



MapStore at *geOcom 2024*

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GeoSolutions



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your one-stop-shop for geospatial open source software



- What was released during 2023 for the MapStore integration with geOrchestra
- What's new in MapStore 2024.01 ready to land on geOrchestra
- Ongoing work for MapStore 2024.02

What has been released in MapStore from the last geOcom

?

Two major series:

2023.01/02 (compatible with geOrchestra v23.0 series)

Released in Mar/Oct 2023 respectively (2 minor releases each)

2024.01 (available starting with geOrchestra v24.0 series)

Released in May 2024 (1 minor version released so far, the next
in July 2024)

=

Lots of new powerful features and updates!

What released during 2023 on geOrchestra

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Let's see together the main entries during 2023 for geOrchestra!



The complete release notes
available on Github at:

<https://github.com/georchestra/mapstore2-georchestra/releases/tag/2023.02.00-geOrchestra>

- Handling **permissions** for **editing capabilities** with **Attribute table**

Read only layers

Group

gs-stable

Tooltip

Title

Placement

Top

☒ Disable editing on Attribute table

PERSONS		FAMILIES	
=	Type number to filter...	=	Type number to filter...
4,040,587		1,103,835	
3,665,228		940,106	
2,350,725		651,555	
29,760,021		7,139,394	

Columns

☒ STATE_NAME
☐ STATE_FIPS
☐ SUB_REGION
☒ STATE_ABBR
☒ LAND_KM
☒ WATER_KM
☒ PERSONS
☒ FAMILIES

Scale: 1 : 18489335 Coordinates: Lat: 34° 59' 11.16" Lng: -082° 26' 20.69" CRS: WGS 84

Persistence of hidden attributes

Allowed user groups
(also for Style Editor and Catalog tool)

cfg. editingAllowedGroups	Array<string>
----------------------------------	---------------

- **Share** plugin: **permalink** function

Share


Link
Social
Permalink
Embed

Permalink generated

<https://dev-mapstore2.geosolutionsgroup.com/mapstore/#/permalink/a7adl>

Share the resource using the generated address

QR code



Create a new permalink



Share

Link
Social
Permalink
Embed

Title*

My map permalink

Description

This is my map permalink to share

☒ Public

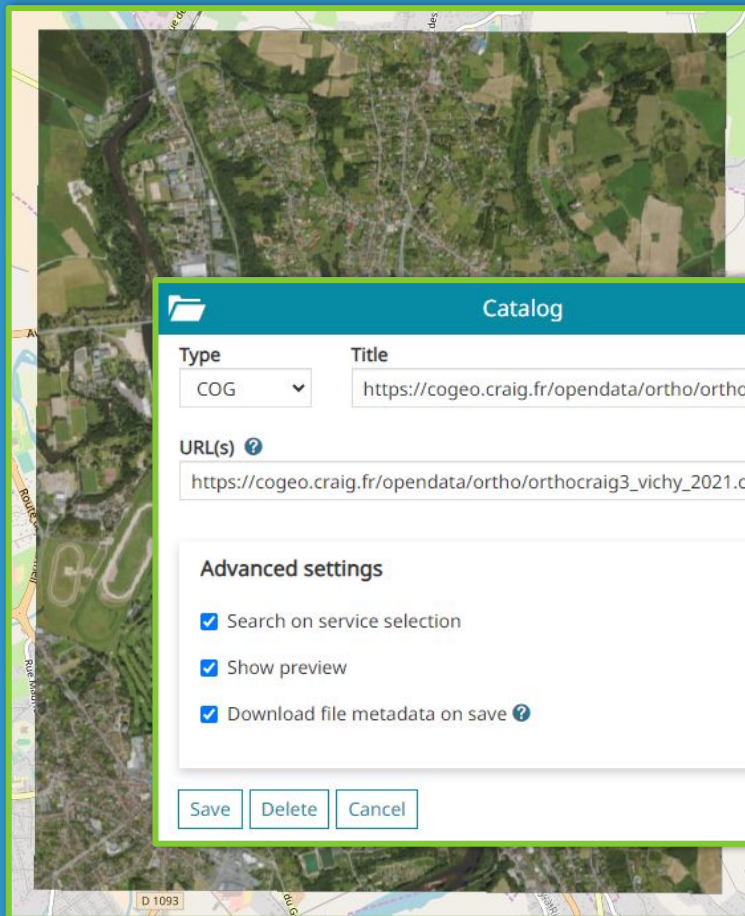
Generate permalink

- **Import/Export** of **Application Contexts**

Show Tutorial
Import
Export

1 General Settings

- Printing rotated maps



Catalog

Type: COG
Title: https://cogeo.craig.fr/opendata/ortho/orthocraig...

URL(s): https://cogeo.craig.fr/opendata/ortho/orthocraig3_vichy_2021.cog.tif

Advanced settings

- ☒ Search on service selection
- ☒ Show preview
- ☒ Download file metadata on save

Save Delete Cancel

Rotation

45

Print

Title: Enter a title... Resolution: 96 dpi

Description:

EPSG:3857

Rotation

45

Layout

Sheet size: A4

- ☒ Include legend
- ☒ Legend on distinct page
- ☐ Landscape ☒ Portrait

Legend options

Print

- Cloud Optimized GeoTIFF (COG):
 - The support for this new source type included in MapStore Catalog tool ...

What's new in MapStore 2024.01

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Let's see together the
main new entries
released for MapStore 2024.01!



The complete release notes
available on Github at:

<https://github.com/geosolutions-it/MapStore2/releases/tag/v2024.01.00>

What's new in MapStore 2024.01

- Complete **TOC reskin** and many **new functionalities** added

The image displays three overlapping screenshots of the MapStore 2024.01 web application interface, highlighting new features:

- Left Screenshot:** Shows the '2 - Demo Map' interface with a 'Filter layers' dropdown and a list of layers including 'gs-stable', 'Spearfish', 'bugareas', 'bugsites', 'archsites', 'streams', 'roads', 'restricted', 'sfdem', 'NY City', 'poi', 'ny_roads', 'poly_landmarks', 'States of United States of America', and 'storm_obs'. A green callout box labeled 'Many new options' points to the 'storm_obs' layer options.
- Middle Screenshot:** Shows the same interface with a legend for the 'storm_obs' layer. The legend lists categories: 'Depression (<34 knots)', 'Tropical Storm (34-63 knots)', 'Hurricane Cat 1 (64-82 knots)', 'Hurricane Cat 2 (83-95 knots)', 'Hurricane Cat 3 (96-112 knots)', 'Hurricane Cat 4 (113-135 knots)', and 'Hurricane Cat 5 (>135 knots)'. A green callout box labeled 'Legend mode' points to this legend.
- Right Screenshot:** Shows the '2 - Demo Map' interface with a 'Filter layers' dropdown and a list of layers. A green callout box labeled 'Contextual menus' points to a menu that appears over the 'ny_roads' layer, containing options like 'Show all child nodes', 'Hide all child nodes', 'Activate mutually exclusive visibility of child nodes', 'Collapse all child nodes', 'Expand all child nodes', 'Add subgroup to the selected group', 'Zoom to selected layers extent', and 'Remove selected group'. Another green callout box labeled 'Improved toolbar' points to the toolbar at the bottom of the interface.

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What's new in MapStore 2024.01

- Complete **Annotation tool reskin** and **3D editing** capabilities

Annotations

Properties ☒ Geometries ☒ Settings

Coordinates Style

Circle ☒ Polygon ☒ Point ☒ Text ☒ LineString ☒ Polygon ☒ LineString ☒ Text ☒

Enter legend label

Fill color

Outline color

Outline width 1 px

Outline style

Clamp to ground ☐ Inactive

Clamp to ground reference 3D Tiles Terrain Both

Height reference from ground None Relative Clamp

Height Geometry m

Enriched styling capabilities with many new options for 3D

Tripod Tunnel

3D

Tripod

Properties ☒ Geometries ☒ Settings

Coordinates Style

Circle ☒ Polygon ☒ Point ☒ Text ☒ LineString ☒ Polygon ☒

Lat 44.4083427355029

Lon 8.90461232350412

Height -10.5395774884524

Lat 44.4085752250711

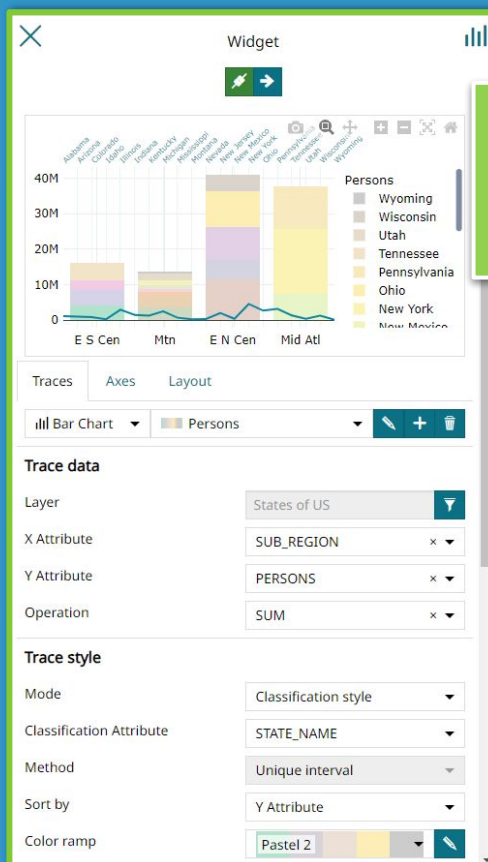
Lon 8.90463673412501

Height -22.3556260633205

Better UI/UX!

- ## Multiple traces for all chart types

Enriched capabilities for layout and axes management

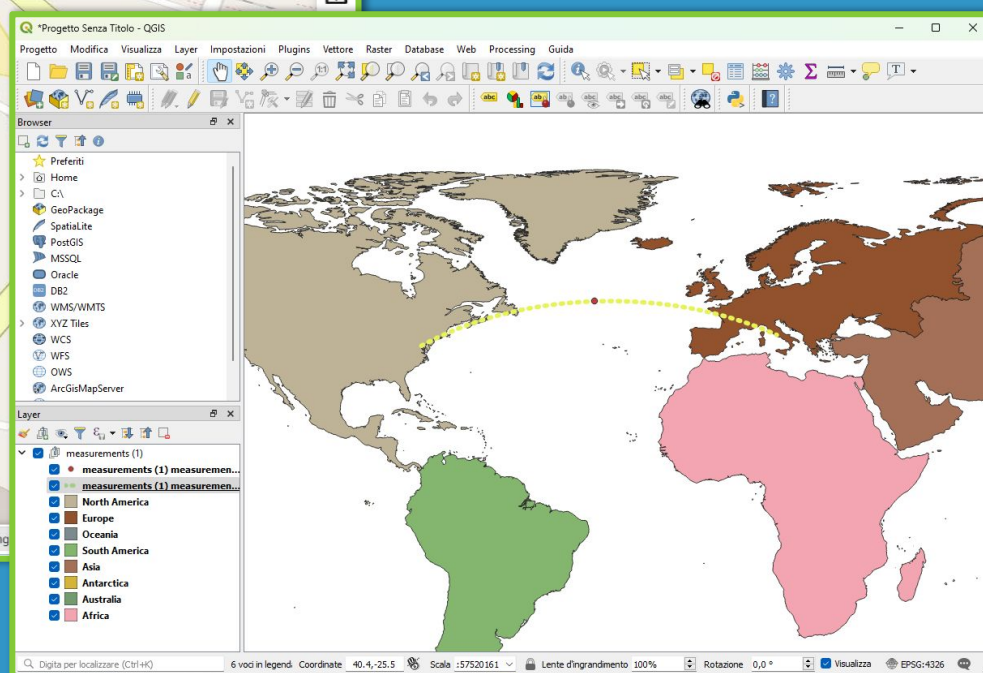
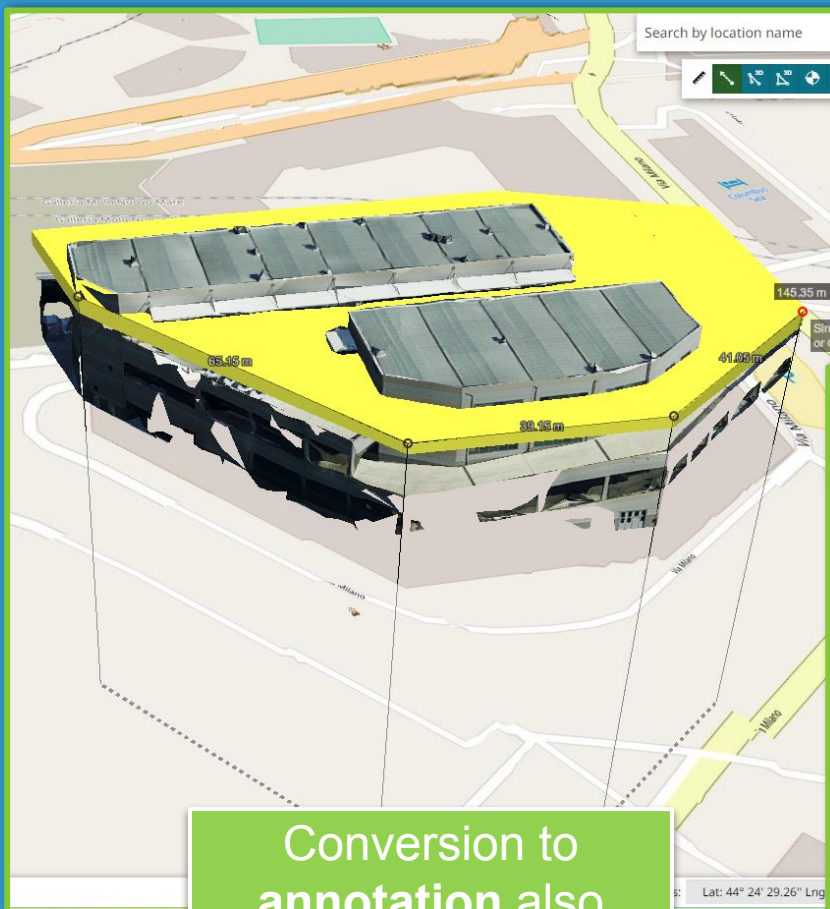


Also for Dashboards!

What's new in MapStore 2024.01



- **3D geodesic length** measurement and **geodesic export** of measurements



Conversion to
annotation also
available for 2D!

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- Enriched styling capabilities of WFS and vector layers

Extrusion



Classification and more styling options for 3D!

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- **IFC model** layer and more on 3D model symbolizer for GLB/GLTF

Support to load IFC model layers from Catalog

More styling options for translating 3D models on X/Y axes

Settings

Coordinate

Enter legend label

3D Model

Scale

X axis rotation °

Y axis rotation °

Z axis rotation °

Color

Height reference from ground ☒ None ☐ Relative

Clamp

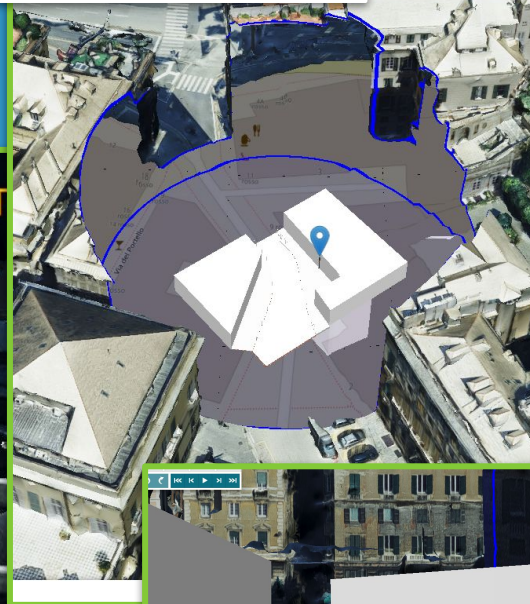
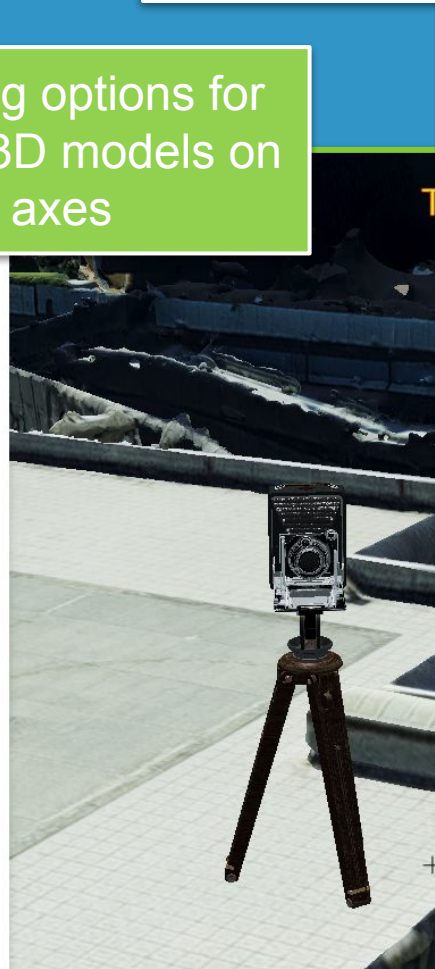
Height m

Translate x m

Translate y m

Leader line color

Leader line width px



Fontane Marose IFC Georeferenced

Lat: 44.411 - Long: 8.935

expressID
170

type
1095909175

Globalid
0024IJZPHCjBjxEQc_IZZ

OwnerHistory
20

Name
Massa 1:Massa 1:135439

Description
null

ObjectType
Massa 1:Massa 1

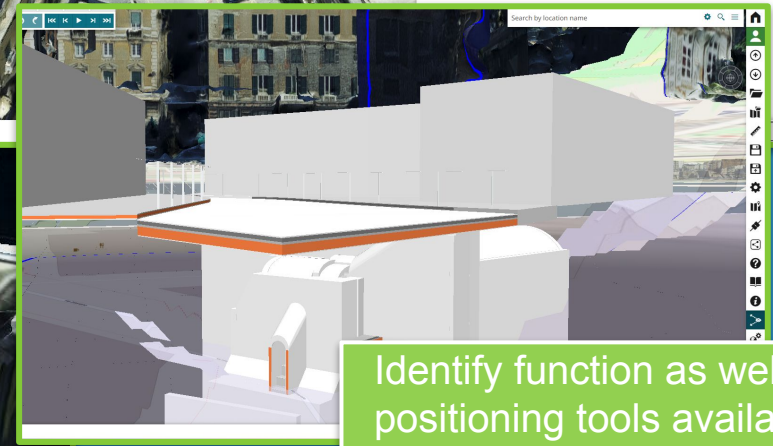
ObjectPlacement
169

Representation
167

Tag
135439

PredefinedType
NOTDEFINED

There are no features for the following layers: pol, ny_roads, poly_landmarks, storm_obs, Comune di Genova 3D Mesh 1



Identify function as well as positioning tools available:
Lat - Lon - Heading

What's new in MapStore 2024.01

- Improved **Date/Time filtering** capabilities in **Attribute Table** and **Layer Filter** tools

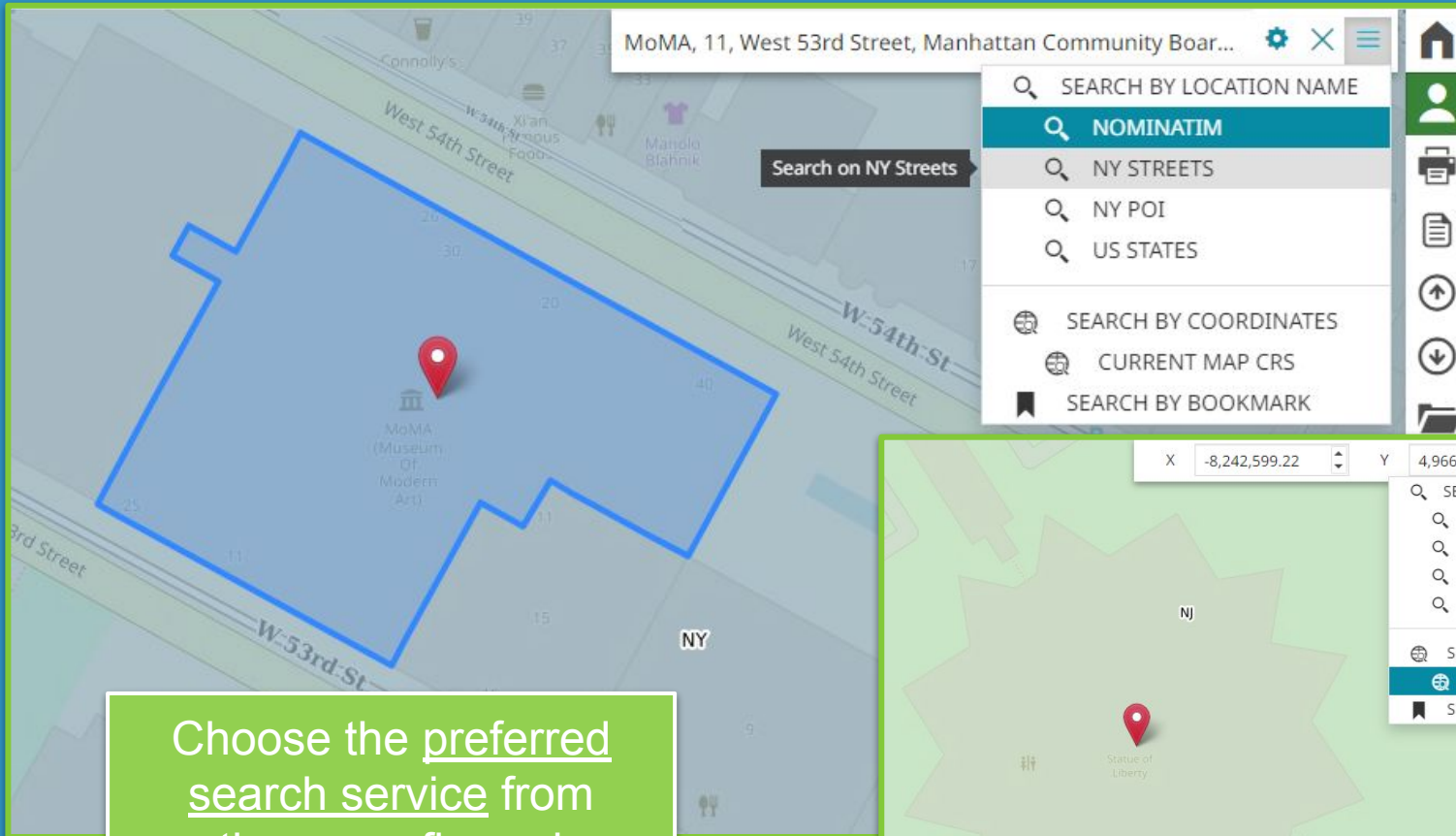
The screenshot displays the MapStore 2024.01 interface. On the left, the 'Attribute filter' panel shows a condition 'obs_dateti' with a date range filter. The 'Area of interest' panel shows a map of the United States with a date range filter. The 'Layer filter' panel shows a target layer with a date range filter. A green arrow points from the 'Attribute filter' panel to the 'Layer filter' panel, indicating the new date/time range filtering capabilities.

Added date/time range filtering capabilities for Attribute Table quick filter

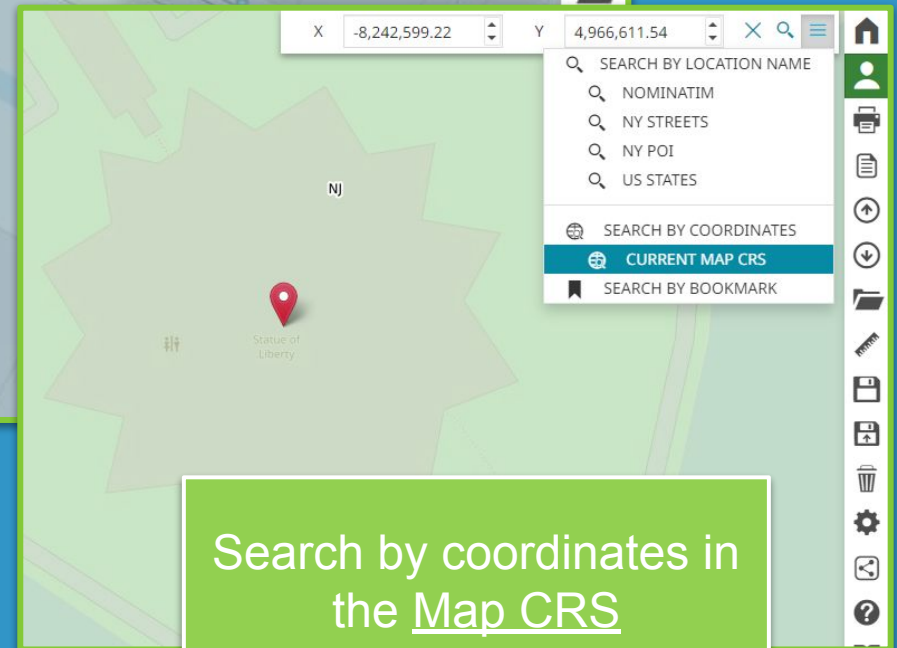
Ability to select quick date/time ranges in Filter Layer tool

Added the operator selector for quick filters

- **Search tool** improvements for a enriched UX



Choose the preferred search service from those configured

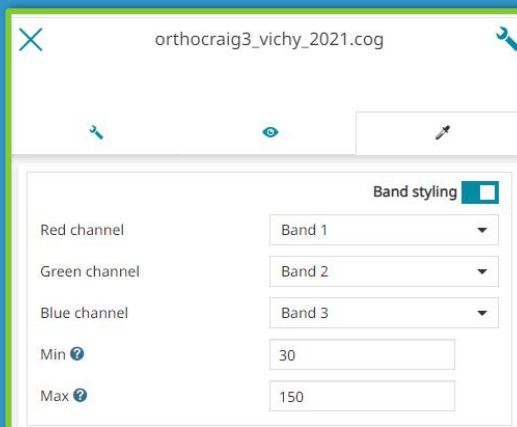


Search by coordinates in the Map CRS

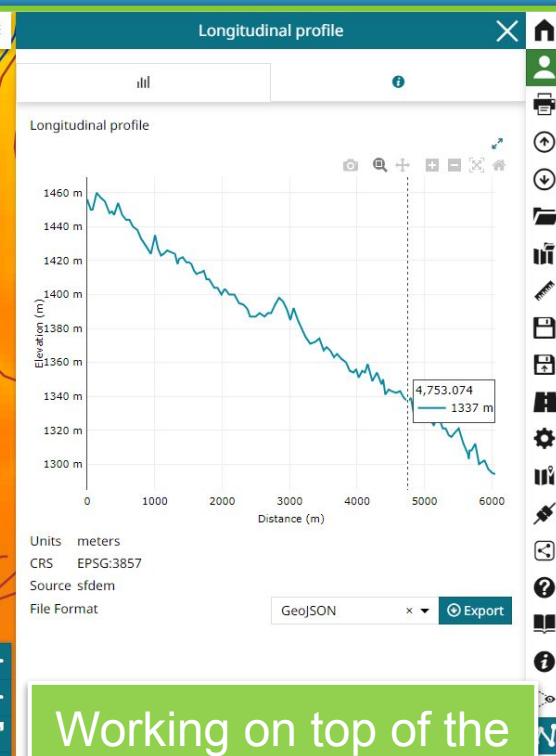
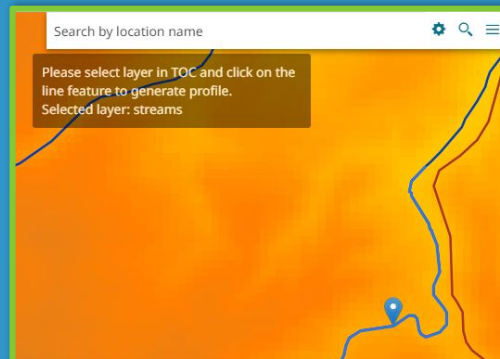
What's new in MapStore 2024.01



- Added support to **multi-band color mapping** for **COG** layers



Persistence of COG layer's metadata is now included



Working on top of the official GeoServer community module

- Longitudinal Profile tool**
(requires Geoserver)



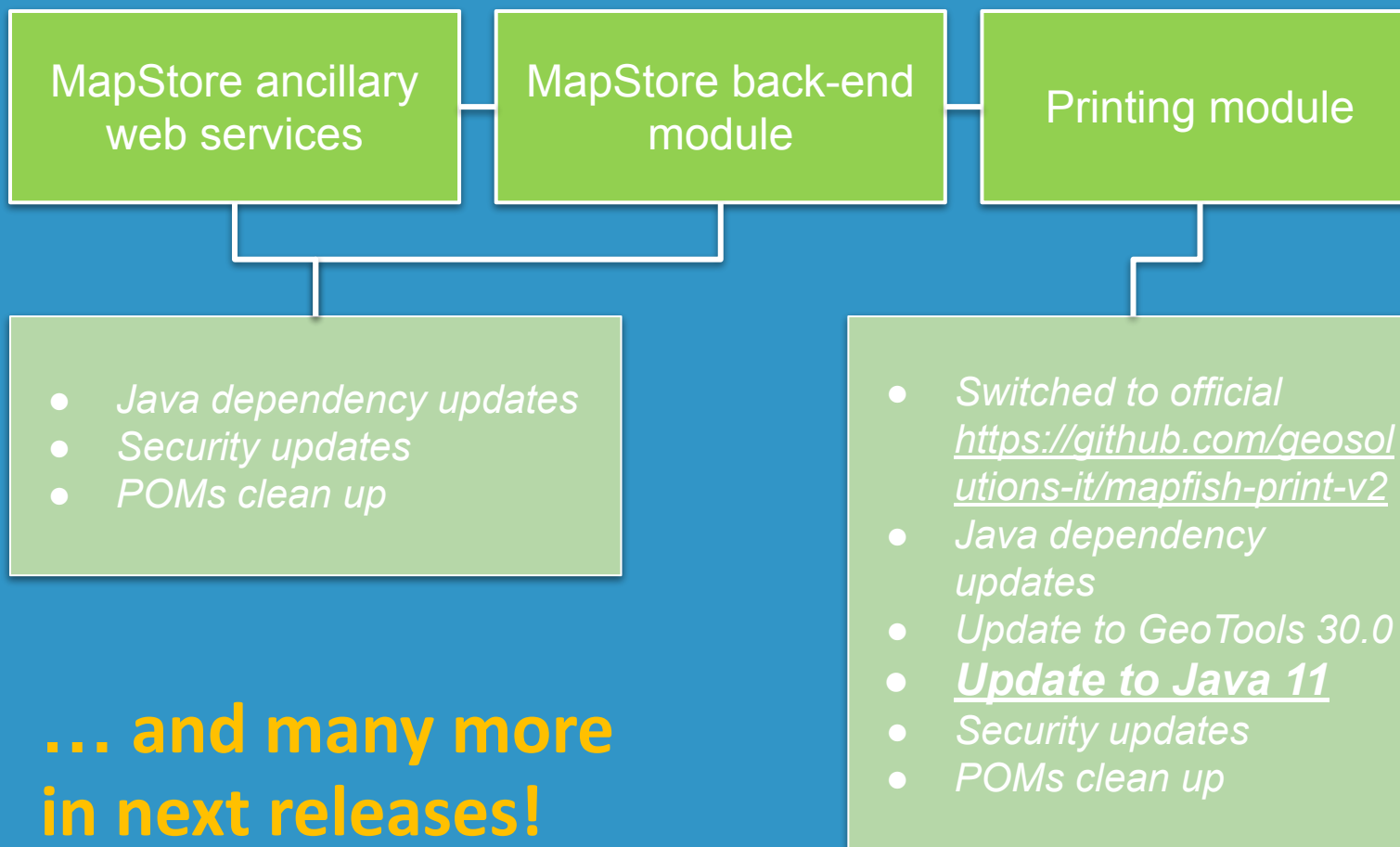
- **GeoProcessing** capabilities kick in with **Buffer** and **Intersection**

Style your process result and manage legend!

The screenshot illustrates the MapStore 2024.01 interface. The main map shows a red area with a pink buffer and yellow 'X' markers. Overlaid windows include:

- Filter layers:** A panel on the left showing a list of layers including 'gs-stable', 'Intersected Layers', 'Intersection Layer 0', 'Intersected bugsites', 'Buffered layers', 'Buffer Layer 0', 'Stream buffer 300m', 'Spearfish', and 'bugareas'.
- GeoProcessing:** A dialog box on the right with the following settings:
 - Select a process to use: Intersection
 - Source Layer: Buffer Layer 0
 - Source Feature: 9038e380-2c83-11ef-94b2-c9a9f1ae6be3
 - Intersection Layer: bugsites
 - Intersection Feature: Select...
 - Advanced Settings: First attribute to retain (empty), Second attribute to retain (empty)
 - Intersection mode: INTERSECTION
 - Percentages enabled: checked
- Search by location name:** A search bar at the top of the map.

- Many Java **dependency updates** and **security improvements** on the **MapStore backend side**



**... and many more
in next releases!**

Ongoing work for MapStore 2024.02

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- Interoperability with ArcGIS servers: WMS endpoints and REST APIs

Q3

The screenshot shows the MapStore web application interface. On the left, there is a 'Filter layers' panel with a tree view showing 'FMS Course of Action' and 'Units'. The 'Units' list includes various military units like 'Mechanized Infantry Company', 'Combat Aviation', 'Division Headquarters', etc. The main map area displays a map of California with various military units and their locations. A green box labeled 'Layer Legend' points to the 'Units' list. On the right, there is a 'Properties' panel showing metadata for the selected layer, including 'objectid', 'additionalinformation', 'distance', 'azimuth', 'echelon', 'ruleid', and 'st_length(shape)'. A green box labeled 'Identify and most of MS standard capabilities provided!' points to the 'Properties' panel. At the bottom right, there is a green box labeled 'Map Layer and support for a dedicated Catalog source type:' with a list of REST endpoints: '/arcgis/rest/services', '/arcgis/rest/services/{name}', and '/MapServer'.

Layer Legend

Identify and most of MS standard capabilities provided!

Map Layer and support for a dedicated Catalog source type:

- /arcgis/rest/services
- /arcgis/rest/services/{name}
- /MapServer

... support for ImageServer available soon!

- Enhancing the pluggability of **Street View tool** including the **Mapillary viewer** for **custom 360 imagery**

Q3

Support for standard Mapillary provider still in progress

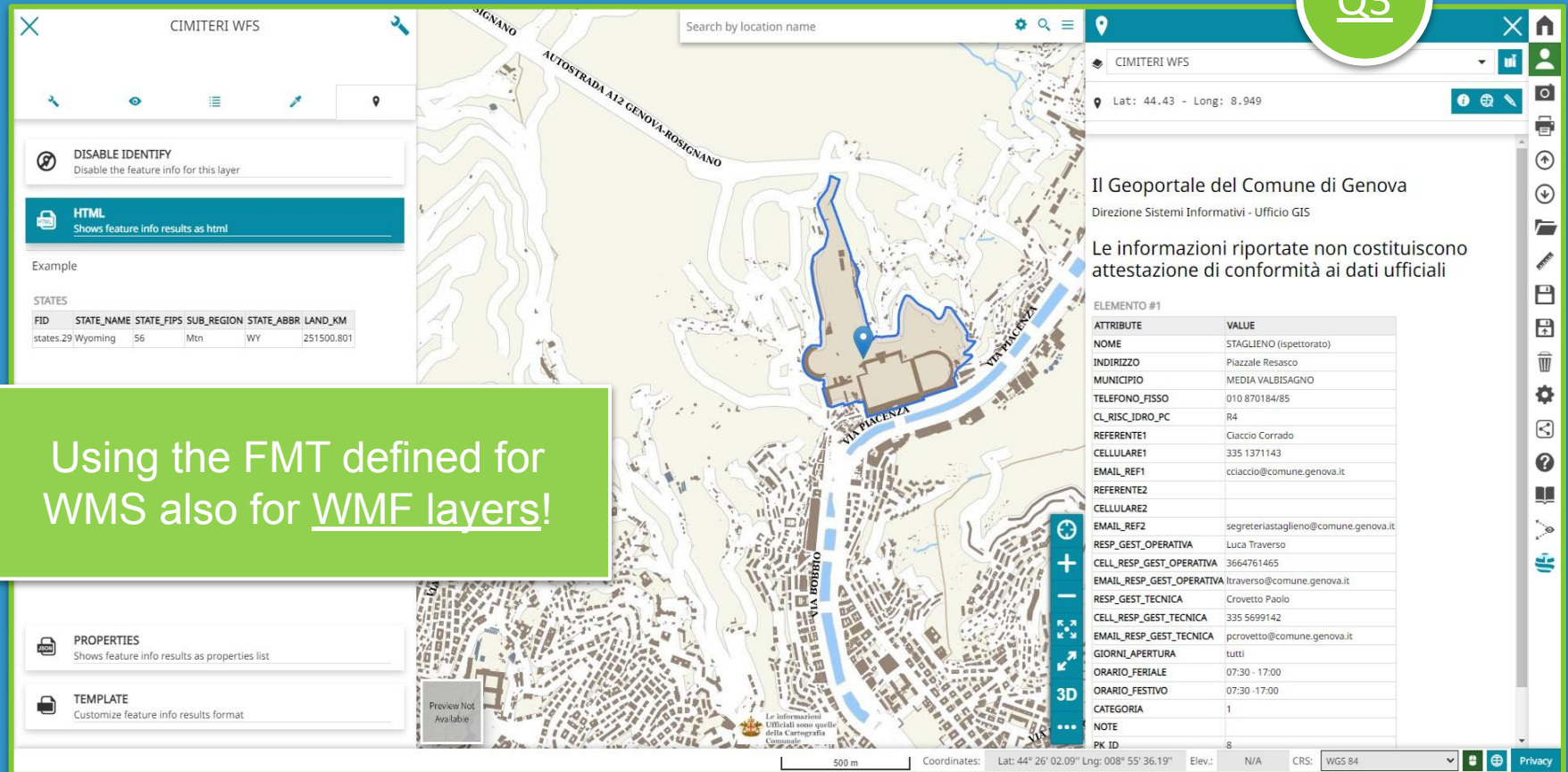
Available on both 2D and 3D!

Cyclomedia Street Smart APIs also supported!



- Support to **identify** responses in **HTML format** for **WFS layers**

Q3



Using the FMT defined for WMS also for WMF layers!

Il Geoportale del Comune di Genova
Direzione Sistemi Informativi - Ufficio GIS

Le informazioni riportate non costituiscono attestazione di conformità ai dati ufficiali

ATTRIBUTE	VALUE
NOME	STAGLIENO (ispettorato)
INDIRIZZO	Piazzale Resasco
MUNICIPIO	MEDIA VALBISAGNO
TELEFONO_FISSO	010.870184/85
CL_RISC_IDRO_PC	R4
REFERENTE1	Ciaccio Corrado
CELLULARE1	335 1371143
EMAIL_REF1	cciacchio@comune.genova.it
REFERENTE2	
CELLULARE2	
EMAIL_REF2	segreteria@staglieno@comune.genova.it
RESP_GEST_OPERATIVA	Luca Traverso
CELL_RESP_GEST_OPERATIVA	3664761465
EMAIL_RESP_GEST_OPERATIVA	ltraverso@comune.genova.it
RESP_GEST_TECNICA	Crovetto Paolo
CELL_RESP_GEST_TECNICA	335 5699142
EMAIL_RESP_GEST_TECNICA	pcrovetto@comune.genova.it
GIORNI_APERTURA	tutti
ORARIO_FERIALE	07:30 - 17:00
ORARIO_FESTIVO	07:30 - 17:00
CATEGORIA	1
NOTE	
PK ID	8

Working on top of **gs-wfs-freemarker-plugin** community module
(requires Geoserver)

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- Support for **interactive legend** functionalities

Q3

The screenshot displays the MapStore 2024.02 interface. On the left, a 'Filter layers' panel shows a list of layers, including 'NY City', 'poi', 'ny_roads', 'poly_landmarks', and 'States of United States of ...'. The 'States of United States of ...' layer is selected, and its legend is visible. The legend lists various numerical ranges with corresponding color swatches. A dialog box titled 'Use cache options' is open, showing a legend preview and a text box explaining that enabling this option allows filtering by legend items from the TOC, requiring specific configurations on GeoServer.

Legend

- ☒ Use cache options
- ☒ Enable interactive legend

Preview

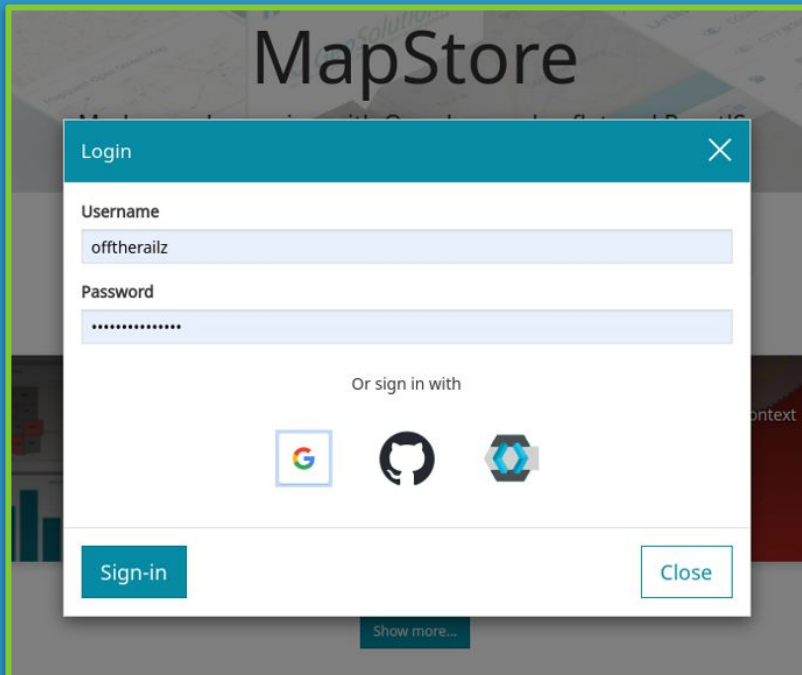
- ≥ 159.05 and < 5062.5
- ≥ 5062.5 and < 20300.35
- ≥ 20300.35 and < 23230.67
- ≥ 23230.67 and < 25316.3
- ≥ 25316.3 and < 77987.8

If this option is enabled, filter by legend can be applied by clicking on legend items of this layer from the TOC. Note: This parameter requires specific configurations on GeoServer

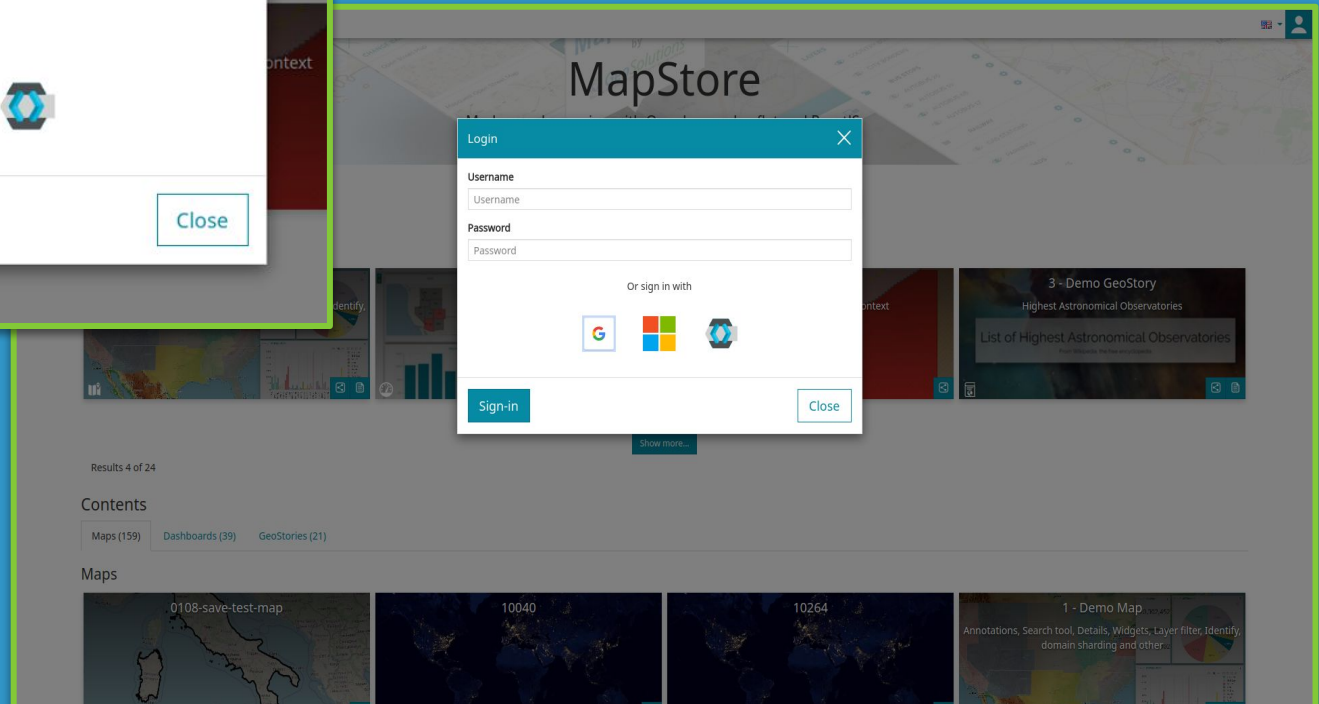
Working on top of **GetLegendGraphic** in **JSON format** (requires Geoserver)

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- Improving the **OpenID Connect (OIDC)** support with a new client to enhance and generalize the existing support



- Allowing at the same time the integration with other providers like **Microsoft Azure AD**



Q3

- 
- **Demo site:** <https://mapstore.geosolutionsgroup.com>
 - **User documentation:**
<https://docs.mapstore.geosolutionsgroup.com/en/v2024.01.01/user-guide/home-page/>
 - **Developers documentation:**
<https://docs.mapstore.geosolutionsgroup.com/en/v2024.01.01/developer-guide/requirements/>
 - **GitHub Repo:** <https://github.com/geosolutions-it/MapStore2>
 - **Youtube Videos:**
https://www.youtube.com/playlist?list=PLe2yzutVrnZ5tjYGYcKmZzo_M9ku5I9X
 - **Mailing Lists:** <https://groups.google.com/g/mapstore-users>
<https://groups.google.com/g/mapstore-developers>

That's all folks!



Questions?

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