



# MapStore at geOcom 2025 An Year in Review

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*GeoSolutions*



23th - 25th of June 2025 - geOcom

**GeoSolutions**  
your one-stop-shop for geospatial open source software



- What's new in MapStore 2025.01 ready to land on geOrchestra
- Ongoing works for MapStore 2025.02





## What's new in MapStore 2025.01



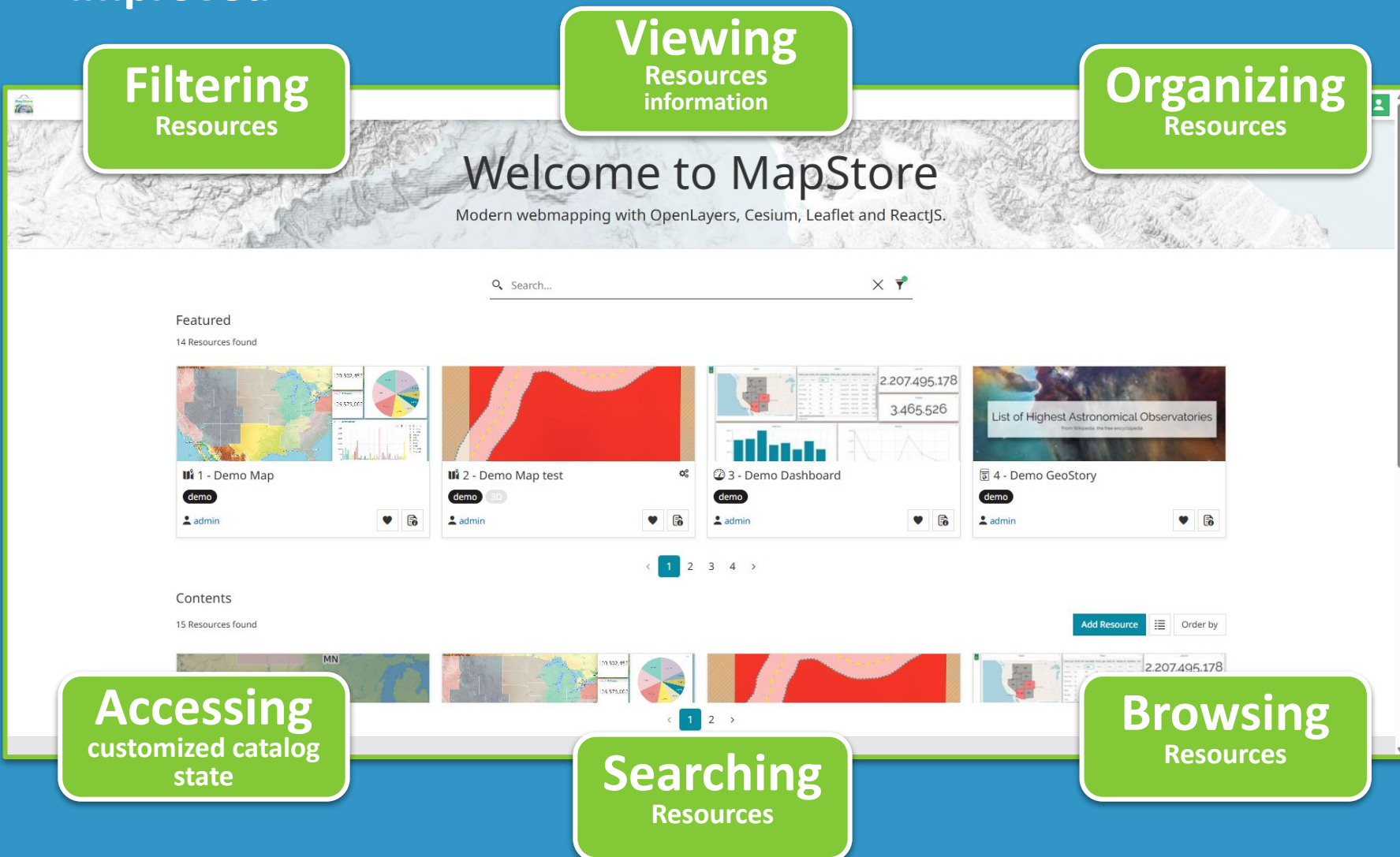
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# What's new in MapStore 2025.01

- MapStore Home Page layout completely reviewed and UX improved



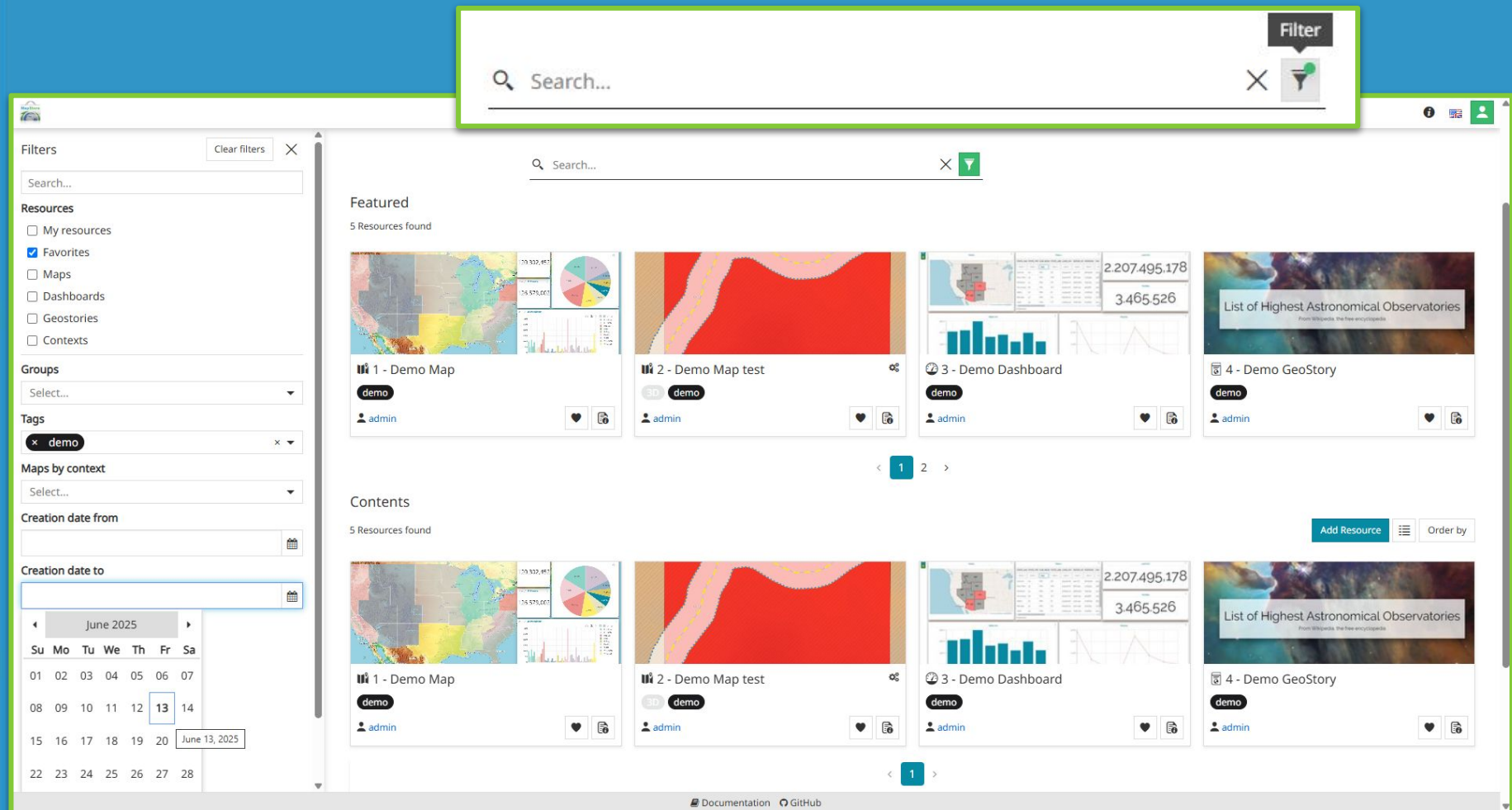
The screenshot shows the MapStore 2025.01 Home Page layout. The header features a search bar and a 'Welcome to MapStore' message. Below the header, there are four main sections: 'Featured' (14 Resources found), 'Contents' (15 Resources found), and two sidebars for 'Filtering Resources' and 'Organizing Resources'. The 'Featured' section displays four demo resources: '1 - Demo Map', '2 - Demo Map test', '3 - Demo Dashboard', and '4 - Demo GeoStory'. The 'Contents' section displays a list of resources. The sidebars provide options for filtering and organizing resources. The page is annotated with green boxes highlighting key features: 'Filtering Resources', 'Viewing Resources information', 'Organizing Resources', 'Accessing customized catalog state', 'Searching Resources', and 'Browsing Resources'.

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# What's new in MapStore 2025.01



- MapStore Home Page layout completely reviewed and UX improved



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- MapStore Home Page with many new filtering capabilities!

Filters Clear filters ×

Resources

☐ My resources  
☒ Favorites  
☐ Maps  
☒ Dashboards  
☐ Geostories  
☒ Contexts

Groups

× collaborators × ▼


Tags

× demo × ▼


Maps by context

▼

Creation date from



Creation date to



- My resources
- Free text
- Groups
- Application context
- Tags
- Date Period

Filter state now in Catalog URL!

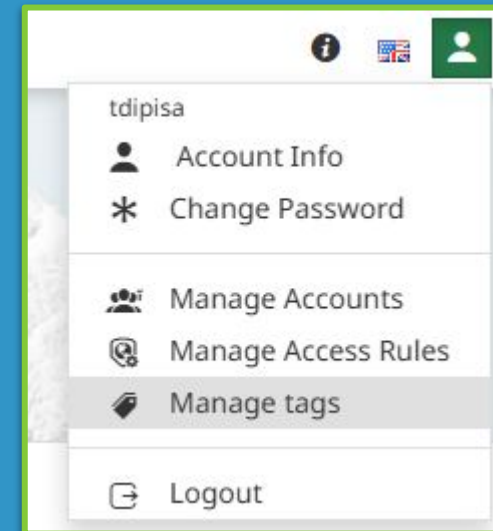
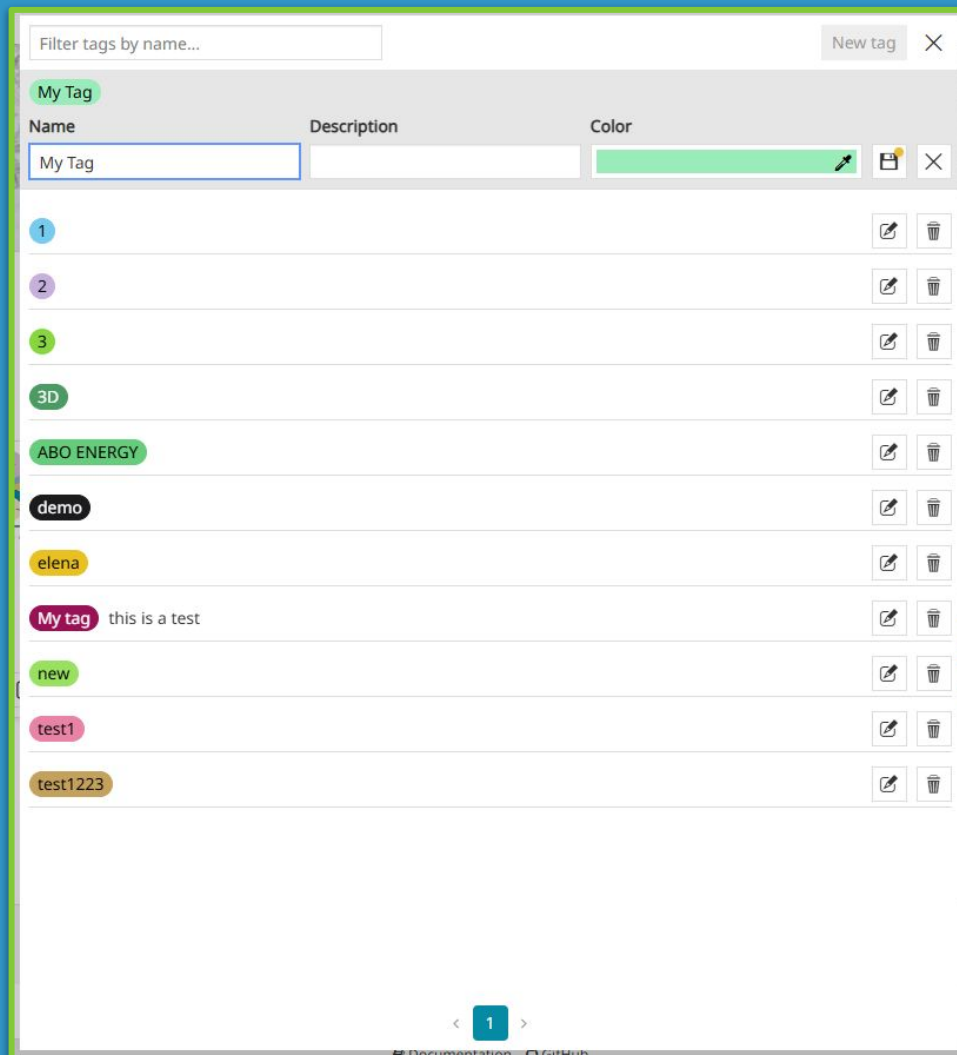
<https://dev-mapstore.geosolutionsgroup.com/mapstore/?#/?q=Storm&f=map&f=context&f=favorite&filter%7Bgroup.in%7D=geosolutions&filter%7Btag.in%7D=demo&filter%7Bcreation.gte%7D=2021-03-02T00%3A00%3A00&filter%7Bcreation.lte%7D=2025-06-13T23%3A59%3A59>



# What's new in MapStore 2025.01



- The new MapStore Home Page brings also **Tags**!

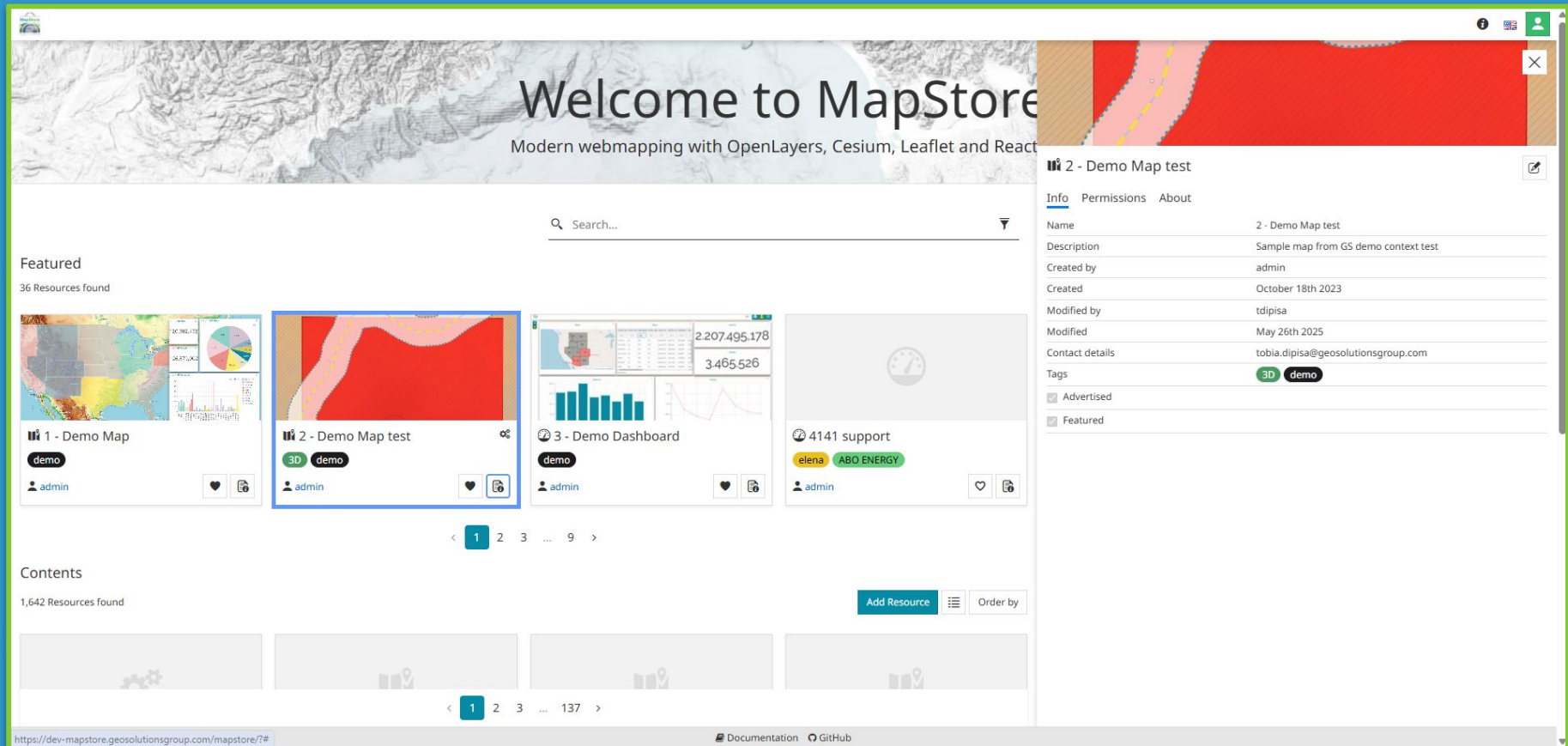


Administrators can define Tags for users

# What's new in MapStore 2025.01



- MapStore Home Page with improved resource **Details** for a better UI/UX



Welcome to MapStore  
Modern webmapping with OpenLayers, Cesium, Leaflet and React

Search...

Featured  
36 Resources found

1 - Demo Map  
demo  
admin

2 - Demo Map test  
3D demo  
admin

3 - Demo Dashboard  
demo  
admin

4141 support  
elena ABO ENERGY  
admin

Contents  
1,642 Resources found

Add Resource Order by

https://dev-mapstore.geosolutionsgroup.com/mapstore/7#

Documentation GitHub

2 - Demo Map test

Info Permissions About

Name	2 - Demo Map test
Description	Sample map from GS demo context test
Created by	admin
Created	October 18th 2023
Modified by	tdipisa
Modified	May 26th 2025
Contact details	tobia.dipisa@geosolutionsgroup.com
Tags	3D demo
Advertised	<input checked="" type="checkbox"/>
Featured	<input checked="" type="checkbox"/>

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- **MapStore Home Page** with improved resource **Details** for a better UI/UX

**1 - Demo Map**

Info Permissions About

Name	1 - Demo Map
Description	Annotations, Search tool, Details, Widgets, Layer filter, Identify, domain sharding and other
Created by	admin
Created	July 8th 2019
Modified by	admin
Modified	June 12th 2025
Tags	demo
Advertised	<input type="checkbox"/>
Featured	<input type="checkbox"/>

**1 - Demo Map**

Info Permissions About

Owner: admin

Filter by name or permissions

Name	Permissions
everyone	View
geosolutions	View

**1 - Demo Map**

Info Permissions About

### United States

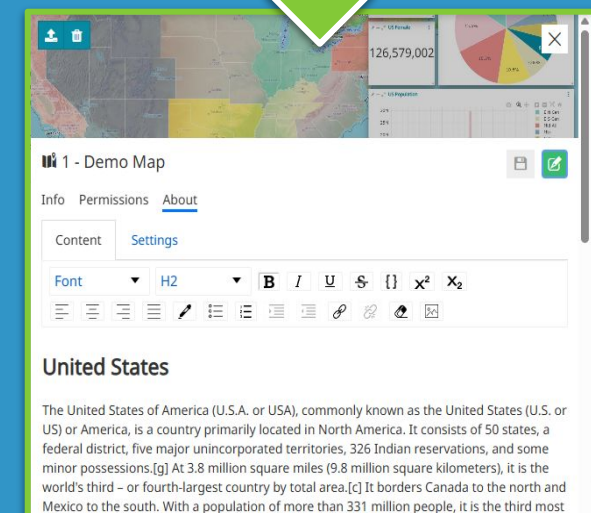
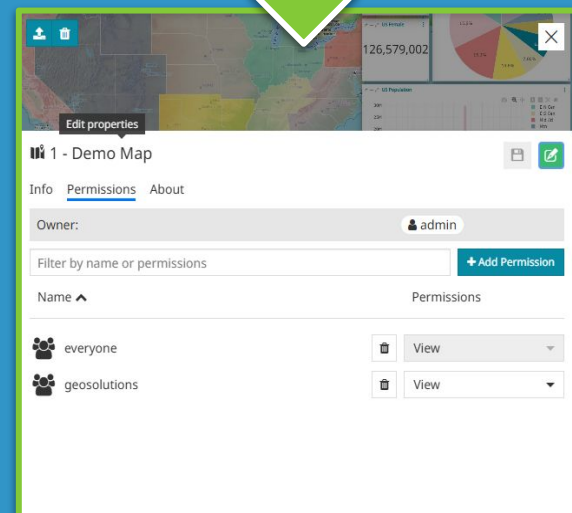
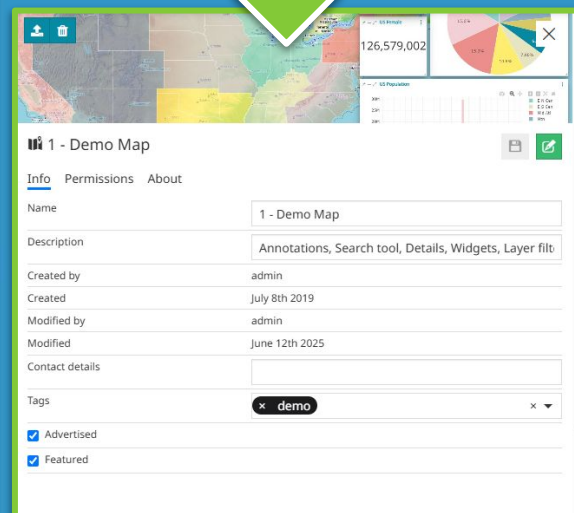
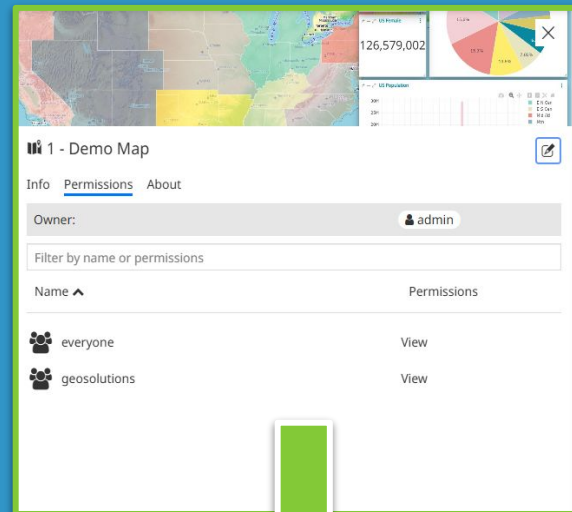
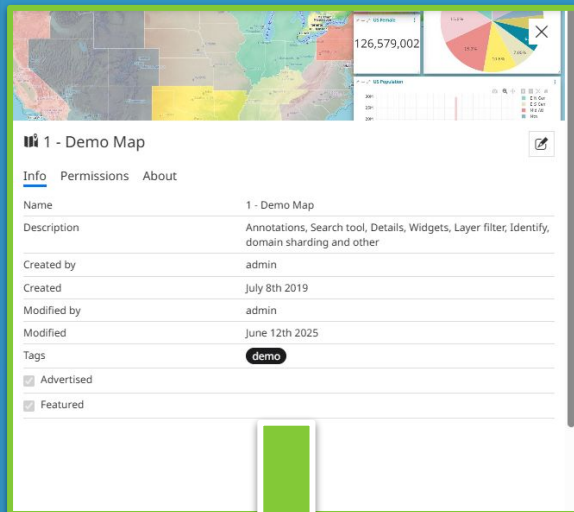
The United States of America (U.S.A. or USA), commonly known as the United States (U.S. or US) or America, is a country primarily located in North America. It consists of 50 states, a federal district, five major unincorporated territories, 326 Indian reservations, and some minor possessions.[g] At 3.8 million square miles (9.8 million square kilometers), it is the world's third - or fourth-largest country by total area.[c] It borders Canada to the north and Mexico to the south. With a population of more than 331 million people, it is the third most populous country in the world. The national capital is Washington, D.C., and the most populous city is New York City.

Paleo-Indians migrated from Siberia to the North American mainland at least 12,000 years ago, and European colonization began in the 16th century. The United States emerged from the thirteen British colonies established along

# What's new in MapStore 2025.01



- **MapStore Home Page** with improved resource **Details** for a better UI/UX



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- MapStore Home Page with an alternative catalog mode for improving the overall UX

14 Resources found

admin

Contents

15 Resources found

Add Resource

Order by

Name	Description	Tags	Modified	Created by
10358_demo_dashboard		demo	Jun 13th 25, 4:22:56 pm	surendhar
1 - Demo Map	Annotations, Search tool, Details, Widgets, Layer filter, Iden...	demo	Jun 12th 25, 10:48:09 am	
2 - Demo Map test	Sample map from GS demo context test	3D demo	May 26th 25, 6:10:54 pm	
3 - Demo Dashboard	Filtering Capabilities	demo	May 15th 25, 9:48:46 am	admin
4 - Demo GeoStory	Highest Astronomical Observatories	demo	May 12th 25, 4:25:27 pm	admin
5 - 3D Underground Transparency	This example shows how apply globe transparency inside a ...	3D demo	Jun 13th 25, 4:20:44 pm	admin

10358\_demo\_dashboard

1 - Demo Map

2 - Demo Map test

3 - Demo Dashboard

4 - Demo GeoStory

5 - 3D Underground Transparency

Annotations, Search tool, Details, Widgets, Layer filter, Iden...

Sample map from GS demo context test

Filtering Capabilities

Highest Astronomical Observatories

This example shows how apply globe transparency inside a ...

demo

3D demo

demo

demo

demo

demo

Jun 13th 25, 4:22:56 pm

Jun 12th 25, 10:48:09 am

May 26th 25, 6:10:54 pm

May 15th 25, 9:48:46 am

May 12th 25, 4:25:27 pm

Jun 13th 25, 4:20:44 pm

surendhar

admin

admin

admin

admin

admin

Add to favorites

Open properties

Share

Delete



- MapStore Home Page ... to manage all resources together!

14 Resources found

admin

Contents

15 Resources found

Add Resource

Order by

Name	Description	Tags	Modified	Created by
10358_demo_dashboard		demo	Jun 13th 25, 4:22:56 pm	surendhar
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Actions: Add to favorites, Open properties, Share, Delete

Add Resource

Order by

Create map

Create dashboard

Create geostory

Create context

# What's new in MapStore 2025.01



- MapStore Home Page ... with improved sorting options!

14 Resources found

admin

Contents

15 Resources found

Add Resource

Order by

Name	Description	Tags	Modified	Created by
10358_demo_dashboard		demo	Jun 13th 25, 4:22:56 pm	surendhar
1 - Demo Map	Annotations, Search tool, Details, Widgets, Layer filter, Iden...	demo	Jun 12th 25, 10:48:09 am	
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Actions: Add to favorites, Open properties, Share, Delete

Add Resource

Order by

Create map  
Create dashboard  
Create geostory  
Create context

2.207.495.178  
3.465.526

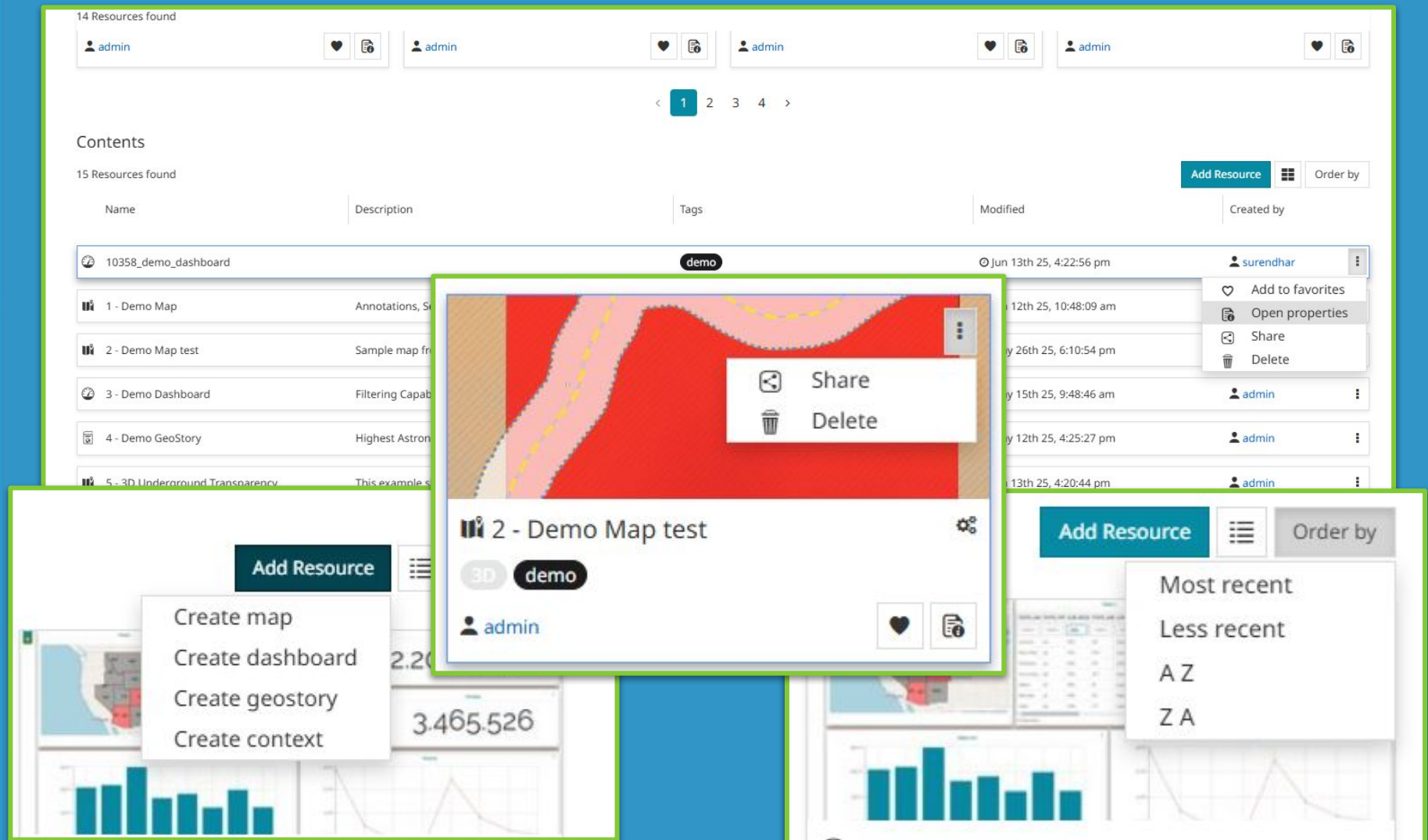
Add Resource

Order by

Most recent  
Less recent  
A Z  
Z A

# What's new in MapStore 2025.01

- MapStore Home Page ... with a better controls on resource items. Highly customizable also for **downstream projects**!



The screenshot displays the MapStore 2025.01 interface. At the top, it shows '14 Resources found' and a list of resources. A detailed view of a resource item, '2 - Demo Map test', is highlighted. This view includes a map thumbnail, a 'Share' button, a 'Delete' button, and a 'demo' tag. Below the map, there are buttons for 'Add Resource' and 'Order by'. A dropdown menu is open, showing options: 'Most recent', 'Less recent', 'A Z', and 'Z A'. Another dropdown menu is open, showing options: 'Create map', 'Create dashboard', 'Create geostory', and 'Create context'.

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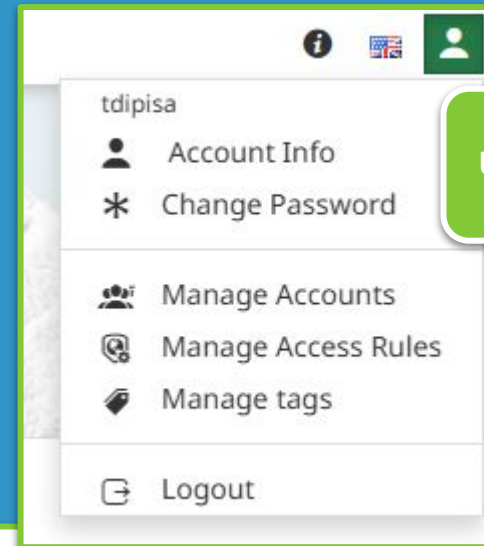


# What's new in MapStore 2025.0



- **MapStore Layout and Look & Feel** significantly reviewed to provide a better accessibility.

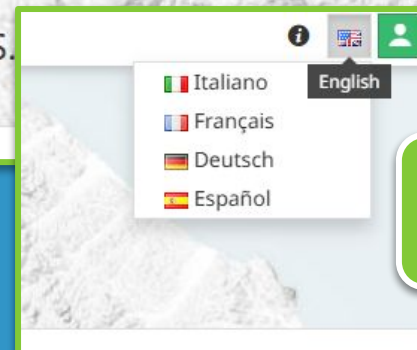
Improved About  
management for the  
whole application



Unified user Menus

## to MapStore

enLayers, Cesium, Leaflet and ReactJS.

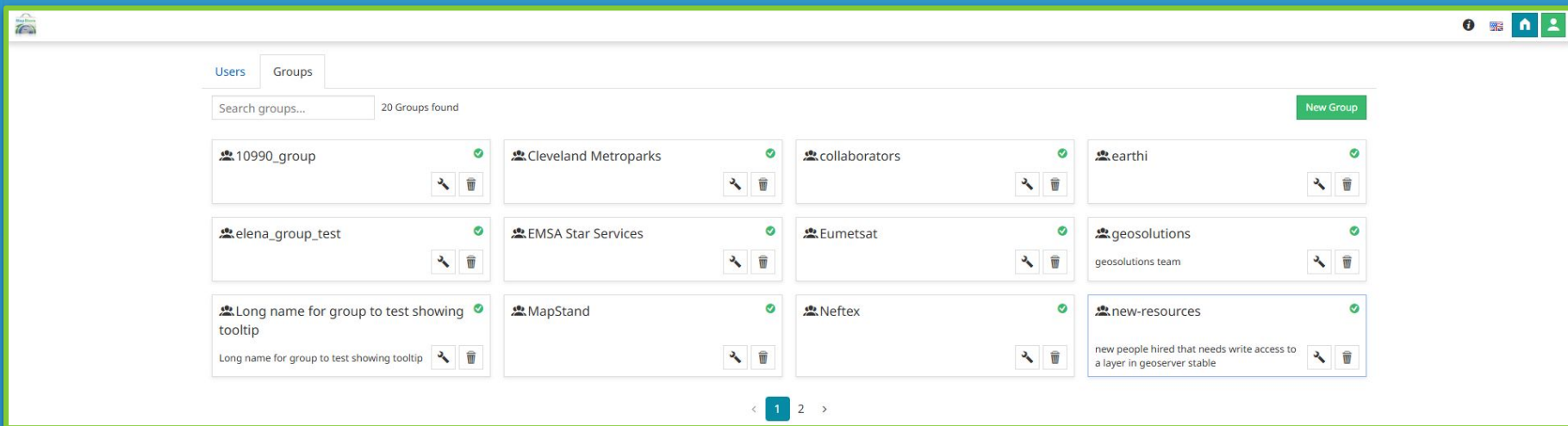
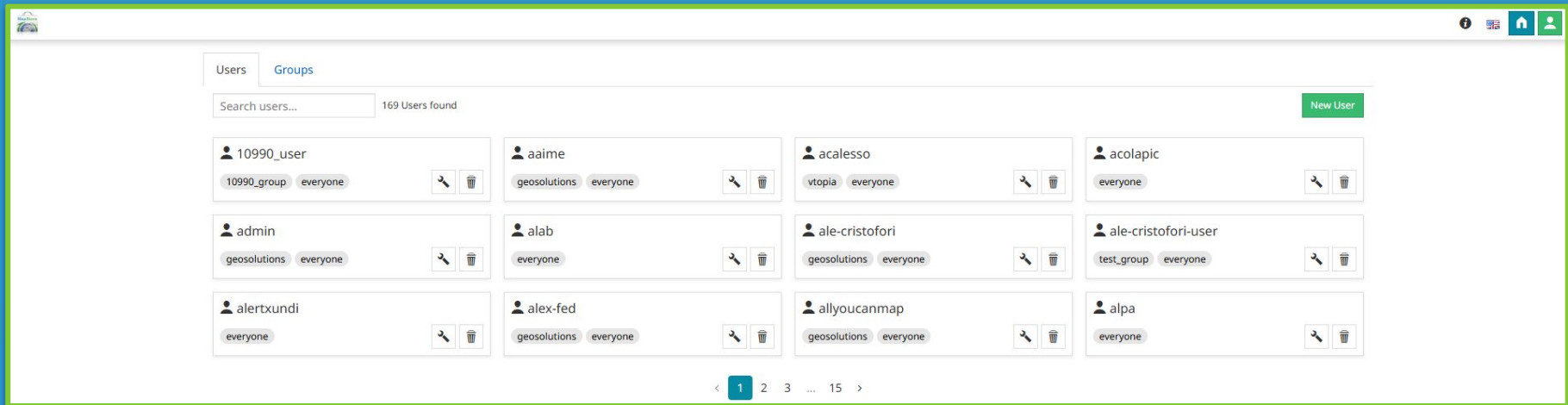


New Brand Navbar  
component

# What's new in MapStore 2025.0



- MapStore Layout and Look & Feel ... to harmonize contents and improve the UX also of **admin sections!**



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# What's new in MapStore 2025.0



- MapStore Layout and Look & Feel ... to enhance the UX also within resources with the new **Brand Navbar**

The screenshot displays the MapStore 2025.0 interface. A green arrow points to the new 'Brand Navbar' at the top, which includes icons for MapStore, save, delete, and a title '1 - Demo Map'. Below the navbar, the interface is divided into several panels. On the left, there's a 'Filter layers' panel. In the center, a table titled 'US States' lists state information. To the right, there's a 'US Male' panel with a large number '12'. Below the table, there's a 'US Surfaces' panel with a line graph. On the far right, a '1 - Demo Map' panel shows map details like Name, Description, Created by, and Tags. A green callout box with the text 'Moving general app control outside Sidebars' points to the new navbar. Another green callout box with the text 'Same details UI of Home Page' points to the map details panel.

STATE_NAME	STATE_FIPS	SUB_REGION	STATE_ABBR	LAND_KM
Illinois	17	E N Cen	IL	143,986.1
Missouri	29	W N Cen	MO	178,445.1
Arizona	04	Mtn	AZ	294,333.1
Oklahoma	40	W S Cen	OK	177,877.1
North Caro	37	S Atl	NC	126,177.1
Tennessee	47	E S Cen	TN	105,823.1
Texas	48	W S Cen	TX	688,219.1
New Mexico	35	Mtn	NM	304,472.1
Alabama	01	E S Cen	AL	131,443.1

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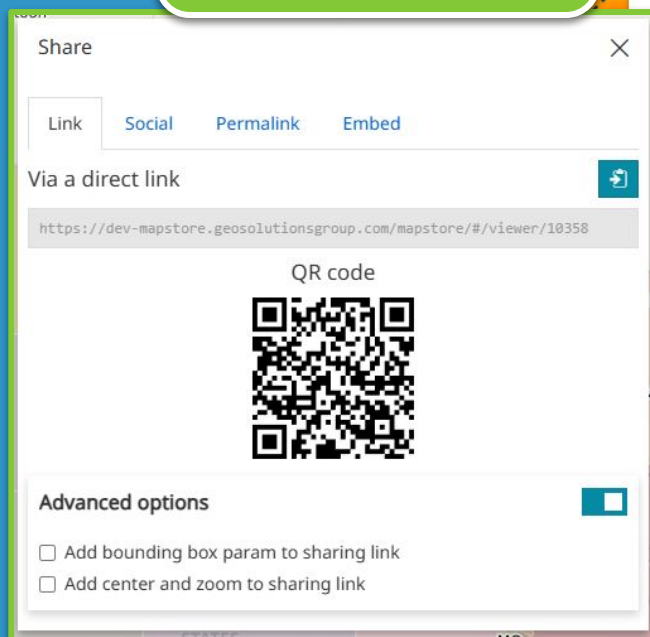


# What's new in MapStore 2025.0

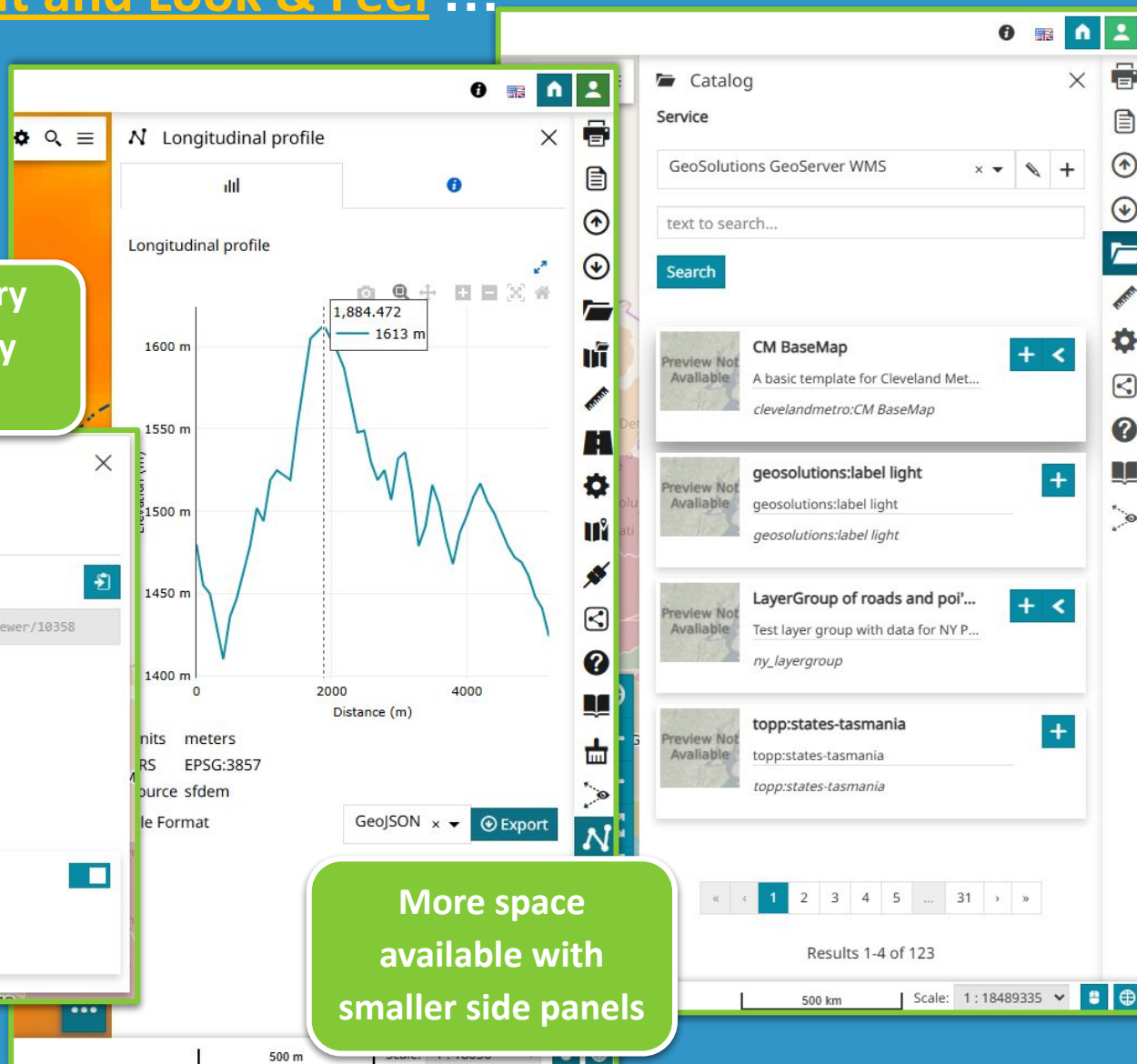


- MapStore Layout and Look & Feel ...  
for a lighter theme

Removed primary color from many components



More space available with smaller side panels

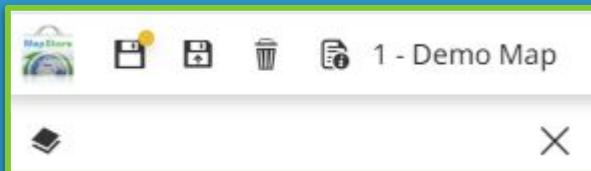


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# What's new in MapStore 2025.0

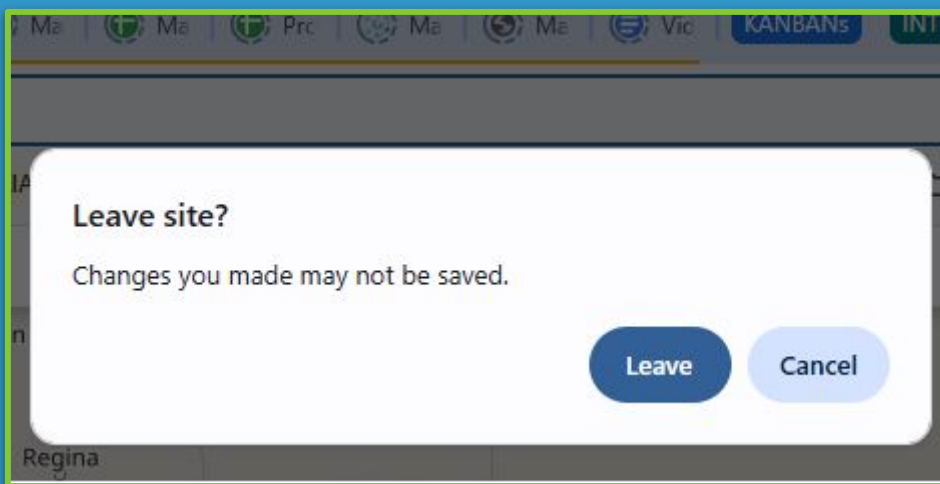
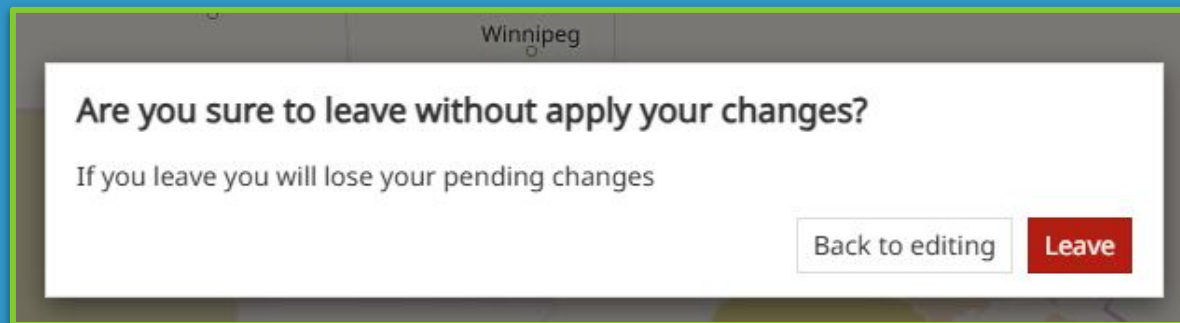


- MapStore Layout and Look & Feel ... for better notifications!



Improved user feedback on modified resources

Renewed confirmation dialog when leaving resources



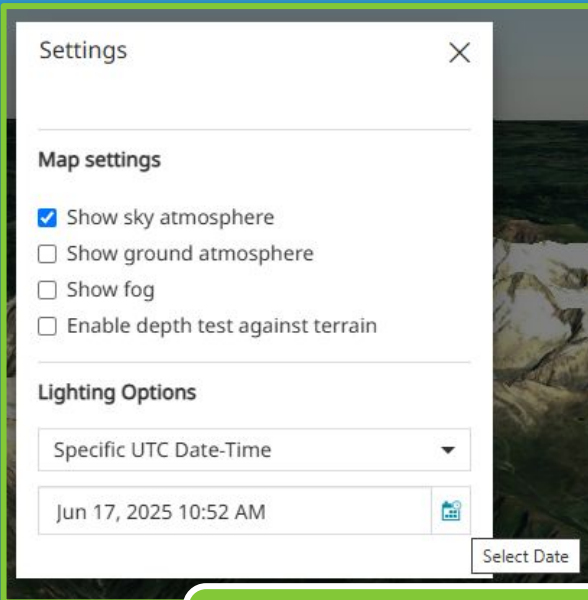
Improved UX with new confirmation dialog when closing the browser window



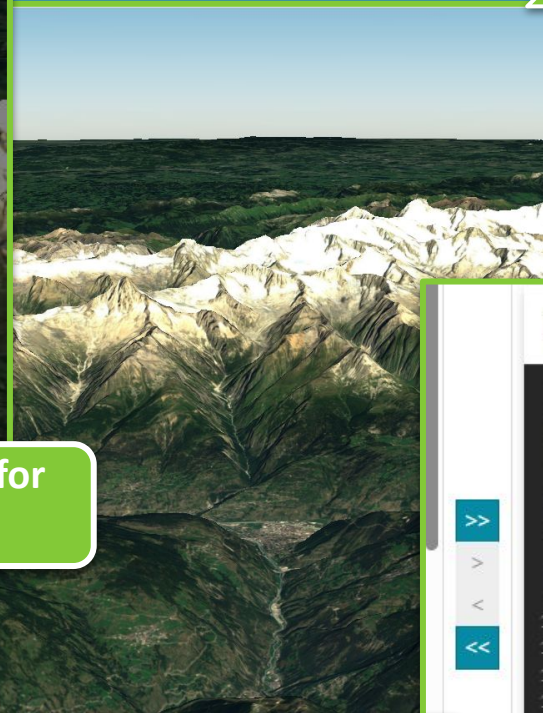
# What's new in MapStore 2025.0

- **MapStore 3D updates** with new **Terrain provider** and **Map settings**

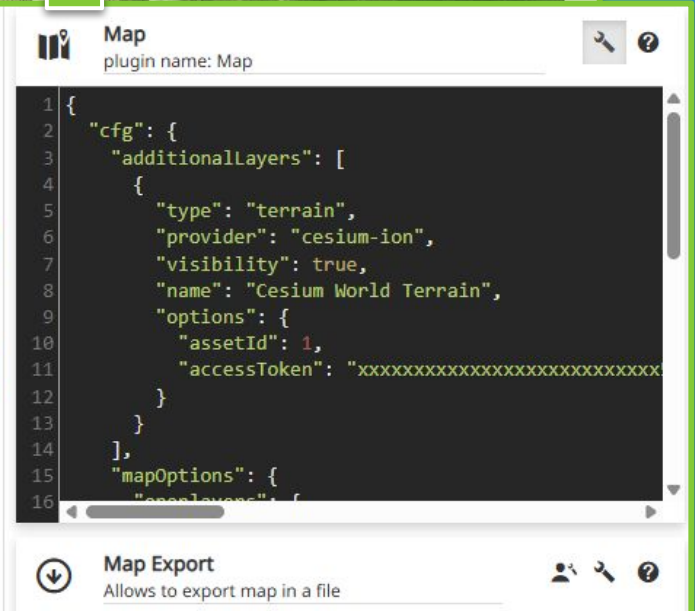
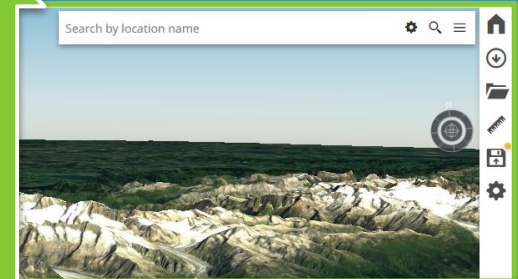
<https://docs.mapstore.geosolutionsgroup.com/en/v/2025.01.00/developer-guide/maps-configuration/#cesium-ion-terrain-provider>



Light source option for  
3D map



New Cesium Ion Terrain  
provider





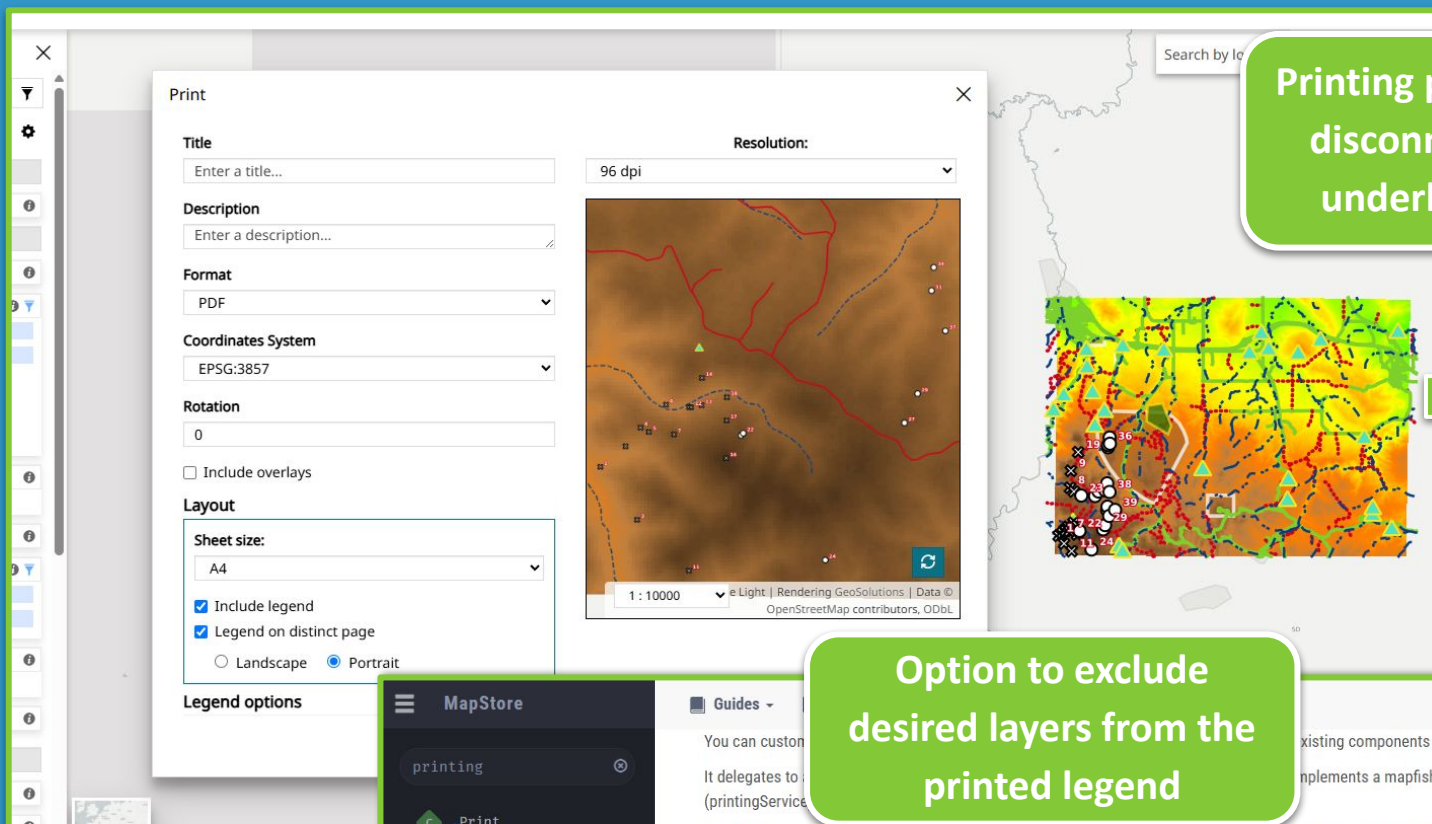
- MapStore Layer Legend update with new **Dynamic** and **Interactive** functions

The screenshot displays the MapStore interface with a map of a region. The left sidebar shows a list of layers under 'Spearfish', including 'bugareas', 'bugsites', 'archsites', 'streams', 'roads', 'restricted', and 'sfdem'. The 'bugsites' layer is selected, and its legend is shown in the top right. The legend lists 'Bugsites circle', 'Bugsites X', 'Bugsites plus', 'Bugsites square', and 'Bugsites stars'. A message box indicates that legend filters are incompatible with the active layer filter, and a 'Reset' button is provided. The bottom right shows the 'Legend' panel with options to 'Enable interactive legend' and 'Enable dynamic legend', both of which are checked. A 'Preview' section shows the selected layer's symbols. The map itself shows various features, including roads and points of interest.

Working on top of **GetLegendGraphic** in **JSON format** and content dependent legend  
GeoServer capabilities (requires GeoServer)

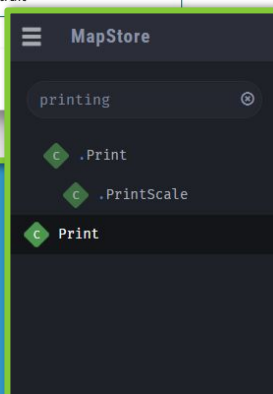
# What's new in MapStore 2025.01

- **MapStore Printing update** for an improved UX and a new function also available



Printing preview map now disconnected from the underlying main map

Option to exclude desired layers from the printed legend



You can custom  
It delegates to  
(printingService

It is also possible to customize the payload of the spec sent to the mapfish-print engine, by adding new transformers to the default chain. Each transformer is a function that can add / replace / remove fragments from the JSON payload.

Property	Type	Description
<code>cfg.excludeLayersFromLegend</code>	<code>Array&lt;string&gt;</code>	list of layer names e.g. ["workspace:layerName"] to exclude from printed document
<code>cfg.ignoreLayers</code>	<code>Array&lt;string&gt;</code>	list of layer types to ignore in preview and when printing, default ["google", "bing"]
<code>cfg.mapPreviewOptions</code>	object	options for the map preview tool



# What's new in MapStore 2025.01



- MapStore User Session update with an improved support and a finest control on session items

Clear user session

Are you sure to remove the current user session? This will restore the original map/context configuration, removing your current changes. Please select what you want to remove and unselect what you want to preserve.

- ☒ Everything
  - ☒ Map
    - ☒ Zoom and center
    - ☒ Visualization Mode (3D/2D)
  - ☒ Layers
    - ☒ Annotations Layer
    - ☒ Measurements Layer
    - ☒ Background Layers
    - ☒ Other Layers
  - ☒ Catalog Services
  - ☒ Widgets
- ☒ Search
  - ☒ Text Search Services
  - ☒ Bookmarks
  - ☒ Feature Grid
- ☒ Other
  - ☒ Table of Contents Configuration
  - ☒ userSession.sessionLabels.swipe
  - ☒ Playback Configuration
  - ☒ Map Views
  - ☒ Map Templates
  - ☒ User Plugins

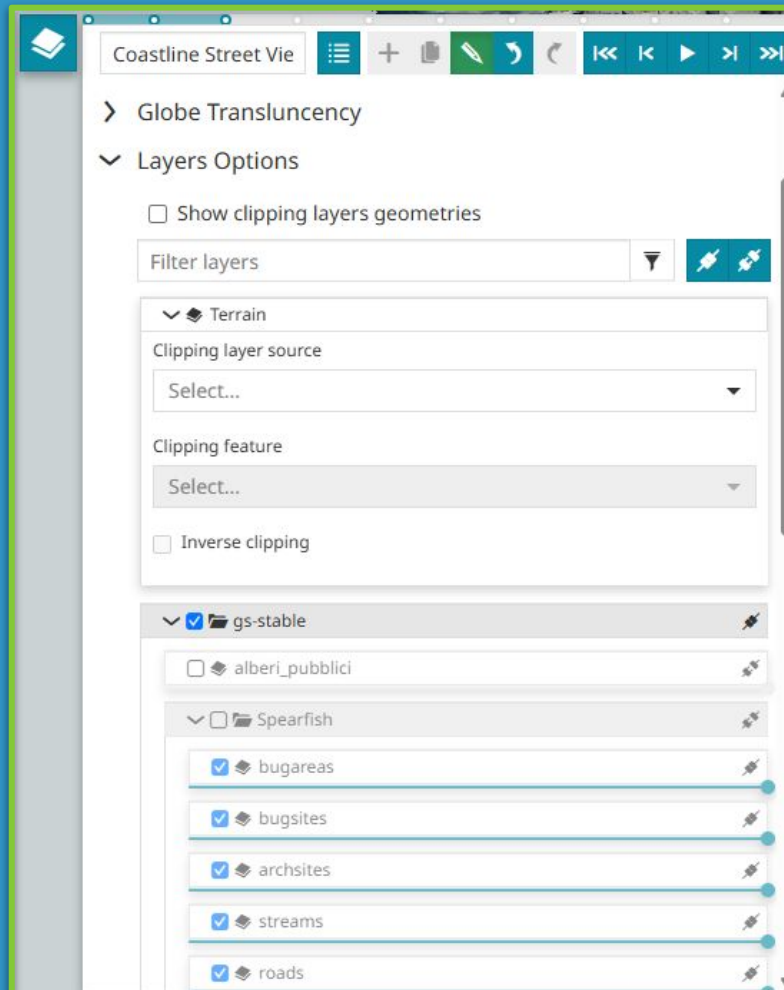
Yes No

- Different clear options map specific
- Search services also supported
- Attribute Table
- Table of Contents and **others plugins**
- Widgets
- Catalog services





- **MapStore MapViews update** for an improved control of views layers with a more advanced TOC



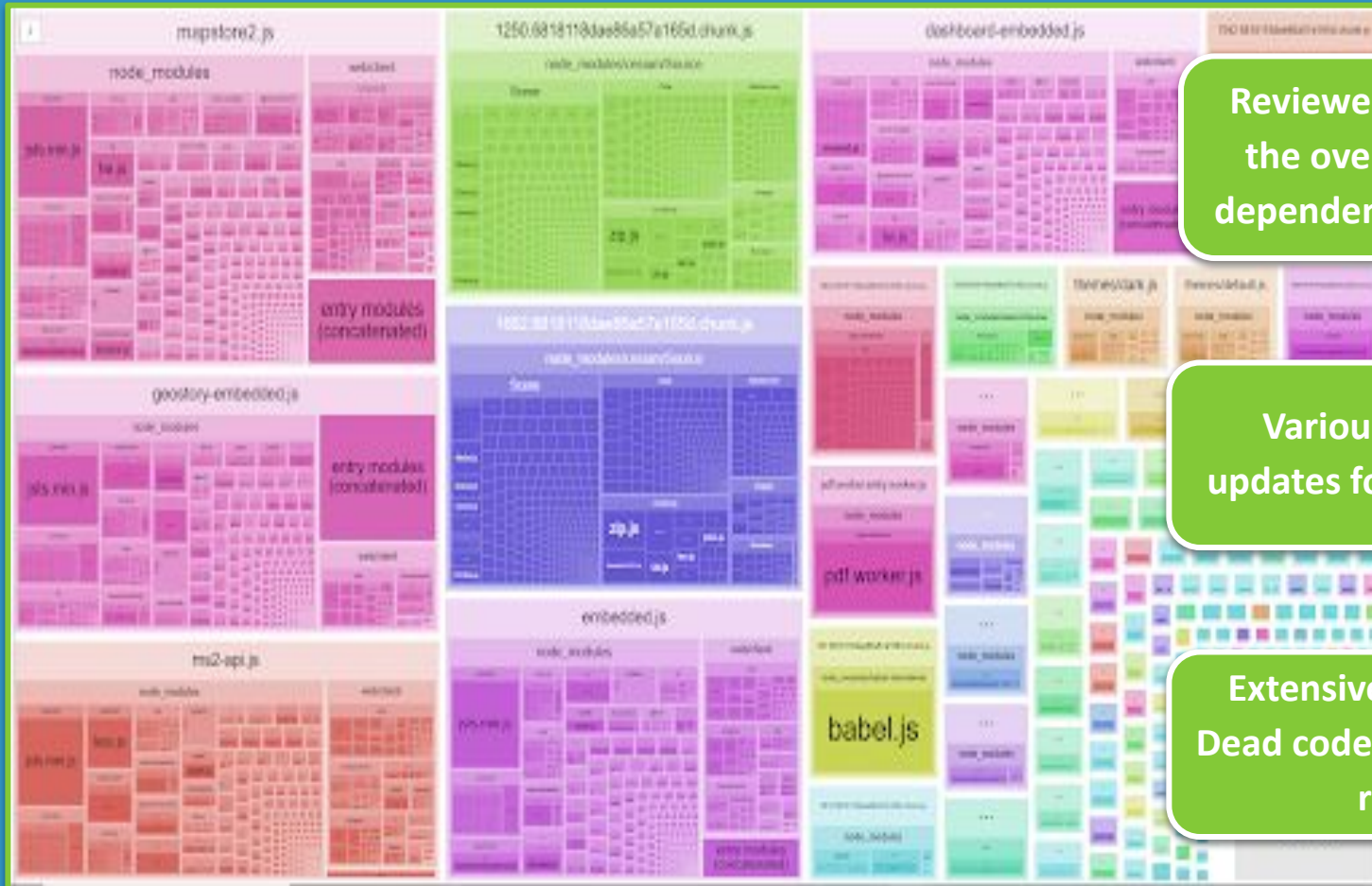
More advanced TOC controls with embedded support for Terrains

Controls to sync with the main TOC

Ability to selectively disconnect layers from the main TOC

# What's new in MapStore 2025.01

- Various dependency updates and clean up. Consolidated dependency management and code clean up



Reviewed and improved the overall application dependency management

Various dependency updates for both FE and BE

Extensive code clean up. Dead code and old packages removed



Check out the new version  
from Github and enjoy the  
**new functionalities**  
released for MapStore **2025.01** also in geOrchestra!



The complete release notes are  
available on Github at:

<https://github.com/geosolutions-it/MapStore2/releases/tag/v2025.01.00>





## Ongoing works for MapStore 2025.02



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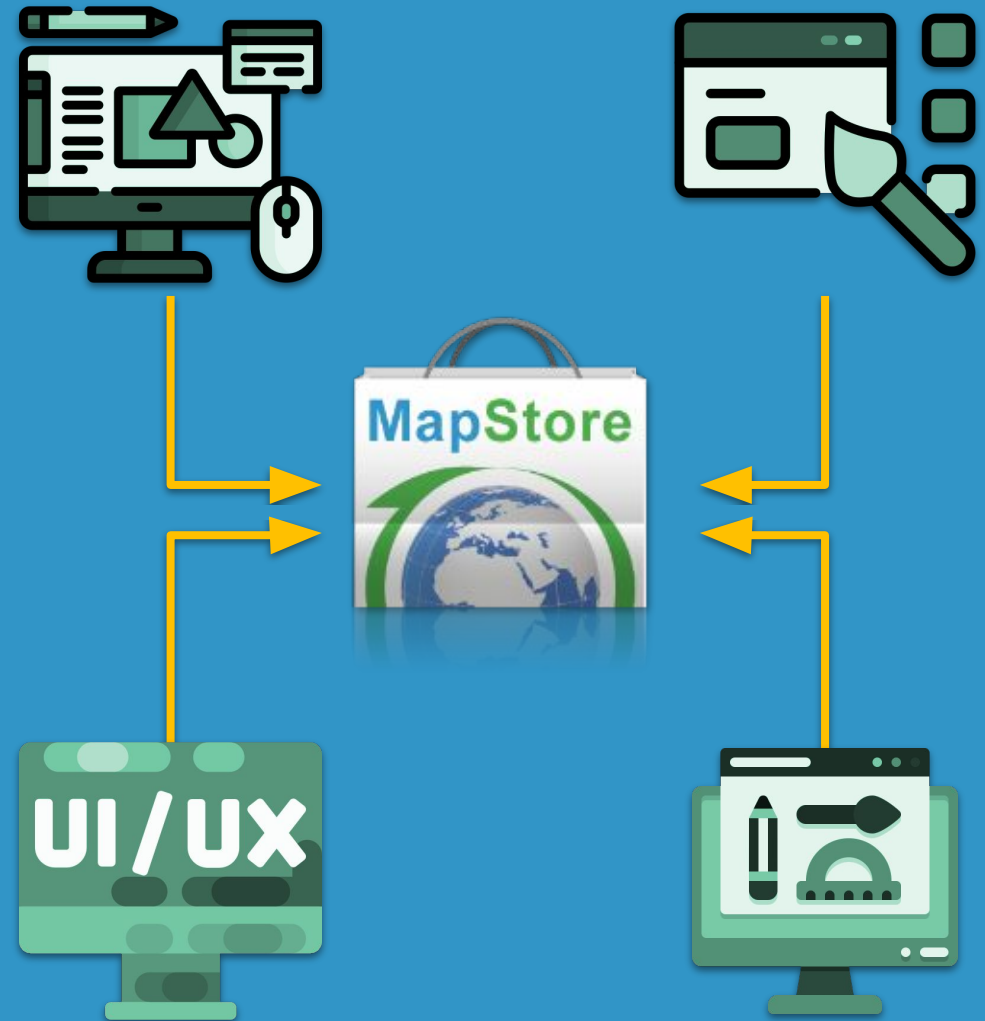
- Further enhancement for the overall **project structure** and the **BE dependencies management**



- Further updates for the MapStore's **theme** and **layout**

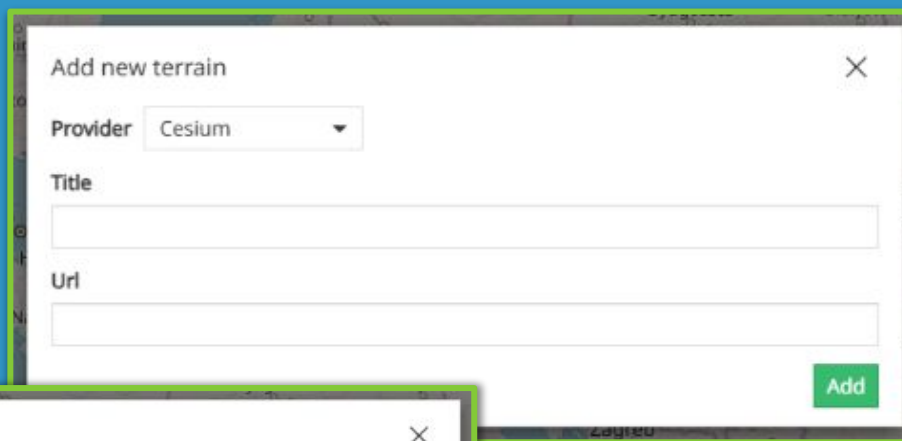
- New default theme
- Possibility to switch to dark theme from user menu
- Further harmonization of buttons
- Further updates on dialogs and card items
- New font-family
- New project entry page
- Overall layout renew

Expected for **Q4** 2025/2026





- New **Terrain Switcher** component for managing terrain layers from UI and switching between them



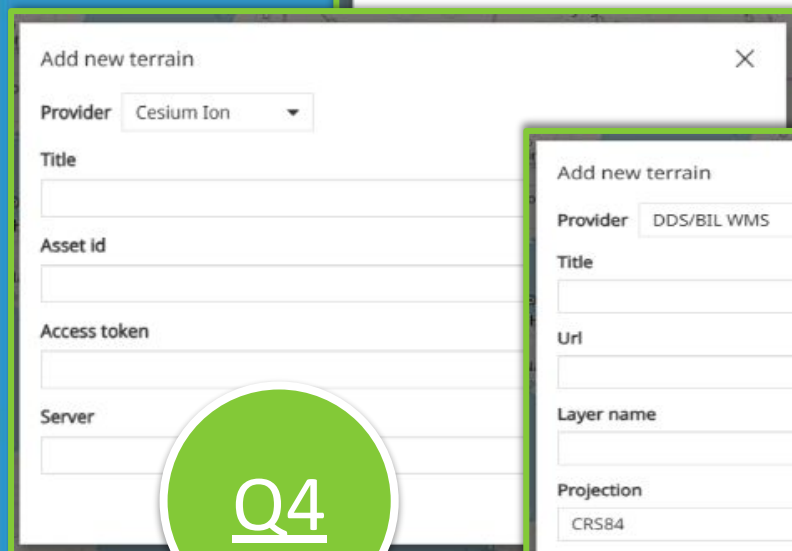
Add new terrain

Provider: Cesium

Title:

Url:

Add



Add new terrain

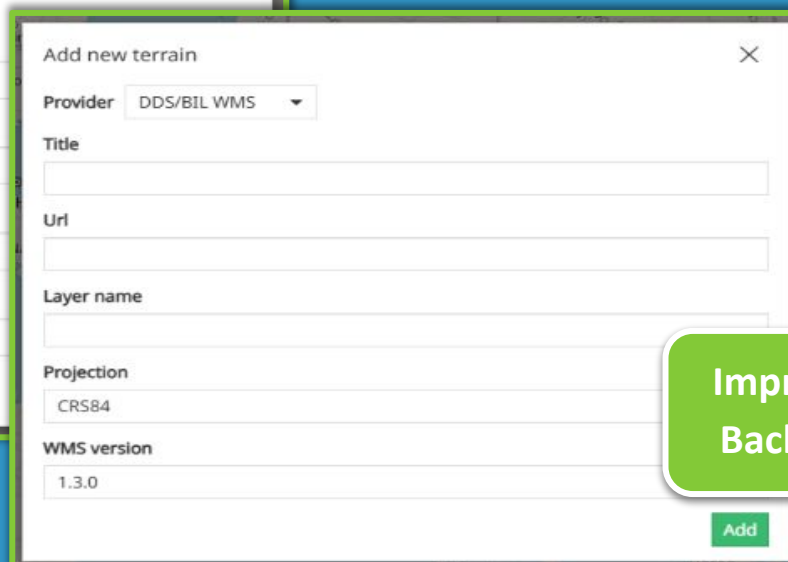
Provider: Cesium Ion

Title:

Asset Id:

Access token:

Server:



Add new terrain

Provider: DDS/BIL WMS

Title:

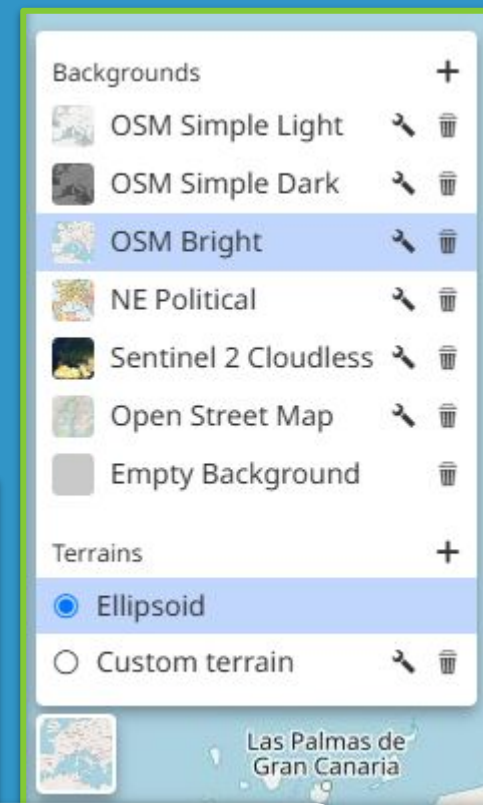
Url:

Layer name:

Projection: CRS84

WMS version: 1.3.0

Add



Backgrounds

- OSM Simple Light
- OSM Simple Dark
- OSM Bright
- NE Political
- Sentinel 2 Cloudless
- Open Street Map
- Empty Background

Terrains

- Ellipsoid
- Custom terrain

Las Palmas de Gran Canaria

Improving the current Background Switcher

Q4

- Enhancements for the GeoFence Rule Manager

Q3

	Role	User	IP	Service	Request	Workspace	Layer	Date	Access
	ANY	ANY		ANY	ANY	ANY	ANY	Type date...	
	ADMIN			WFS	GETCAPABILITIES	geosolutions			ALLOW
1	elena_group_test		165.185.1.15/8	WMS		test	Linea_costa		DENY
5	ROLE_AUTHENTICATED					basic			ALLOW
6						basic			DENY
11	GEOSTORE			WMS	DESCRIBELAYER	geosolutions	Linee_in_america		ALLOW
12	Eumetsat			WFS	DESCRIBEFEATURETYPE	geosolutions	Linee_in_america		ALLOW
13	new-resources								ALLOW
15	geosolutions			WFS					ALLOW
17	geosolutions								ALLOW
18									DENY
25				WFS					DENY
26				WFS					DENY
40									ALLOW

Filtering auth rules by IP address

Requires GeoServer v2.27  
and GeoFence v3.8.0

Managing auth rules by  
validity period automatically  
disabling them

Date	Access
Type date...	
June 2025	
Su Mo Tu We Th Fr Sa	
01 02 03 04 05 06 07	
08 09 10 11 12 13 14	
15 16 17 18 19 20 21	
22 23 24 25 26 27 28	
29 30 01 02 03 04 05	
	ALLOW

- Managing **Resource Permissions** by IP address

Q3

**2 - Demo Map**

Info Permissions About

Owner: admin

Filter by name or permissions + Add Permission

Name ^	Permissions
somegroup	View
192.168.1.1/8	View

about

admin

Permissions + Add Permission


Groups

IP Addr.

Filter...

- 10990\_group
- Cleveland Metroparks
- collaborators
- earthi
- elena\_group\_test
- EMSA Star Services



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- **Demo site:** <https://mapstore.geosolutionsgroup.com>
  - **User documentation:**  
<https://docs.mapstore.geosolutionsgroup.com/en/v2025.01.00/user-guide/home-page/>
  - **Developers documentation:**  
<https://docs.mapstore.geosolutionsgroup.com/en/v2025.01.00/developer-guide/requirements/>
  - **GitHub Repo:** <https://github.com/geosolutions-it/MapStore2>
  - **Youtube Videos:**  
[https://www.youtube.com/playlist?list=PLe2yzutVrnZ5tjYGYcKmZzo\\_M9ku5I9X](https://www.youtube.com/playlist?list=PLe2yzutVrnZ5tjYGYcKmZzo_M9ku5I9X)
  - **Mailing Lists:** <https://groups.google.com/g/mapstore-users>  
<https://groups.google.com/g/mapstore-developers>



## Questions?

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