

# State of GeoNode

## 2.10

Torino  
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# This presentation is brought to you by



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Work experience in computer science in the field of Geographic Information Systems (GIS) planning and cartography, especially in the Public Sector. Works as GIS Analyst and developer at CNR-ISMAR designing and managing Geonode based geoportals.

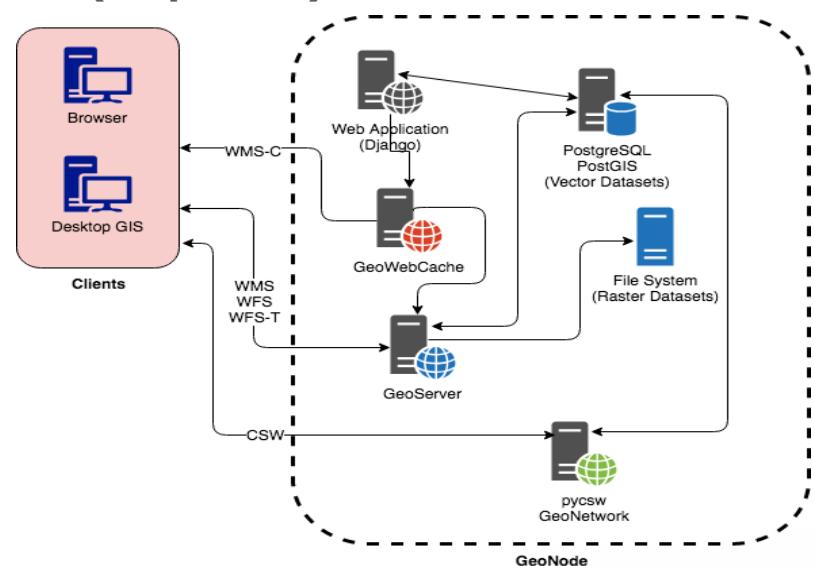
# GeoNode at a Glance

A web framework based on Python and Django to allow people to upload, describe, share and use their geospatial data.

We usually define GeoNode as a geospatial-CMS.

## Core Components

- **Django**
- **SQLite/PotgreSQL-PostGIS**
- **GeoServer/QGIS Server**
- **GeoWebCache**
- **pycsw / GeoNetwork**
- **(MapStore)**



# Capabilities

- **Upload** geospatial datasets (by default shapefiles and GeoTIFFs)
- User with appropriate permissions can **edit layer metadata**, which are exposed by OGC CSW and REST, to provide search/discovery capability
- Create **thematic maps** accessible to general public
- Users with appropriate permissions can **edit layer styles** and features (for vector layers)
- **Granular permission systems**: viewing, downloading, metadata editing, styles and feature editing for a layer can be restricted to users or groups
- GeoNode exposes a number of **standards** for each layer: **OGC (WMS, WMS-C, WFS, WFS-T, WCS, CSW)** and mass market search standards (OAI-PMH, SRU, OpenSearch)

# Release History

- **February 2020, GeoNode 2.10.2 (Django 1.11.29, GeoServer 2.15.4, pycsw 2.4.2)**
- June 2019, **GeoNode 2.10** (Django 1.11.20, GeoServer 2.14, pycsw 2.2.0)
- *April 2018, GeoNode 2.8* (Django 1.8.19, GeoServer 2.12.2, pycsw 2.0.2, group moderation and resources publication workflow, SLD upload, metadata wizard)
- *May 2017, GeoNode 2.6* (Django 1.8.7, GeoServer 2.9, pycsw 2.0.2, React client, QGIS server backend, ansible and docker setup, Ubuntu 16.04 support)
- *November 2015, GeoNode 2.4* (Django 1.6.11, GeoServer 2.7, pycsw 1.10.5, django-guardian, groups, remote services, responsive template, Ubuntu 14.04 support)
- *April 2014, GeoNode 2.0* (Django 1.5.5, GeoServer 2.5, pycsw 1.8.6, django-polymorphic, bootstrap, Ubuntu 12.04 support)
- *October 2012, GeoNode 1.2* (Django 1.4, GeoServer 2.3, South migrations, django-taggit, social features, comments and ratings, find/add layers widget)
- *May 2012, GeoNode 1.1.1* (Ubuntu 10.04 and 11.04 installer)
- *December 2010, GeoNode 1.0*, with major contributions from OpenGeo, the World Bank, GFDRR, UNISDR, and GEM
- *August 2010, GeoNode 1.0-beta*

# Summits and code sprints

- **GeoNode Summit 2020:** Brunswick, Germany | 12 - 14 May, 2020  
(hosted by THÜNEN INSTITUTE)
- **GeoNode Summit 2019:** Viareggio, Italy (hosted by GeoSolutions)
- **GeoNode Summit 2018:** Turin, Italy (hosted by ITHACA)
- **GeoNode Code Sprint 2016:** Bonn, Germany and New Orleans, LA, USA
- **GeoNode Summit 2016:** Rome, Italy (hosted by UN WFP)
- **GeoNode Code Sprint 2015:** New Orleans, LA, USA and Turin, Italy
- **GeoNode Summit 2012:** Cambridge, MA, USA (hosted by Harvard University)
- **GeoNode Summit 2011:** Washington DC (hosted by World Bank)

# Community growth and adoption

UN, The World Bank, OpenGeo, Resilience Academy (University of Turku), Australia Indonesia Facility for Disaster Reduction (AIFDR), MapStory, Global Earthquake Model (GEM) Foundation, Harvard WorldMap, ROGUE (US Army Corps of Engineers), South Pacific Applied Geoscience Commission (SOPAC), SERVIR (US National Aeronautics and Space Administration / NASA), Regional Centre for Mapping of Resources for Development (RCMRD, Kenya), Information Technology for Humanitarian Assistance Cooperation and Action (ITHACA, Italy), UN World Food Programme (WFP), Comision Permanente de Contingencias (COPECO, Honduras), Humanitarian Information Unit (HIU, US State Department), Marine Civil Information Management System (MARCIMS, US Marine Corps), National Geospatial-Intelligence Agency (US NGA), Office of Secretary of Defense (US), Pacific Disaster Center, Central Asian Institute for Applied Geosciences (CAIAG, Kyrgyzstan), National Research Council, Institute of Marine Sciences (Italy), European Commission Joint Research Centre (JRC), World Agroforestry Centre (ICRAF), Massachusetts Institute of Technology (MIT, US), National Oceanic and Atmospheric Administration Center for Weather and Climate Prediction (NOAA NCWCP, US Department of Commerce), Politecnico di Milano (Italy), Humanitarian Data Exchange (HDX, United Nations Office for the Coordination of Humanitarian Affairs), Agency for International Development (US AID), HABAKA Innovation Hub (Madagascar), GESP (Gestione Elaborazione Studio Pianificazione, Italy), Zhejiang University (China), Ritsumeika University (Japan), Intergovernmental Authority on Development (IGAD), (MapStand Ltd), (UNESCO IHP-WINS), Consiglio Nazionale delle Ricerche (CNR Italy), Uganda Bureau of Statistics – Uganda Bureau Of Statistics (UBOS), Istituto Superiore per la Protezione e la Ricerca Ambientale - (ISPRA Italy), Skeena Knowledge Trust - (SKT Canada) ...

# Community and infrastructure

- Official **PSC** elected by the community and composed today by 5 members
- ~20 active core **committers** across several organizations
- ~500 members on the **users** list
- ~120 members on the **developers** list
- Mailing list traffic growing steadily
- Successfully onboarding new developers and contributing organizations
- ~350 **Pull Requests** Merged in the last year
- Continuous Integration + Automated Builds
- Working toward a regular release cycle

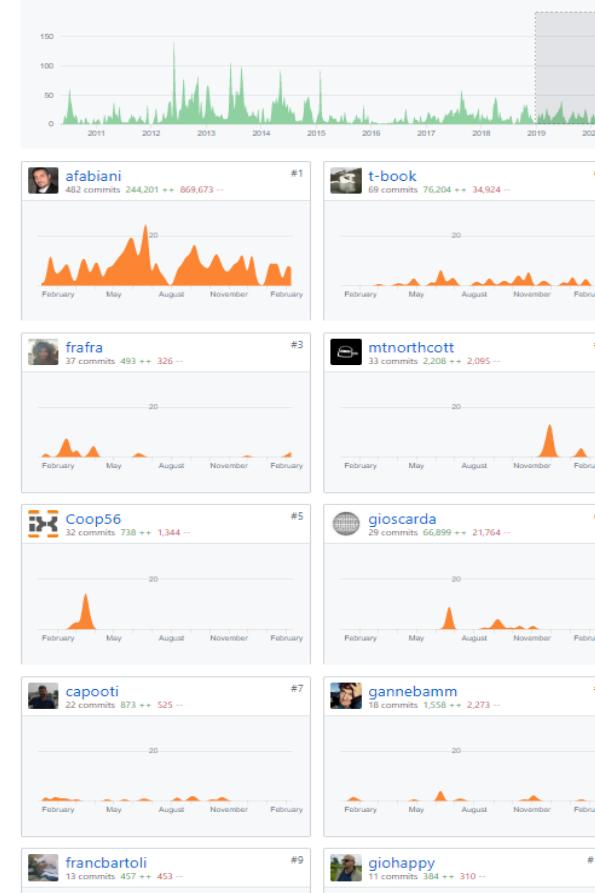
# Active contributors

- World Bank
- GeoSolutions
- Catalyst
- Harvard University
- NINA - Norsk institutt for naturforskning
- GeoBeyond
- Terranodo
- Boundless
- Joint Research Centre
- UN WFP
- ITHACA
- MapStory
- The Pacific Community
- CSGIS
- CartoLogic

Jan 1, 2019 – Feb 13, 2020

Contributions: Commits ▾

Contributions to master, excluding merge commits



# Active contributors

CoderStats(GeoNode)

GitHub user name  Get Stats

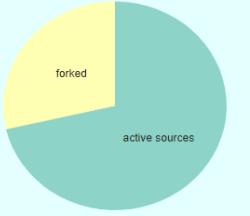
**GeoNode Development Team**



Joined GitHub 29 Sep 2009

GeoNode  
geonode.org  
Global

**Repo types**



Pushed to repos **49** Main languages **8** Total issues **220** Total forks **1222** Total stars **1039** Followers **0** Following **0**

**Summary**

GeoNode Development Team has 50 repositories on GitHub, the latest 50 with user activity were loaded from GitHub's web service for this evaluation. GeoNode Development Team has pushed to **49** of these repositories. This is a high ratio congratulations!

8 different main languages were identified across all repos pushed to. The main language is the one with the largest amount of code in a given repository, as identified by GitHub's [linguist](#). Assuming a basic level of proficiency in all these languages GeoNode Development Team can be considered hyperpolyglot in the world of computer languages. **Python** occurs most frequently – 19 times – as the main repo language.

The total number of forks across all pushed to repositories indicates that the GitHub projects GeoNode Development Team contributes to are actually used by other people.

**Rankings**

**Languages**

Language	Count
Python	19
JavaScript	9
Shell	6
HTML	3
CSS	2
Scheme	1
Dockerfile	1
C	1

**Issues**

Repository	Count
geonode	50
django-geospatial-importer	28
geonode-client	28
geonode	20
mapstore-client	18
geonode-project	17
ansible-geonode	12
geoserver-docker	10
geonode	10
geonode-contris	10
geonode-live	4

**Forks**

Repository	Count
geonode	750
geonode-project	20
geonode.github.com	15
geoserver-docker	10
geoserver-geonode-ext	5
django-geospatial-importer	5
ansible-geonode	2
geonode-docker	2
django-geospatial-explorer	2
nginx-docker	2

**Stars**

Repository	Count
geonode	750
geoserver-docker	20
geonode-project	10
django-geospatial-importer	5
django-geospatial-explorer	5
geonode-client	2
gisdata	2
geoserver-geonode-ext	2
geoserver-restconfig	2
geonode.github.com	2



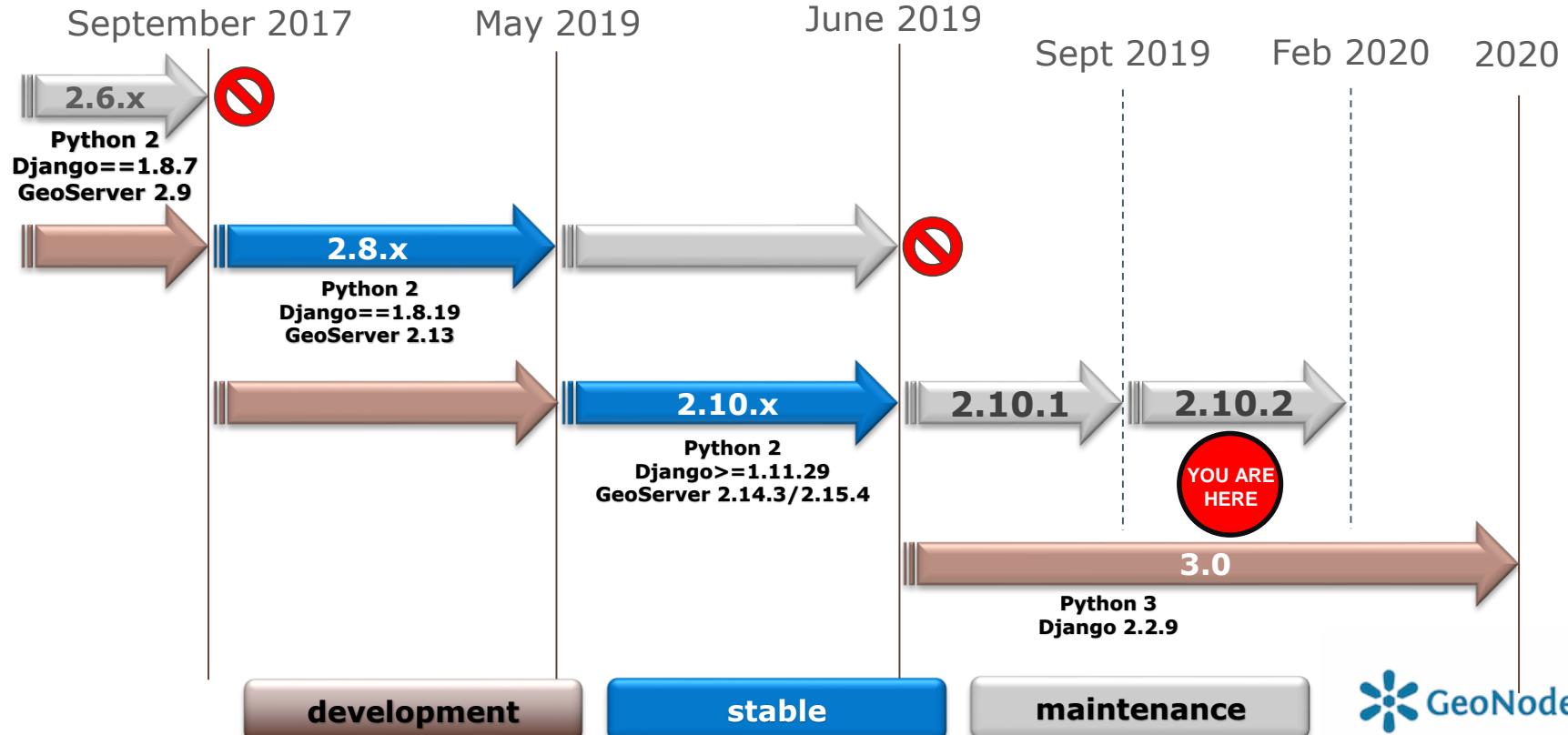
GeoNode

# GeoNode 2019/20

What's in a year?



# Releases covered by this presentation



# Are you using a older version? Upgrade!

- User/Developer lists and Gitter tipically covers only supported versions
  - Today it means 2.10.x and 3.0.x
  - From 2021 it will mean 3.0.x
- Security fixes and installation support on new OSs being added to supported versions only!
- Moving data from old versions will be much harder if not impossible
- Web interfaces and GIS clients will be much different. No one will be able to backport fixes or improvements to the old ones.
- Please upgrade your GeoNode installations!!!

# What's new?



# Upgrade? What's in it for me?

- Let's check what's new in 2.10.2 / 3.0 upcoming release
- Check the bottom of each slide to see who sponsored a certain feature, who implemented it, and what version contains it

Sponsor

Author

Version



# Upgrade to Python3 and Django 2.2 (GeoNode 3)

- Important Security and performance fixes
- Support Python 3.5+ and Django 2.2.9

# Upgrade to GeoServer 2.15.4

- Important Security and performance fixes
- Updated versions of community modules:
  - ✓ *Backup & Restore*
  - ✓ *OAuth2*
  - ✓ *GeoFence*
  - ✓ *GeoWebCache*
- Support for more styles and improved compatibility with QGIS SLD export
- Support 2.15.x and 2.16.x

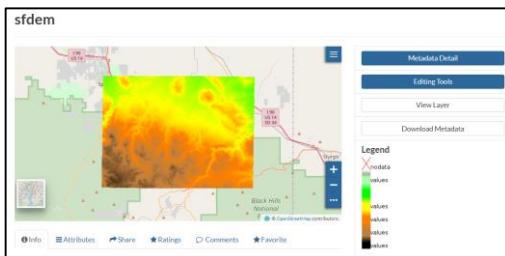
# Remote Services Improvements

Remote Services

Register a new Service

Title	URL	Type
GeoServer Web Map Service ②	<a href="https://demo.geo-solutions.it/geoserver/wms">https://demo.geo-solutions.it/geoserver/wms</a>	Web Map Service
World Imagery ①	<a href="http://server.arcgisonline.com/arcgis/rest/services/World_Imagery/MapServer">http://server.arcgisonline.com/arcgis/rest/services/World_Imagery/MapServer</a>	ArcGIS REST MapServer

- Import Legends and as much as metadata fields as possible
- Allows remote resource filtering and exposure to the catalogue



- Improved stability on harvesting
- Support for more endpoints, WMS, ArcGIS REST, GeoNode OWS APIs

Import resources

Manage

Service scanner Re-scan Service for new Resources

5 resources can be imported

Id	Name	Description
0	World Imagery	World Imagery
1	Low Resolution 15m Imagery	Low Resolution 15m Imagery
2	High Resolution 60cm Imagery	High Resolution 60cm Imagery
3	High Resolution 30cm Imagery	High Resolution 30cm Imagery
4	Citations	Citations

Clear Filter Back to service details Import Resources

# Support to Temporal Series

boxes\_with\_date

ESRI Shapefile

- boxes\_with\_date.dbf Remove
- boxes\_with\_date.prj Remove
- boxes\_with\_date.qix Remove
- boxes\_with\_date.shp Remove
- boxes\_with\_date.shx Remove

Files are ready to be ingested! A temporal dimension may be added to this Layer. [Continue](#)



Inspect data for "boxes\_with\_date"

Configure as Time-Series [On](#) [?](#)

Date

	Id
2000/03/01	0
2000/03/02	1
2000/03/03	2
2000/03/04	3
2000/03/05	4
2000/03/06	5
2000/03/07	6
2000/03/08	7
2000/03/09	8
2000/03/10	9

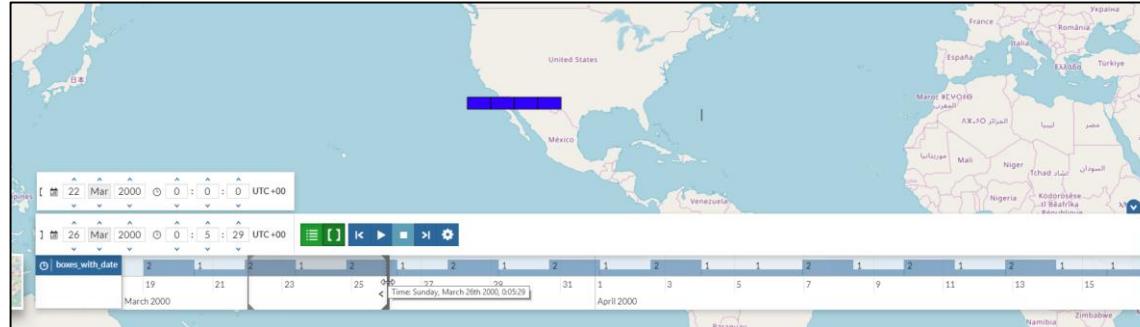
Showing 1 to 10 of 100 rows [10](#) rows per page

[1](#) [2](#) [3](#) [4](#) [5](#) ... [10](#) [>](#)

[Cancel](#) [Next](#)

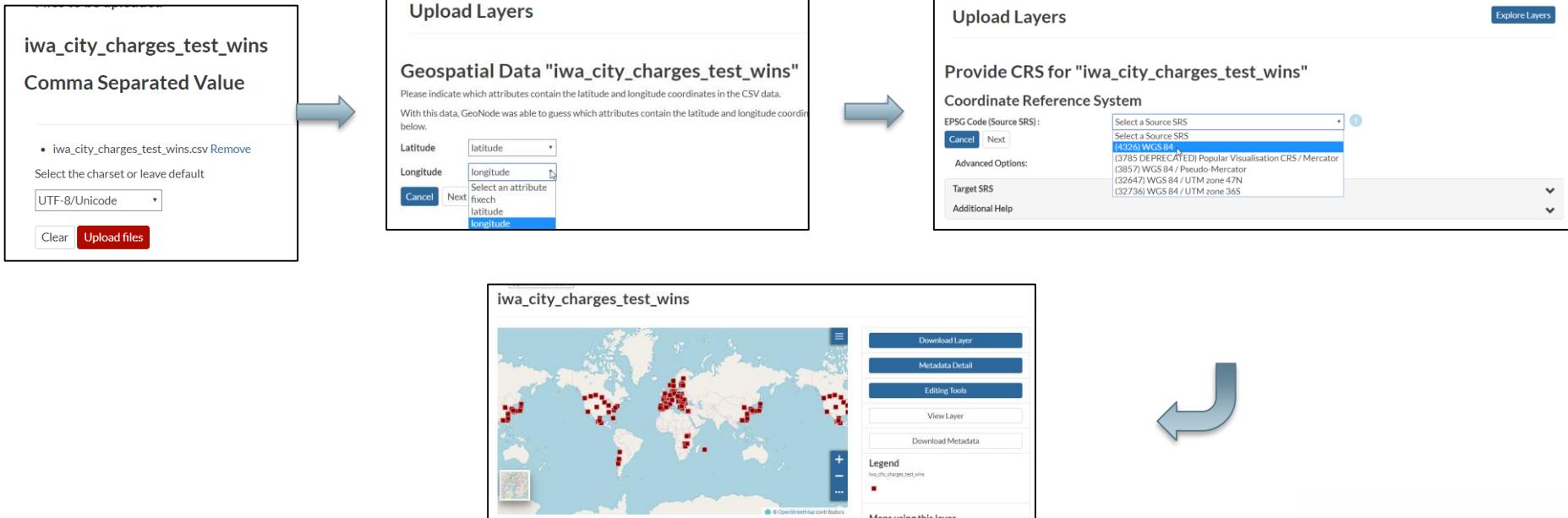
[Advanced Options](#)

[Search](#) [?](#)



# Improvements to Uploaders and data formats

- **SLDs** and metadata **XML** can be included directly on a **ZIP** file
- Supports: **CSV, KML, KMZ (Ground Overlays), JSON**



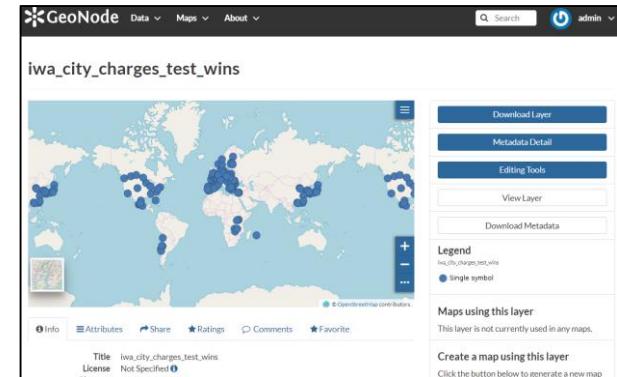
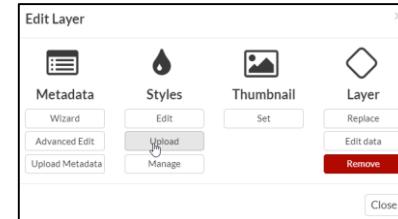
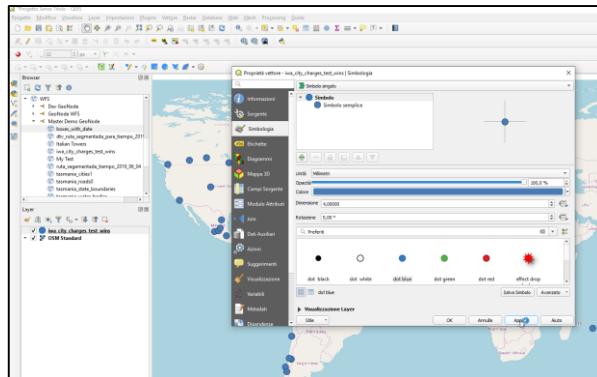
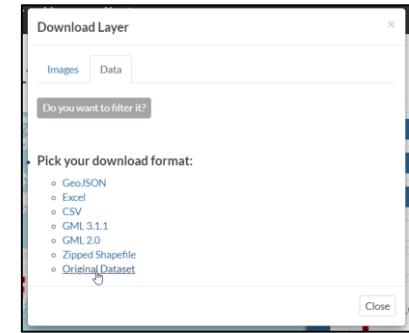
# SLD Export and Upload

- Direct download of available styles and original dataset
- Still needs work and improvements; for the moment supports well only simple styles

## Styles

The following styles are associated with this layer. Choose a style to view it in the preview map.

(default style) iwa\_city\_charges\_test\_wins



# Metadata Improvements and Batch Update

GeoNode Data Maps About admin

Search admin

Metadata for iwa\_city\_charges\_test\_wins

Completeness  
Check Schema mandatory fields  
75 %

Edit Preview Settings

Mandatory Mandatory Optional

1 Basic Metadata 2 Location and Licenses 3 Optional Metadata 4 Dataset Attributes

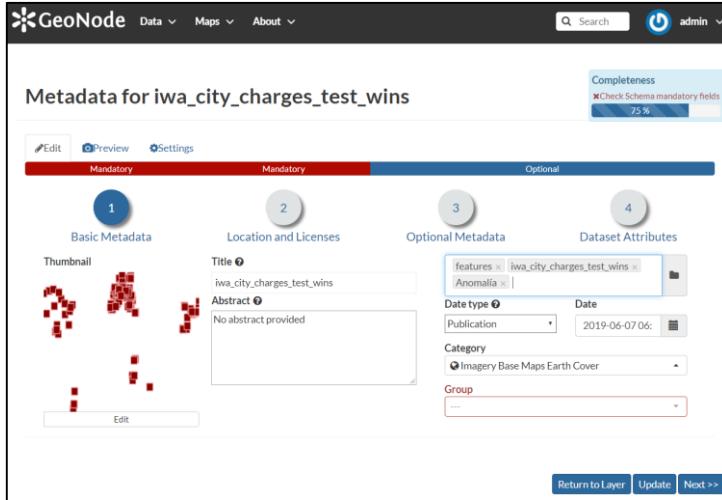
Thumbnail Title iwa\_city\_charges\_test\_wins Abstract No abstract provided

Date type Publication Date 2019-06-07 06:00

Category Imagery Base Maps Earth Cover

Group

Return to Layer Update Next >



Select layer to change

2019 June 6 June 7

Action: Metadata batch edit Go 14 of 14 selected

ID Delete selected layers

91 Metadata batch edit geonode.iwa\_city\_charges\_test\_wins

90 geonode.dtv\_ruta\_segmentada\_para\_tiempo\_2019\_03\_27

87 geonode.ruta\_segementada\_tiempo\_2019\_06\_04

86 geonode.catastro

TITLE [EN] iwa\_city\_charges\_test\_wins

Batch Edit

Group

Owner

Category

Environment

Biota

Boundaries

climatology

Meteorology

Atmosphere

Climatology

Meteorology

Atmosphere

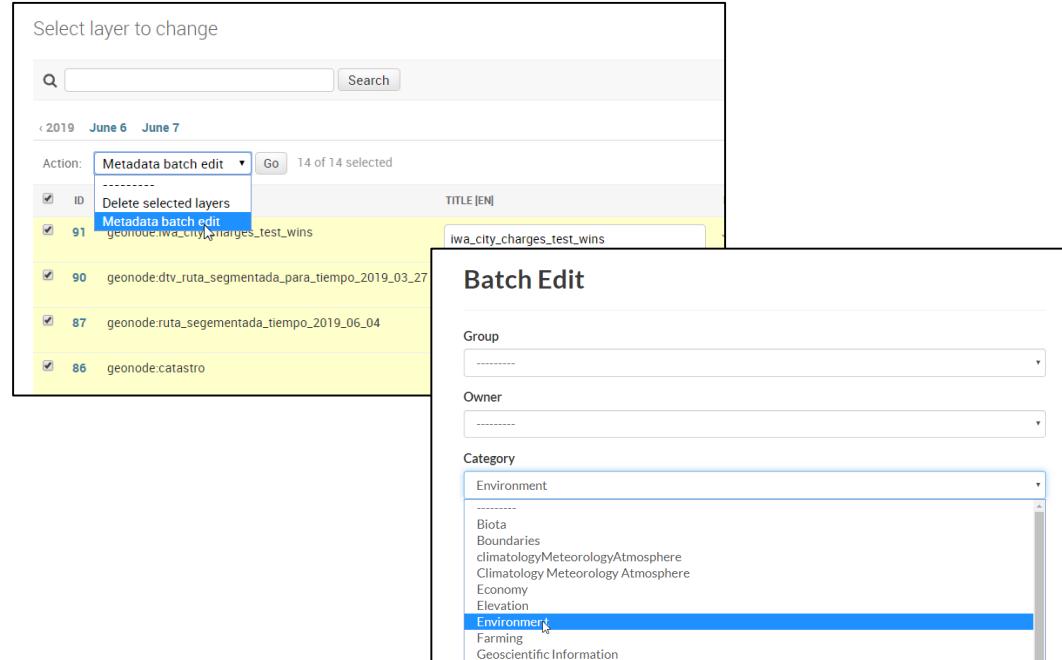
Economy

Elevation

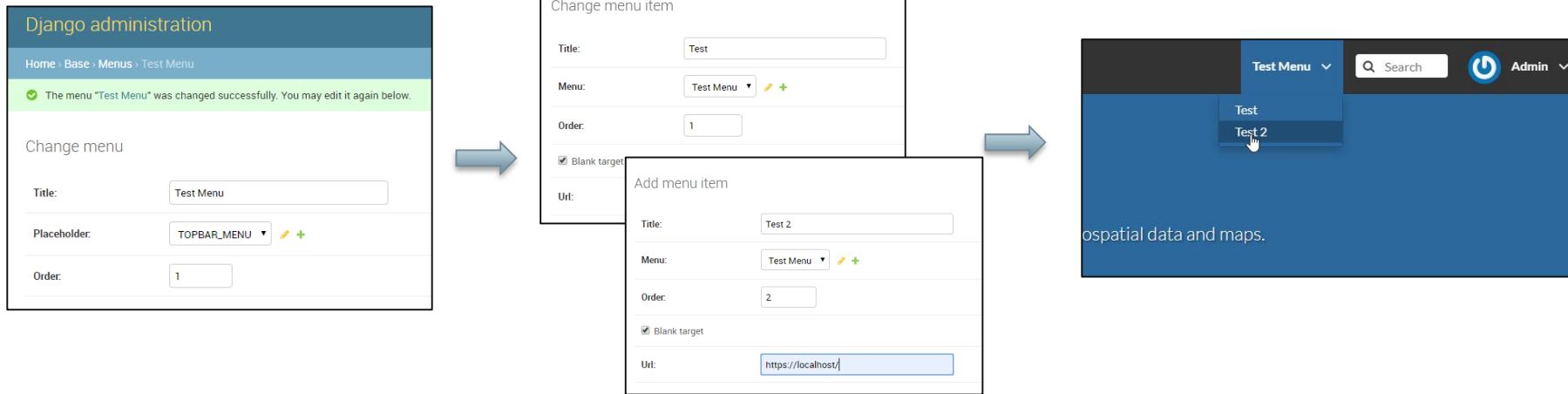
Environment

Farming

Geoscientific Information



# Menu Management



# Theme and Privacy Policy Management

The diagram illustrates the process of managing themes and privacy policies in GeoNode. It starts with the 'GeoNode Themes Library administration' interface, where users can add geo nodes, partners, and themes. This leads to the 'Test GeoNode Instance' page, which displays a jumbotron with a test message and a cookie law info bar. The final step is the 'Our Partners' page, which features the GeoSolutions logo and navigation links.

**GeoNode Themes Library administration**

- Add geo node
- Partners
- Themes

**GEONODE THEMES LIBRARY**

- + Add Change
- + Add Change

This will not appear anywhere.

Is enabled  
Enabling this theme will disable the current enabled theme (if any)

Logo: Choose File logo\_GeoSol.  
Jumbotron background: Choose File geospatial.png

Hide text in the jumbotron  
Check this if the jumbotron background image already contains text

Jumbotron title: Test GeoNode Instance  
Jumbotron content: This is a test instance!!!

**Copyright**

**Copyright color**

Cookies Law Info Bar

**Cookie law info bar head:** This website uses cookies

**Cookie law info bar text:** This website uses cookies to improve your experience. [check <strong>a style="color: #000000">here</strong>](#) for details. We'll assume you're ok with this, but you can opt-out if you wish.

**Test GeoNode Instance**  
This is a test instance!!!  
Get Started »

**Search for Data.**

**Search**

Explore all datasets

**Our Partners**

Geo Solutions

Data  
Layers  
Documents  
Remote Services

Maps  
Explore Maps  
Create Map

About  
People  
Groups  
Announcements

Powered by GeoNode version 2.10rc5  
Developers | About

English

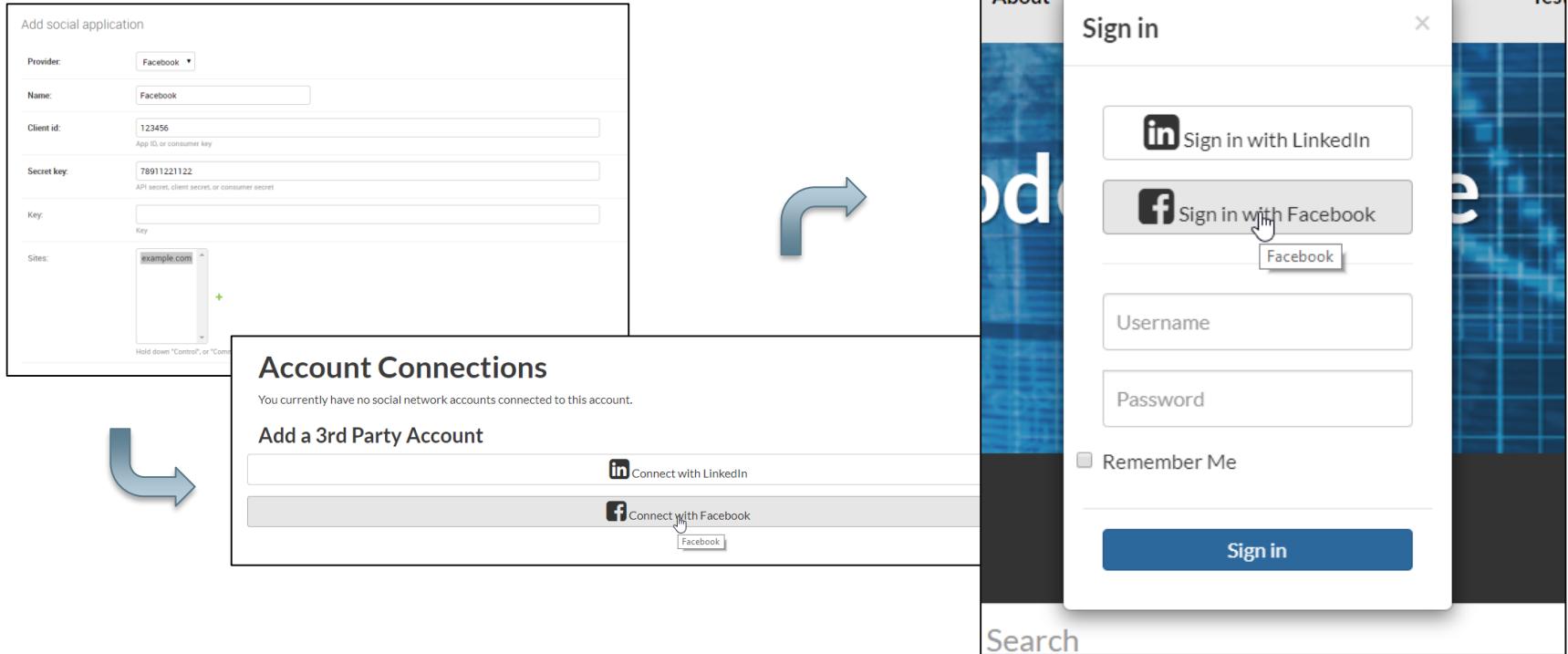
IGAD

GeoSolutions

2.10.2 – 3.0



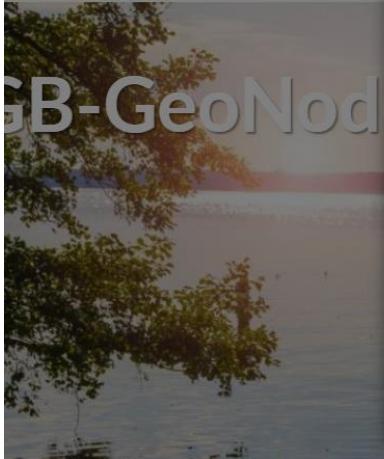
# Social Account Login



# LDAP Authentication



Data Maps About



Sign in

[Sign in with LinkedIn](#)

[Sign in with Facebook](#)

test100

······

Remember Me

[Forgot Password?](#)

[Sign in](#)



Test User (test100)

	Test
Position	Not provided.
Organization	Not provided.
Location	Not provided.
Voice	Not provided.
Fax	Not provided.
Description	Not provided.
Keywords	ldap

Explore Groups

Total: 6

GROUP	MEMBERS	MANAGERS
abt1	5 Members	1 Manager
abt2	6 Members	1 Manager
abt3	1 Member	1 Manager
abt4	1 Member	1 Manager
abt5		

# Data Upload Advanced Workflow

```
# Each uploaded Layer must be approved by an Admin before becoming visible
ADMIN_MODERATE_UPLOADS = ast.literal_eval(os.environ.get('ADMIN_MODERA'))

# option to enable/disable resource unpublishing for administrators
RESOURCE_PUBLISHING = ast.literal_eval(os.getenv('RESOURCE_PUBLISHING'))

# If this option is enabled, Resources belonging to a Group won't be
# visible by others
GROUP_PRIVATE_RESOURCES = ast.literal_eval(os.environ.get('GROUP_PRIVA'))

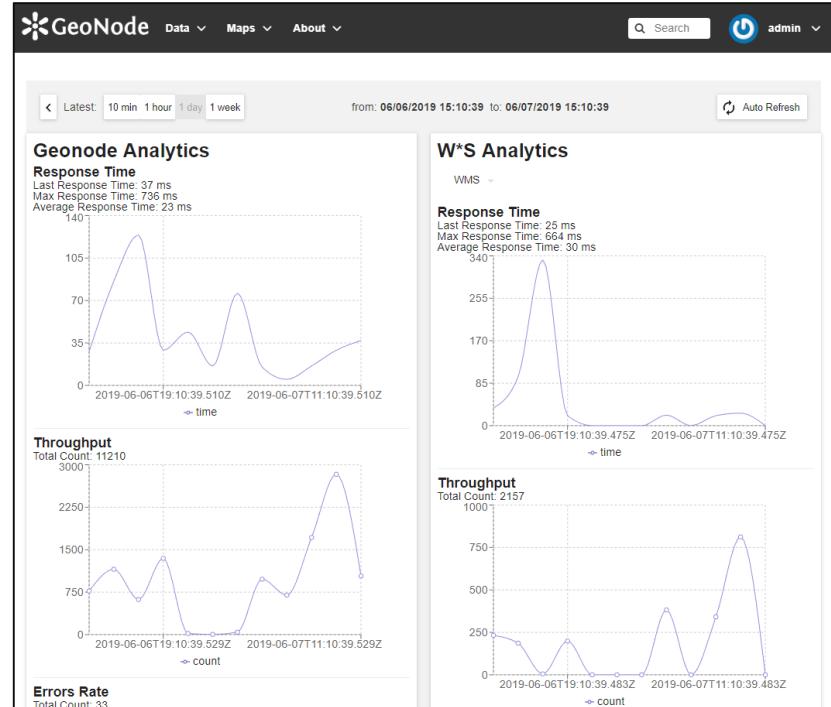
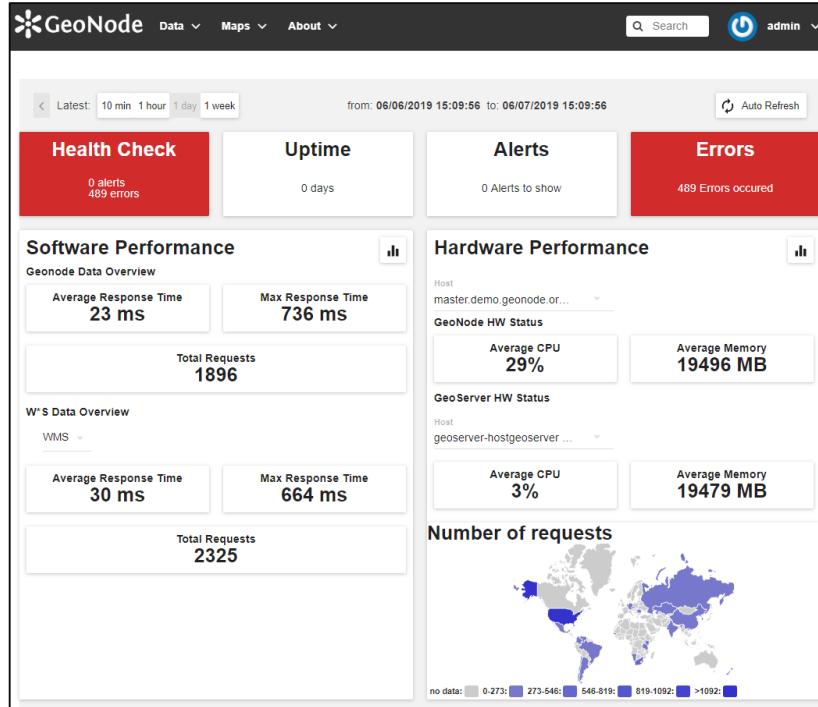
# If this option is enabled, Groups will become strictly Mandatory on
# Metadata Wizard
GROUP_MANDATORY_RESOURCES = ast.literal_eval(os.environ.get('GROUP_MAND'))
```



The screenshot shows the GeoNode interface with three resource cards:

- states**: Status: UNPUBLISHED. Description: No abstract provided.
- tasmania\_water\_bodies**: Status: PENDING APPROVAL. Description: No abstract provided.
- NE\_GRAY\_HR\_SR\_OB\_DR\_tiled**: Status: PENDING APPROVAL. Description: No abstract provided.

# GeoNode Integrated Monitoring



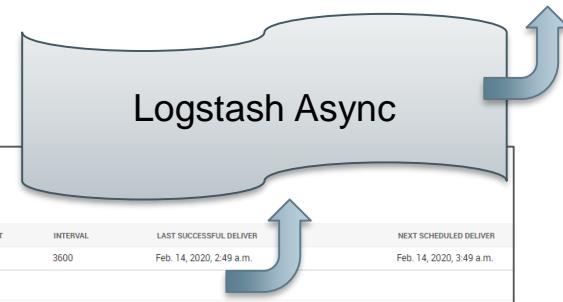
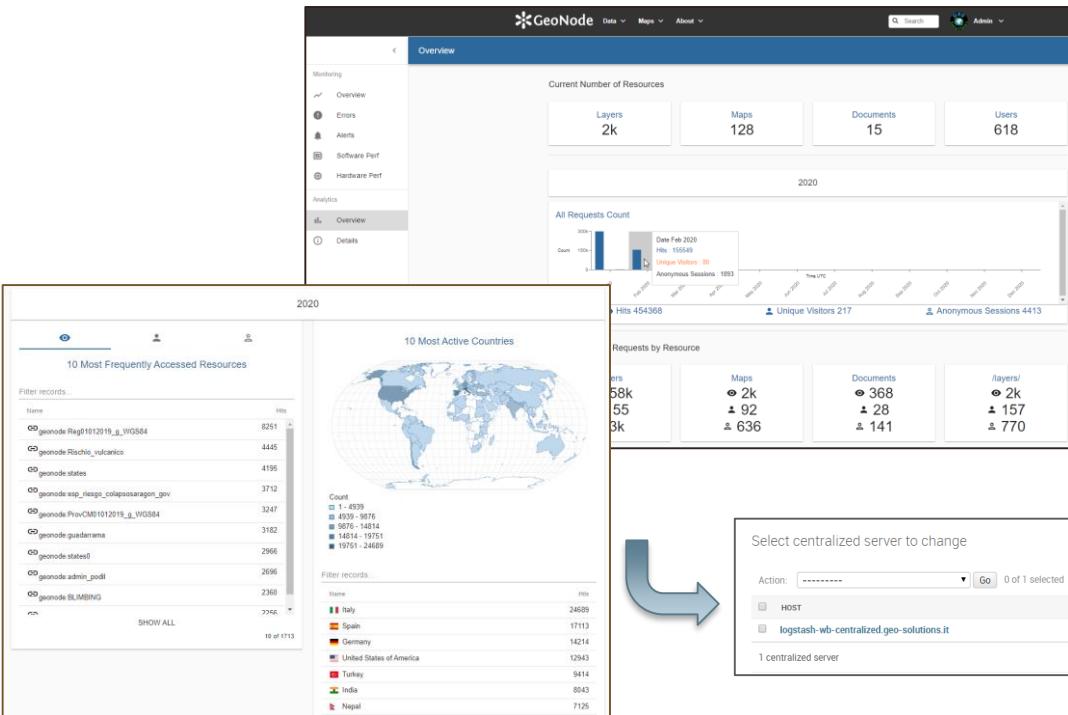
The World Bank

GeoSolutions

2.10.2 – 3.0



# GeoNode Analytics and Centralized Dashboard



The World Bank

GeoSolutions

2.10.2 – 3.0



# GeoNode GIS-Client Hooksets

- GIS Clients (maps and layer details) can be plugged in as external libraries thanks to the `CLIENT HOOKSETS`

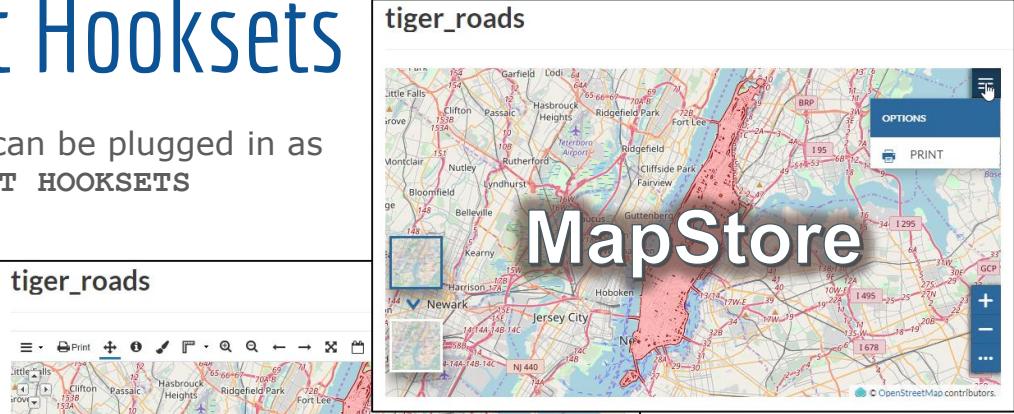
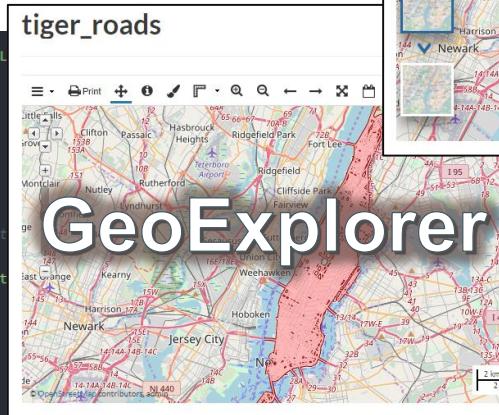
```
GEONODE_CLIENT_LAYER_PREVIEW_LIBRARY = os.getenv('GEONODE_CLIENT_LAYER_PREVIEW_LIBRARY')

"""
To enable the GeoExt based Client:
1. pip install django-geoexplorer==4.0.42
2. add 'geoexplorer' to INSTALLED_APPS
3. enable those:
"""

# GEONODE_CLIENT_LAYER_PREVIEW_LIBRARY = 'geoext' # DEPRECATED use HOOKSET instead
if GEONODE_CLIENT_LAYER_PREVIEW_LIBRARY == 'geoext':
    GEONODE_CLIENT_HOOKSET = os.getenv('GEONODE_CLIENT_HOOKSET', 'geonode.client')

    if 'geoexplorer' not in INSTALLED_APPS:
        INSTALLED_APPS += ('geoexplorer', )

    # MAP_BASELAYERS += [
    # ]
```



- You can add your ones



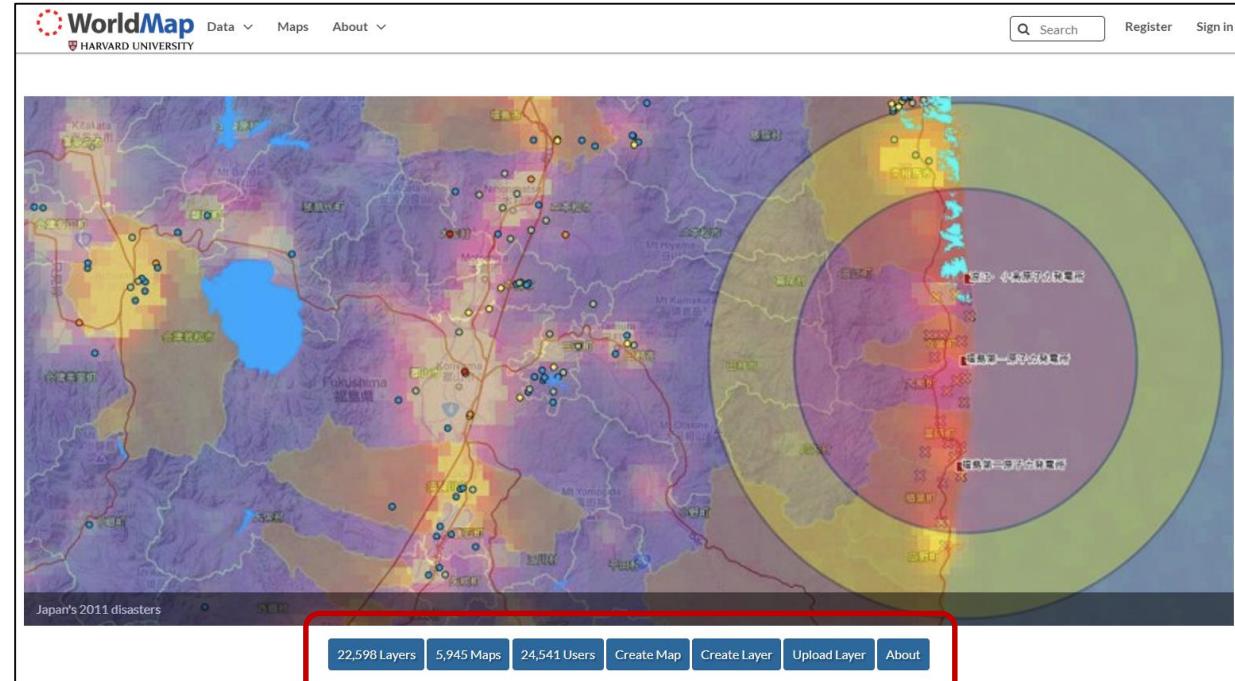
# MapStore2 Client Hookset

The screenshot displays the MapStore2 Client Hookset interface, featuring a map of Europe and Southeast Asia. On the left, a sidebar shows a 'Meteorite' layer and a 'Default' layer. A 'Population Estimate' chart is overlaid on the map, showing data for countries like Ukraine, Spain, and Indonesia. A styling editor window titled 'ne\_10m\_admin\_0\_sovereignty' is open, showing options for 'Fill', 'Border', 'Dashed Border', 'Simple', 'Line Pattern', 'Dot Pattern', 'Marker', 'Fill Pattern', 'Section', 'Random Dots', 'Label', 'Label & Fill', and 'Label & Marker'. It also includes 'Base CSS' and 'Base SLD' buttons. Below the styling editor is a detailed table of administrative sovereignty data. At the bottom right, a legend indicates 'Scale: 1:4622334'.

fid	featurecla	scalerank	LABELRANK	SOVEREIGN	SOV_A3	ADM0_DIF	LEVEL	TYPE
1	Admin-0 sovereignty	5	2	Indonesia	IDN	0	2	Sovereign country
2	Admin-0 sovereignty	5	3	Malaysia	MYS	0	2	Sovereign country
3	Admin-0 sovereignty	6	2	Chile	CHL	0	2	Sovereign country
4	Admin-0 sovereignty	0	3	Bolivia	BOL	0	2	Sovereign country

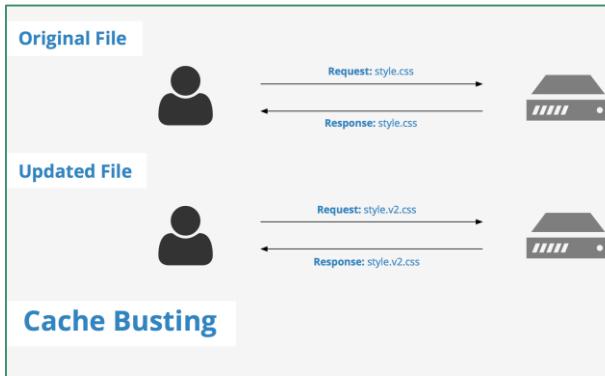
# GeoNode and GeoFence Performance Optimizations

- Performance improvements and hardening to support a huge number of resources and maps, 10k+ layers!
- The possibility to activate **DELAYED SECURITY** signals in order to allow GeoNode and GeoFence align asynchronously



# GeoNode GUI/Caching Performance Optimizations

- Cache Busting



Original File			
	Request: style.css	→	
Updated File			
	Request: style.v2.css	→	
Cache Busting			
[Performance] Put meaningful generic thumbs if thumbnail generation fails some some reason			
#5392 by afabiani was closed on Dec 9, 2019	feature	performance	2
Sentinel Cloudless Background should use JPEG format rather than PNG			
#5366 by afabiani was closed on Dec 4, 2019	feature	performance	1
[Performance] Cache Busting mechanism to manage static resources cache			
#5348 by afabiani was closed on Dec 3, 2019	backport 2.10.x	performance	1
[Performance] Get rid of broken URLs around			
#5345 by afabiani was closed on Nov 29, 2019	feature	performance	1
[Performance] Vectorial Layers are quite slow while trying to fetch the details page			
#5339 by afabiani was closed on Nov 29, 2019	feature	performance	1
[Performance] Avoid making WMS GetCapa request unless strictly necessary			
#5330 by afabiani was closed on Nov 28, 2019	feature	performance	1

- Broken links / images checks
- Get rid of un-useful GeoServer calls

# Docker Improvements / SPCgeonode Compose

- Docker Compose installation has been simplified a lot, both on GeoNode core and GeoNode-Project
- SPCgeonode is a setup for Geonode deployment at SPC. It makes it easy to deploy a production ready Geonode. The setup aims for simplicity over flexibility, so that it will only apply for typical small scale Geonode installations.
- The setup is also usable for Geonode development or customization.
- <https://github.com/GeoNode/geonode/tree/master/scripts/spcgeonode>

# Security and Hardening - MIDDLEWAREs

- GeoNode 2.10 is based on Django framework v.1.11. The framework offers a strong and battle-tested security mechanism inherited and extended by GeoNode's own security layer and integrations. The general security features of Django are well described in its own documents: <https://docs.djangoproject.com/en/1.11/topics/security>
- ✓ **LockDown Middleware** (GeoNode) a Middleware class which forces authentication for every non-authorized URL
- ✓ **SessionControl Middleware** (GeoNode) a Middleware class looking for Token expiration and session validity. Accordingly to the settings, it will either force the user to log in again or refresh/extend the token validity.
- ✓ **Cors Middleware** A Django App that adds CORS (Cross-Origin Resource Sharing) headers to responses. Although JSON-P is useful, it is strictly limited to GET requests. CORS builds on top of XMLHttpRequest to allow developers to make cross-domain requests, similar to same-domain requests. <http://www.html5rocks.com/en/tutorials/cors>
- ✓ **CsrfView Middleware** ref. <https://docs.djangoproject.com/en/2.2/ref/csrf>
- ✓ **XFrameOptions Middleware** ref. <https://docs.djangoproject.com/en/2.2/ref/clickjacking>
- ✓ **Security Middleware** ref. <https://django-secure.readthedocs.io/en/latest/middleware.html>
- ✓ **OAuth2Token Middleware** ref. [https://django-oauth-toolkit.readthedocs.io/en/latest/tutorial/tutorial\\_03.html](https://django-oauth-toolkit.readthedocs.io/en/latest/tutorial/tutorial_03.html)

# Security and Hardening - OWS Internal Proxy

- Fixed users dangerous privileges escalation; internally requests to the backend were always done as "ADMIN"
- GeoNode Proxied OWS Endpoints
- ✓ *The proxy automatically searches for the user OAuth2 Token and injects the correct BEARER AUTH Headers transparently*
- ✓ */gs/ows Accepts BASIC AUTH headers but still allows anonymous users to fetch OWS documents*
- ✓ */gs/w\*s Forces the users to perform BASIC AUTH first*

# Fixes and Improvements

- Well known 2.6/2.8 issues:
  - ✓ *Thumbnails generation*
  - ✓ *Wrong BBOX coordinates on Download Links*
  - ✓ *Wrong BBOX coordinates for projections different from WGS84 or EPSG:3857*
  - ✓ *Glitches on Map Zoom levels*
  - ✓ *Errors on Metadata Editor, especially after updating an existing resource*
  - ✓ *Upload Encoding errors on input data*
  - ✓ *Misbehavior on GeoServer data-store creation*
  - ✓ *Filtering errors on Vectorial Data Download*
  - ✓ *and many more...*

Community

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**2.10.2 – 3.0**



# Contrib Apps Promotion

- Most of the “contrib apps” have been ported to core
- “contribs” have now their own repository with dedicated docs

<https://github.com/GeoNode/contribs>

Branch: master | contribs / geonode / contrib / datastore\_shards /

Create new file Upload files Find file History

afabiani [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

img [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

migrations [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

README.md [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

init\_.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

admin.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

models.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

tests.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

utils.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

BB README.md

**Use datastore shards in GeoNode**

Many organizations have hundreds of layers uploaded to GeoNode. In such a case using the default GeoNode configuration, with just one PostGIS database and one GeoServer PostGIS store for all of the layers has several limitations, such as:

- \* Layer upload and creation time become very large  
Layer upload and creation time tends to become very large when the PostGIS database starts containing many layers: We have seen cases where even 4/5 minutes were needed for uploading a small sized shapefile). This issue is caused by the actual implementation of the PostgreSQL JDBC driver and has been reported in details in Geoserver bug #605-7933: <https://osgeo-org.atlassian.net/browse/OS-7933>
- \* Large backups

Branch: master | contribs / geonode / contrib / worldmap /

Create new file Upload files Find file History

afabiani [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

gazetteer [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

mapnotes [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

templates/worldmap [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

wm\_extra [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

README.md [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

init\_.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

hooks.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

requirements.txt [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

BB README.md

**WorldMap**

By using the WorldMap optional application, GeoNode is extended with the following additional features:

- \* a customized GeoExplorer viewer
  - the table of contents is hierarchical with layer categories. When a layer is added a new category containing the layer is added to the table of contents. If the category is already in the table of contents, then the layer is added to it. By default the category is the same as the layer's topic category, but that can be renamed by right clicking on it
  - the "Add Layers" dialog comes with a "Search" tab which uses Hypermap Registry (Hypermap) as a catalogue of remote and local layers. Hypermap is a requirement when using the WorldMap contrib application
- \* a gazetteer application: it is possible to add a given layer to a gazetteer. The gazetteer can be checked using the map

Branch: master | contribs / geonode / contrib / geosites /

Create new file Upload files Find file History

afabiani [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

models.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

populate\_sites\_data.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

post\_settings.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

pre\_settings.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

tests.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

urls.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

utils.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

views.py [Ref #4311] GNIP: Contrib apps cleanup on GeoNode / database\_shards.w... 11 days ago

BB README.md

**GeoSites: Multi-Tenancy GeoNode**

GeoSites is a contrib module to GeoNode starting with 2.4. The GeoSites app is a way to run multiple websites with a single instance of GeoNode. Each GeoSite can have different templates, applications, and data permissions but share a single database, web mapping service (GeoServer), and CSV (pcsv). This is useful when multiple websites are desired to support different sets of users, but with a similar set of data and overall look and feel of the sites. Users can be given permission to access multiple sites if needed, which also allows administrative groups can be set up to support all sites with one account.

A GeoSites installation uses a "master" GeoNode website that has access to all users, groups, and data. Through the Django admin page, Layers, Maps, Documents, Users, and Groups can be added and removed from all sites. Users can be given access to any number of sites, and data may appear on only a single site, or all of them. The master site need not be accessible from the outside so that it can be used as an internal tool to the organization. Users created on a site are created with access to just that site (but not the master site). Data uploaded to a site is given permission on that site as well as the master site.

**GeoSites Contrib App**

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2.10.2 – 3.0

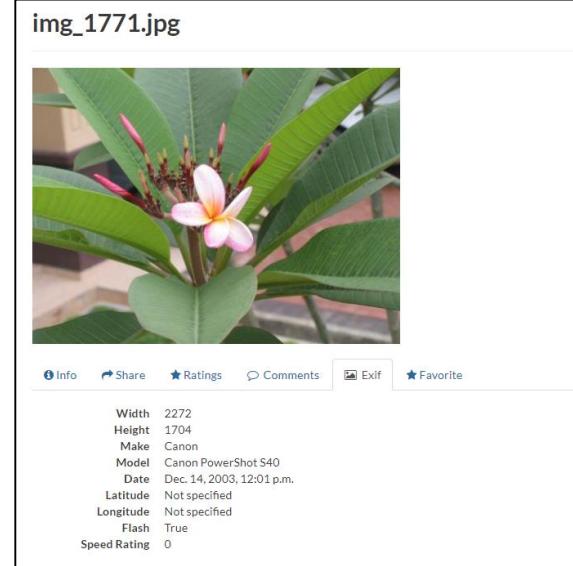


# Contrib Apps Promotion

## ✓ Favorites



## ✓ EXIF support for Document Images



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2.10.2 – 3.0



# Contrib Apps Promotion

- ✓ Create Empty Layer

### Create an empty layer

Layer name: TEST

Layer title: Test Empty Layer

Geometry type: Polygons

Add Attribute:

FT_NAME	String
Remove	
FT_NUM	Float
Remove	

Create

- ✓ WMS GetCapabilities for single Layers

Info Attributes Share Ratings Comments Favorite

Title: Test Empty Layer  
License: Not Specified  
Abstract: No abstract provided

Publication Date: June 7, 2019, 9:44 a.m.  
Type: Vector Data  
Keywords: features, test\_1  
Regions: Global  
Owner: admin

More info -

Layer WMS GetCapabilities document

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2.10.2 – 3.0



# Contrib Apps Promotion

- ✓ *Metadata XSL Renderer*

Metadata for iwa\_city\_charges\_test\_wins

Completeness  
Check Schema mandatory fields  
75 %

[Edit](#) [Preview](#) [Settings](#)

GeoNode

iwa\_city\_charges\_test\_wins

Abstract: No abstract provided

Hierarchy level: dataset

Resource Identifier:

Alternative Title:

Resource Status: completed

**WHAT**

Resource Purpose:

Spatial Representation Type:

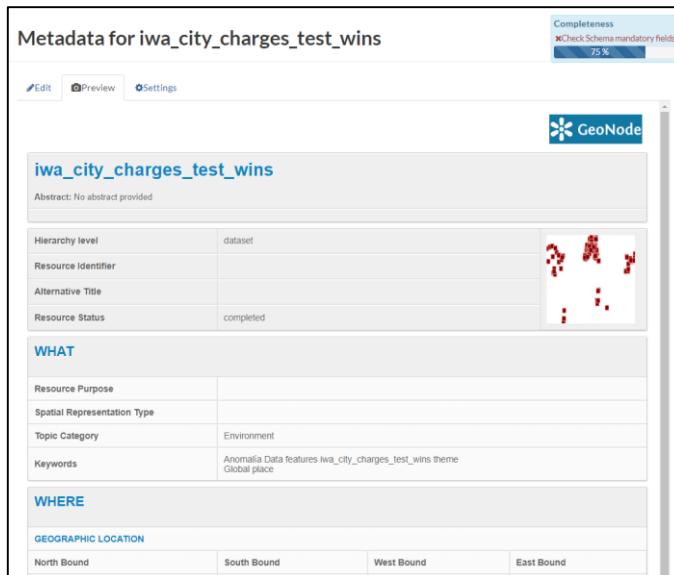
Topic Category: Environment

Keywords: Anomaly Data features iwa\_city\_charges\_test\_wins theme  
Global place

**WHERE**

GEOGRAPHIC LOCATION

North Bound:  South Bound:  West Bound:  East Bound:



- ✓ *Original Dataset Download Link*

Download Layer

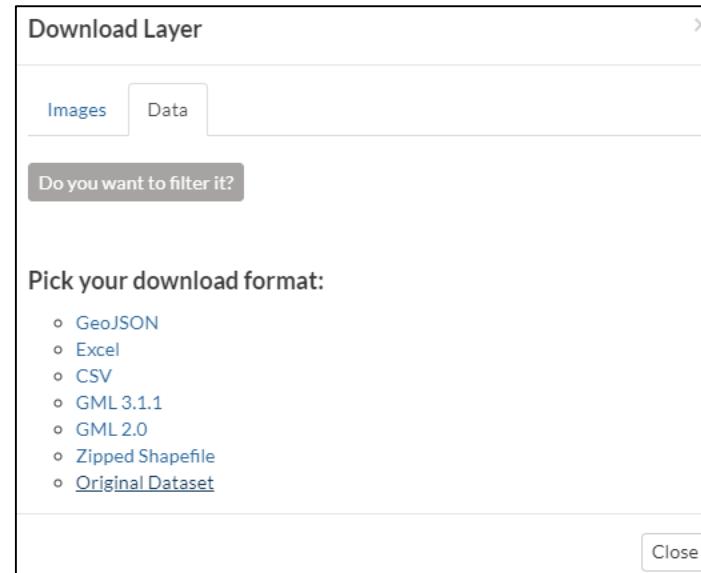
[Images](#) [Data](#)

Do you want to filter it?

Pick your download format:

- GeoJSON
- Excel
- CSV
- GML 3.1.1
- GML 2.0
- Zipped Shapefile
- Original Dataset

[Close](#)



Community

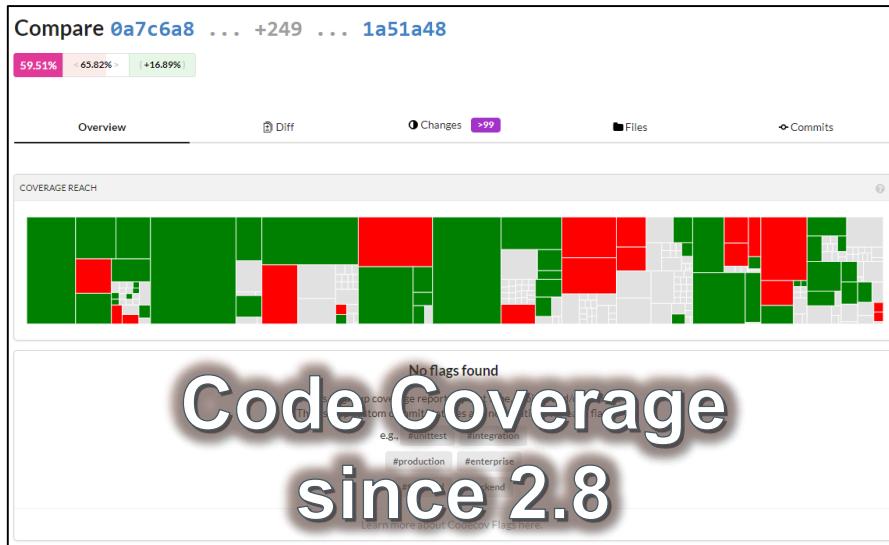
Community

2.10.2 – 3.0



# Test Frameworks and Code-coverage

- Test framework on Travis has been completely refactored
- Thanks to NINA we have now also support for “Selenium” tests



Build jobs

View config

**2.8.x**

✓ # 7534.1	Python: 2.7
✓ # 7534.2	Python: 2.7
✓ # 7534.3	Python: 2.7
✓ # 7534.4	Python: 2.7

Build jobs

View config

**2.10.x**

✓ # 7621.1	GeoServer-backend Core Modules Smoke Tests
✓ # 7621.2	GeoServer-backend Contrib Apps Smoke Tests
✓ # 7621.3	GeoServer-backend Integration Tests
✓ # 7621.4	GeoServer-backend Integration CSW Tests
✓ # 7621.5	GeoServer-backend Integration BDD Tests
✓ # 7621.6	QGIS Server-backend Core Modules Smoke Tests
✓ # 7621.7	QGIS Server-backend Contrib Apps Smoke Tests
✓ # 7621.8	QGIS Server-backend Integration Tests
✓ # 7621.9	Selenium Integration Tests

Continuous Builds

# Internationalization and Documentation

- Internationalization has been improved, we have almost 90% coverage for 5 main languages
- Completely revised and updated Documentation, preview at

<http://docs.geonode.org/en/new-docs/>

- Help is very welcome here from the community. To participate jump into the following threads

*Docs: Rework TOC*    <https://github.com/GeoNode/geonode/issues/4394>

*Docs: Replace Transifex with manual build Instructions*

<https://github.com/GeoNode/geonode/issues/4387>

Help us help you



# User Lists Participation

- Answering users questions relies on a low number of people
- We lack “testers”; this kind of project would need also a lot of manual testing for all its functionalities on a regular basis
- Developers are very few and Pull Requests often do not respect the contribution policies.

In particular:

- ✓ *There's no GitHub issue describing the problem linked to the Pull Request*
- ✓ *GitHub issues are plain requests often without a good description of the use case and how to reproduce it*
- ✓ *Lack of test cases and documentation*
- ✓ *History of commits is usually messed up*

# Steps to get in touch with developers

1. If you need for clarification first of all try to describe the issue as well as possible through the official mailing lists; **IMPORTANT:** always specify
  - ✓ *Which versions of GeoNode and GeoServer you are using*
  - ✓ *Which Operative System and hardware you are using*
  - ✓ *How you installed the framework*
2. If you need to get in touch directly with developers, consider using the official “gitter” chat <https://gitter.im/GeoNode/general>
3. If the issue has been confirmed and there’s no easy or immediate resolution, open a ticket on GitHub <https://github.com/GeoNode/geonode/issues> with steps on how to reproduce the problem and labels

# In case you stumble into a vulnerability: Responsible Disclosure

- Keep exploit details out of issue report.
- Mark the issue as a vulnerability.
- Be prepared to work with Project Steering Committee (PSC) on a solution.
- Keep in mind PSC members are volunteers and an extensive fix may require fundraising / resources.

If you are not in position to communicate in public please consider commercial support, contacting a PSC member, or reaching us via the Open Source Geospatial Foundation at [info@osgeo.org](mailto:info@osgeo.org)

Thanks

