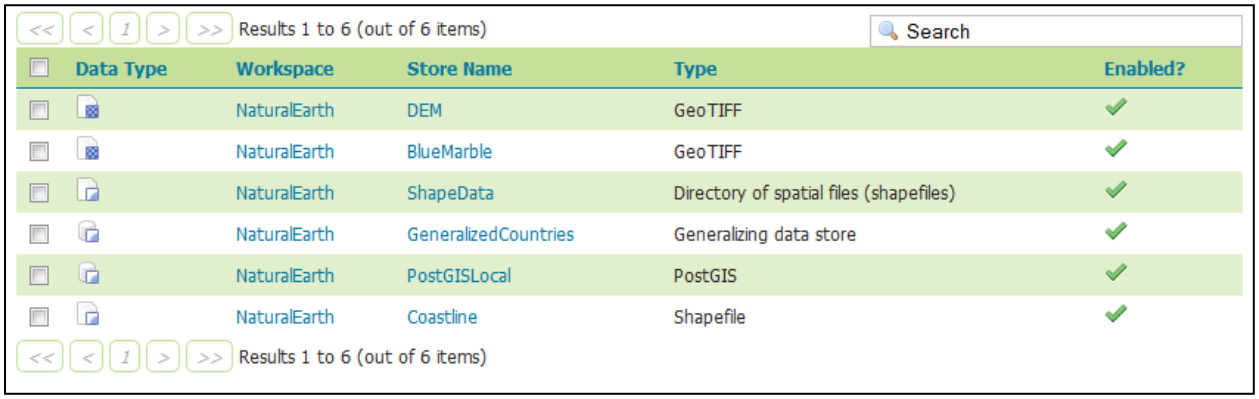


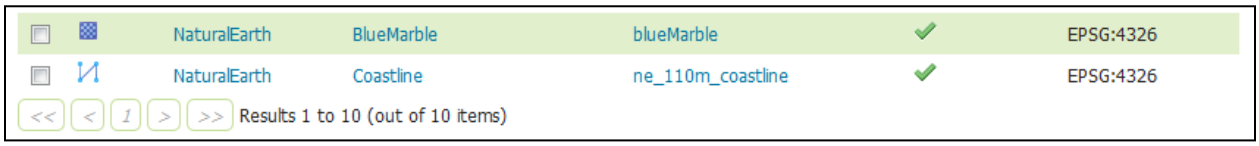

Object browser
Server Groups
Servers (4)
ubuntu1204x64vm_GISUSER_USER (ubuntu1204x64vm:5432)
ubuntu1204x64vm_POSTGRES_USER (ubuntu1204x64vm:5432)
Databases (3)
gisdata
gscatalog
Catalogs (2)
Event Triggers (0)
Extensions (2)
Schemas (1)
public
Collations (0)
Domains (0)
FTS Configurations (0)
FTS Dictionaries (0)
FTS Parsers (0)
FTS Templates (0)
Functions (0)
Sequences (3)
Tables (5)
Trigger Functions (0)
Views (16)
Slony Replication (0)
postgres
Tablespaces (2)
Group Roles (0)
Login Roles (2)
Properties
Statistics
Dependencies
Dependents
View
Owner
Comment
coverage postgres
coveragestore postgres
datastore postgres
featuretype postgres
global postgres
layer postgres
layer_style postgres
layergroup postgres
layergroup_layer postgres
layergroup_style postgres
service postgres
settings postgres
style postgres
wmslayer postgres
wmsstore postgres
workspace postgres
SQL pane

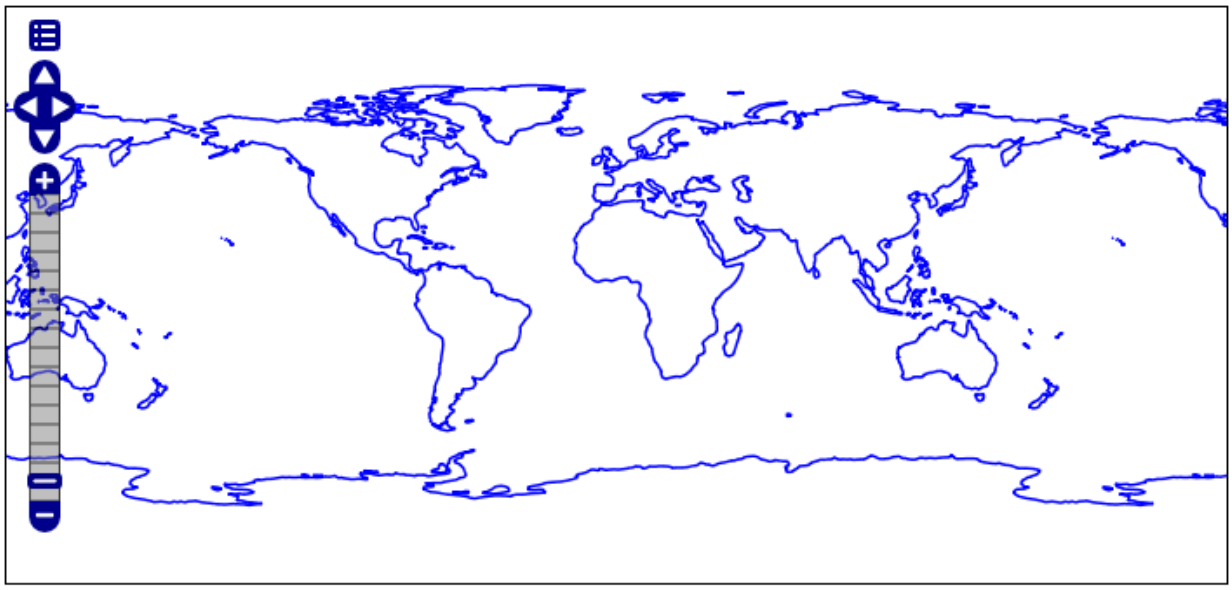
Chapter 6: Automating GeoServer Configurations











Scale = 1 : 279M -246.44531, 74.15294

Click on the map to get feature info

WMS Settings

☑ Queryable

☐ Opaque

Default Style

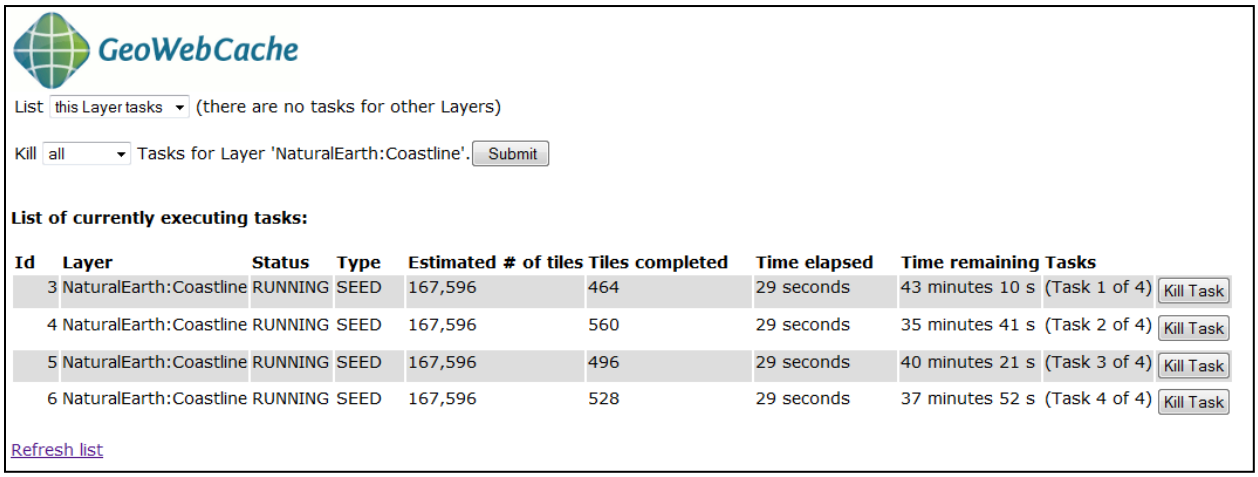
simple_roads

Available gridsets

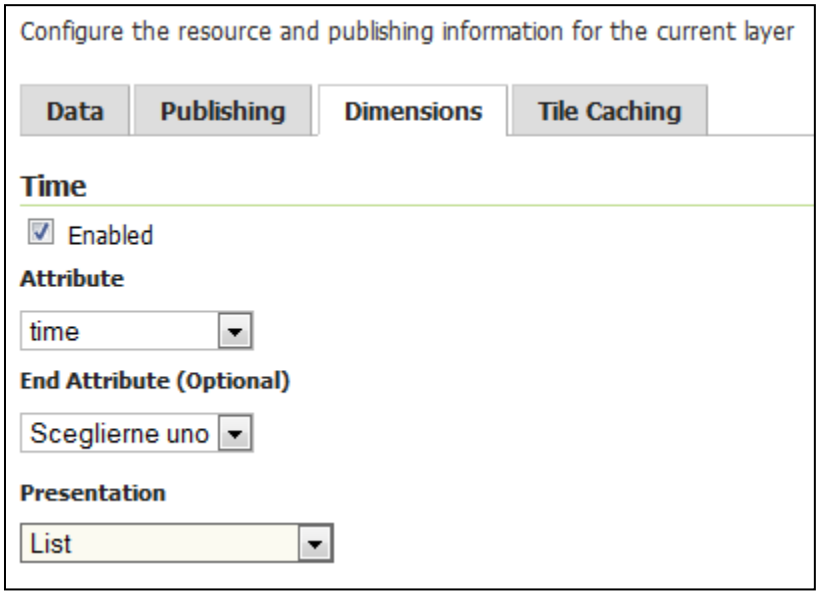
Gridset	Published zoom levels	Cached zoom levels	Grid subset bounds
EPSG:4326	Min / Max	Min / Max	Dynamic

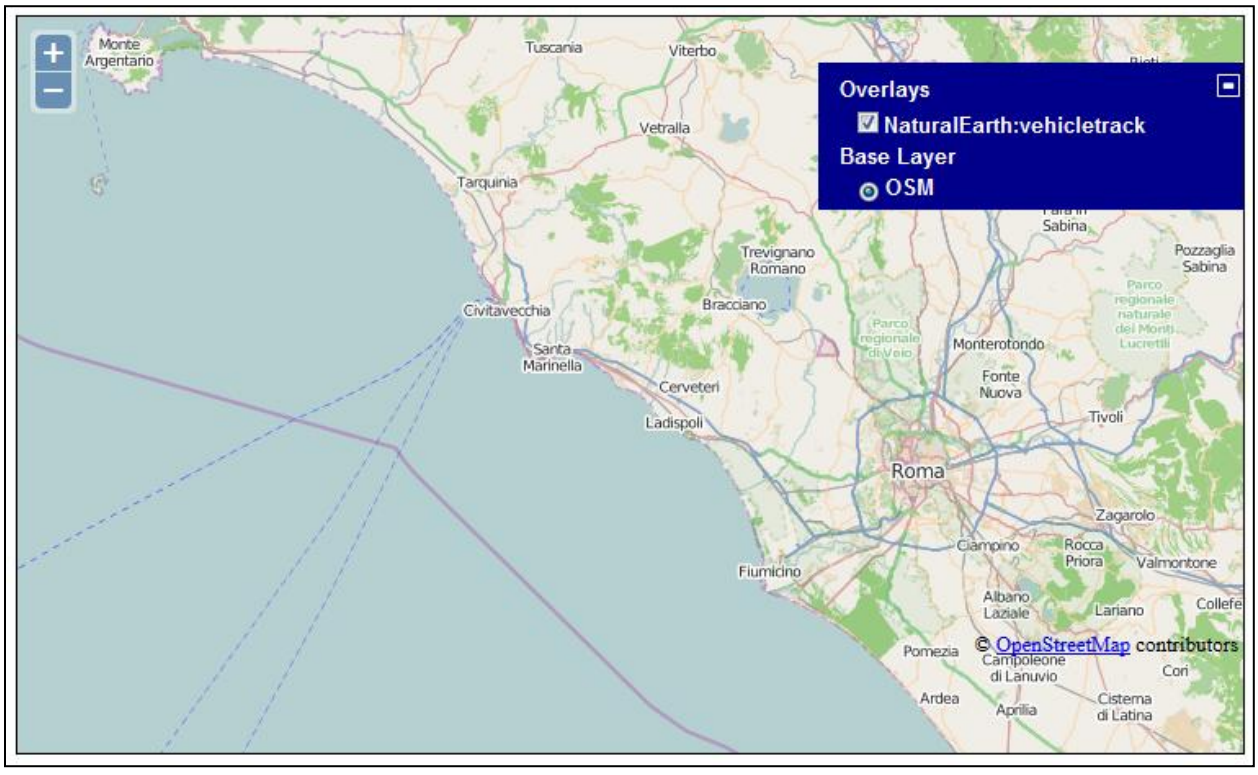
Add grid subset: Sceglierne uno

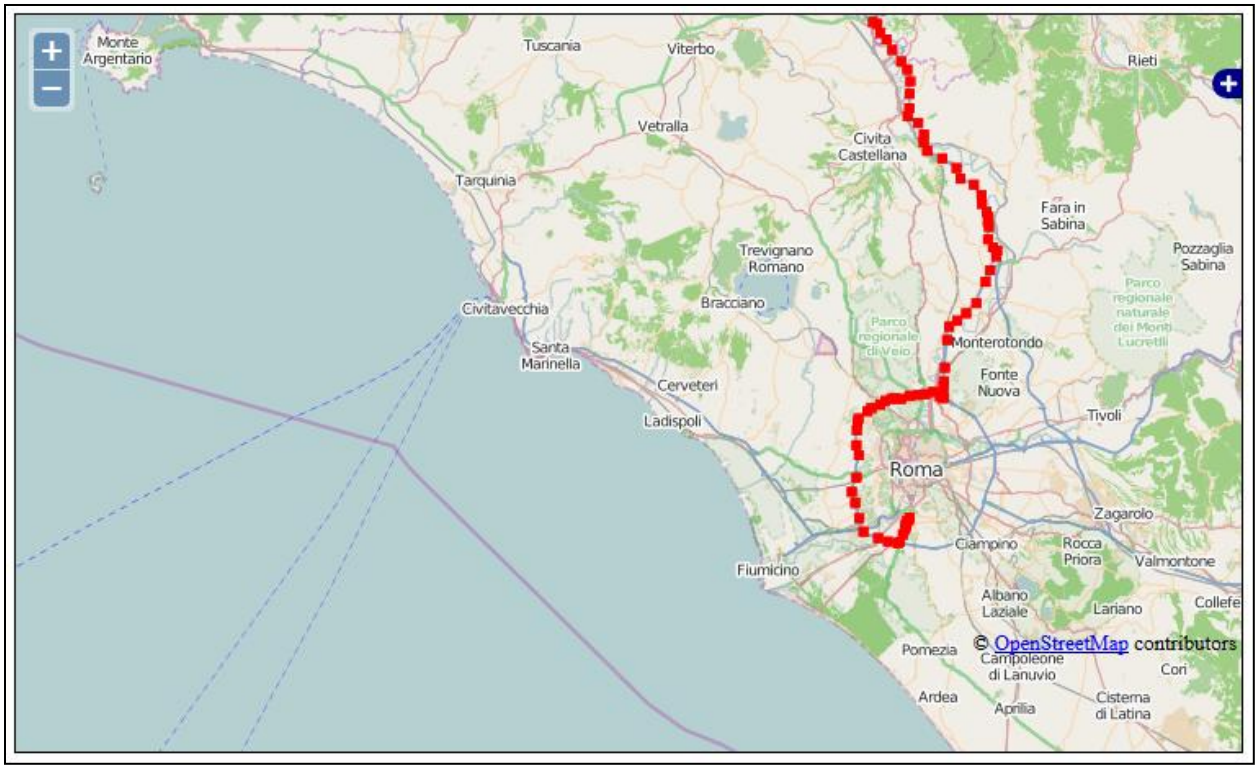

Edit Layer
Edit layer data and publishing
NaturalEarth:Coastline
Configure the resource and publishing information for the current layer
Data
Publishing
Dimensions
Tile Caching
Tile cache configuration
Create a cached layer for this layer
Save
Cancel

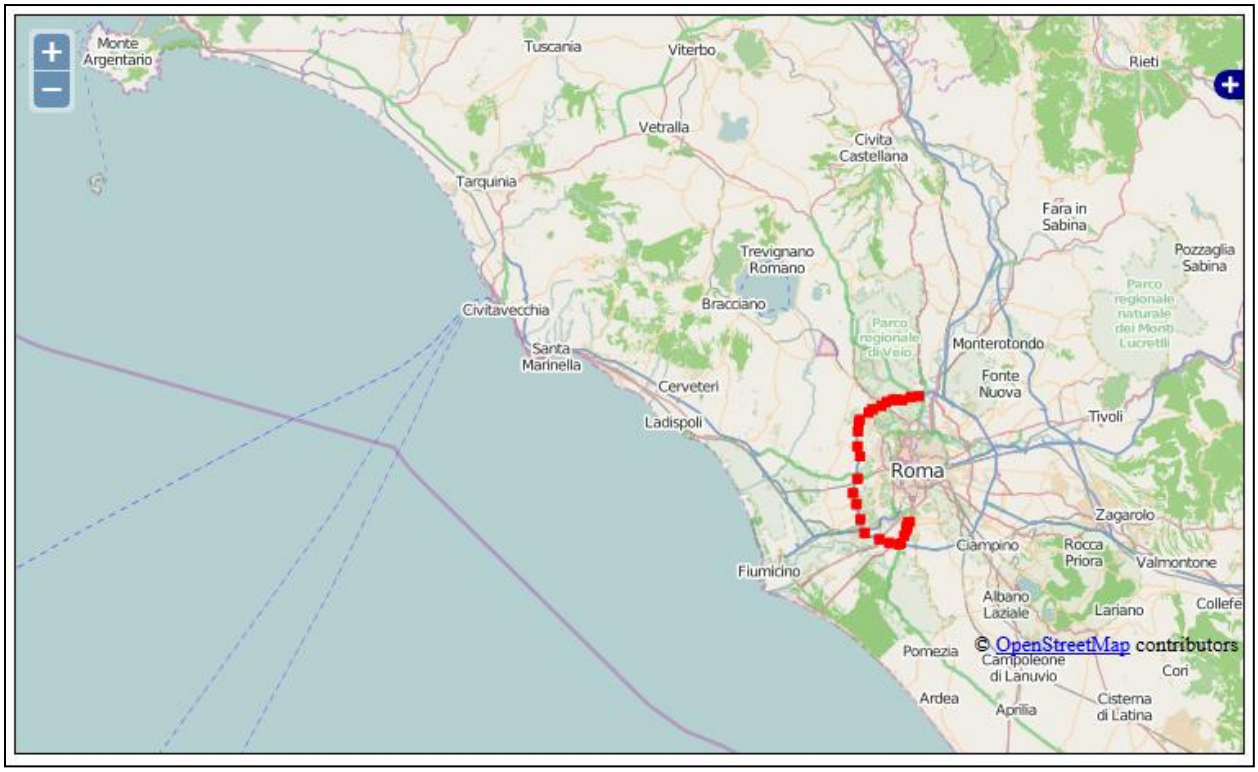

GeoWebCache
List this Layer tasks (there are no tasks for other Layers)
Kill all Tasks for Layer 'NaturalEarth:Coastline'. Submit
List of currently executing tasks:
Id Layer Status Type Estimated # of tiles Tiles completed Time elapsed Time remaining Tasks
3 NaturalEarth:Coastline RUNNING SEED 167,596 464 29 seconds 43 minutes 10 s (Task 1 of 4) Kill Task
4 NaturalEarth:Coastline RUNNING SEED 167,596 560 29 seconds 35 minutes 41 s (Task 2 of 4) Kill Task
5 NaturalEarth:Coastline RUNNING SEED 167,596 496 29 seconds 40 minutes 21 s (Task 3 of 4) Kill Task
6 NaturalEarth:Coastline RUNNING SEED 167,596 528 29 seconds 37 minutes 52 s (Task 4 of 4) Kill Task
Refresh list

Chapter 7: Advanced Visualizations






Monte Argentario
Tuscania
Viterbo
Rieti
Vetralla
Civita Castellana
Tarquinia
Fara in Sabina
Pozzaglia Sabina
Trevignano Romano
Bracciano
Civitavecchia
Parco regionale di Veio
Parco regionale naturale dei Monti Lucretili
Monterotondo
Santa Marinella
Fonte Nuova
Cerveteri
Tivoli
Ladispoli
Roma
Zagarolo
Ciampino
Rocca Priora
Valmontone
Fiumicino
Albano Laziale
Lariano
Colleferro
© OpenStreetMap contributors
Pomezia
Campoleone di Lanuvio
Cori
Ardea
Aprilia
Cisterna di Latina


Monte Argentario
Tuscania
Viterbo
Rieti
Vetralla
Civita Castellana
Tarquinia
Fara in Sabina
Pozzaglia Sabina
Trevignano Romano
Bracciano
Civitavecchia
Parco regionale di Veio
Parco regionale naturale dei Monti Lucretili
Monterotondo
Santa Marinella
Fonte Nuova
Cerveteri
Tivoli
Ladispoli
Roma
Zagarolo
Ciampino
Rocca Priora
Valmontone
Fiumicino
Albano Laziale
Lariano
Colleferro
© OpenStreetMap contributors
Pomezia
Campoleone di Lanuvio
Cori
Ardea
Aprilia
Cisterna di Latina

Services

- WCS
- WFS
- WMS
- WPS

WMS-Animator Options

Max allowed frames

2147483647

Max rendering time (ms)

Max rendering size (bytes)

Frames Delay (ms, default 1s)

1000

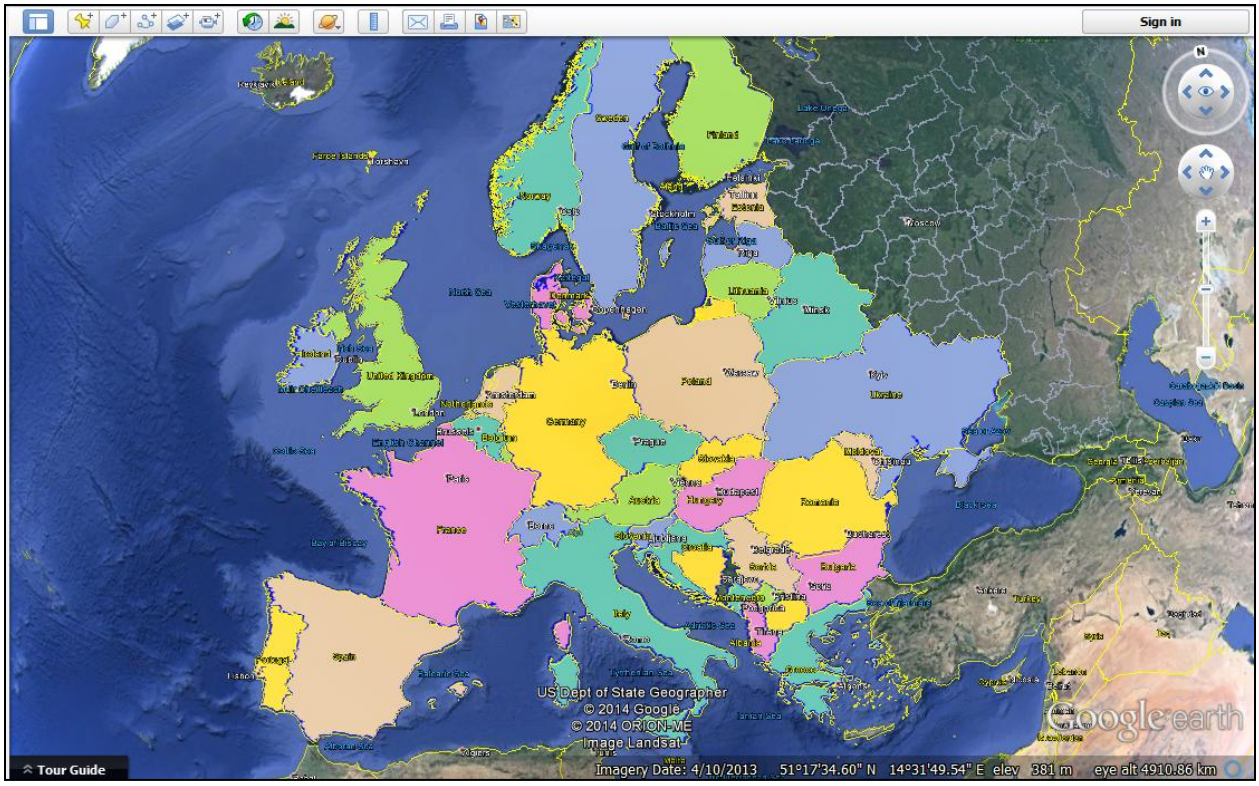
☐ Loop Continuously

Styles

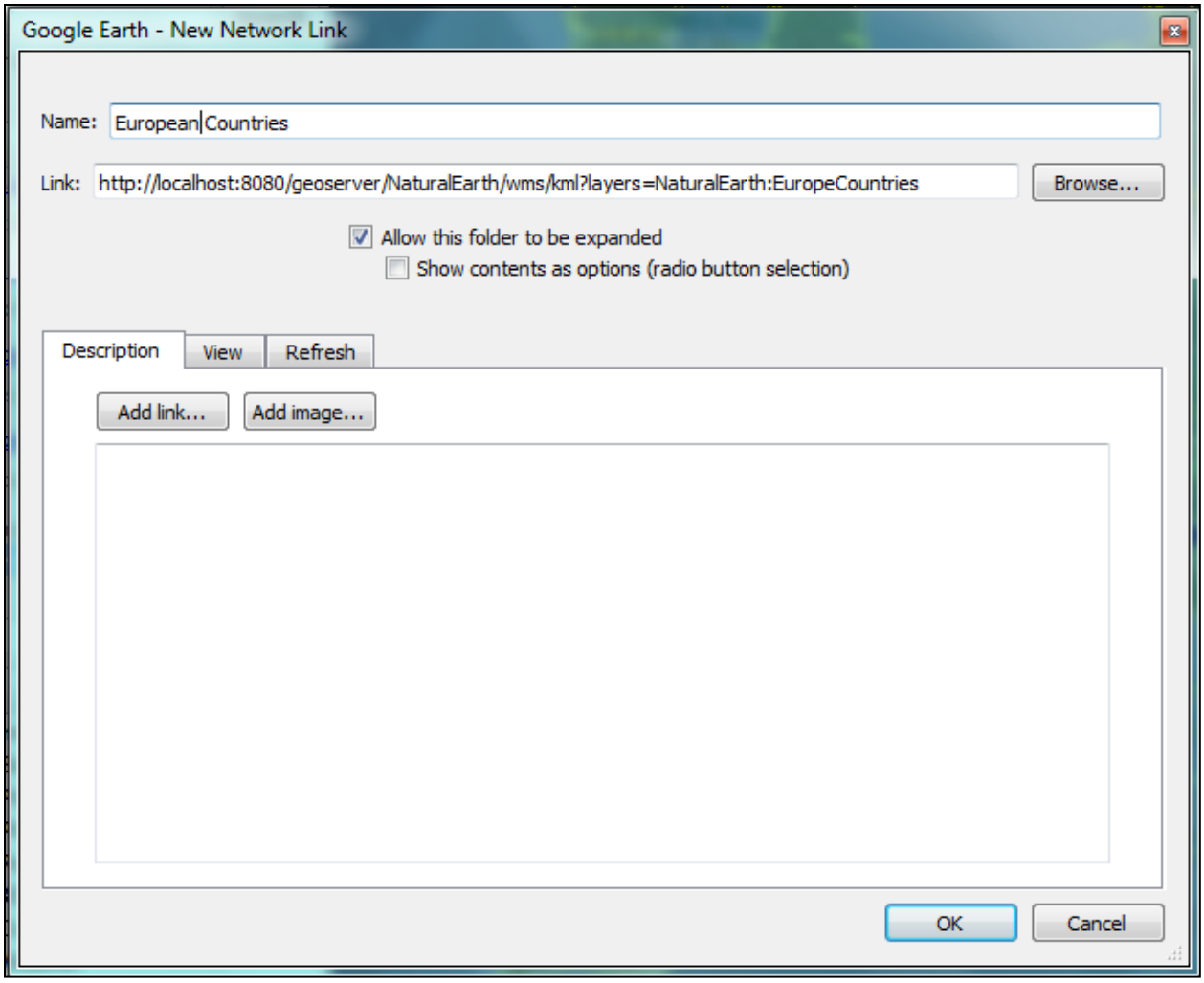
Manage the Styles published by GeoServer

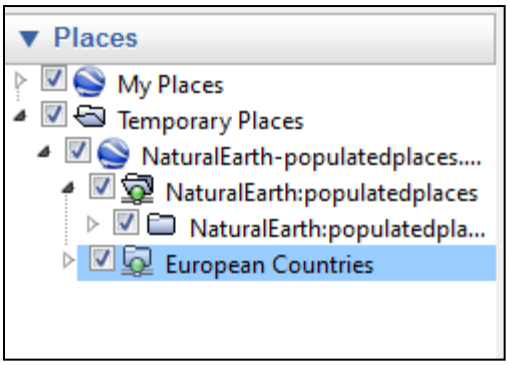
Add a new style

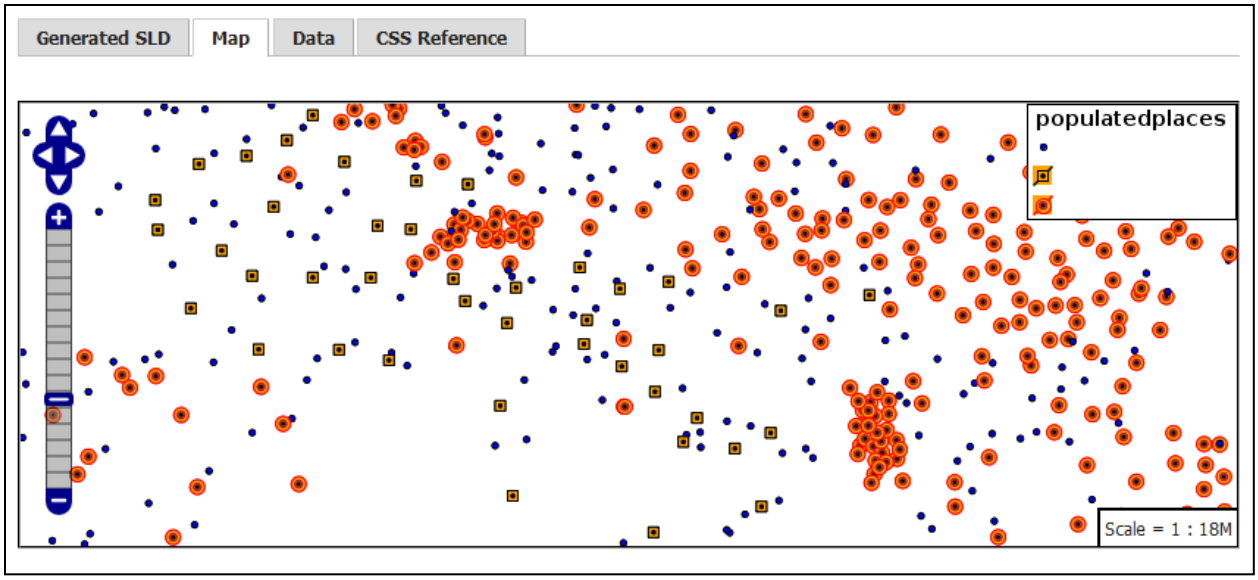
Removed selected style(s)

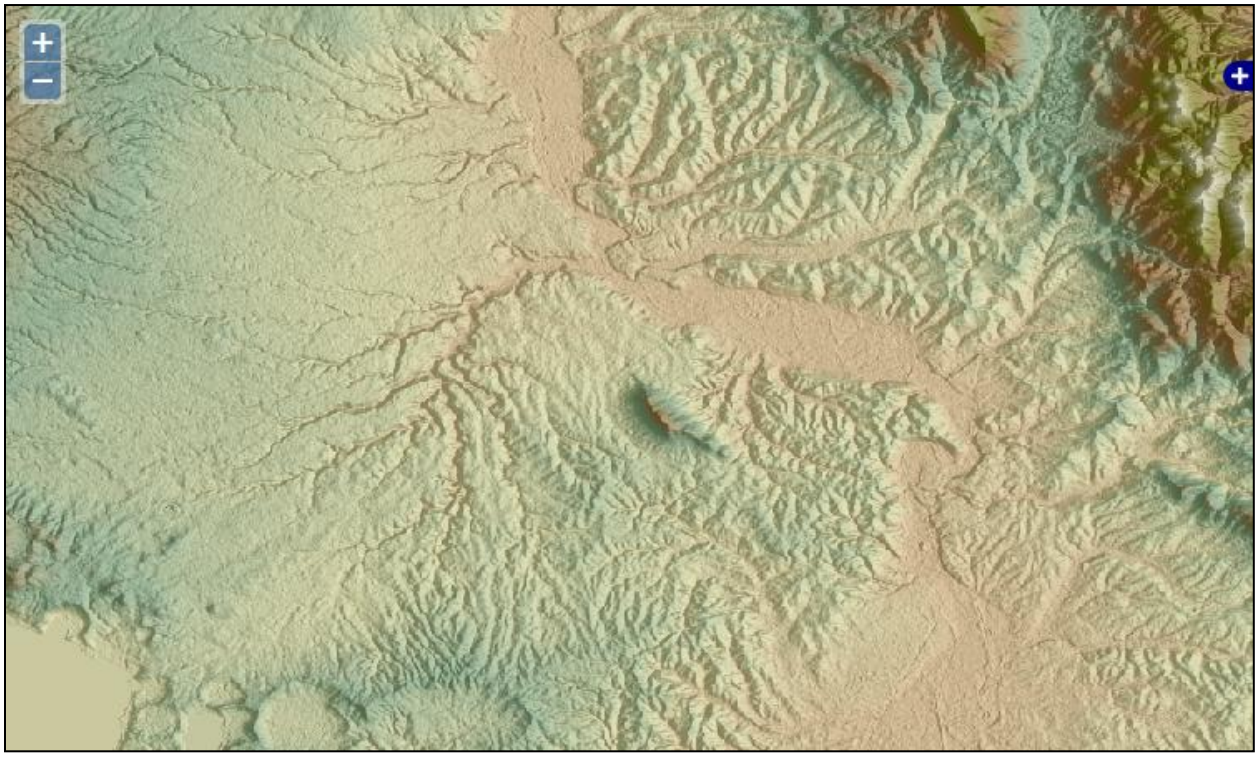

Sign in
Tour Guide
US Dept of State Geographer
© 2014 Google
© 2014 ORION-ME
Image Landsat
Imagery Date: 4/10/2013 51°17'34.60" N 14°31'49.54" E elev 381 m eye alt 4910.86 km

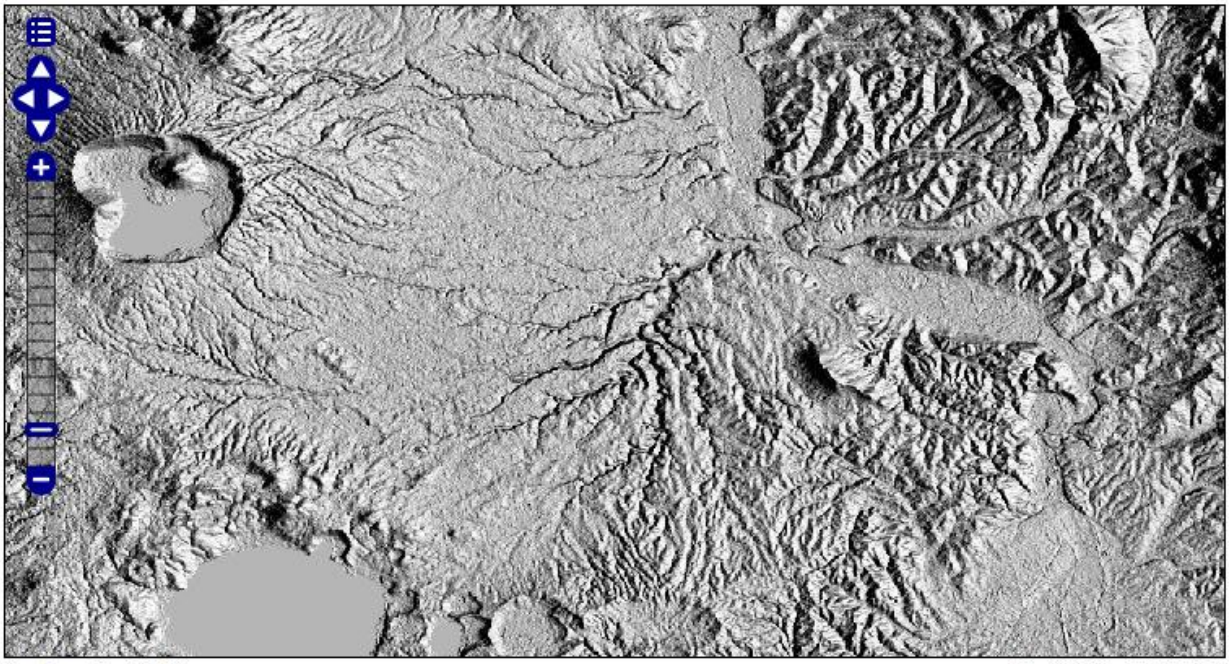

Netherlands
London
Belgium
Germany
English Channel
Celtic Sea
Czech Republic
Paris
Slovakia
Vienna
Budapest
Austria
Hungary
France
Switzerland
Alps
Romania
Bay of Biscay
Slovenia
Zagreb
Lyon
Milan
Turin
Bordeaux
Belgrade
Bucharest
Serbia
Sarajevo
Bulgaria
Toulouse
Marseille
Nice
Montenegro
Pristina
Sofia
Podgorica
Skopje
Italy
Isola d'Elba
Adriatic Sea
Corse (Corsica)
Rome
Spain
Madrid
Barcelona
Isola Maddalena
Albania
Tirana
Isola di Procida
Isola di Capri
Naples
Balearic Sea
Valencia
Mallorca
Sardegna (Sardinia)
Tyrrhenian Sea
Kerkyra
Greece
Athens
Isola Lipari
Palermo
Sicilia (Sicily)
Ionian Sea
Alboran Sea
Algiers
US Dept of State Geographer


Google Earth - New Network Link
Name: European Countries
Link: http://localhost:8080/geoserver/NaturalEarth/wms/kml?layers=NaturalEarth:EuropeCountries
Browse...
Allow this folder to be expanded
Show contents as options (radio button selection)
Description
View
Refresh
Add link...
Add image...
OK
Cancel


Places
My Places
Temporary Places
NaturalEarth-populatedplaces....
NaturalEarth:populatedplaces
NaturalEarth:populatedpla...
European Countries

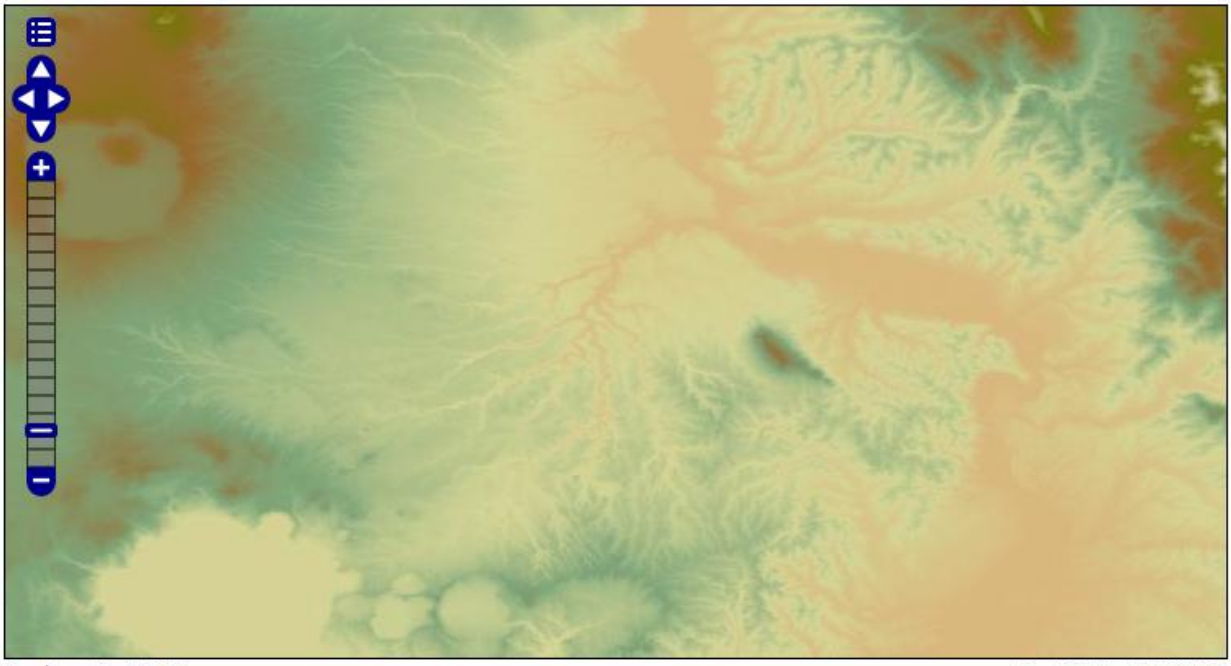

Generated SLD
Map
Data
CSS Reference
populatedplaces
Scale = 1 : 18M





Scale = 1 : 317K 12.40473, 42.32514

Click on the map to get feature info



Scale = 1 : 317K 12.48550, 42.09803

Click on the map to get feature info

Name

InterpolatePop

Workspace

Copy from existing style

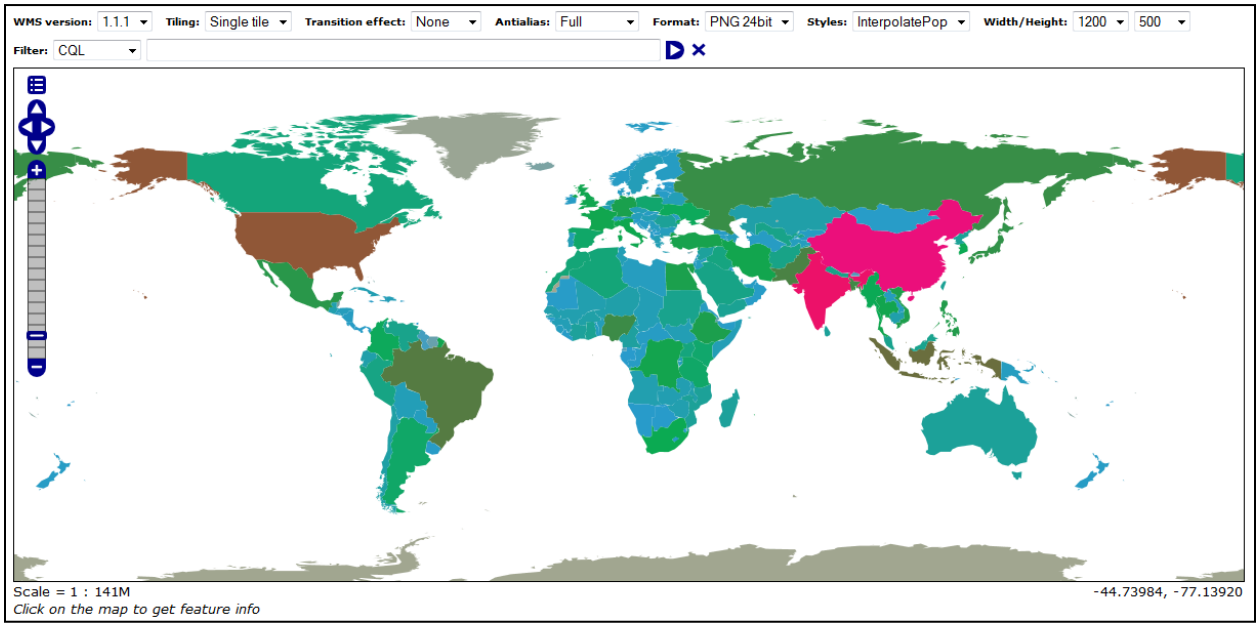
polygon Copy ...

Default Style

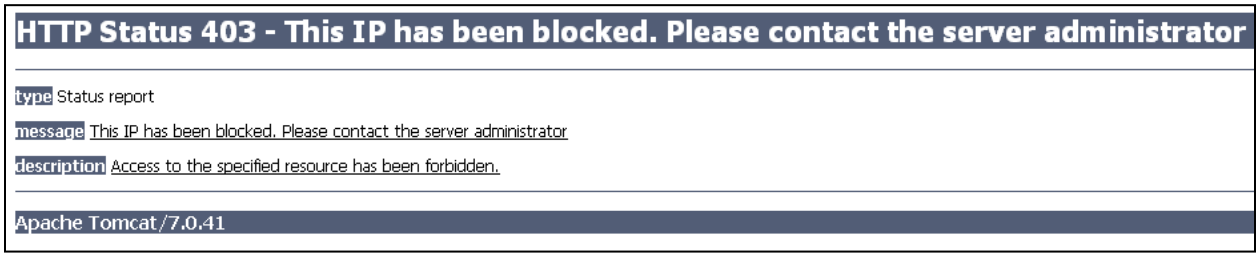
polygon

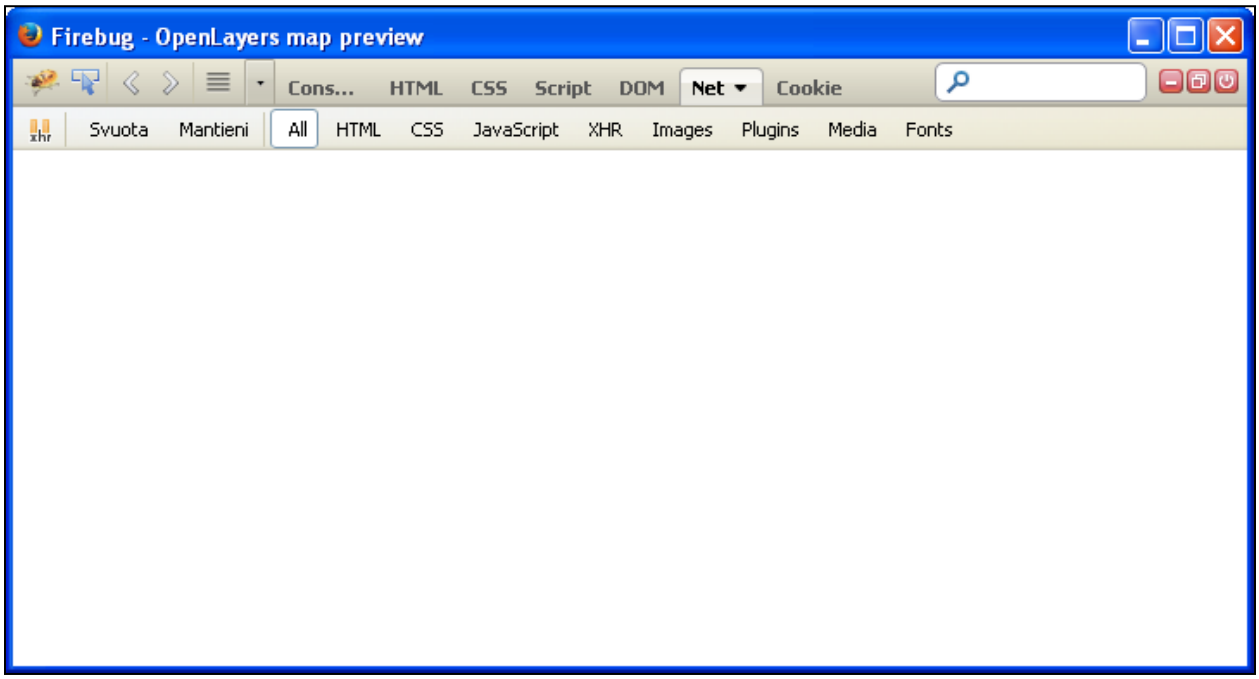
Additional Styles

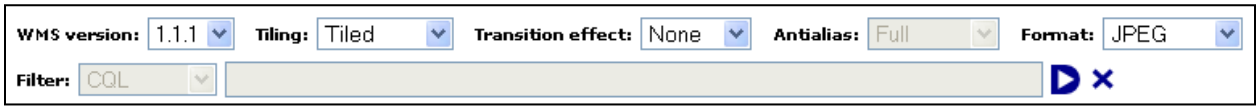
Available Styles	Selected Styles
EuropeanCountries GeneralizedCountries giant_polygon grass green KMLEurope line pippo poi point	InterpolatePop

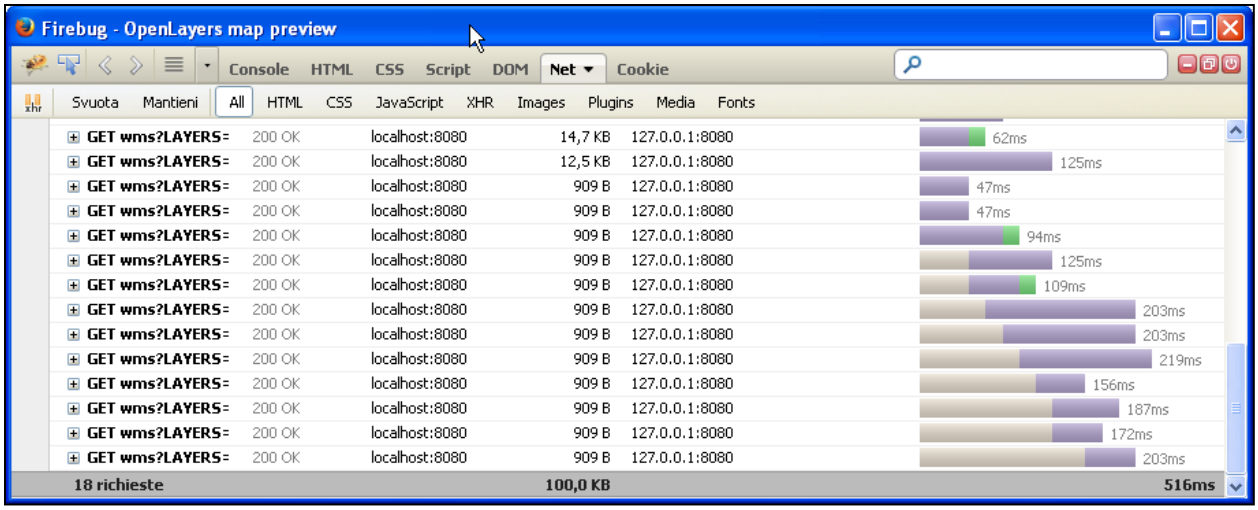


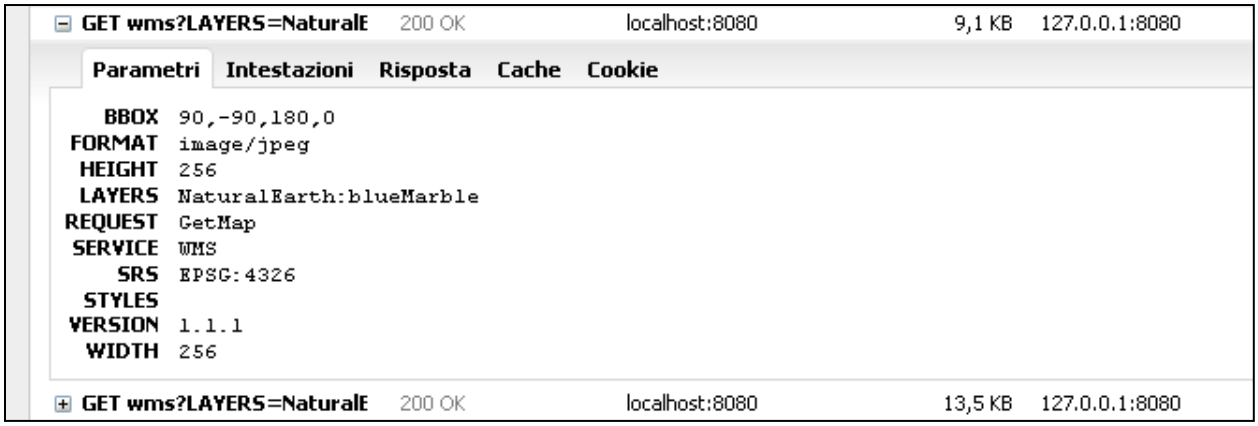
Chapter 8: Monitoring and Tuning

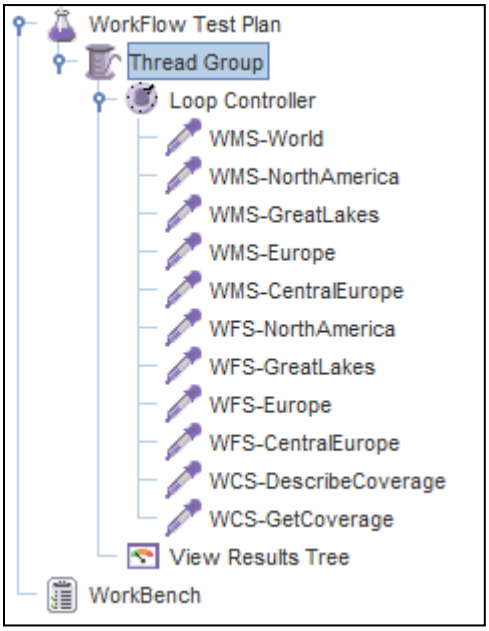







Firebug - OpenLayers map preview
Console HTML CSS Script DOM Net Cookie
Svuota Mantieni All HTML CSS JavaScript XHR Images Plugins Media Fonts
GET wms?LAYERS= 200 OK localhost:8080 14,7 KB 127.0.0.1:8080 62ms
GET wms?LAYERS= 200 OK localhost:8080 12,5 KB 127.0.0.1:8080 125ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 47ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 47ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 94ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 125ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 109ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 203ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 203ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 219ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 156ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 187ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 172ms
GET wms?LAYERS= 200 OK localhost:8080 909 B 127.0.0.1:8080 203ms
18 richieste 100,0 KB 516ms


GET wms?LAYERS=NaturalE 200 OK localhost:8080 9,1 KB 127.0.0.1:8080
Parametri Intestazioni Risposta Cache Cookie
BBOX 90,-90,180,0
FORMAT image/jpeg
HEIGHT 256
LAYERS NaturalEarth:blueMarble
REQUEST GetMap
SERVICE WMS
SRS EPSG:4326
STYLES
VERSION 1.1.1
WIDTH 256
GET wms?LAYERS=NaturalE 200 OK localhost:8080 13,5 KB 127.0.0.1:8080


WorkFlow Test Plan
Thread Group
Loop Controller
WMS-World
WMS-NorthAmerica
WMS-GreatLakes
WMS-Europe
WMS-CentralEurope
WFS-NorthAmerica
WFS-GreatLakes
WFS-Europe
WFS-CentralEurope
WCS-DescribeCoverage
WCS-GetCoverage
View Results Tree
WorkBench

Thread Group

Name: Thread Group

Comments:

Action to be taken after a Sampler error

(•) Continue ( ) Start Next Thread Loop ( ) Stop Thread ( ) Stop Test ( ) Stop Test Now

Thread Properties

Number of Threads (users): 10

Ramp-Up Period (in seconds): 30

Loop Count: [ ] Forever 10

[ ] Delay Thread creation until needed

[ ] Scheduler

0 ⚠ 0 / 10 [ ]

User Defined Variables

Name: User Defined Variables

Comments:

User Defined Variables

Name:	Value
hostname	localhost
port	8080

Web Server

Server Name or IP: ${hostname} Port Number: ${port}

HTTP Request

Implementation: [ ] Protocol [http]: http Method: GET Content encoding:

Path: /geoserver/NaturalEarth/wms

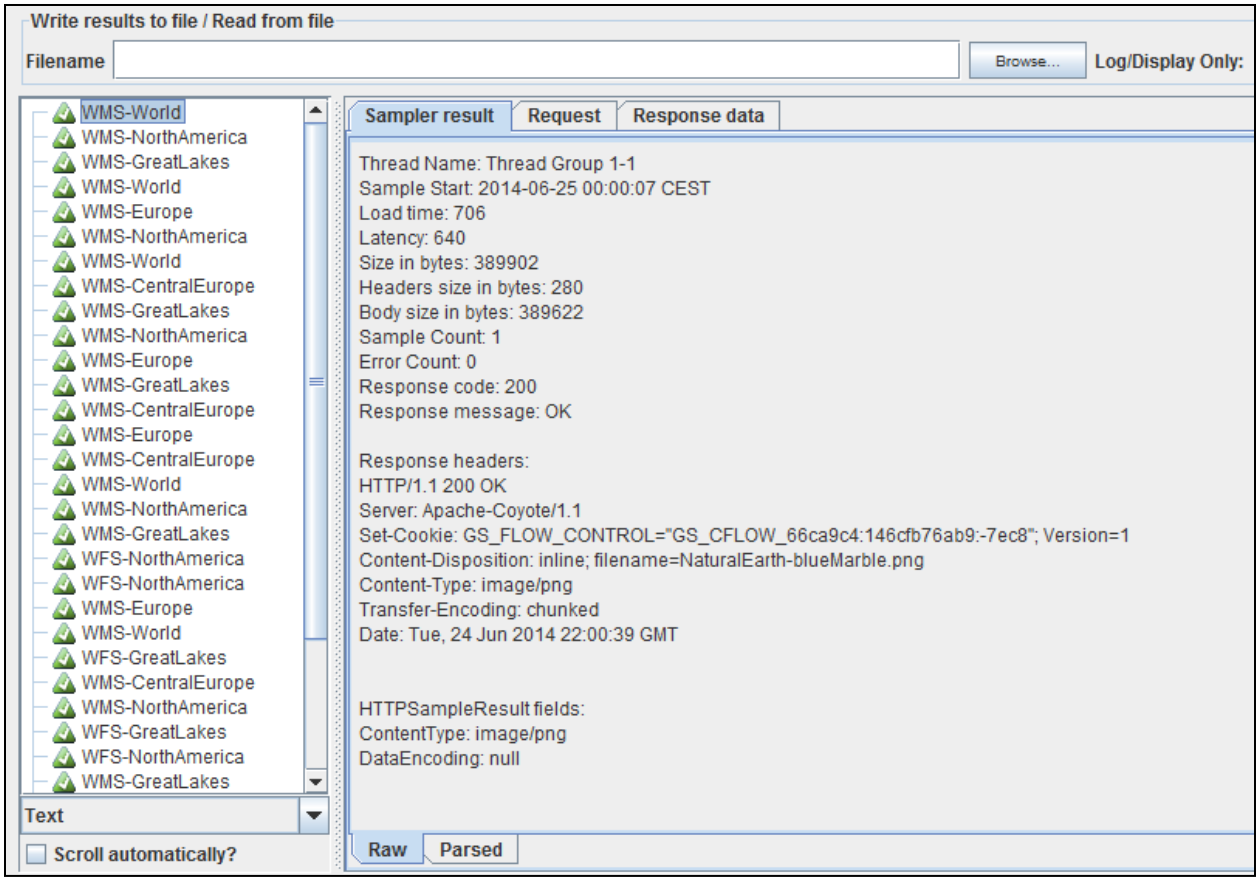
[ ] Redirect Automatically [x] Follow Redirects [x] Use KeepAlive [ ] Use multipart/form-data for POST [ ] Browser-compatible headers

Parameters | Body Data

Send Parameters With the Request:

Name:	Value
service	WMS
version	1.1.0
request	GetMap

Detail | Add | Add from Clipboard | Delete | Up | Down



Miscellaneous

- Chart Symbolizer
- Control Flow
- Cross Layer Filtering
- CSS Styling
- GeoSearch
- CAS
- Monitor (Core, Hibernate)
- Importer (Core, BDB Backend)
- INSPIRE

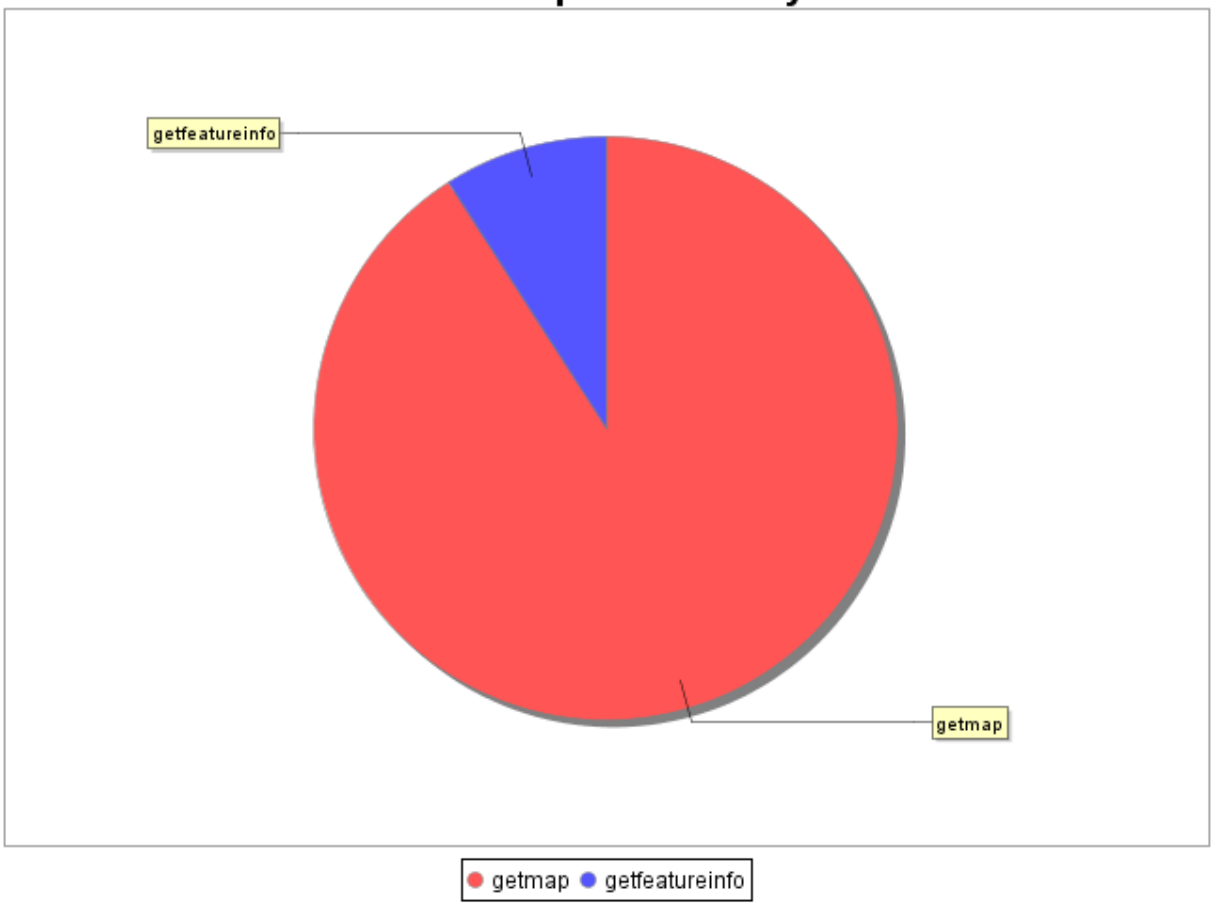
Reports

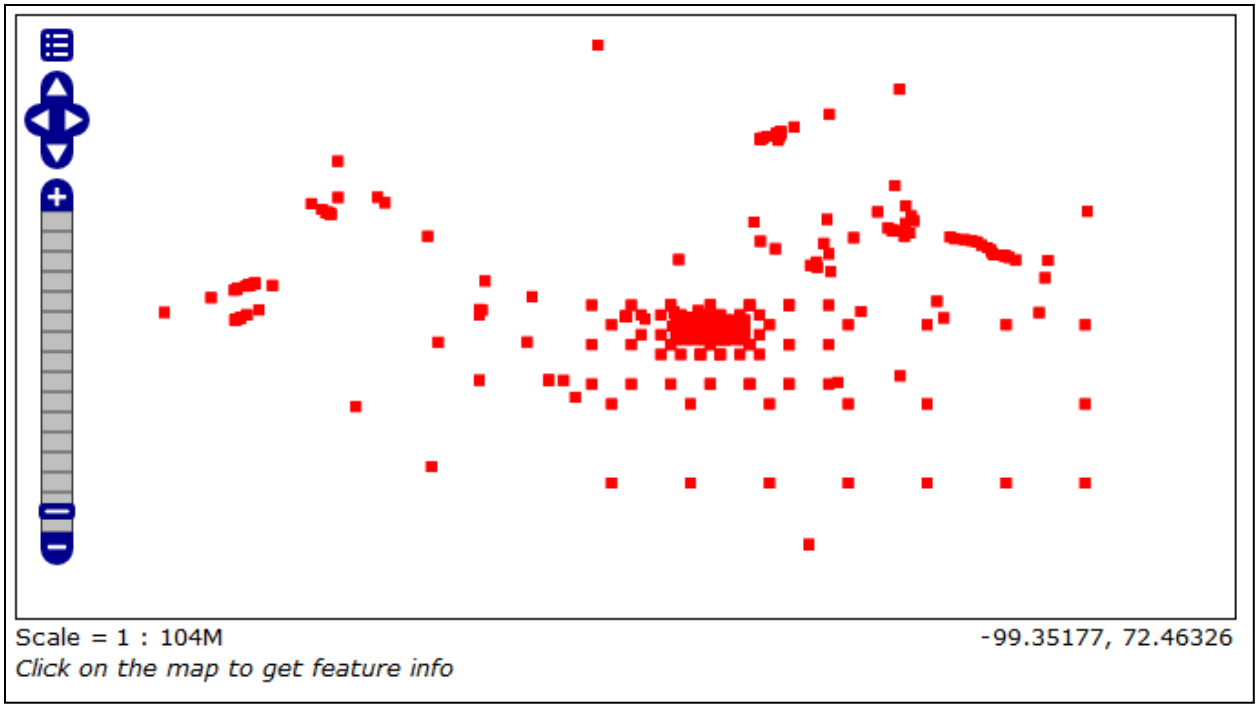
Monitoring Reports

OWS Request Summary

Overview | WFS | WMS | WCS

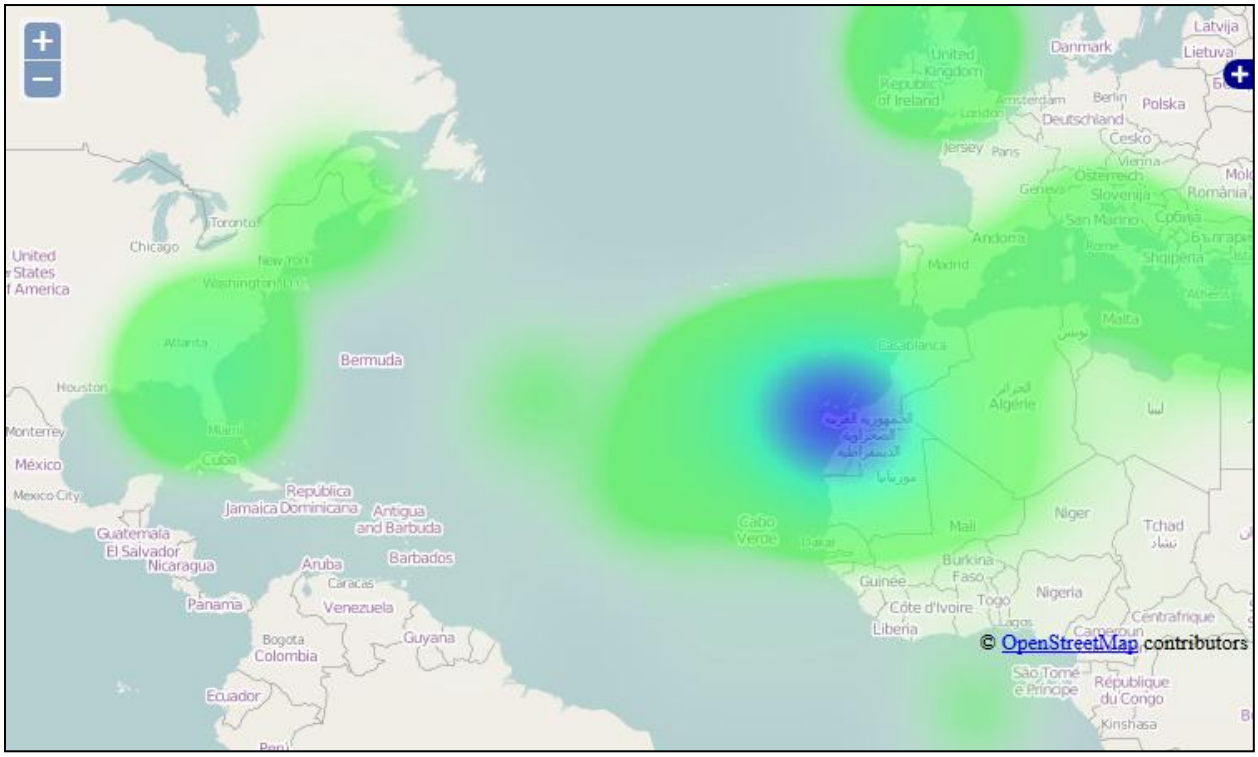
WMS Request Summary





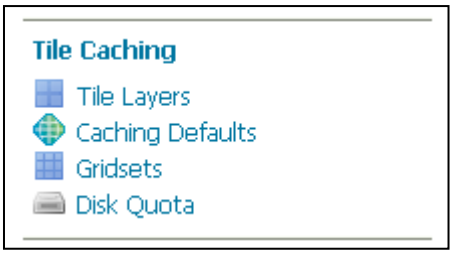
Scale = 1 : 104M -99.35177, 72.46326

Click on the map to get feature info



Id	Status	Server	Method	Path	Query
1	FINISHED	localhost	GET	/NaturalEarth/wms	service=WMS&version=1.1.0&request=GetMap&layers=Na
2	FINISHED	localhost	GET	/openlayers/theme/default/style.css	null
3	FINISHED	localhost	GET	/openlayers/OpenLayers.js	null
4	FINISHED	localhost	GET	/openlayers/img/east-mini.png	null
5	FINISHED	localhost	GET	/openlayers/img/cancel.png	null
6	FINISHED	localhost	GET	/options.png	null
9	FINISHED	localhost	GET	/openlayers/img/west-mini.png	null
10	FINISHED	localhost	GET	/openlayers/img/zoom-minus-mini.png	null
7	FINISHED	localhost	GET	/openlayers/img/north-mini.png	null
13	FINISHED	localhost	GET	/openlayers/img/zoom-plus-mini.png	null
11	FINISHED	localhost	GET	/openlayers/img/zoombar.png	null
12	FINISHED	localhost	GET	/openlayers/img/slider.png	null
8	FINISHED	localhost	GET	/openlayers/img/south-mini.png	null
14	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F
15	FINISHED	localhost	GET	/NaturalEarth/wms	REQUEST=GetFeatureInfo&EXCEPTIONS=application/vnd.
16	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F
17	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F

Id	Status	Server	Method	Path	Query
14	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F
15	FINISHED	localhost	GET	/NaturalEarth/wms	REQUEST=GetFeatureInfo&EXCEPTIONS=application/vnd.
16	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F
17	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F
18	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F
19	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F
20	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F
21	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F
22	FINISHED	localhost	GET	/NaturalEarth/wms	LAYERS=NaturalEarth:GeneralizedCountries&STYLES=&F
23	FINISHED	localhost	GET	/NaturalEarth/wms	REQUEST=GetFeatureInfo&EXCEPTIONS=application/vnd.



Disk Quota

Configure the disk quota limits and expiration policy for the tile cache

Disk Quota

☐ Enable disk quota

Disk block size:

4096 Bytes

Disk quota check frequency:

10 Seconds

(Quota limit has not been exceeded since server start up)

Maximum tile cache size

500 MiB

Using 0,0 B of a maximum 500,0 MB

When enforcing disk quota limits, remove tiles that are:

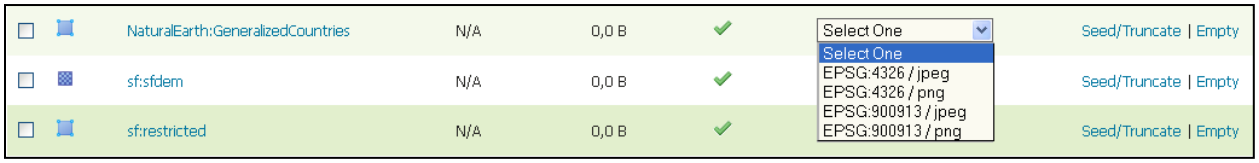
◉ Least frequently used

○ Least recently used

Disk quota store type

In process database (H2)

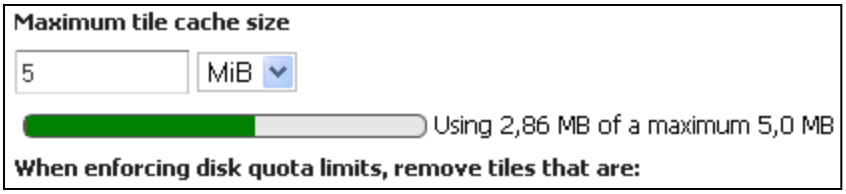
Submit Cancel



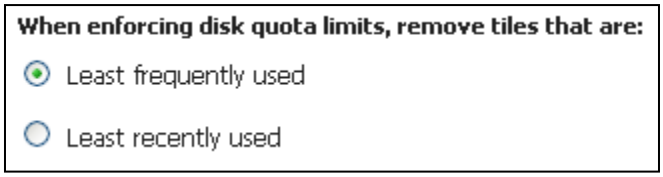
Maximum tile cache size

5 MiB

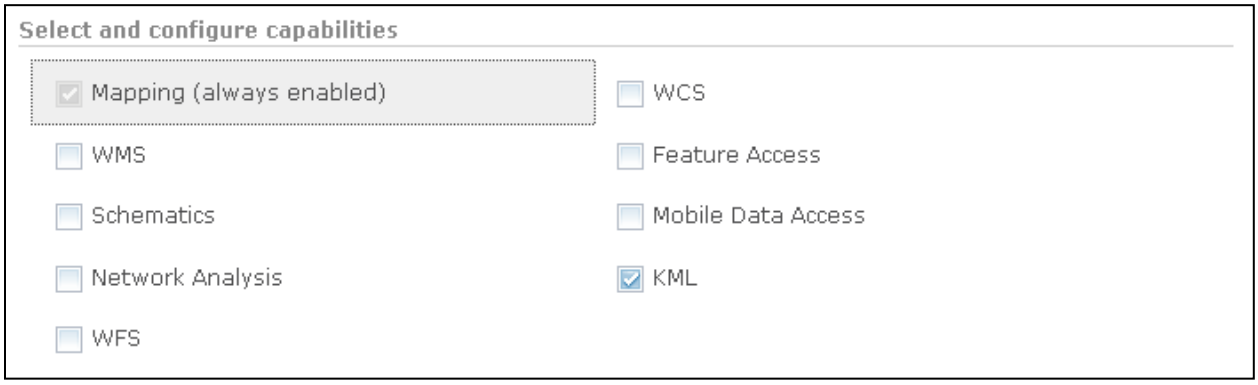
Using 7,3 MB of a maximum 5,0 MB

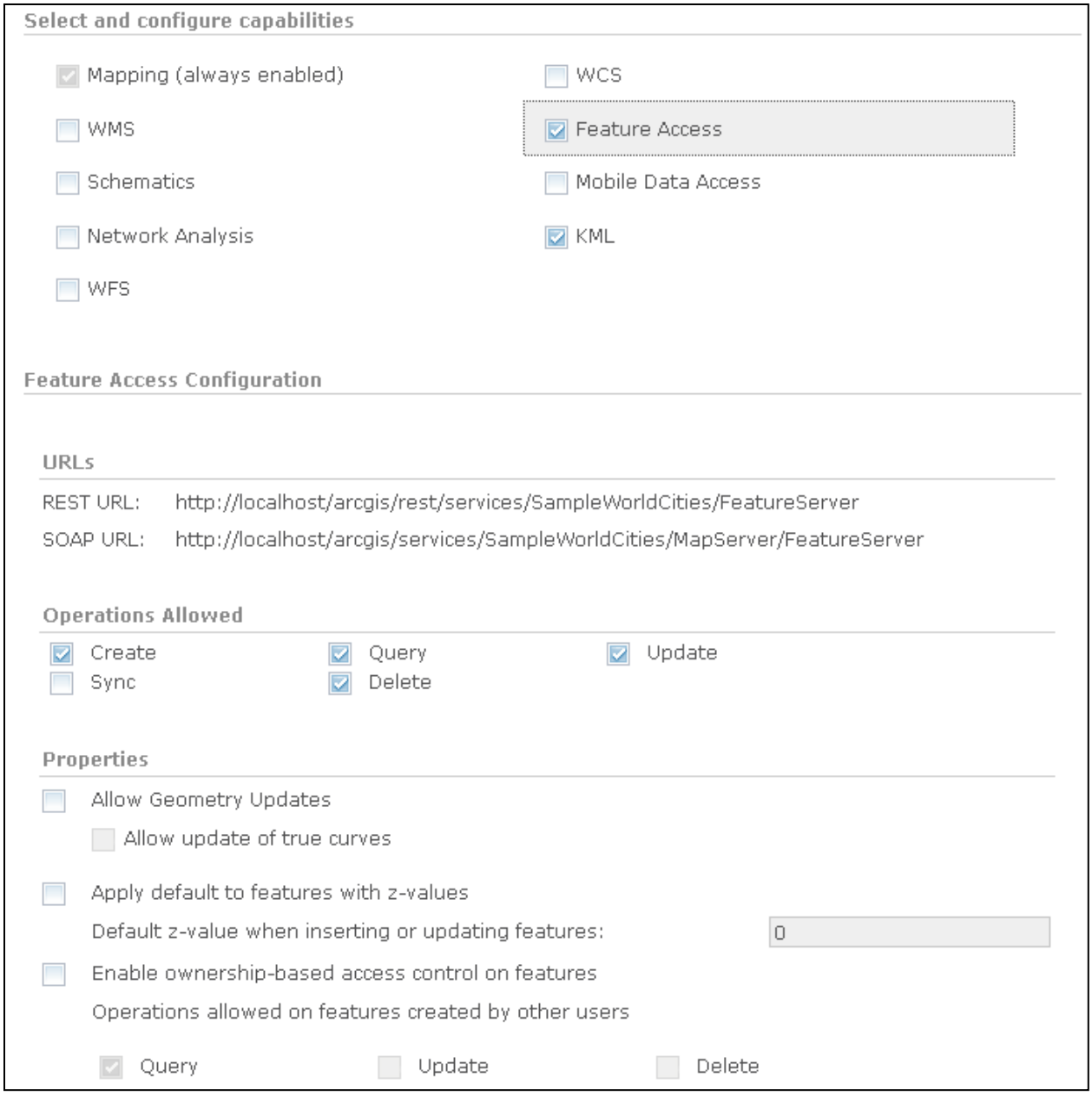

Maximum tile cache size
5
MiB
Using 2,86 MB of a maximum 5,0 MB
When enforcing disk quota limits, remove tiles that are:

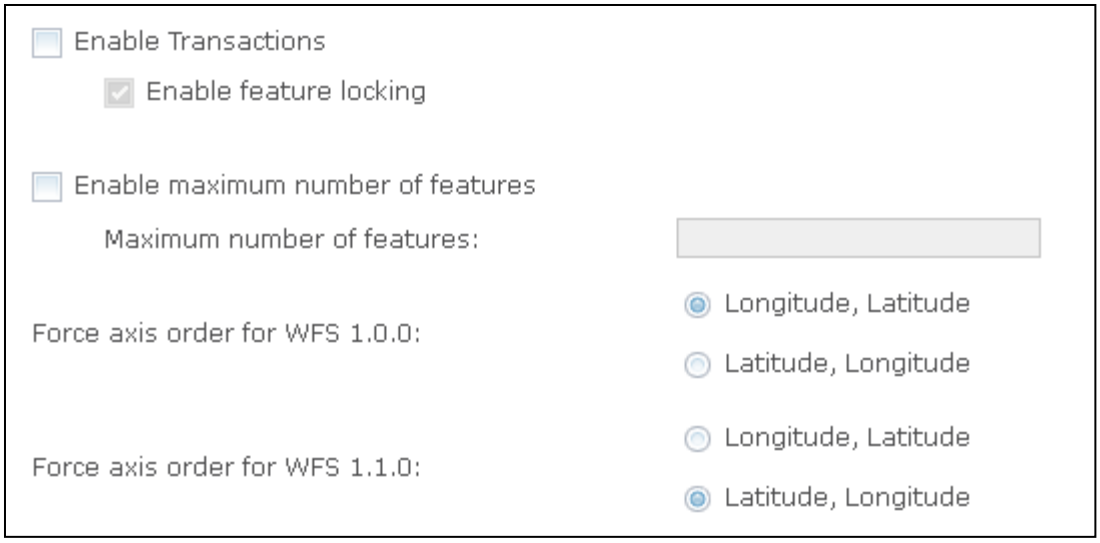

Disk block size:
4096
Bytes


When enforcing disk quota limits, remove tiles that are:
Least frequently used
Least recently used

Appendix: OGC for ESRI Professionals




Select and configure capabilities
Mapping (always enabled)
WMS
Schematics
Network Analysis
WFS
WCS
Feature Access
Mobile Data Access
KML
Feature Access Configuration
URLs
REST URL: http://localhost/arcgis/rest/services/SampleWorldCities/FeatureServer
SOAP URL: http://localhost/arcgis/services/SampleWorldCities/MapServer/FeatureServer
Operations Allowed
Create
Sync
Query
Delete
Update
Properties
Allow Geometry Updates
Allow update of true curves
Apply default to features with z-values
Default z-value when inserting or updating features:
0
Enable ownership-based access control on features
Operations allowed on features created by other users
Query
Update
Delete


Enable Transactions
Enable feature locking
Enable maximum number of features
Maximum number of features:
Force axis order for WFS 1.0.0:
Longitude, Latitude
Latitude, Longitude
Force axis order for WFS 1.1.0:
Longitude, Latitude
Latitude, Longitude