Release Guide

WebGIS 2022

Version 16.7
21 October 2021

Contents

About This Release **5**

GeoMedia WebMap **5**

Geospatial Portal **5**

Geospatial SDI **5**

New Technology **6**

GeoMedia WebMap 6

INSPIRE-Ready Services and Enhanced Metadata Editor 6

OGC WFS 2.0 Conformance 6

GeoMedia WebMap Mobile and Mobile Publisher 7

GeoMedia WebMap Publisher Portal Redesigned/UX Improvements 7

Instructions Note for Work (with Markdown) in GeoMedia WebMap Mobile 9

Easy Configuration of Searchables 10

Easy Zones Application 11

Tasks and Works Lifecycle Monitoring 12

Snapping in Mobile App 14

Generate ID for Related Features 15

GPS Data Storage in the Added Features 16

Enhanced Display of GPS Location 17

Localized GeoMedia WebMap Mobile app 18

GeoMedia WebMap Mobile App as Consumer Portal Client 19

Quick Configuration Access with QR Code Scanning 20

Dashboard View 21

Geocoding Configuration for the Dashboard Feature 22

Integration with Google Services 23

Google Base Map for GeoMedia WebMap Mobile 24

Enhanced GeoPackage Creation – Zoom Level and Quality for Raster 25

Better Control of the Offline Data Synchronization Process for Users of the Mobile App. 26

Geometry Limitation Notification for Users 27

Address History for GeoMedia WebMap Mobile Start Screen 28

Display Feature Class Name in Feature Info Header of GeoMedia WebMap Mobile. 29

Enhanced Offline Mode 30

Auto-Configured Primary Key....32
Auto-fill Values for Different Data Ttypes....33
Default Values....34
Enhanced Display of Media Files....35
Remote Server Connection to the Mobile Backend....36
Enabled Multiple Connections (Handling Several Sources)....37
Handle Multiple Map Windows and Assign Works with a Map Window....38
Use Map Window Bounding Box (BBOX) as a Default....39
Quick Start Guides in Mobile Publisher....40
Picture Style Support for the Point Feature Class....41
Honoring WFS/WMS Legend Entries' Locatability in GeoMedia WebMap Mobile....42
New Base Maps (Here Maps/Bing Maps/Google Maps)....43
Display of GPS Accuracy in GeoMedia WebMap Mobile App....44
Geospatial Portal and Consumer Portal....45
Redesigned and Refreshed Consumer Portal UI....45
Smart Optimalization of Consumer Portal Layout....46
New Map Composition Switcher....47
Improved Measurements UI in Consumer....48
Share Map....49
LUWS Search Configuration for Consumer Portal....50
Search for Coordinates in Consumer Portal....51
Base Maps in Consumer Portal....52
Integration of Google Maps and Consumer Portal....53
Disable Unavailable Elements (Search, Go to My Location)....55
New Display Settings for Consumer Portal and Improved Legend Entry Behavior....56
Preserve Legend Settings Between Map Composition Switches....58
Consistent Mechanism of Scale Bounds Handling for WMS, WMTS, and WMPS....58
Allow Display of Long Layer Names in Consumer Portal....59
High Contrast Mode and Font Size Change (WAI Design)....60
Easier Registration of Google Maps API key for Portals....61
Auto Adaptation of the Portal Layout to RTL Languages....62
New Print Engine Support in Geospatial Portal....63
Ability to Connect to Secured WFSG Services in Geospatial Portal....64

Improved UX for Switching Map Variants in Geospatial Portal Layouts 65
Remove all Connections and Clear Workspace with One Command in Geospatial Portal 66
Using Consumer Portal SDK: Dynamically Refreshed Content 67
Geospatial SDI 68
OGC WFS and WCS 2.0 Façade Conformance 68
INSPIRE-Ready and Enhanced Metadata Editor 68
Administration Console: GeoMedia WebMap, Geospatial Portal, Geospatial SDI 69
Manage Multiple Instances with Administration Console 69
System Requirements 70
GeoMedia WebMap 70
Geospatial Portal 73
Geospatial SDI 75
Issues Resolved 77
Geospatial Server 2022 77
GeoMedia WebMap, Geospatial SDI, Geospatial Portal 77
About Hexagon 84

About This Release

This document describes the enhancements for WebGIS 2022 products, including GeoMedia WebMap 2022, Geospatial Portal 2022, and Geospatial SDI 2022.

This release includes both enhancements and fixes. For information on enhancements, see the New Technology section. For information on fixes that were made to the WebGIS products for this release, see the Issues Resolved section.

This document is only an overview and does not provide all the details about the product's capabilities. See the online help and other documents provided with the WebGIS products for more information.

GeoMedia WebMap

GeoMedia WebMap supports a broad range of customers that require visualization and examination of geographic data on the web. From easily creating standards-compliant web services to providing sophisticated visualization and analysis within interactive web mapping applications, GeoMedia WebMap builds powerful solutions for sharing your organization's rich geospatial data.

Geospatial Portal

Geospatial Portal is a fully featured, configurable, and customizable thin client application that can be used for finding, viewing, querying, analyzing, and consuming geospatial data published by Hexagon products and/or other standards-based web services. The portal can be accessed by multiple users via web browsers, as it is installed and configured on a web application server.

Geospatial SDI

Geospatial SDI is an interoperable and scalable component of spatial data infrastructure for cataloging and delivering enterprise geospatial data over the web. It is designed for data providers who need to manage and serve secure or licensed information using standards-based web services. It offers powerful tools for controlled access to standards-compliant services and data published by those services, as well as tools for monitoring and reporting service performance. The product adheres to Open Geospatial Consortium (OGC®), INSPIRE, and International Standards Organization (ISO) standards for web services and metadata compliance. Geospatial SDI can easily extend solutions based on GeoMedia® WebMap, ERDAS® APOLLO, or any other vendor's OGC-compliant product to assure the full set of services required for implementation of custom secure Spatial Data Infrastructure (SDI).

New Technology

GeoMedia WebMap

INSPIRE-Ready Services and Enhanced Metadata Editor

GeoMedia WebMap services have been adjusted to meet the most recent INSPIRE Directive technical specifications. The INSPIRE technical guidance for view services, download services, discovery services, and coordinate transformation services were followed and implemented.

OGC WFS 2.0 Conformance

Web Feature Service delivered with GeoMedia WebMap follows the OGC 2.0 International Standard. The OpenGIS Web Feature Service 2.0 Interface Standard (also ISO 19142) has been implemented for Simple WFS, Basic WFS, Spatial Filter, and Transactional WFS conformance classes.

GeoMedia WebMap Mobile and Mobile Publisher

GeoMedia WebMap Publisher Portal Redesigned/UX Improvements

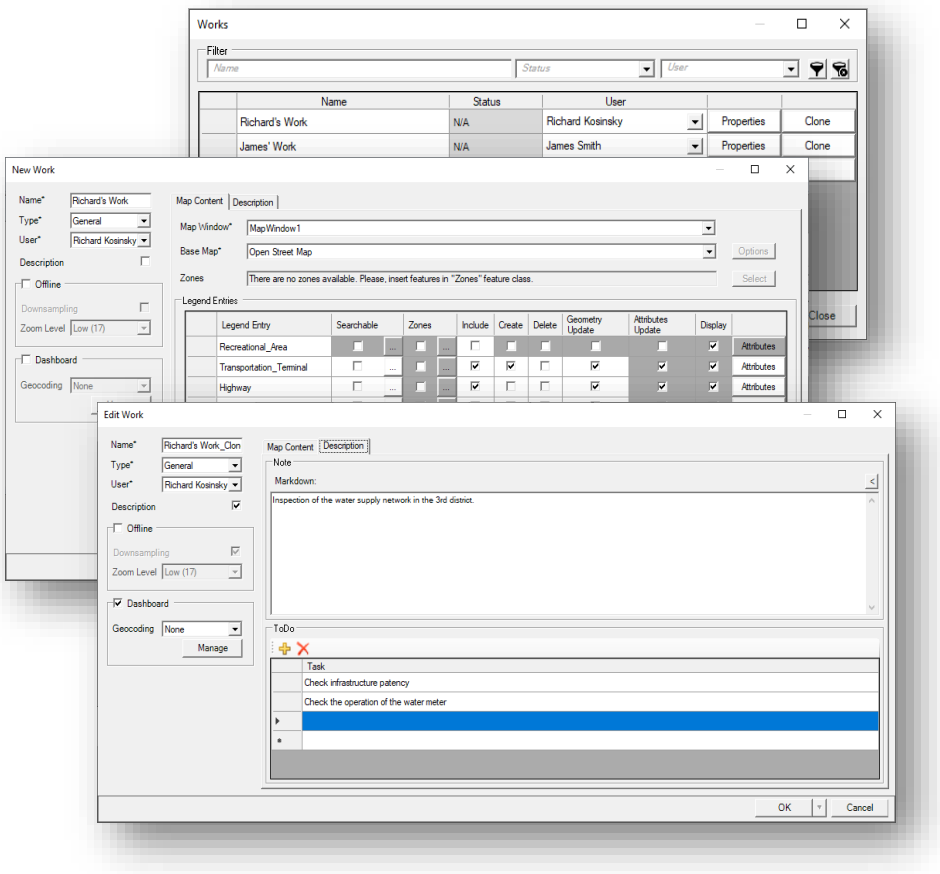
GeoMedia WebMap Mobile Publisher has been redesigned to make the creation and management of mobile configurations even more intuitive and the entire Work management process more organized.

Most changes concern the **New/Edit** Work window where the administrator mainly creates and manages privileges to data and application components for users. It is also here that he monitors and manages the Work lifecycle. On the left side of the window are now grouped general options such as **Work name**, user assignment, **Dashboard** enablement, and **Offline** configuration mode. The completely new option here is **Type**. This option allows you to specify whether a given Work is of the **task** type (new) or **general**, as it was before 16.7 (the general Works do not support Work life cycle management).

The **Description** option is also new in the **New/Edit Works** dialog. It gives administrators the ability to turn on or off the display of Work description in the app. The Work description presented to users (with or without a to-do list) can be prepared on the new **Description** tab.

There are also two new tabs in the **New/Edit Work** dialog: **Map Content** and **Description**. The already mentioned **Description** tab is used to prepare the Work description, which is a new feature of release 16.7.

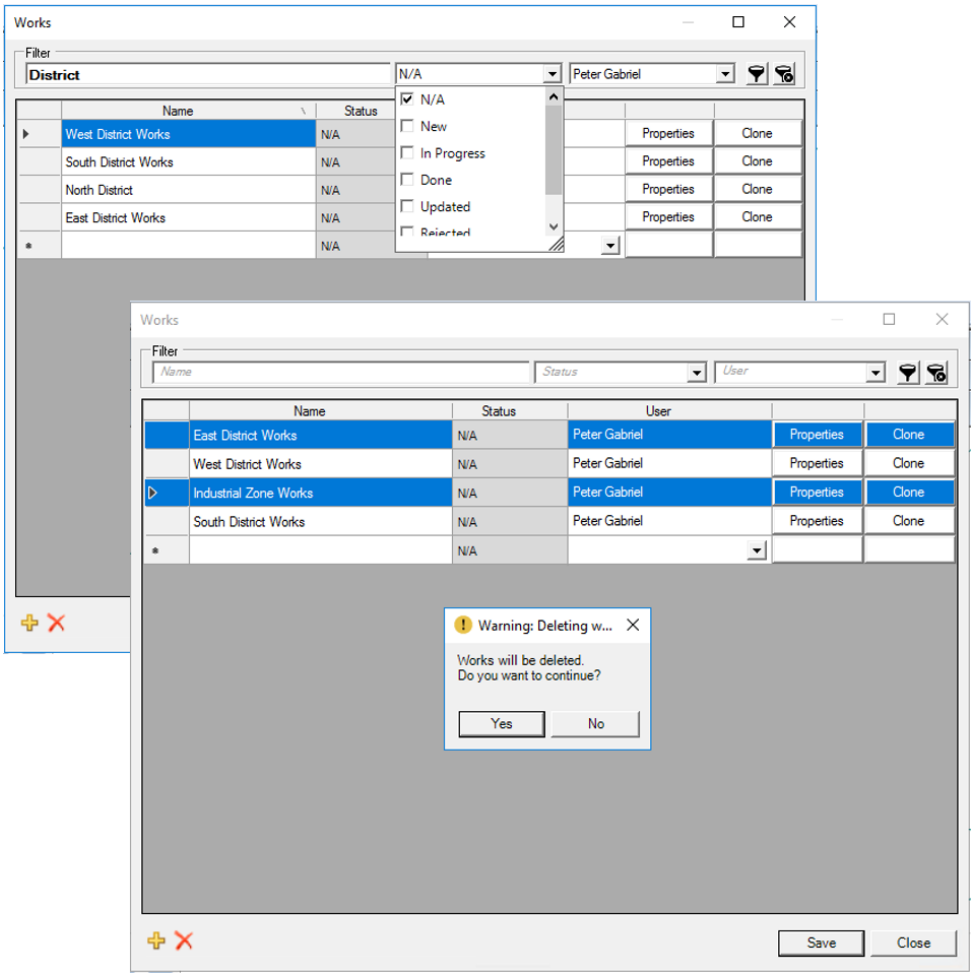
The **Map Contents** tab contains all the (well-known) controls necessary to prepare the configuration, which is closely related to the GeoMedia Desktop map window on which the configuration is built. It includes base maps, zones, a list of features and their attributes available to users, and more setting options (e.g., searchable).



Improvements have also been made to the **Works** dialog. The new **Filter** panel in the Works list can be used to categorize and sort Works by Work name (or its part), Work status, or User assigned. Moreover, now you can:

- Select multiple items in the grid (all, selected, one, none) by using the Shift or Ctrl key.
- Add new Work to the list and open its properties dialog with one (button) click.
- Remove Users and Works in bulk.

Protection against the accidental deletion of a User or Work has been introduced, so the operation must always be confirmed.

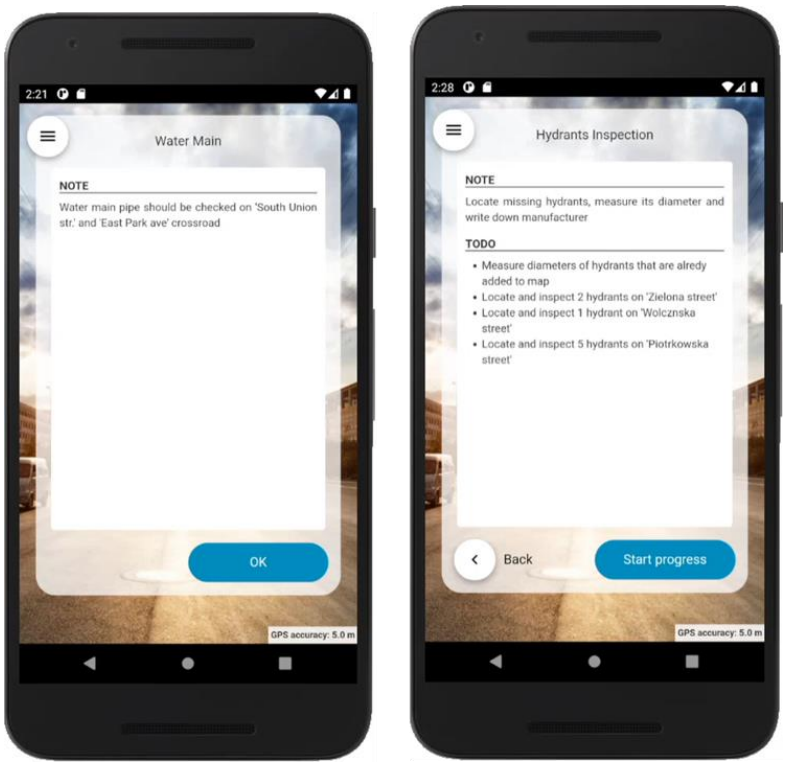


Instructions Note for Work (with Markdown) in GeoMedia WebMap Mobile

The administrator can write a short description of the Work and prepare the task list to be displayed in the app. The description and the to-do list are presented to the user when he starts the Work. The user, working with the mobile app, can view the description and checklist later at any time to simply make sure that his job is done as planned. This improves the communication between the fieldworker and dispatcher.

In GeoMedia WebMap Mobile Publisher, the new **Description** tab was introduced in the **New/Edit Work** dialog where the administrator can prepare the description and/or list of tasks. The description is saved with the Work definition and can be disabled/enabled for the user at any time by switching the **Description** option on/off. The description text can be formatted by using the syntax of simple, easy-to-use, and popular Markdown language.

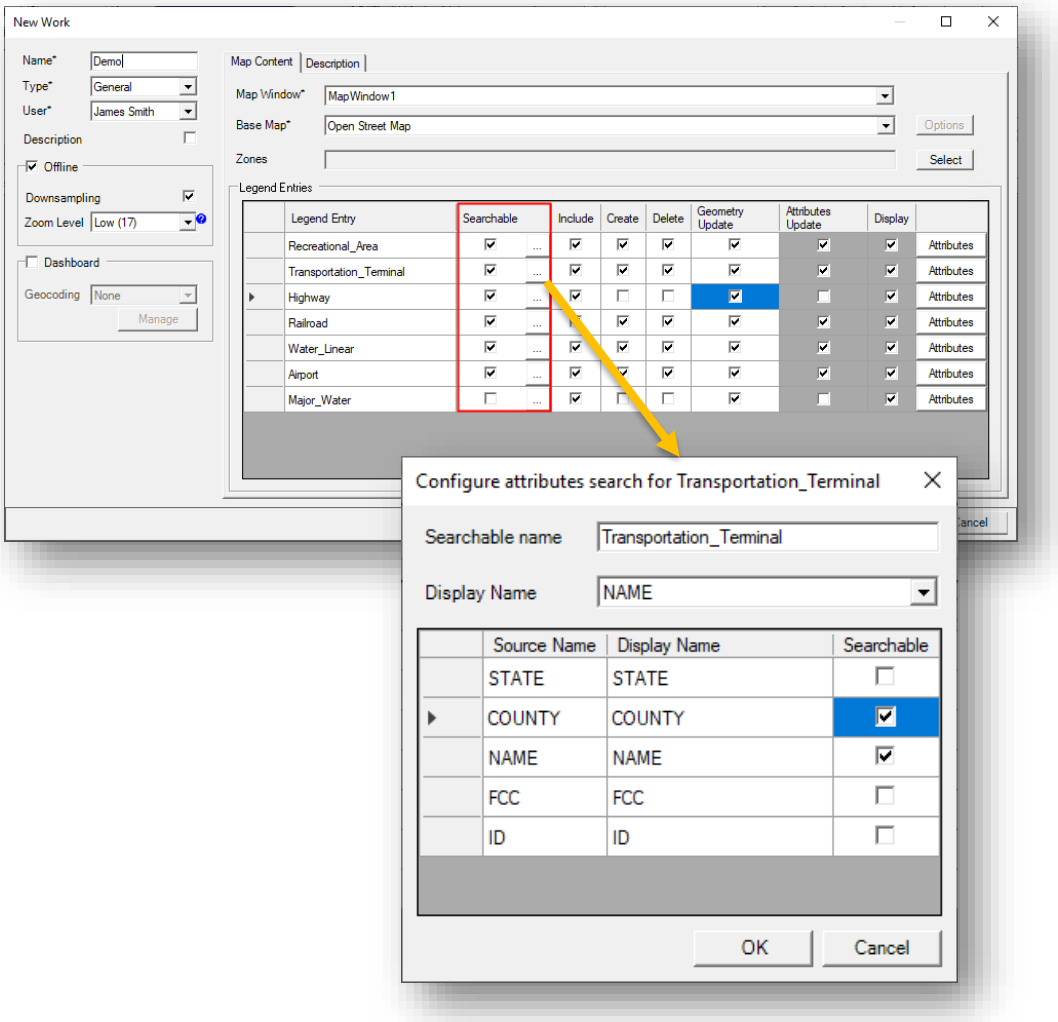
Now mobile app users will always know what to do in the field, even when the internet connection is lost.



Easy Configuration of Searchables

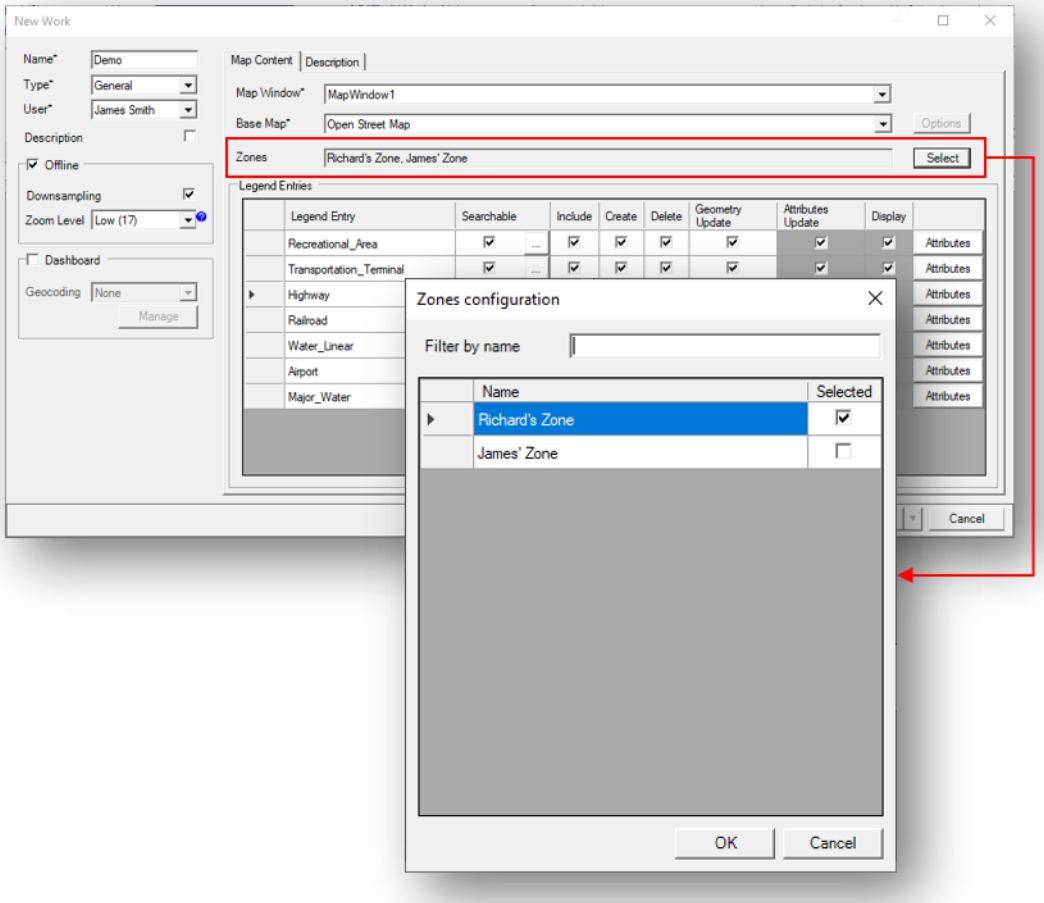
Users of the GeoMedia WebMap Mobile app can easily and quickly search for objects from defined data sources. The administrator decides and defines which feature class objects are searchable. Now the configuration process is quick and easy without the need for manual editing of the JSON file with complicated structure.

For each searchable feature class, it is possible to define search attributes and display the name (attribute) for the search results. The administrator simply selects the legend entries and attributes by using the checkboxes in the New/Edit Work dialog. Finally, the searchable configuration is validated on the fly when the work is being saved.



Easy Zones Application

Zones used in the current Work configuration are listed in the Zone field. Adding a zone to the Work definition is intuitive: all the administrator needs to do is to click the **Select** button and choose the zones from the list. It is possible to sort zones in ascending and descending order and filter zones by name or part of the name to find the required zone quickly. If no zone is defined in the database, the message to the user is displayed in the Zones field. This little enhancement in the **New/Edit Work** dialog of Mobile Publisher makes it easier to find and select the zone while preparing the configuration.



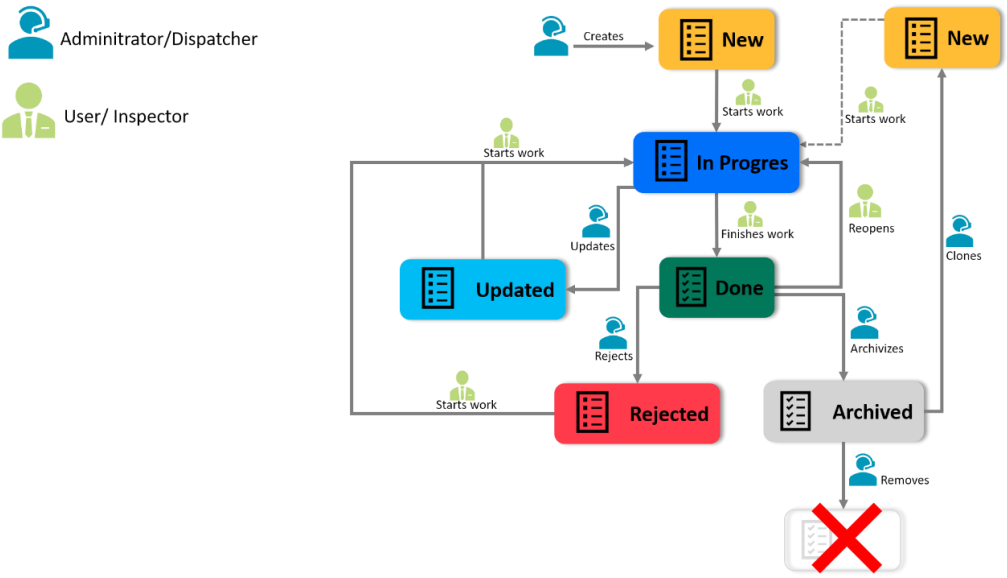
Tasks and Works Lifecycle Monitoring

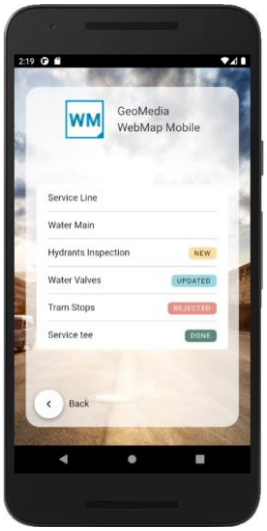
Especially for customers working with mobile technologies from Hexagon, we addressed a new feature – **Work statuses**. Work statuses is a feature of GeoMedia WebMap Mobile that helps trace the Work progress. By tracking the statuses, the administrator easily receives information about which Works have not been started yet, which are completed and archived, and which have been updated or rejected.

The new filter panel above the Works list in Mobile Publisher allows filtering the tasks as needed. Administrators can filter the items by name, assigned user, or by status. The filter criteria can be freely combined (e.g., it is possible to display finished tasks assigned to a particular user and containing a part of the Work name). This function, especially in the case of large organizations with many field inspectors and a big amount of fieldwork, will make it easier to find a specific Work and then manage and monitor the Work progress.

Work statuses are also displayed in the mobile app so the field inspector can see the status of Work assigned to him. The preview of the status of Work defined in the system is displayed in the **Works** window, in the **Status** column. Each change of Work status made by the inspector or the administrator (e.g., when the administrator rejects the Work due to detected issues) is immediately reflected in the app so the inspector can react faster and more efficiently.

The Work lifecycle:




GeoMedia
WebMap Mobile
Service Line
Water Main
Hydrants Inspection
NEW
Water Valves
UPDATED
Tram Stops
REJECTED
Service tee
DONE
Back

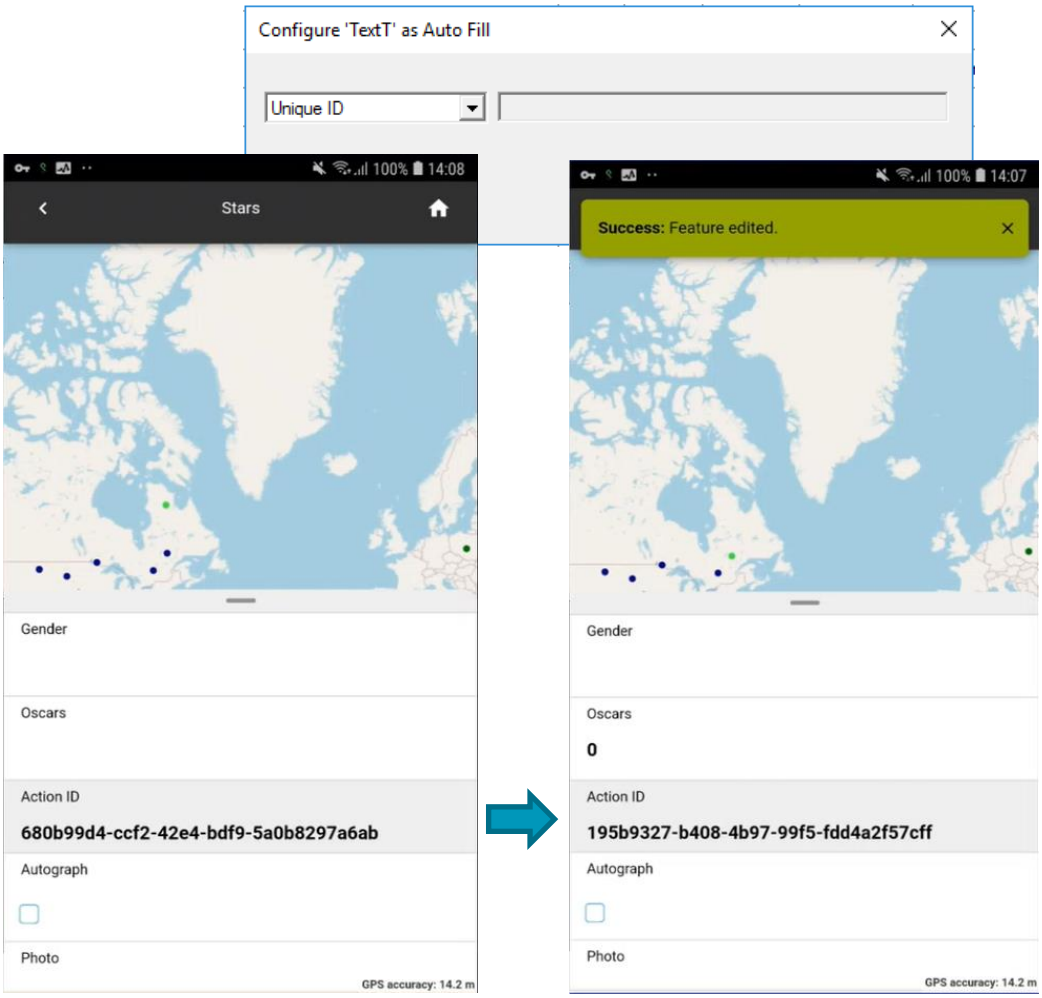
Snapping in Mobile App

To accelerate the productivity and quality of GIS data acquired with the mobile app, snapping (when editing objects geometry) has been implemented. The snapping feature in the GeoMedia WebMap Mobile app allows you to edit the feature geometries that connect to other features quicker and with more precision and accuracy. Now it is much easier to position a geometry in relation to the other features. Snapping significantly reduces the risk of making mistakes such as overlapping polygons, spaces between polygons, and overlapping lines, making edits quicker.

Snapping works with all types of geometries supported by the mobile app and is active while editing existing features and adding new ones. The vertex of the edited geometry can be snapped to vertices of other geometry and to any point, line, or boundary of area features. The snapping feature is enabled by default but can be turned off by users if needed.

Generate ID for Related Features

By using the **Autofill** feature, it is possible to generate a unique identifier (GUID) for a feature. The unique identifier is generated and inserted into the feature attribute automatically after creating and editing a feature. The unique identifier changes with every feature change (e.g., when some attribute values are updated). This smart feature can be helpful to analyze data and actions made by users and easily track relations between features. It works in both configuration modes, online and offline.

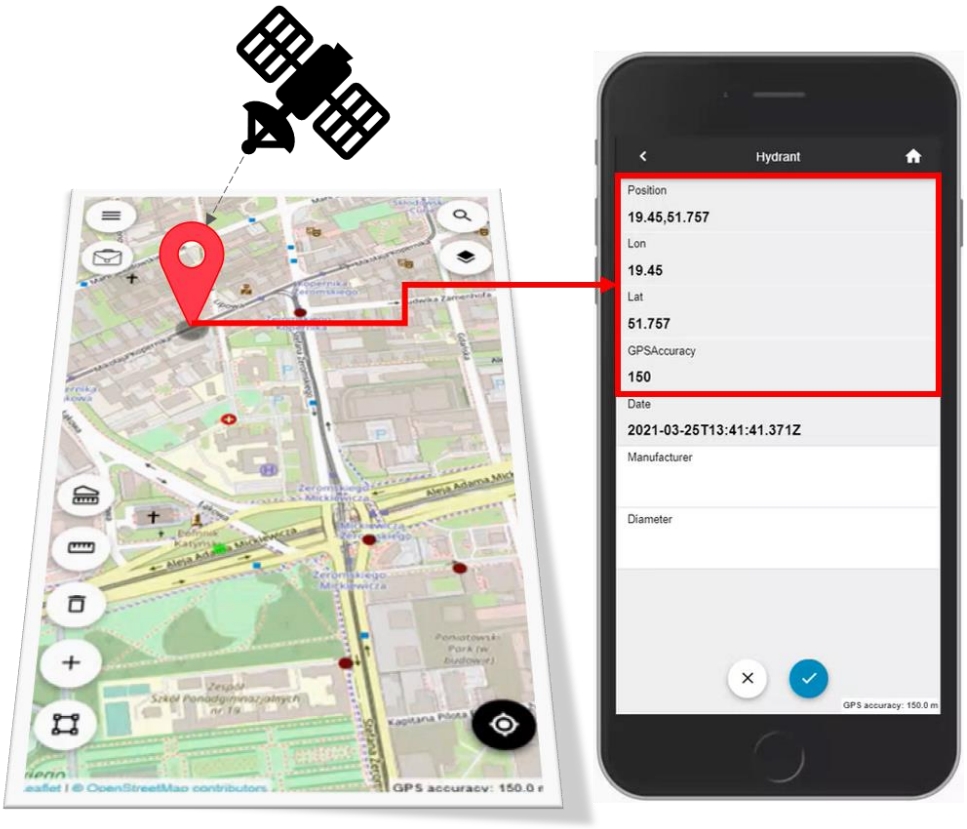


GPS Data Storage in the Added Features

The **Autofill** feature has been extended with the possibility of getting and storing the current GPS data in the attribute of an added or edited object. You can get and store:

- Current GPS location
- Current GPS accuracy
- Current longitude and latitude.

The device's GPS data is stored in Text and Double type attributes. Attribute values are filled automatically when an object is added. Editing an object makes the attribute values update automatically. This autofill feature improvement for 2022 allows automatic collection of feature location so data administrators and managers can monitor and control feature localization.

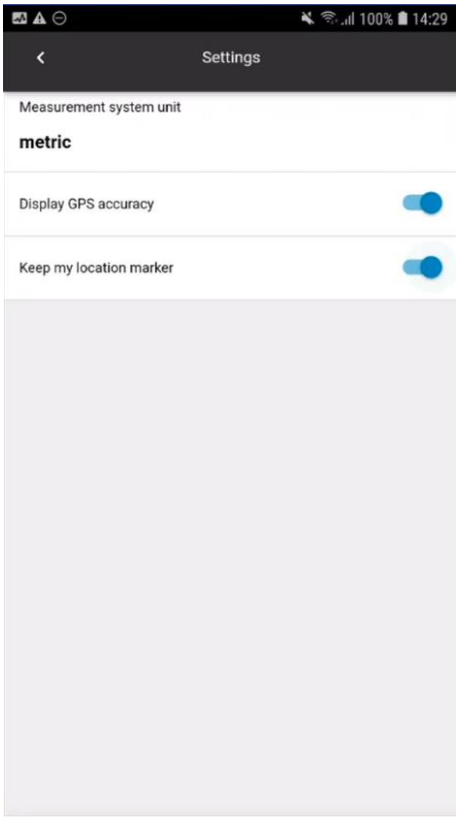


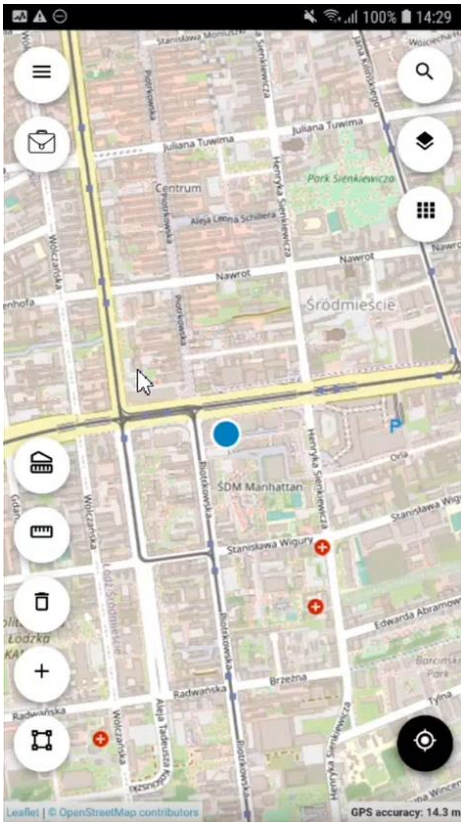
Enhanced Display of GPS Location

The **Locate Me** button (when touched) in the Mobile app acquires and shows the user location. The location marker is displayed on the map temporarily as the default behavior. Starting with the 2022 release, every mobile app user can make the location marker always display. Additionally, the current map scale and zoom level are preserved when the user clicks **Locate Me**.

Changing the behavior for the displayed location marker is simple — just go to the GeoMedia WebMap Mobile app settings screen and toggle the new **Keep my location marker** option.

The location marker follows the user's device localization when the tracking mode is enabled.



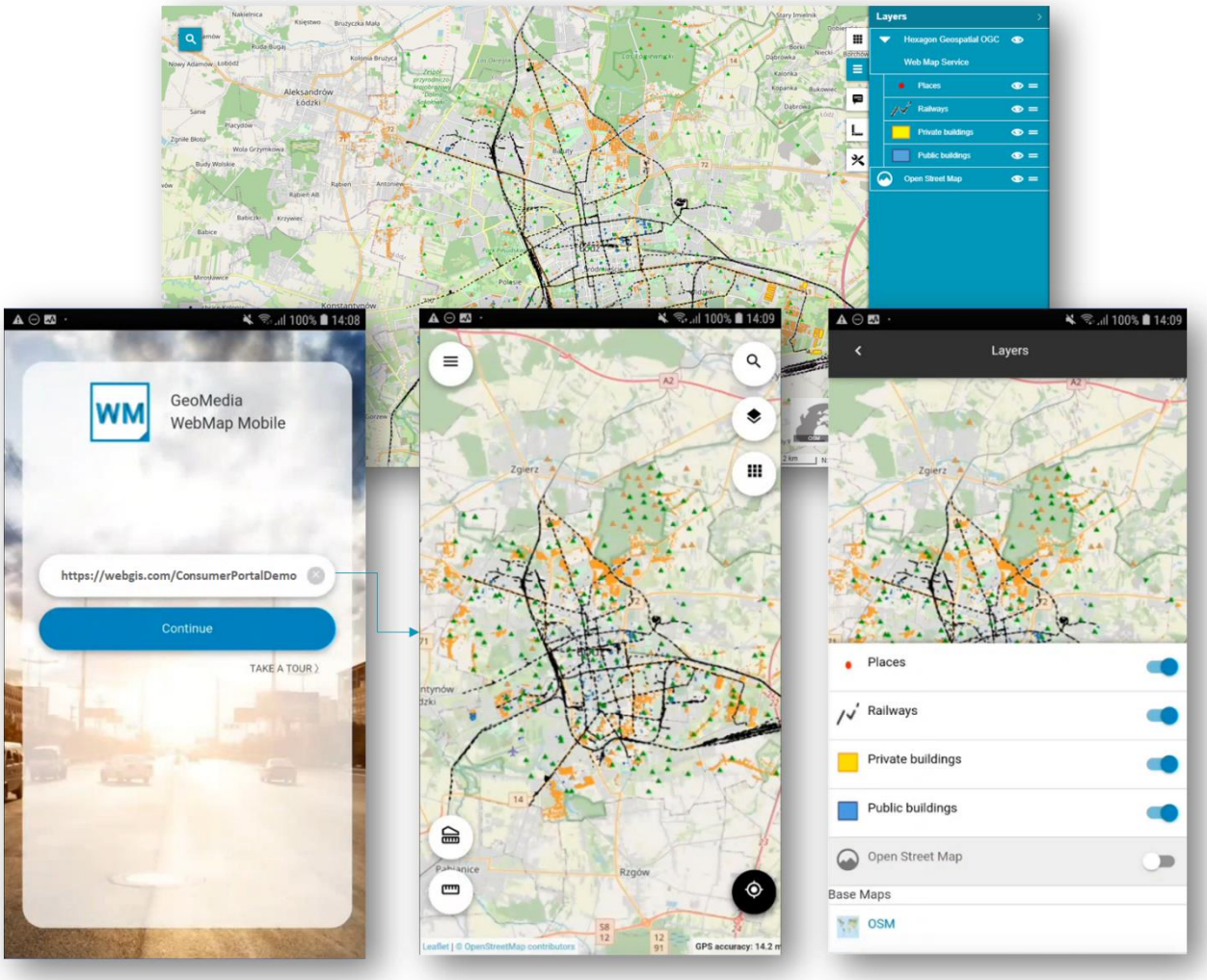


Localized GeoMedia WebMap Mobile app

The WebGIS family of products are multilingual, with options for a variety of languages out of the box. Continuing to enhance its rich set of languages, the new GeoMedia WebMap Mobile app, which is an integral part of GeoMedia WebMap, is also localized. The GeoMedia WebMap Mobile app was translated to be available in Arabic, Catalan, Chinese, Czech, French, Hindi, Polish, Portuguese, Romanian, and Spanish. The GeoMedia WebMap Mobile app detects the default language on the user's mobile device and starts automatically in this language if available. Otherwise, it is run in English. With this feature of the Mobile app, you can reach more customers and users around the world and easily adapt the product to various languages and cultures.

GeoMedia WebMap Mobile App as Consumer Portal Client

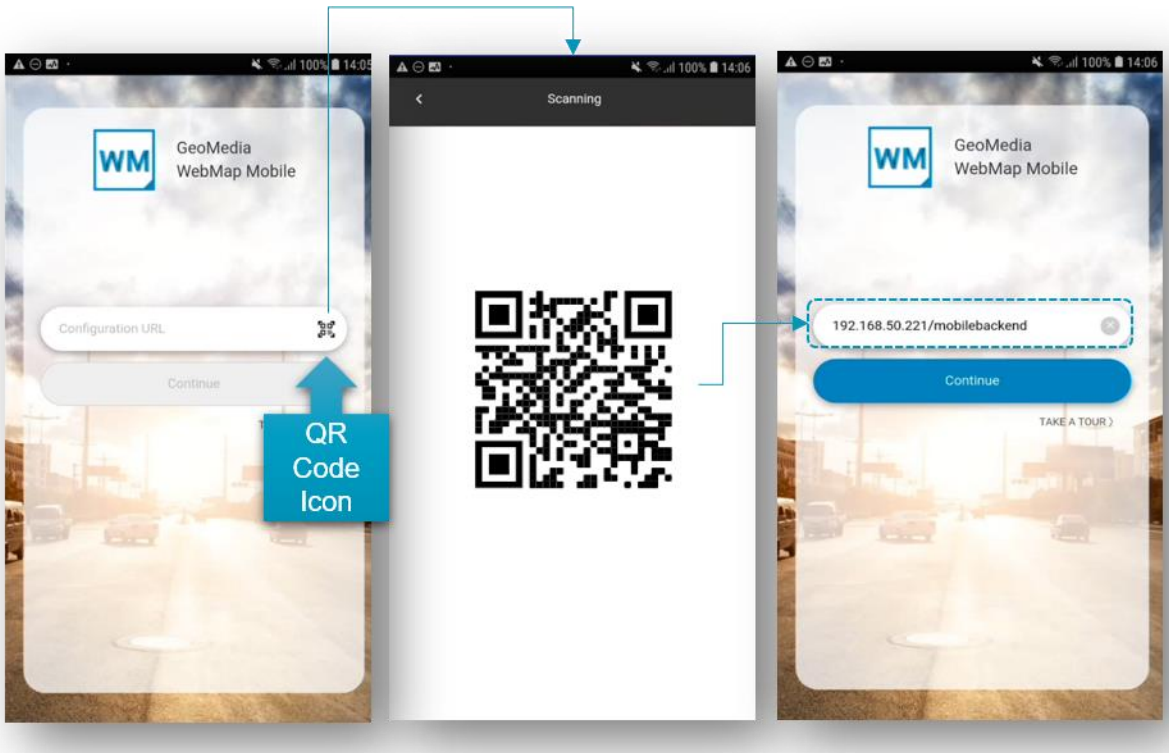
The GeoMedia WebMap Mobile application can act as a client for Consumer Portal layout. It means that users can connect to Consumer Portal instances in the field with ease and use a GeoMedia Mobile app to consume Consumer Portal GIS data. This approach makes access to your GIS data easier and faster than running the Consumer Portal in a standard web browser on a mobile device. It is important to mention that no additional step or configuration is required to run the Consumer Portal in the app. All the user needs to do is provide the Consumer URL in the Configuration field or scan a QR code.



Quick Configuration Access with QR Code Scanning

To run the GeoMedia WebMap Mobile app, the user must provide the configuration URL. In some situations, especially when working in the field, it can be more convenient for the user to scan a QR code with the configuration address instead of typing it directly into the app control. Typing, particularly a long configuration address, is prone to errors; therefore, to speed up and facilitate the loading of configurations in the mobile app, the possibility to scan QR codes with encoded configuration URLs was introduced.

Tapping the QR code icon opens the default camera app. Once the user scans the QR code, the proper configuration URL appears in the address field. Mobile users have the freedom to choose entering the address manually or using a QR code scanner.

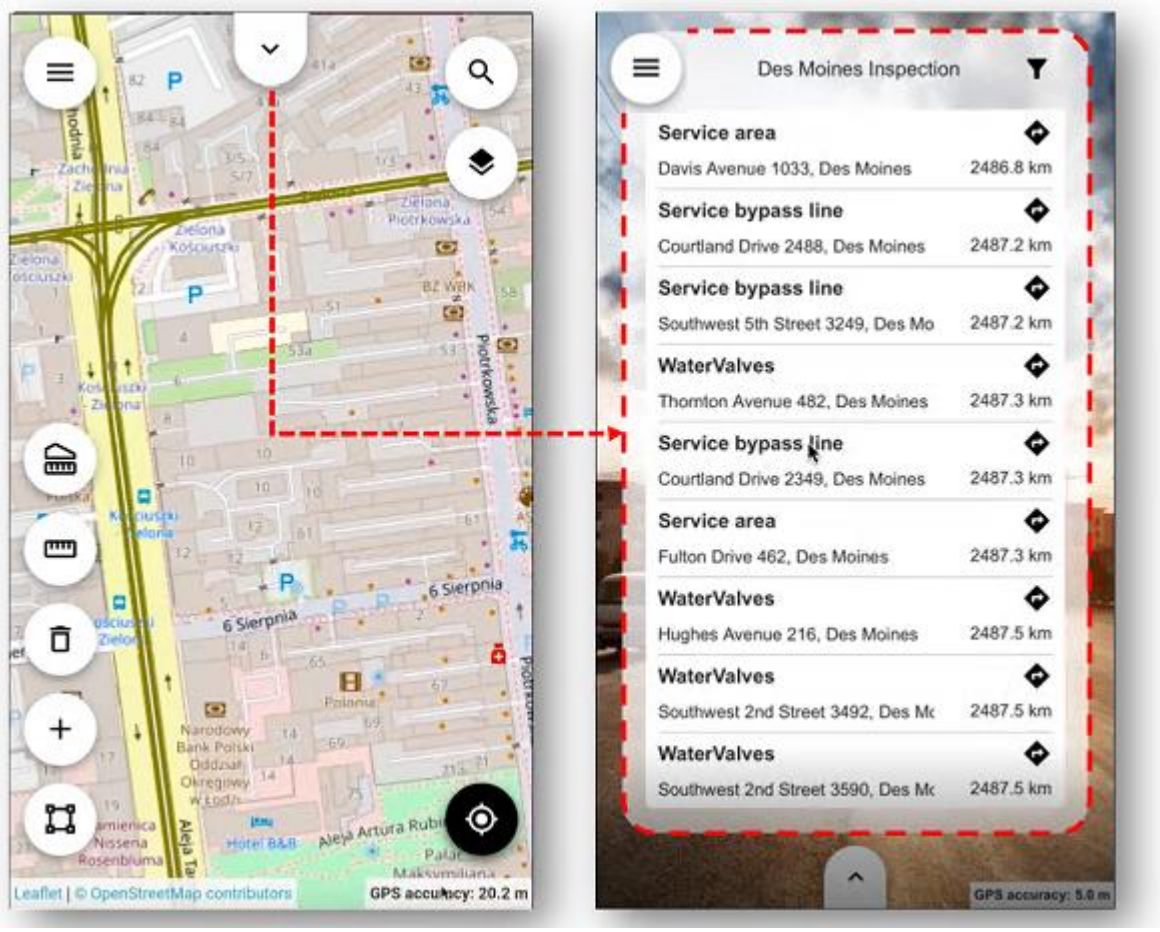


Dashboard View

A completely new feature is the Dashboard view in the mobile application. The Dashboard allows displaying a list of objects for inspection that are available within mobile configuration. This feature helps locate the objects to be inspected. The Dashboard is retractable and easy to use and can be accessed at any time.

Within the objects listed in the Dashboard, the object type (e.g., tram stop, water meter) and the distance from the user's current location are provided. The distance displayed is updated on the fly when user moves in the field. The distance is displayed in units of actual settings (metric/imperial). Optionally, when configured by an administrator, the object addresses can be shown.

Moreover, the Dashboard allows users to plan a route to the selected object with one click. For each object, there is a button that launches the default navigation application on user's mobile device, which maps the route to the selected feature.

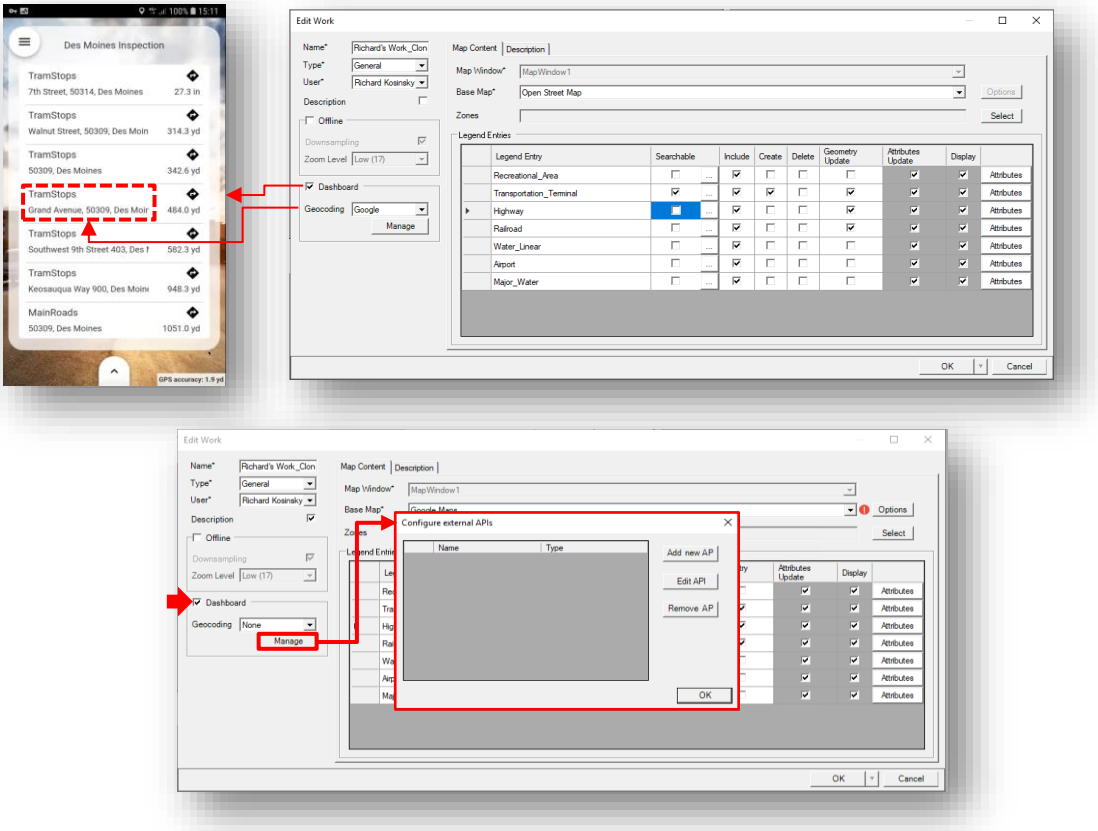


Users can filter the objects displayed on the panel. Available filtering options are based on feature class name. By using general filtering options, you can display either all features (which is the default setting), none, or editable only. The toggle buttons for each feature class change accordingly to an applied filter setting. You can individually adjust the filter using the toggle button for each feature class instead of using the general filter buttons.

The new Dashboard feature can be enabled or disabled by an administrator. This operation can be performed with one click in the GeoMedia WebMap Publisher.

Geocoding Configuration for the Dashboard Feature

Along with the Dashboard, GeoMedia WebMap offers the possibility for the administrator to define geocoding addresses that are displayed in the mobile app Dashboard. The Mobile Publisher console has been expanded with new controls that allow administrators to define an external API for address geocoding. Defined APIs are used by WebMap to display addresses on the Dashboard if such a function has been defined. Currently, you can define OpenCage and Google services, but with subsequent updates, more geocoders may be introduced in the future.

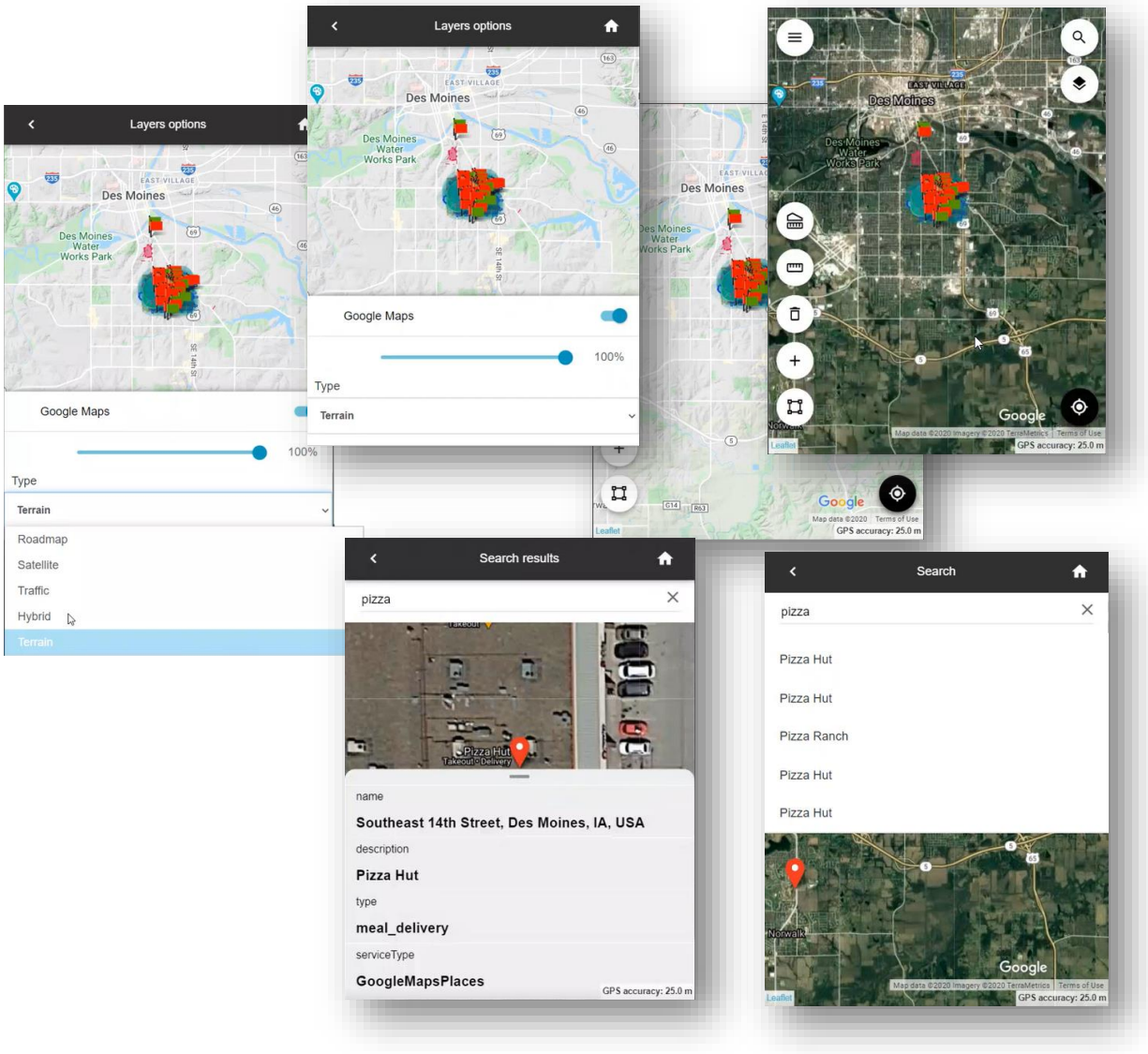


Integration with Google Services

A nice new feature in GeoMedia WebMap Mobile is the integration with Google services. Google Maps layers can be displayed in the Mobile application. Users can turn the Google Maps layer off and on, change the layer transparency, and choose a type of Google Maps. All this can be done in the app by using standard layer control.

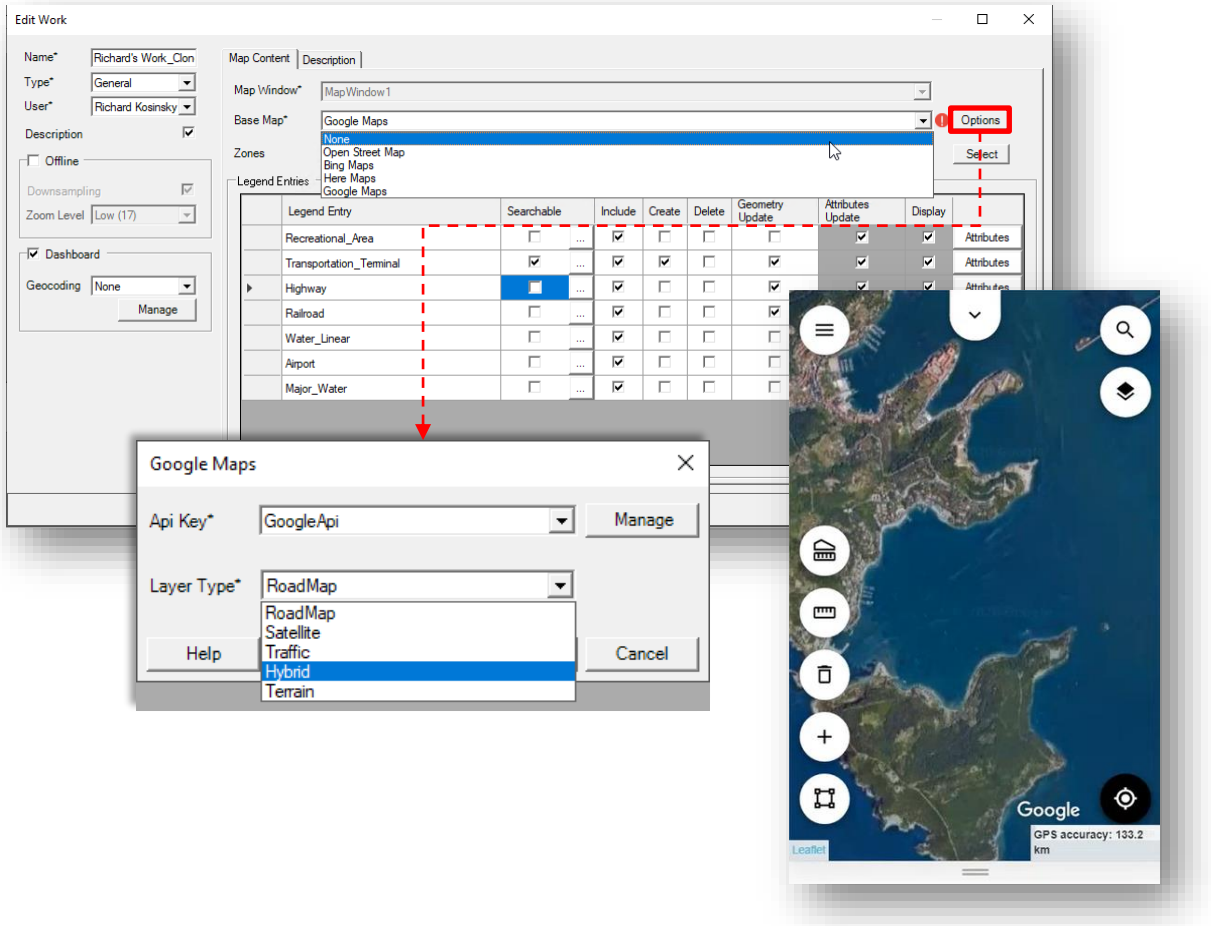
The integration also includes object search functionality. Using Google Search within GeoMedia WebMap Mobile is available. The search results in the GeoMedia WebMap Mobile app are the same as in the native Google Maps app. Pins show the search result, and Feature details can be displayed in the GeoMedia WebMap Mobile Feature Info dialog.

Google search results can be displayed only if the Google Maps layer is enabled.



Google Base Map for GeoMedia WebMap Mobile

As mentioned above, Google services have been integrated with GeoMedia WebMap Mobile. It also means that Google Maps layers can be configured as a base map for a GeoMedia WebMap Mobile application. The base map pull-down list in Mobile Publisher has been extended with a Google Maps entry. All additional settings (e.g., API Key or Google layer type) that the administrator will set for Google Maps are available after pressing the **Options** button.



Enhanced GeoPackage Creation – Zoom Level and Quality for Raster

When an offline configuration uses data from WMS service(s), the WMS tiles are generated and stored in the raster database on the mobile device.

Until now, if the map tile source was WMS service, the generated maximum zoom was limited to 16 levels. Tiles for the lower levels were always generated automatically by downsampling the highest one (16 zoom level). This could result in a poor-quality displayed map on the screen of a phone or tablet. To enhance the quality of raster (base) maps and improve the user experience working offline, the new method of preparing the map tiles was implemented.

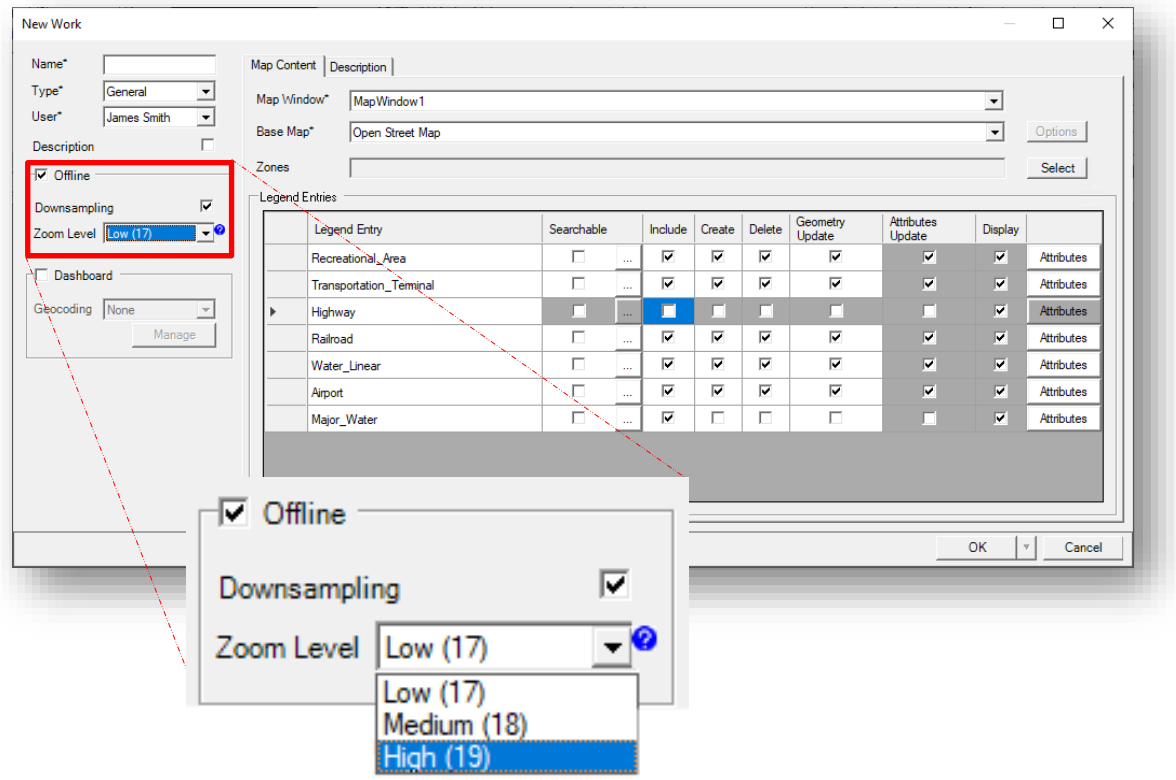
When preparing offline configuration for mobile app users, an administrator can control the accuracy levels for WMS tiles to be generated for offline jobs and can choose the method of generating tiles at lower zoom levels.

To ensure the highest quality of the raster tiles for offline mode at all zoom levels (and to generate all tiles straight from the WMS service), uncheck the new **Use downsampling** option.

The maximum zoom level can be set to:

- 17 levels (low accuracy)
- 18 levels (medium accuracy)
- 19 levels (high accuracy)

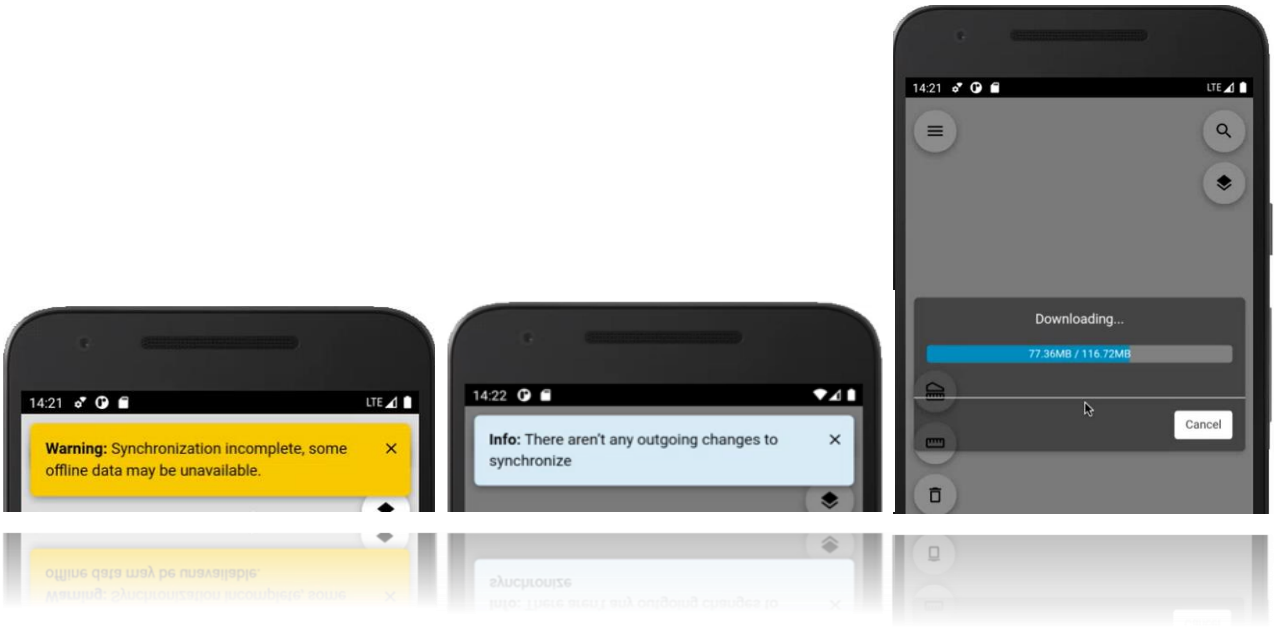
The selection of max zoom level is made with the use of a new dedicated drop-down list available in the Edit Work dialog. The WMS tiles will be generated starting from the selected level and with the method and precision determined by the **Use downsampling** control.



Better Control of the Offline Data Synchronization Process for Users of the Mobile App.

Users of the GeoMedia WebMap Mobile app working offline will see the progress bar when downloading and uploading their offline data. Users can terminate the sync operation with the new **Cancel** button.

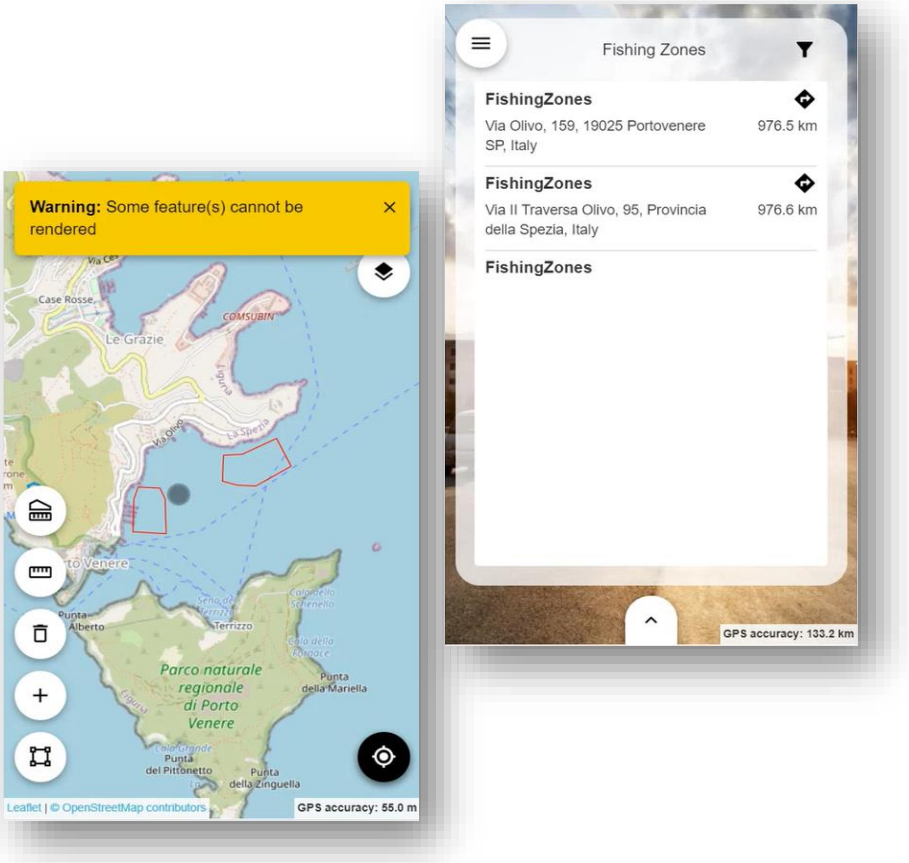
A new set of user-friendly messages was introduced for better control and full view of the GeoPackage database creation process and data synchronization.

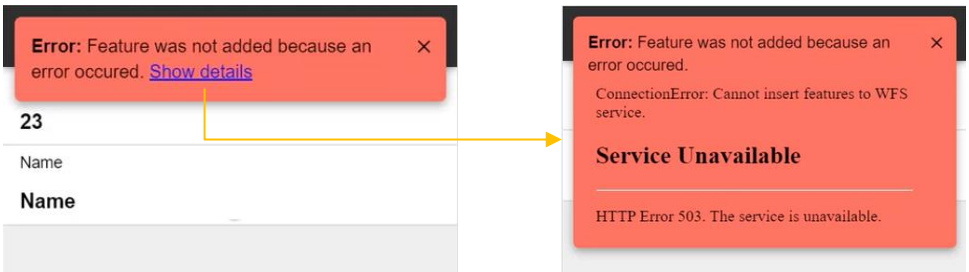


Geometry Limitation Notification for Users

If a given type of geometry (e.g., an arc) is not supported and cannot be rendered, the app will inform the user. A message appears when there are problems adding new objects (e.g., due to temporary unavailability of the service). The **Show details** link provides more information about the error that occurred.

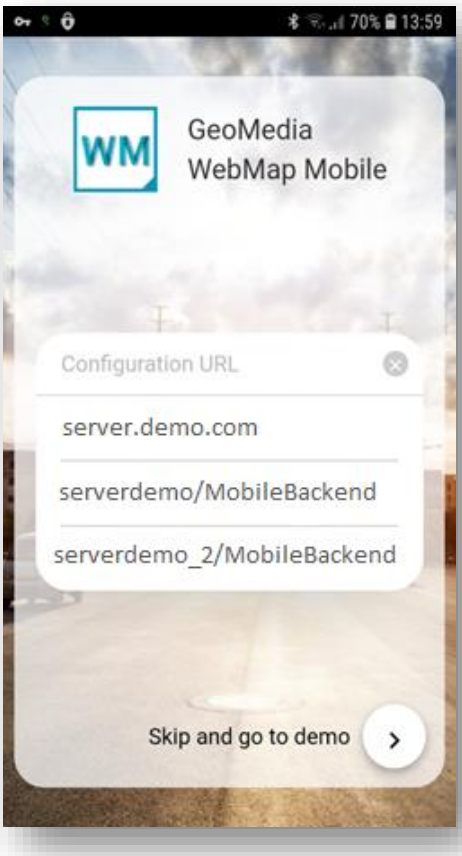
The address for an object that cannot be rendered is not displayed in the Dashboard, distance is not calculated, and the navigation button is hidden. The Feature Info is also not available for features not displayed.





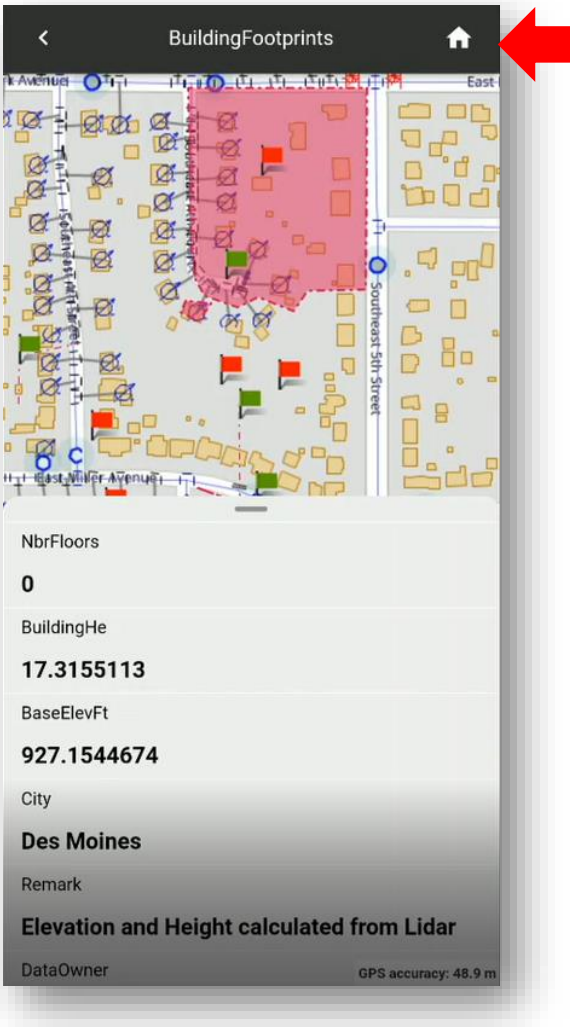
Address History for GeoMedia WebMap Mobile Start Screen

After starting the mobile application, it is required to provide a configuration URL. Users working with several configurations and switching between them need to enter the link to each one. All valid configuration URLs provided are saved in the history. The next time the user would like to change configurations, they can choose a saved URL from the list in the address history, making the configuration launch simpler and faster.



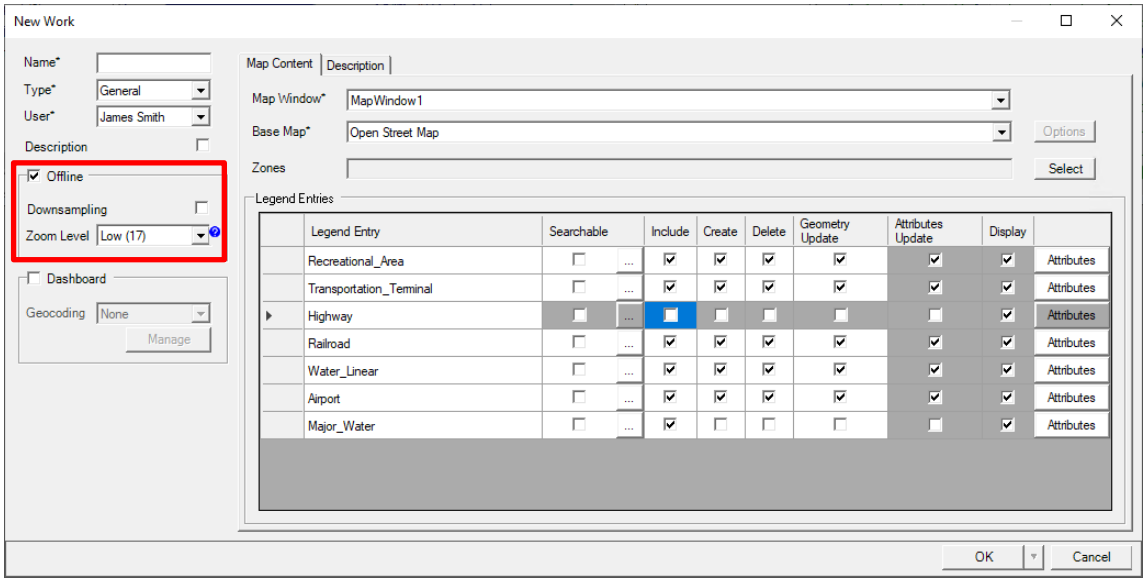
Display Feature Class Name in Feature Info Header of GeoMedia WebMap Mobile.

Enhancements for the Mobile app include the possibility to see the selected feature class name in the **Feature Info** header. This may be especially useful when the user swipes the **Feature Info** screen for several objects currently being selected.

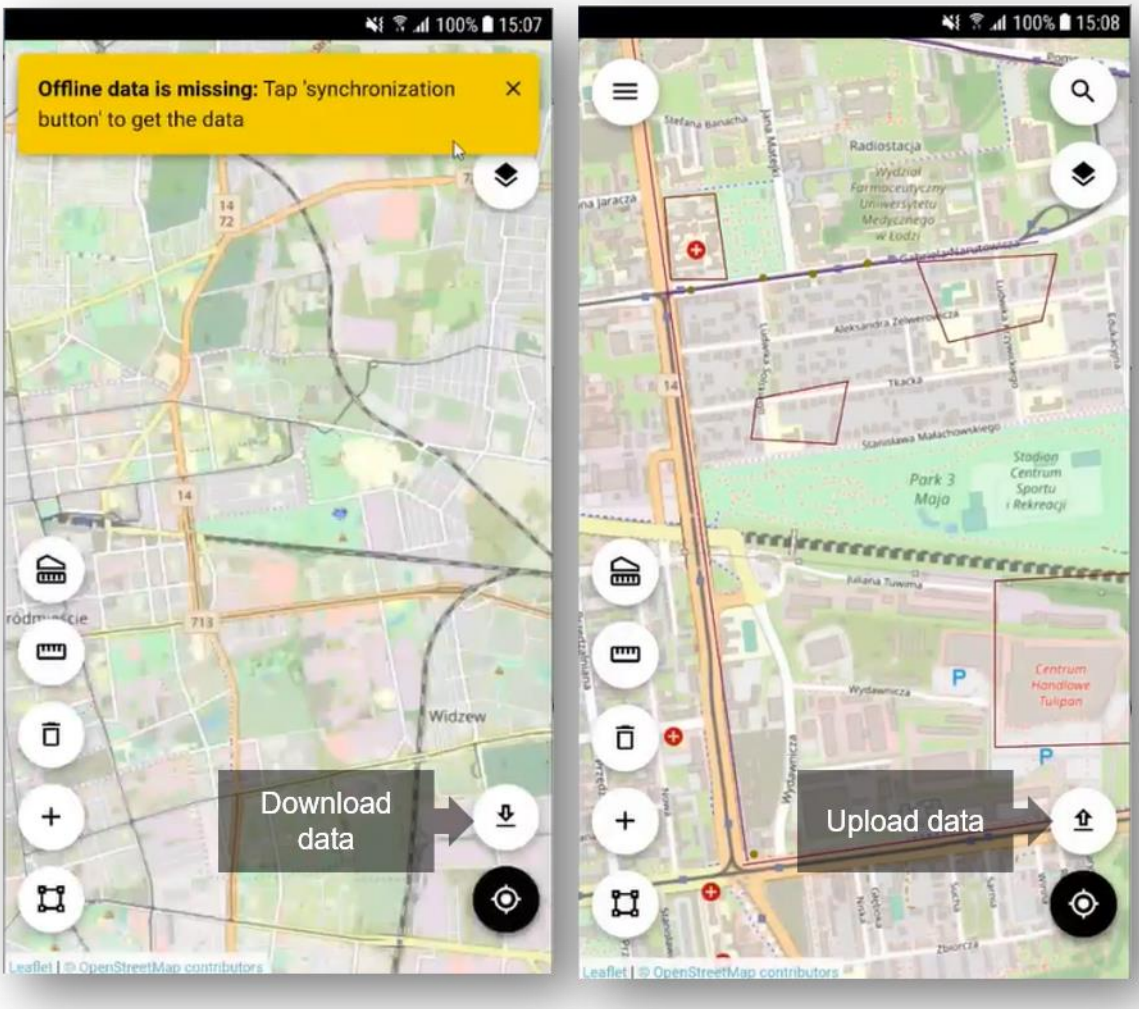


Enhanced Offline Mode

With release 2022, preparing offline configuration is as simple as enabling the new **Offline** checkbox in the **Edit Work** dialog. The offline configuration is prepared automatically and does not require any additional configuration. If enabled, Works can be used in offline mode. There is no need to copy the Geopackage database to the mobile device and then copy it back to the server anymore. With the enhanced offline mode, you download the GPKG database that is dynamically generated on the server together with stored media files. Data in GPKG files comes from WFS and/or WMS services. You can work in offline mode when there is no internet connection. When the connection is back, you can upload your changes to the server (WFS-T transaction).

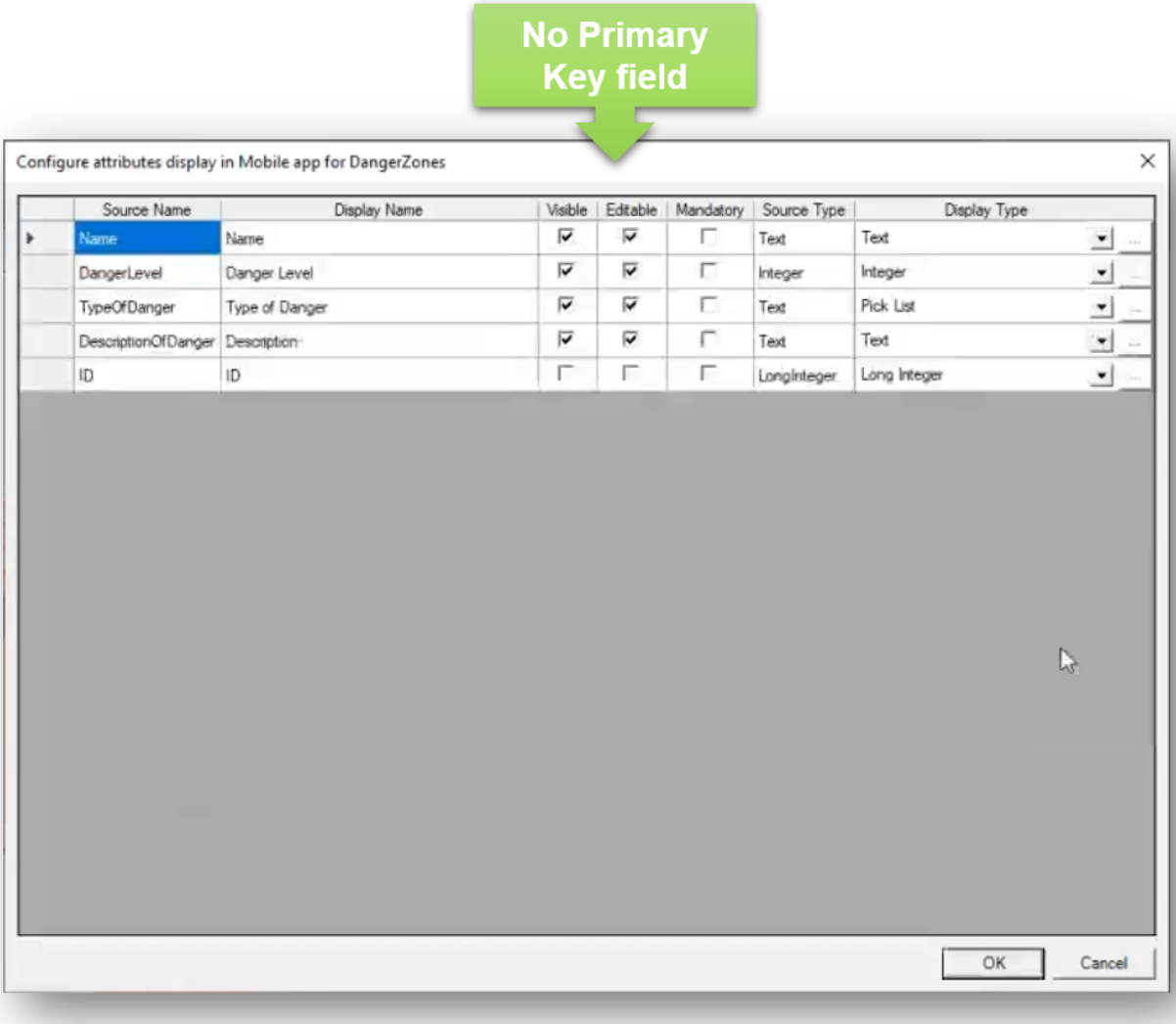


In the GeoMedia WebMap Mobile app, the synchronization button is used to download and upload data.



Auto-Configured Primary Key

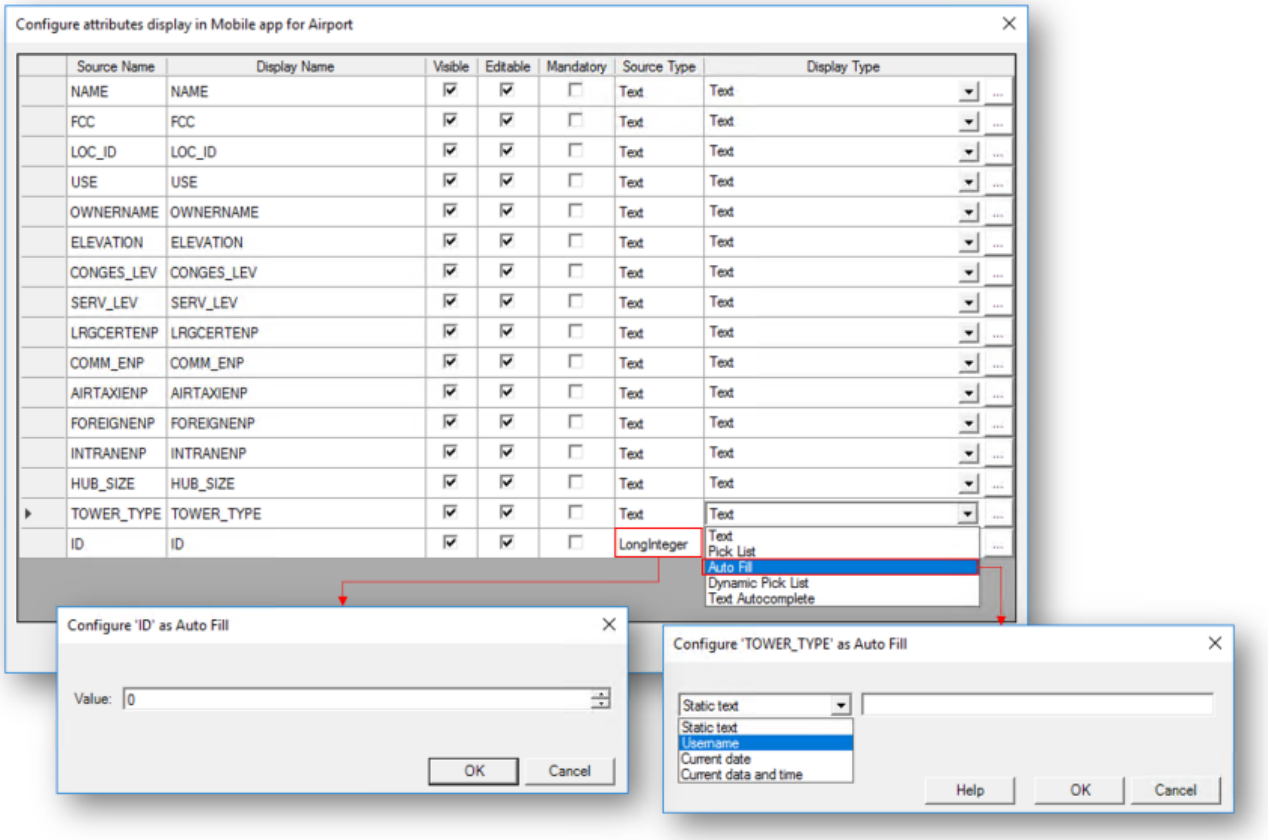
The primary key field is no longer available in the attributes view because the mobile application handles it on its own. Backward compatibility is maintained, so if you had a primary key defined in the previous configuration, it will be set in the app.



Auto-fill Values for Different Data Types

An administrator can provide a value for an attribute so inspectors in the field do not need to provide the value in the mobile app. In the GeoMedia WebMap Mobile application, attributes with an auto-fill option defined are displayed but cannot be edited by users. Auto-fill can be defined for the following attribute types:

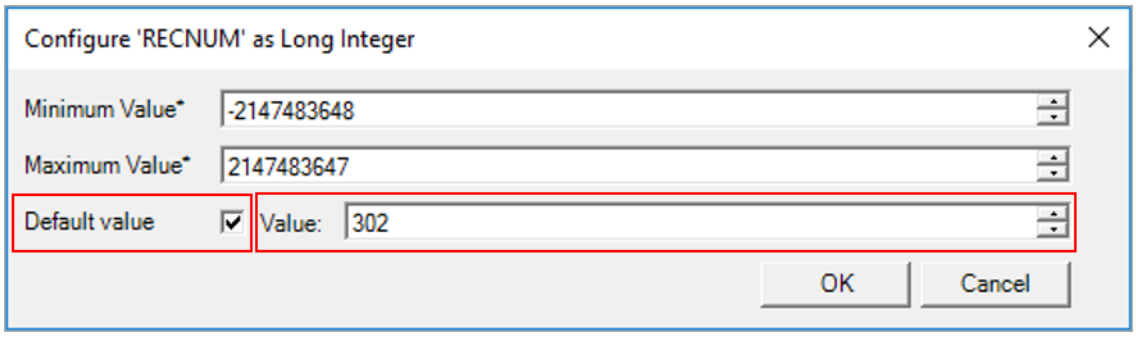
- Date
- Date-time
- Enumeration
- Number
- Text



Default Values

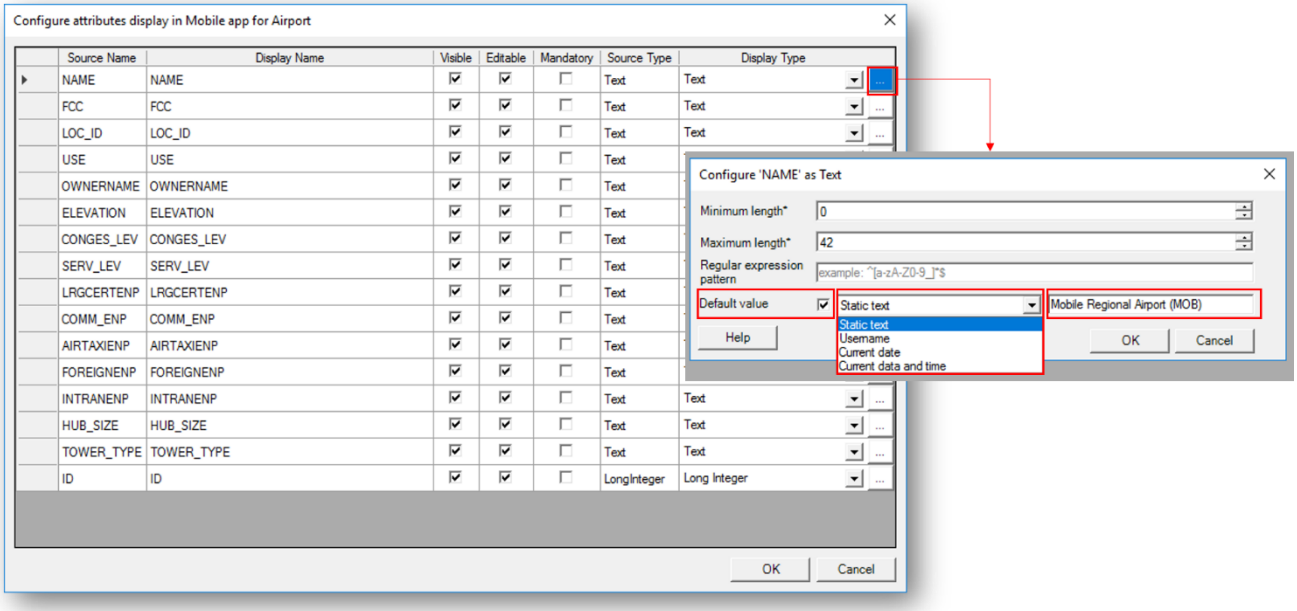
To boost fieldwork efficiency for GeoMedia WebMap Mobile app users, the ability to define default attribute values was implemented. The default value is used when there is a need to automatically fill a form's field when creating a feature. The defined default value will always appear to the user in the form but can always be changed.

For administrators, setting up the default value is as simple as enabling the **Default value** checkbox in the **Configure** window for chosen the attribute and providing the value.



For Text type attributes, the following default value types exist:

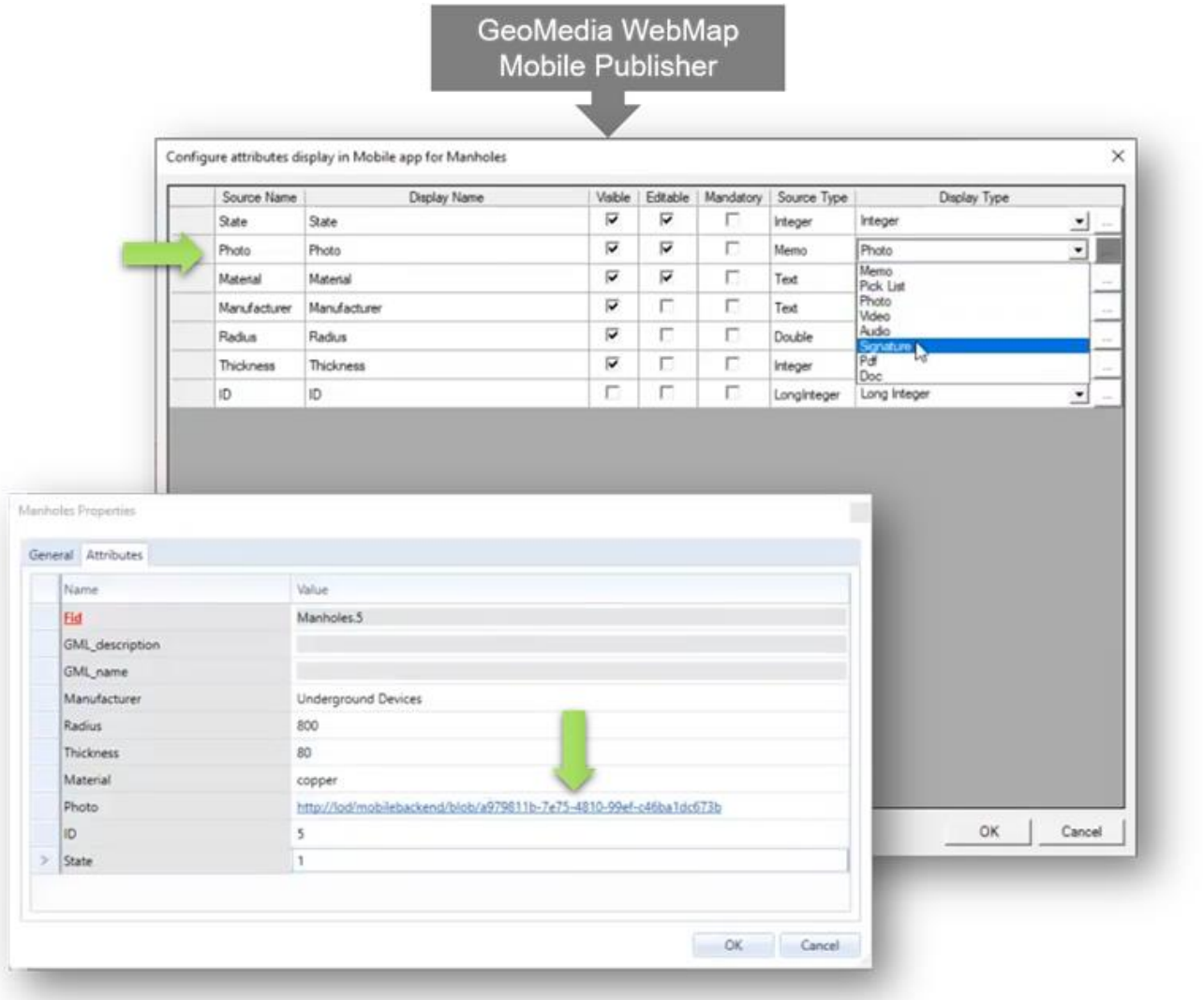
- **Static text** – the text value from the input text will be inserted in the field
- **Username** – the user's login will be inserted in the field
- **Current date** – the date of modification will be used
- **Current date and time** – the date and time of modification will be used



Enhanced Display of Media Files

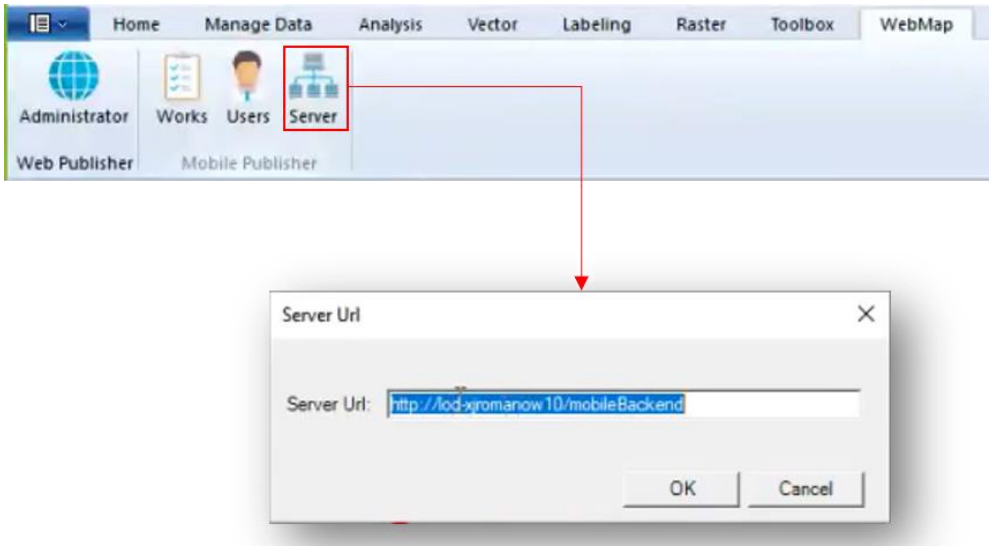
GeoMedia WebMap provides an enhanced display of media files. Media files such as photo, video, audio, signatures, and documents (pdf) gathered with the mobile app can easily be reviewed in GeoMedia Desktop. In Mobile Publisher, to configure the media files for a memo type attribute, just pick the media type from the list in the Display Type column.

The URL to the multimedia files is present as a media attribute in GeoMedia Desktop. Simply click the link to open the media. Please note that the Hyperlink option must be enabled for the WFS attribute.



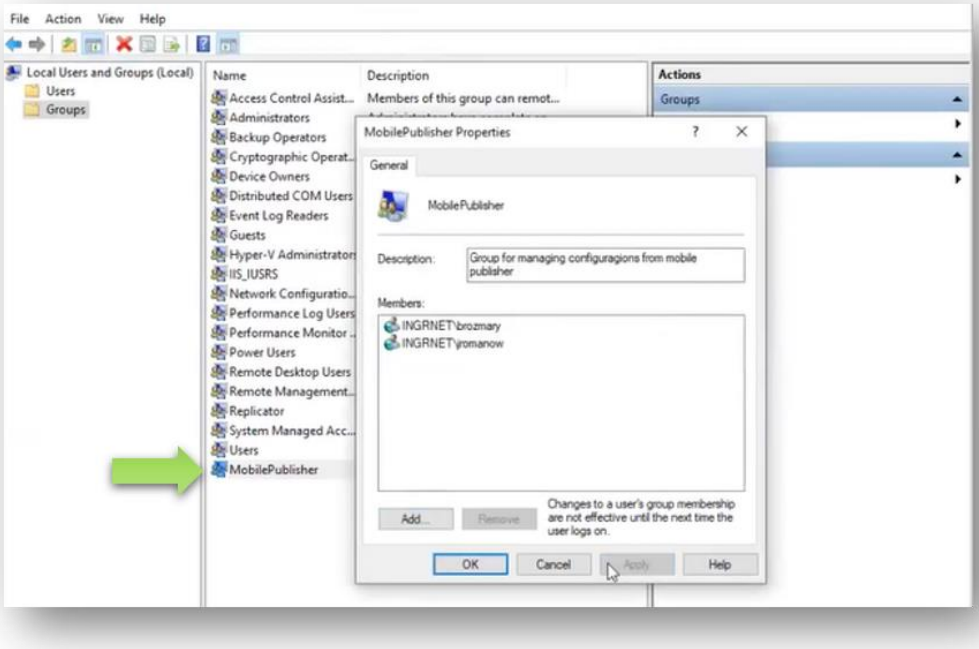
Remote Server Connection to the Mobile Backend

There is ability to connect to the mobile backend remotely. An administrator can set the URL to the mobile backend server with configurations. Synchronization with the configuration on the remote server is ensured. You can download the configuration from a connected remote server, and it will overwrite the local one.



All changes made in the configuration are saved on the provided remote server.

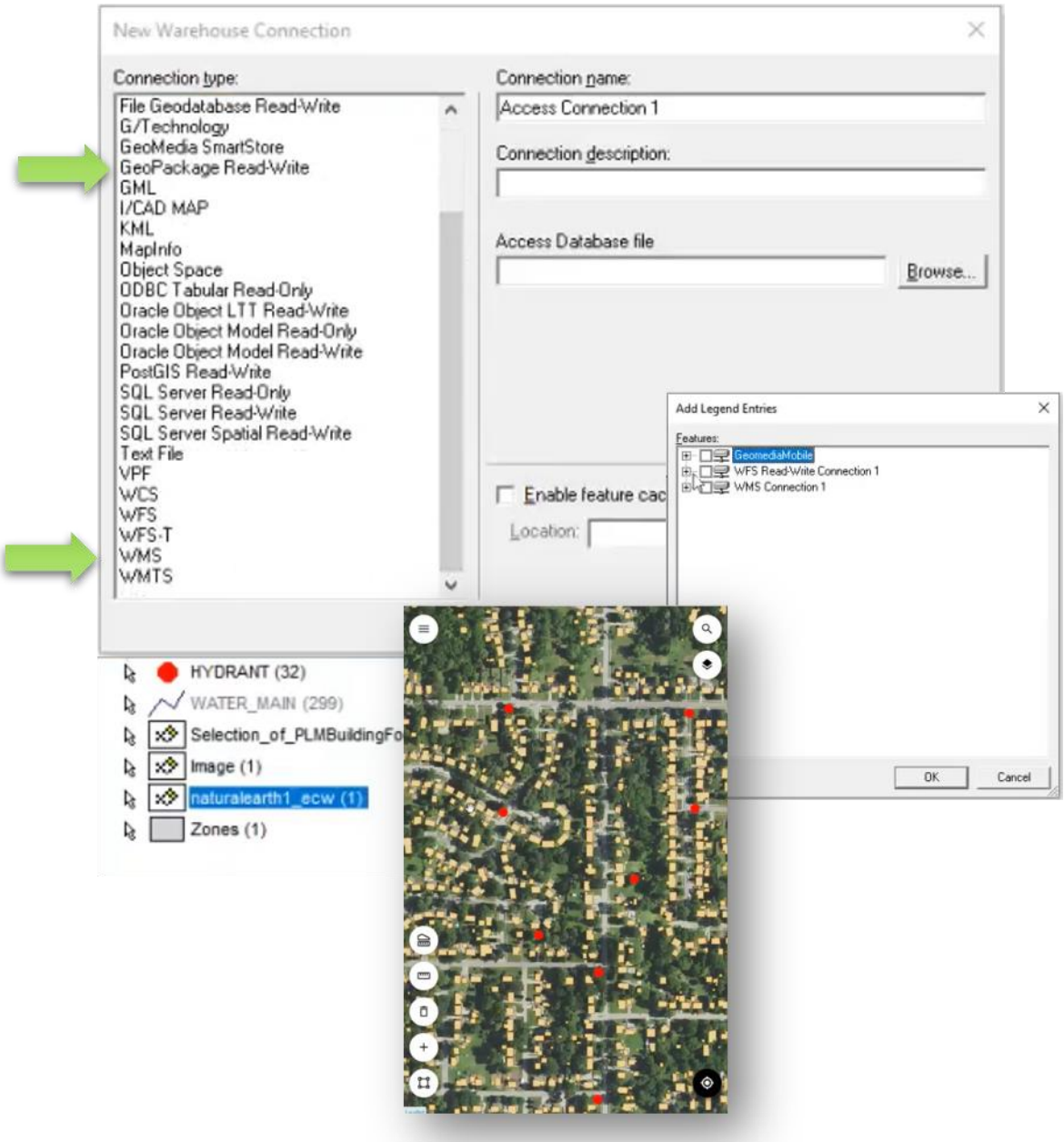
A Mobile Publisher server connection with Windows authentication is also available. For this purpose, Windows authentication must be enabled in the IIS settings on the mobile backend side. A notification appears when permissions are not sufficient. The Mobile Publisher group is used to control accounts that have permission to access the server.



An administrator assigns users to the group. There is no need to provide any additional information when a user is logged in and using a domain account.

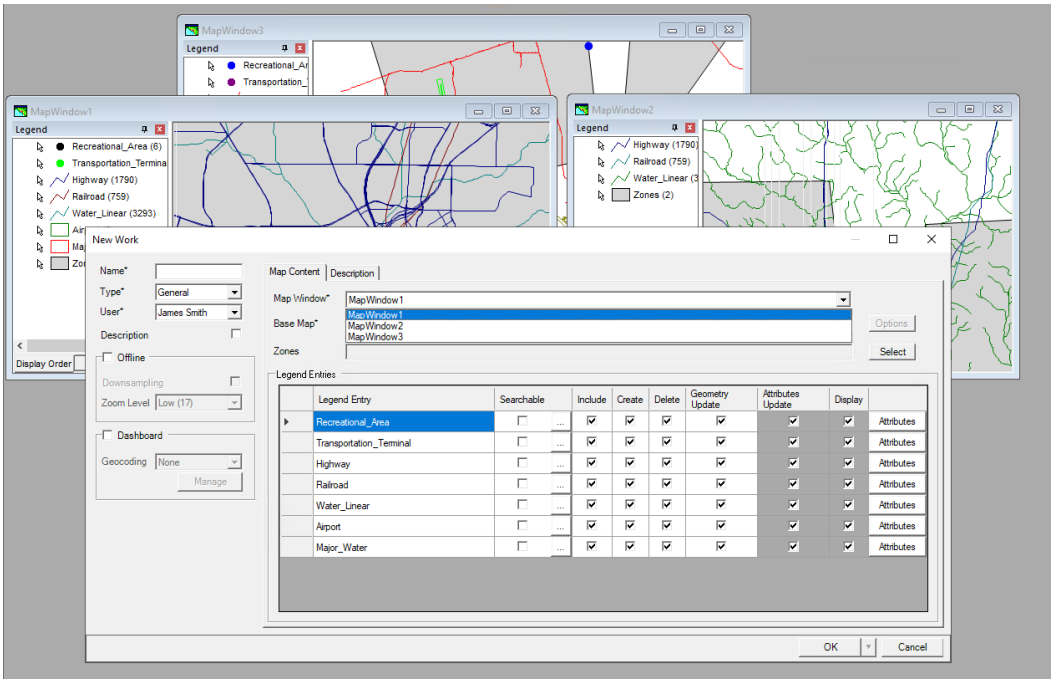
Enabled Multiple Connections (Handling Several Sources)

Now you can make configurations with legend entries from different connections. Supported data sources include not only WFS and Geopackage, but also WMS and WMTS. Configure legend entries from raster services (WMS and WMTS). Raster layers can be used instead of a base map. WMS and WMTS legend entries are read-only (there is no ability to create, delete, and update features in GeoMedia WebMap Mobile). Feature Info works with WMS layers.



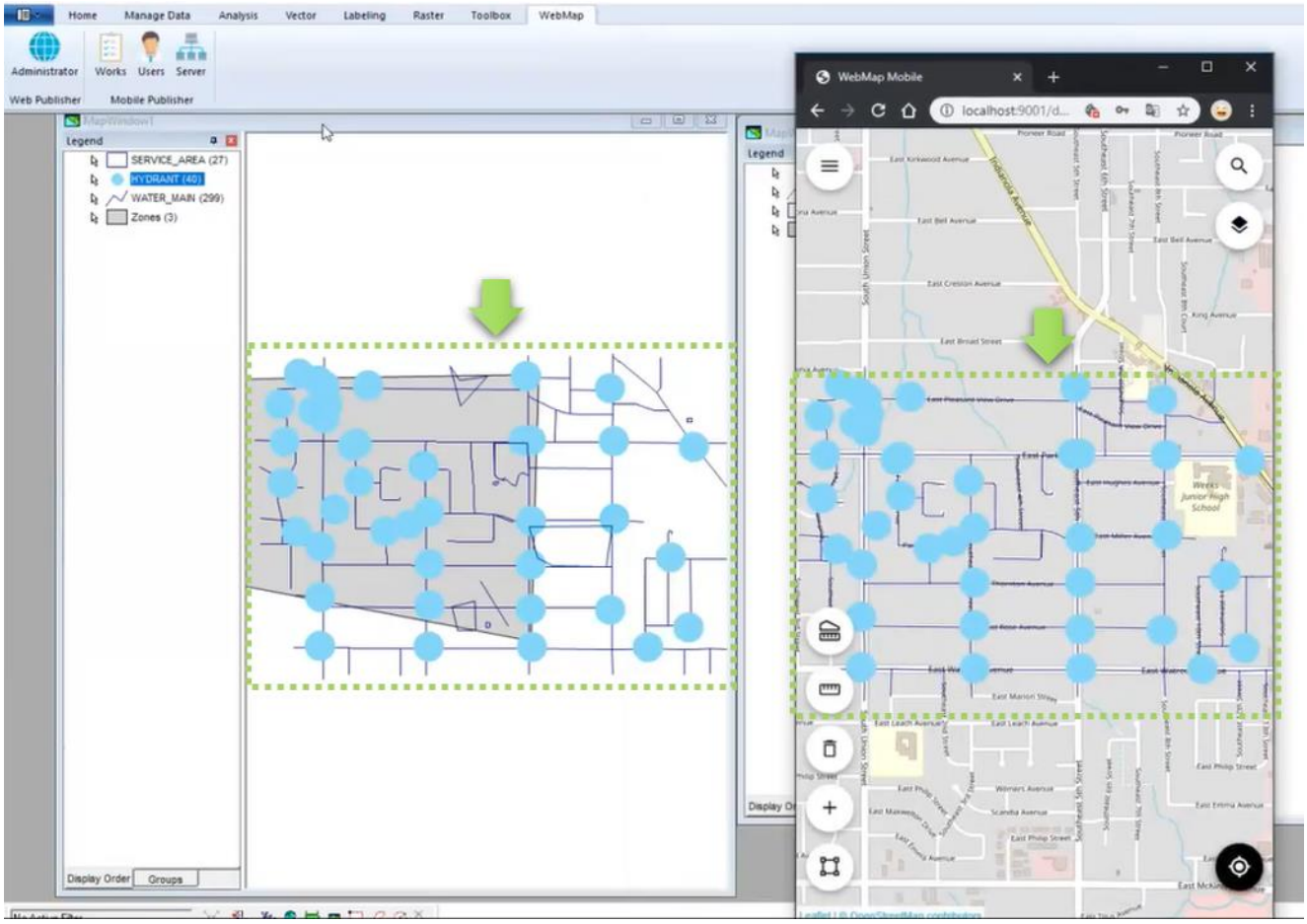
Handle Multiple Map Windows and Assign Works with a Map Window

The New Map Window combo box in the **New/Edit Work** properties dialog was introduced. It lists all open map windows in GeoMedia Desktop. When adding a new job, the default active map window is chosen. You can change the map window that will be used with the mobile configuration. The legend entries listed in Mobile Publisher will be refreshed based on the currently selected map window. The map window relates to the Work, so once the Work is created and saved, the map window cannot be changed.



Use Map Window Bounding Box (BBOX) as a Default

The same starting BBOX is set in the GeoMedia WebMap Mobile app as defined in the GeoMedia Desktop Map window for the corresponding configuration. Zones are superior, which means that if a zone is defined in the configuration, the map view will be adjusted to the zone area for the user.

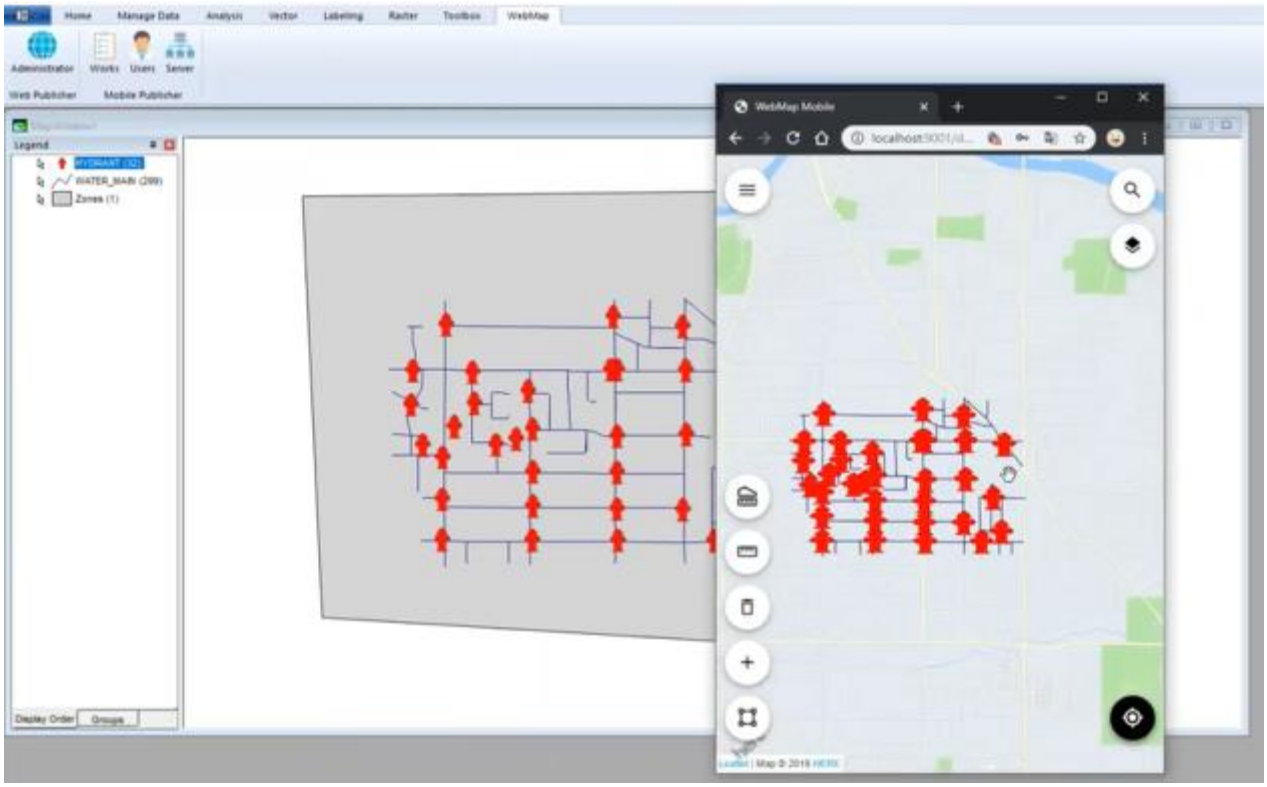


Quick Start Guides in Mobile Publisher

Key settings must be configured in the GeoWorkspace before defining Works. The quick start guide is a new feature that makes configuration even simpler. The user-friendly quick start guide will appear when the workspace has any needed setting unconfigured, such as the proper GeoWorkspace coordinate system set or registered data sources; when the active map window with legend entries is not present; or when at least one user account is not defined for GeoMedia WebMap Mobile. The quick start guide dialog will list the task(s) that need to be done. Short instructions on how to do it will be also provided. Simply do the steps listed in the quick start guide dialog before you start to define Works.

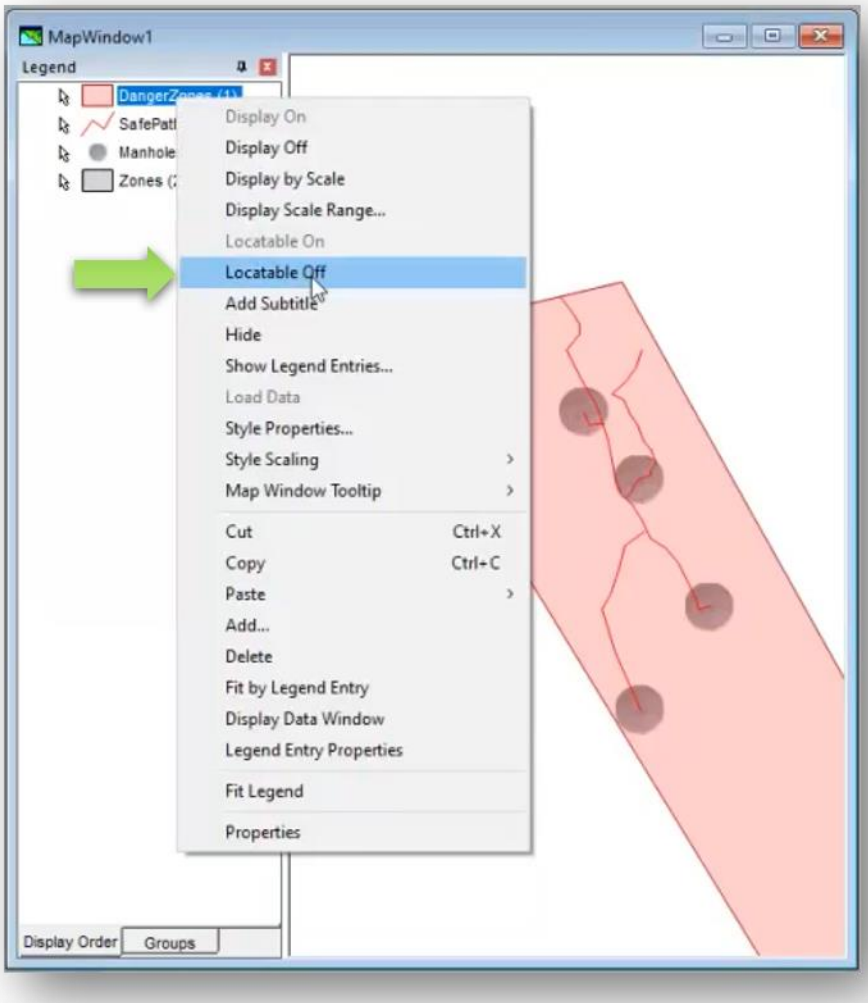
Picture Style Support for the Point Feature Class

Point feature class can have the picture style defined. The picture style for points can be used irrespective of configuration mode, online or offline. In addition, static and dynamic picture rotation is supported for both online and offline configuration modes.



Honoring WFS/WMS Legend Entries' Locatability in GeoMedia WebMap Mobile

The legend entry locatability setting in GeoMedia Desktop is directly mapped with the layer locatability in the GeoMedia WebMap Mobile application. Setting a given WFS feature class or WMS layer's Locatable option to Off will prevent the possibility of clicking on the same layer in the GeoMedia Mobile application. To change the legend entry locatability setting in the GeoMedia WebMap Mobile app, just set the **Locatable** option to the desired state (**On/Off**) in the GeoMedia legend and then overwrite the configuration in the GeoMedia WebMap Mobile Publisher.



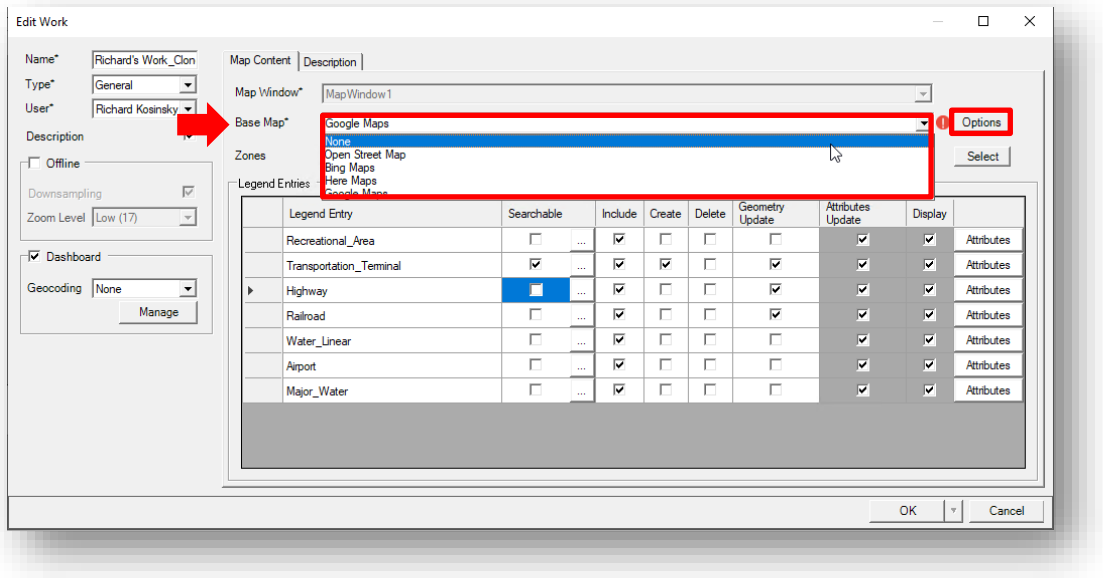
New Base Maps (Here Maps/Bing Maps/Google Maps)

A base map pull-down list (in **Edit Work** dialog) is now enabled for a Work. You can pick from several base maps:

- Open Street Map
- Bing Maps
- Here Maps
- Google Maps

You can also refrain from using any base map – just select “none” from the list.

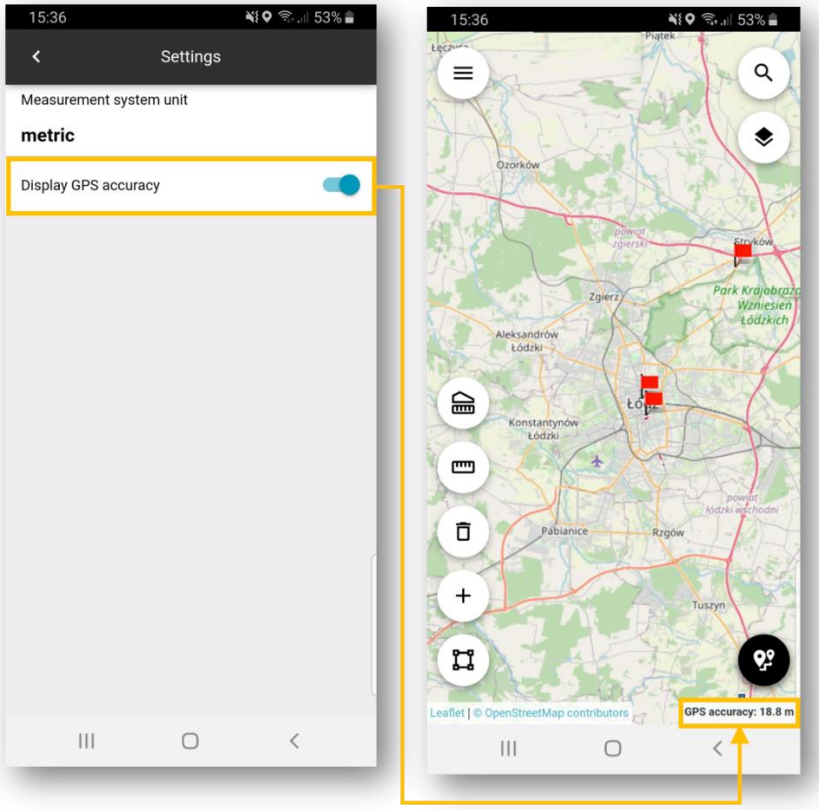
Click the **Options** button to define more options and provide information that is needed by the API.



Display of GPS Accuracy in GeoMedia WebMap Mobile App

A new feature in GeoMedia WebMap Mobile displays the most recent device request GPS accuracy value in the bottom right corner of the application screen, using the preferred system of units. Presented values are rounded to one decimal place, and units depend on GPS antenna strength. For example, the m/yd/ft will change into cm/in while obtaining signal from better equipment than a built-in cell phone GPS module. Displayed is the value from the most recent device request and updates depending on the location mode selected. This feature makes it possible to combine the software with Leica devices. GPS accuracy is also visible while editing and inserting new features.

The GPS accuracy view can be disabled globally in the app settings.



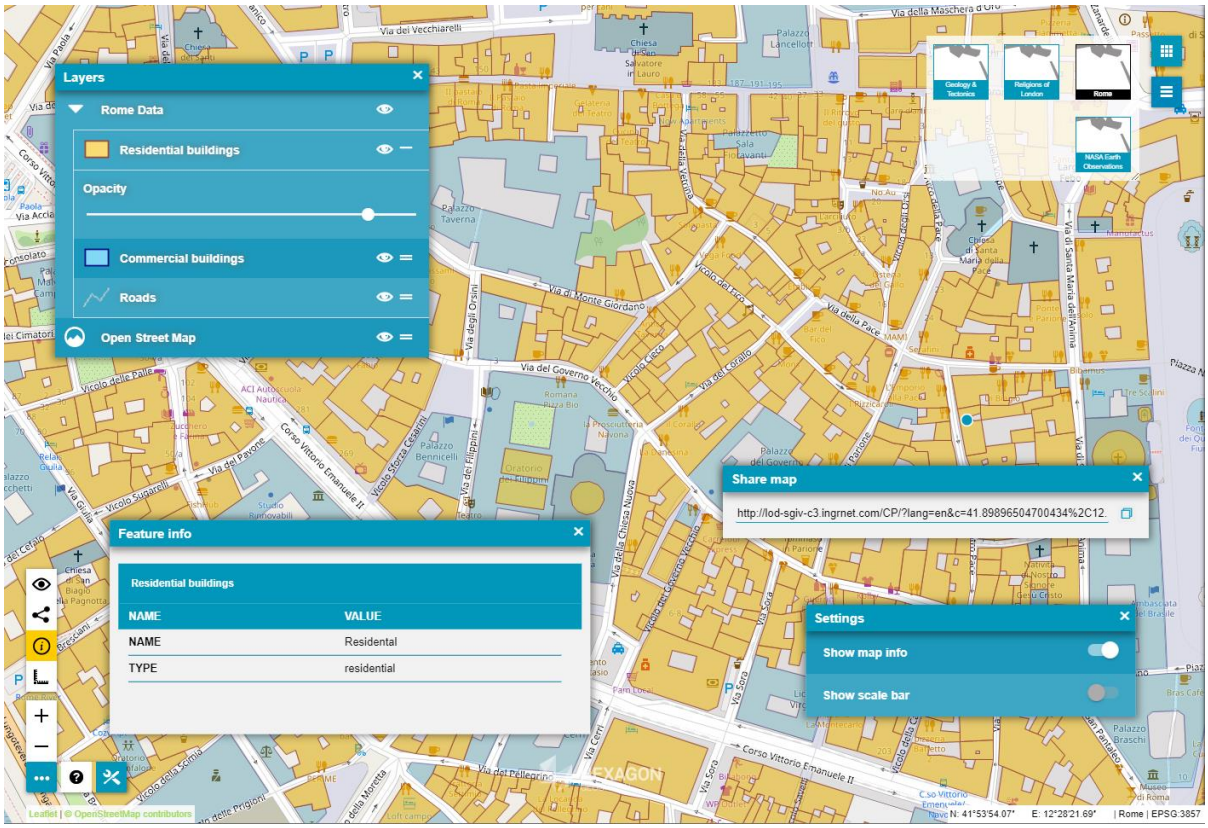
Geospatial Portal and Consumer Portal

Redesigned and Refreshed Consumer Portal UI

Consumer layout is a simplified and user-friendly entry-level layout for non-professional consumers of geospatial data. It is dedicated to end-users who use maps for discovery and visualization, with minimum clicks required. It is optimized for performance and user experience and takes advantage of the most up-to-date web technologies and standards. With this release (16.7), the new window layout of Consumer Portal is introduced. The new layout not only brings a fresh and attractive appearance to the application, but also a number of functional improvements. Floating and modal windows help users organize the space on screen more efficiently, improving productivity. Now users can freely arrange the view and use functions simultaneously. All windows are resizable. Moreover, the position of the floating windows is remembered — if the window has been moved by the user to a different place on the screen, then after it is closed and reopened, its position will be the same as the last one.

These changes make the Consumer Portal layout easier to operate not only for desktop web browser users, but also for mobile browser users. The refined UI does not distract users and focuses attention on important functions.

Administrators can choose and set the layout while preparing the Consumer Portal configuration for users. Both layouts are available: new, referred as to Window layout, and legacy, referred to as Panel layout. A new option in Administration Console has been added to easily select and set the Consumer layout.

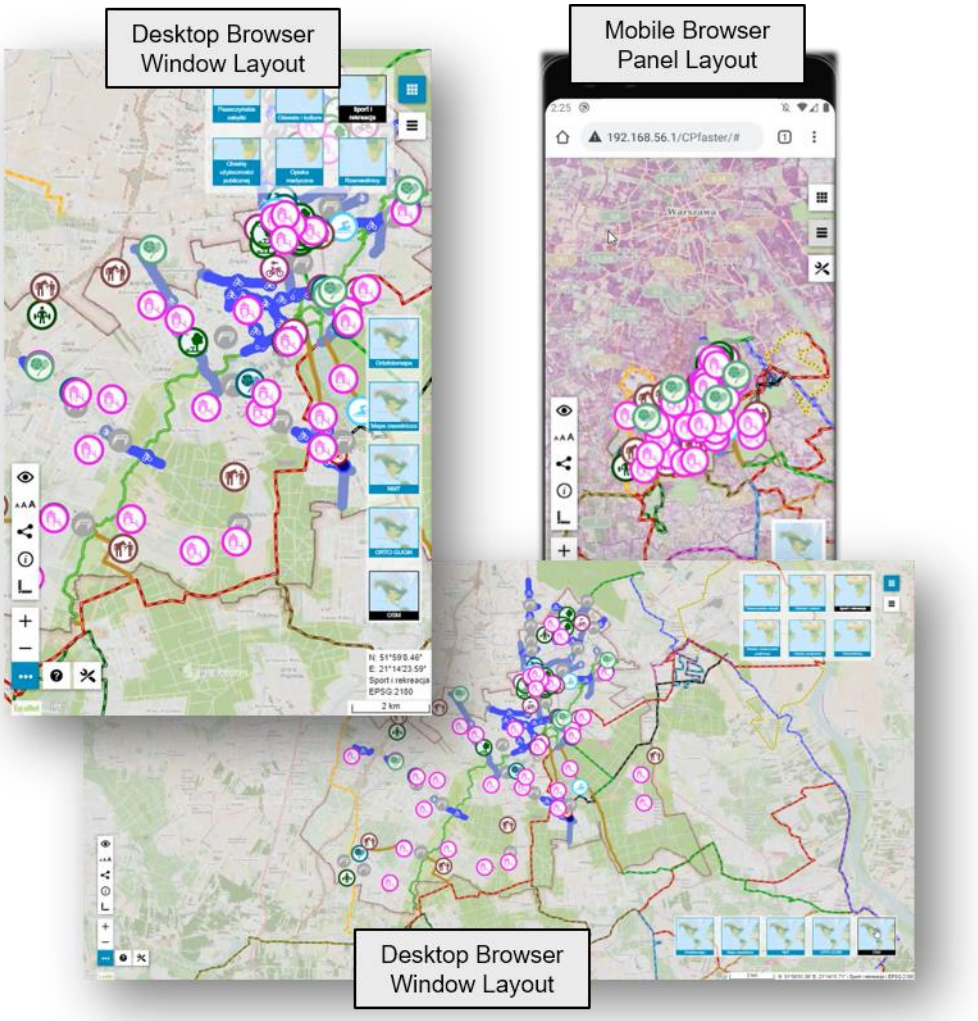


Smart Optimalization of Consumer Portal Layout

Starting from version 16.7, the Consumer Portal layout is automatically optimized to the web browser in which it was launched, so that working with Consumer Portal is pleasant, easy, and as efficient as possible.

The GUI elements adapt to the screen size and layout (e.g., the base map switcher or map info bar is displayed horizontally or vertically). The thumbnail size also changes slightly if needed.

Consumer detects web browser type (mobile and desktop). Since using the new Window layout on mobile devices may be a bit uncomfortable for users, the Panel layout is always applied when Consumer Portal is displayed on mobile devices, even if the new Window layout is set in Administration Console.

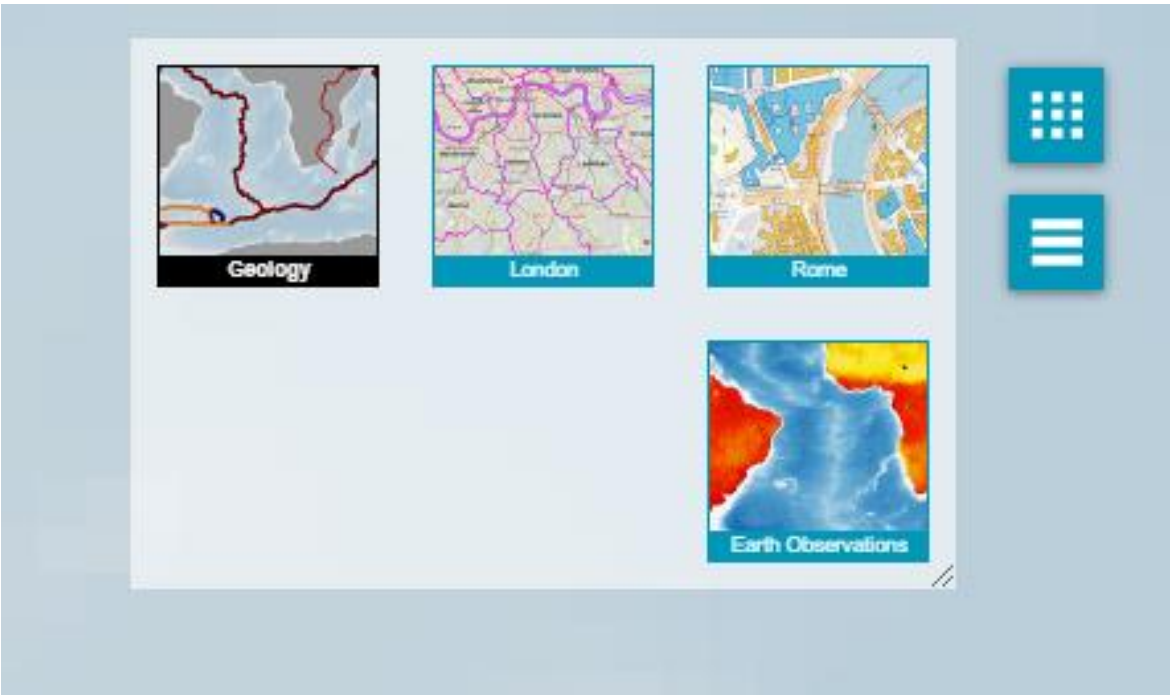


New Map Composition Switcher

The new Map Composition picker for displaying predefined maps is invoked using the buttons in the upper right corner, making it handier and more intuitive to use. The smaller, more compact map picker has the same functionality as before. It displays map composition thumbnails and allows for different map switching options if those were included by the administrator in the given instance configuration.

When the Consumer Portal configuration contains a lot of map compositions, due to the new compact map picker, the user has all map compositions at hand and does not have to scroll the panel to select a given one. Users can resize the area for the Map Composition picker to display more or fewer map thumbnails. If not all thumbnails fit in the set area, a slider appears.

The new map picker has been implemented for the new Window layout. The **Map Composition** tab in the legacy Panel layout is replaced by the new map picker.



Improved Measurements UI in Consumer

With Consumer Portal, you can measure distances or an area of features displayed on the map and return the geographic coordinates of a given point. Measurements have been available in the Consumer layout for quite a long time, but in this 2022 release, the feature was slightly redesigned to improve the ease of use. The Measurements control was moved to the bottom left toolbox. One measurement group button is always visible, and when you click it, the buttons for particular measurement types are shown. The button for active measurement is yellow. Measurement results are displayed on the map, over measured geometries.

Share Map

Efficient flow of information is very important in the modern world. Now you can easily share spatial data with the community with the new Share Map feature. Portal users can easily send each other maps and their insight into geospatial data. In the Consumer layout GUI, the new Share Map button was introduced in the left toolbar. It opens a window with the URL to the current map being displayed. An additional button allows copying the address quickly to the clipboard. A shared map preserves all its properties, including:

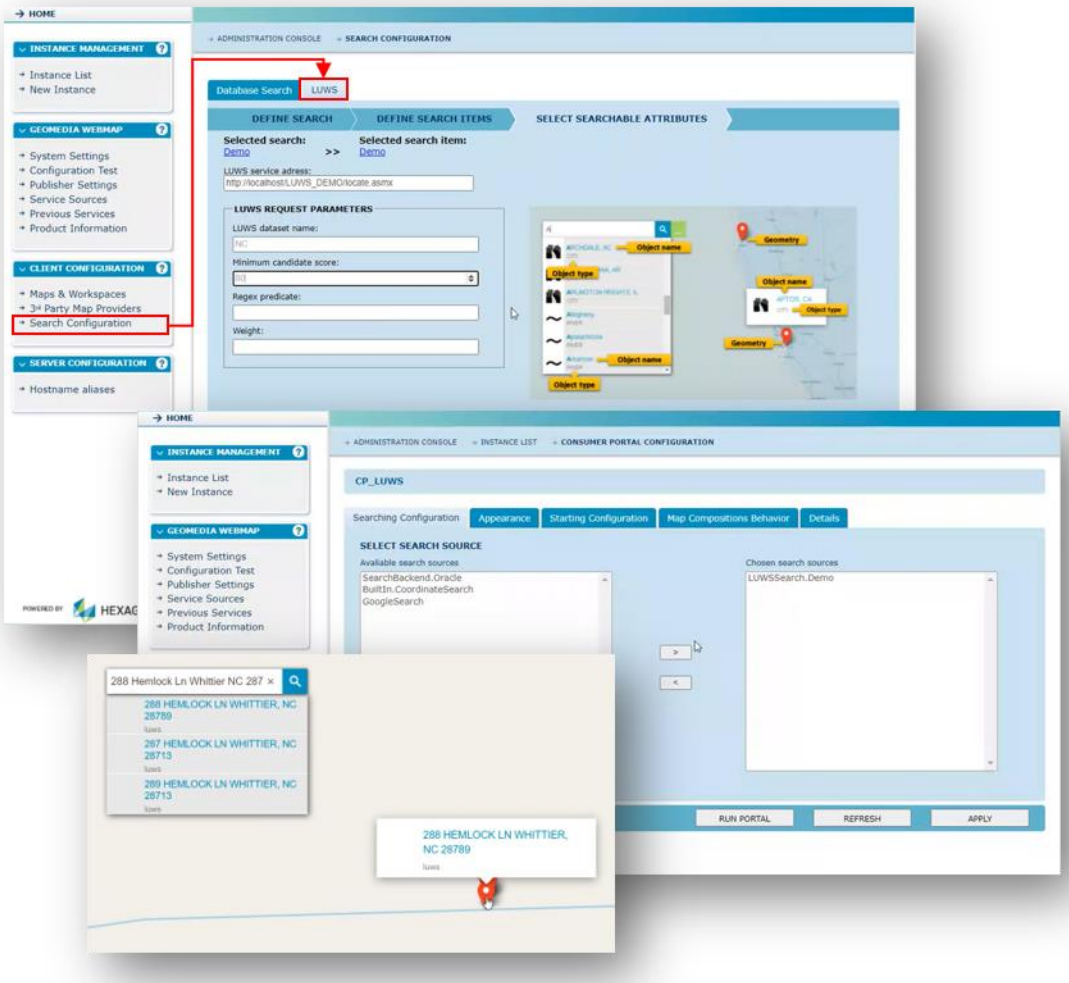
- Current map composition
- Layer settings
- The selected base map
- The map range and scale

LUWS Search Configuration for Consumer Portal

The LUWS — Location Utility Web Service — is an exceptionally flexible method for finding geospatial information. It uses geocoding to determine the position and address of an object (POI). LUWS is a search service that can be compared to Google's search services. With LUWS, users can search addresses, points of interest, cadastral data, or any defined geospatial objects.

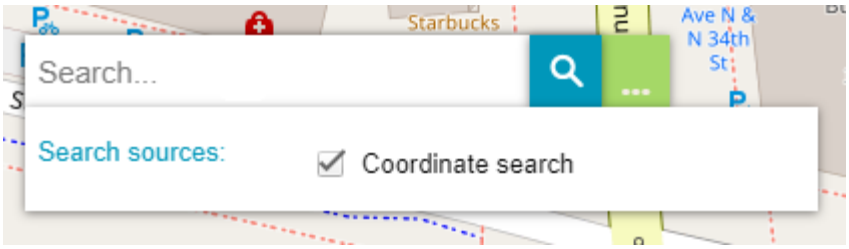
Users of Consumer Portal can search for objects from the Oracle database or WebMap Publisher Services. Since version 16.7, they can also search for objects by using the LUWS service. With the new LUWS tab in the Search Configuration section of the Administration Console, it is possible to add a working LUWS service to the Consumer searches. Administrators can configure LUWS to be used with Consumer instances with a few mouse clicks; no programming skills are required.

The LUWS service is provided within the GeoMedia WebMap product, so now WebGIS 2022 delivers a complete solution for those who want to provide their users with the services of searching for geographic data and objects.



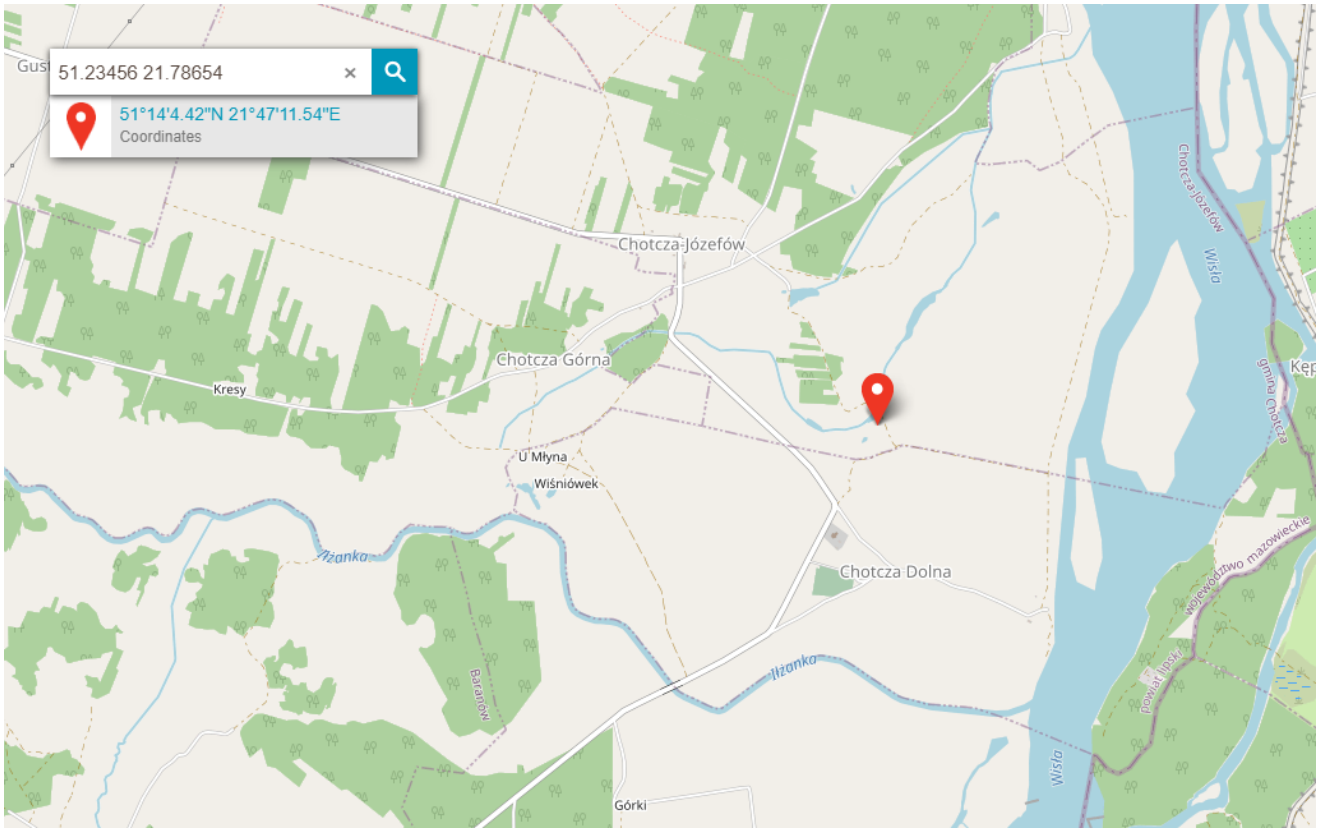
Search for Coordinates in Consumer Portal

Consumer Portal gives you the ability to search for geographical coordinates.



The built-in coordinate search allows users to type coordinates in Decimal Degrees format (DD.ddddd; e.g., **51.23456 21.78654**) or Degrees, Minutes, Decimal Seconds (DMS; e.g., **51° 14' 4.42" N 21° 47' 11.54" E**). The coordinate separator can be a space or comma. To determine the direction, you can provide cardinals or type a minus character for West and South (e.g., **34.23456S 61.78654W** or **-34.23456 -61.78654**).

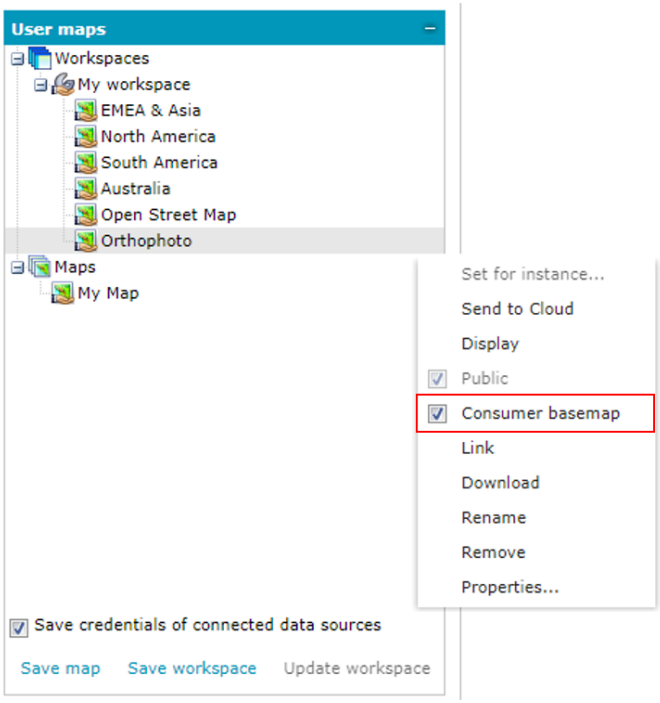
When coordinates are found, a pin showing the location on the map is displayed.



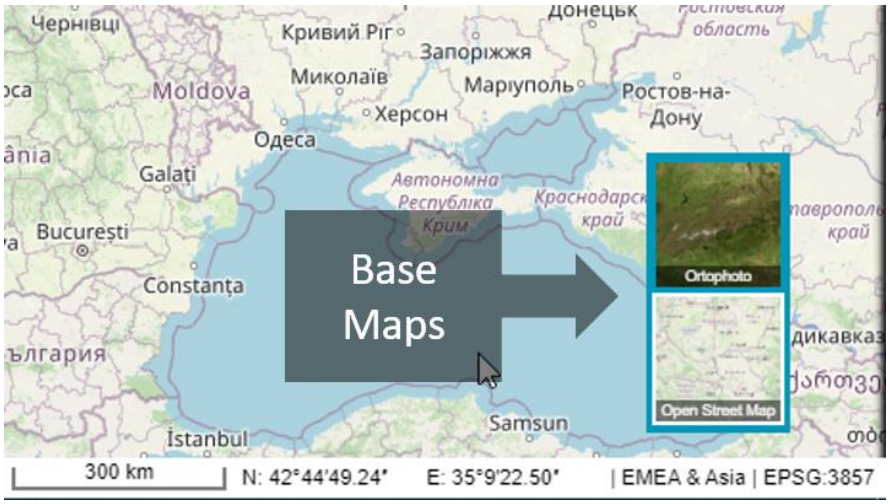
Base Maps in Consumer Portal

The new base map feature provides a background of geographical context for the content displayed within a Map Composition. Users can change the base map of the current Map Composition at any time using the base map switcher. The base maps available in the current Consumer Portal instance are prepared by the administrator.

The process of creating base maps with Configuration Portal is quick and easy. Just select the **Consumer Base Map** option for the map composition(s) in the workspace prepared and send the workspace to the chosen Consumer Portal instance. Maps with the **Consumer Base Map** option enabled will be translated into the workspace, as the base maps and will not be included in Map Compositions. This means the layers included in them will not be visible in the legend.



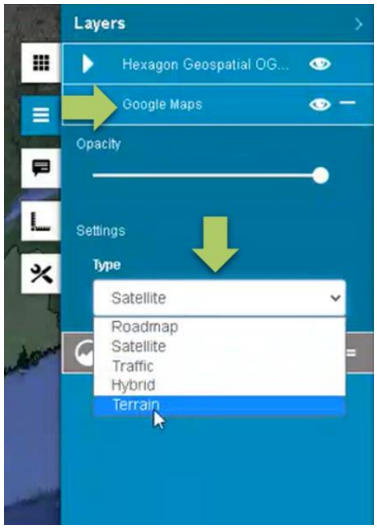
The base map thumbnails for the base map selector in the Consumer Portal GUI are generated automatically based on the Map Composition thumbnails defined for the Consumer Portal instance.



Integration of Google Maps and Consumer Portal

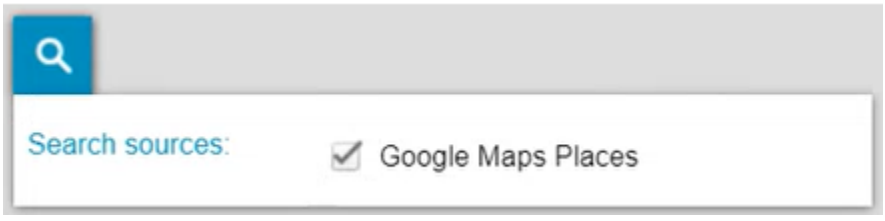
Consumer Portal handles Google Maps layers. This means users in Consumer Portal can view Google Maps, explore Google Street View, and search for interesting objects by using the Google Maps Places search service.

The Google Maps layer configured with Consumer Portal can be used as a base map and/or a standard layer added to the legend. Users (for both base map and standard layer) can choose the type of Google Maps.

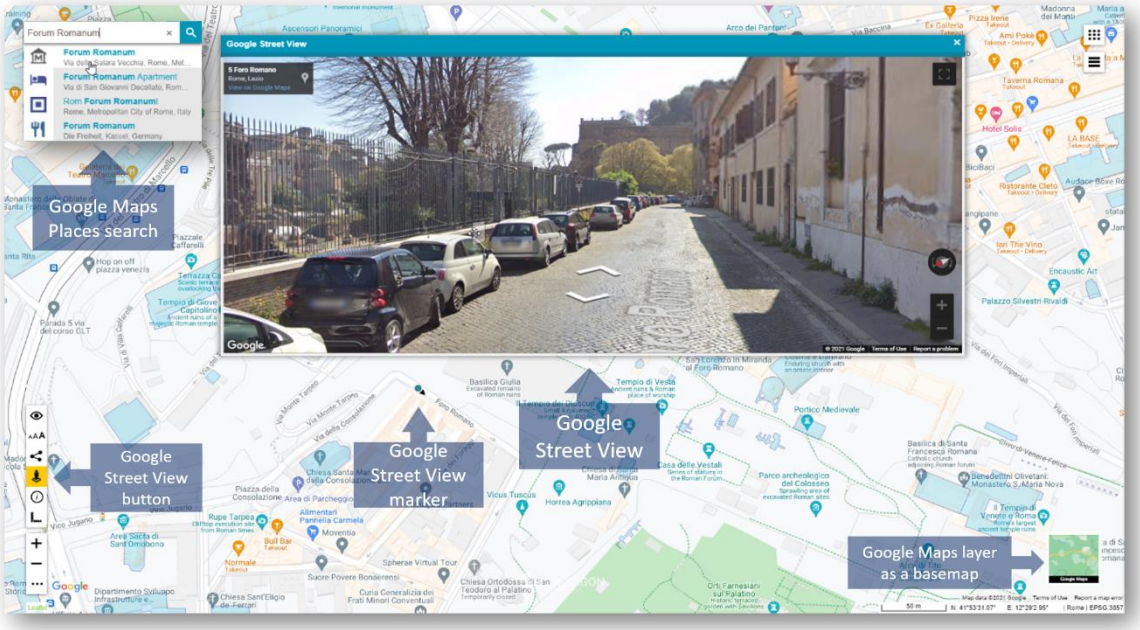


For standard layers displaying Google Maps, the user can choose the map type: roadmap, hybrid, traffic, satellite, or terrain. The map type for a base map is selectable by using the standard base map switcher in Consumer.

Google's search service is also integrated. Consumer Portal users can search for a POI or address by using the standard Consumer Portal search control integrated with Google Maps Places. Pins with the locations of searched objects appear on the map.



Google Street View mode is also available with Consumer Portal. Exploring the Google Street View in Consumer Portal is intuitive and uses well-known Google Street View native functionality in a floating and resizable pop-up window. All you need to do is to enable Street View mode and place a marker on the map. The Street View mode icon was added to the Consumer Portal bottom left toolbox. The marker on the map shows your location and view direction and follows the position when you move in the Street View.

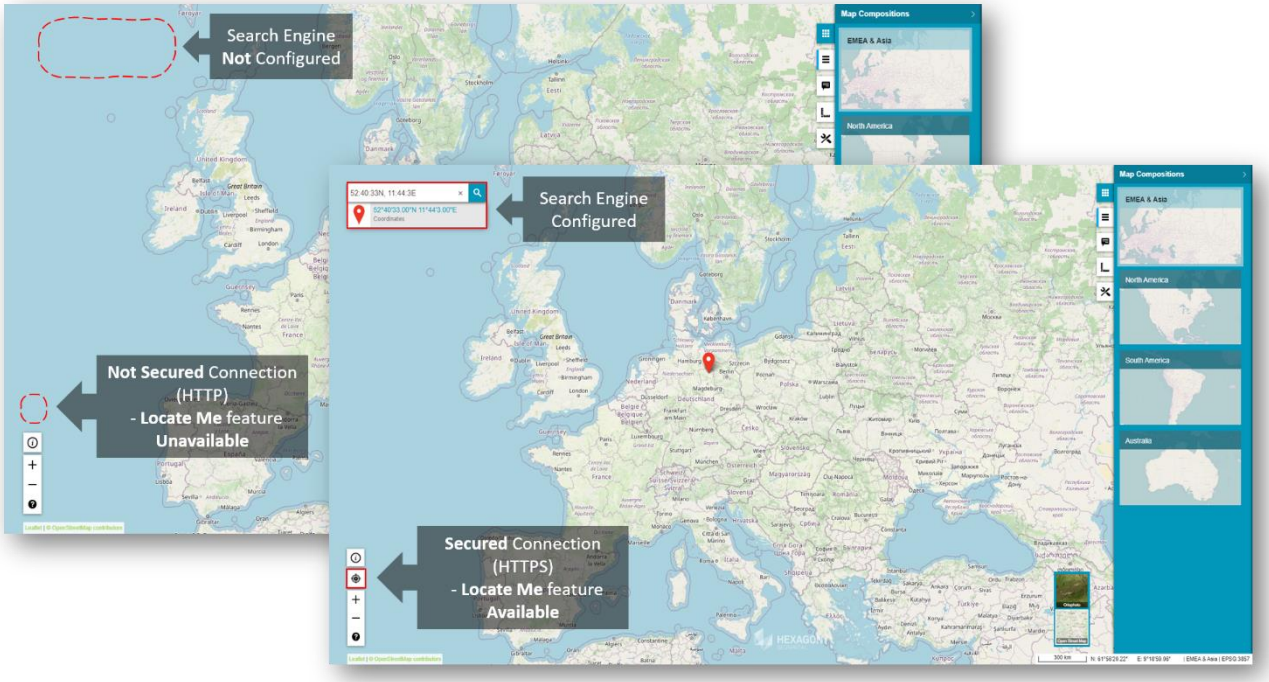


Configuration of Google Maps layer for Consumer Portal is as easy and intuitive as possible. All the Administrator needs to do is run Administration Portal, prepare map composition with Google Maps, and send it to a Consumer Portal instance.

Disable Unavailable Elements (Search, Go to My Location)

Features that are not configured are not displayed on the Consumer Portal screen. This applies to the **Go to my location** and **Search** features.

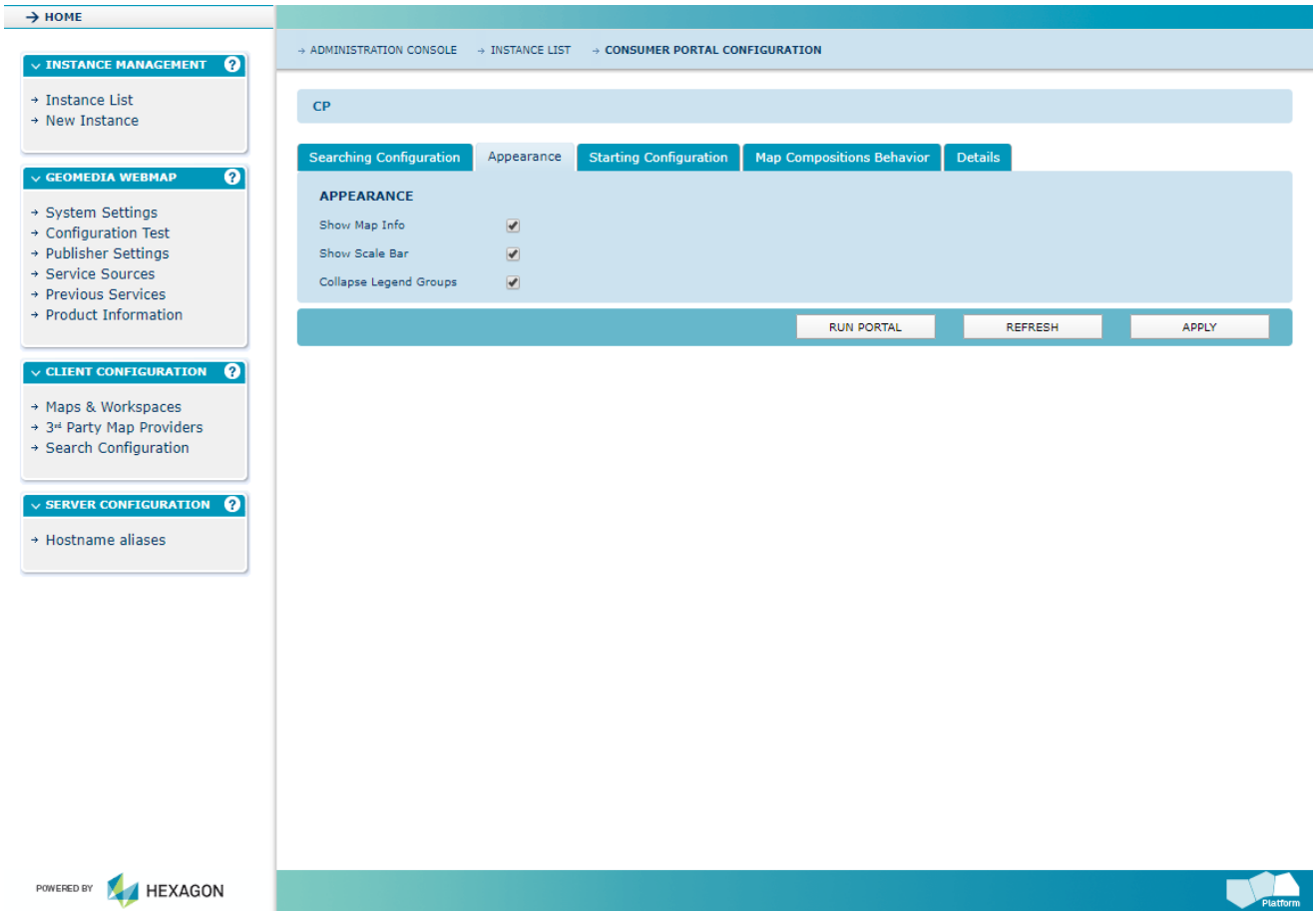
The **Go to my location** feature in Consumer Portal works only with secured (https://) connections. When a Consumer Portal instance is configured over a non-secured connection, the **Locate Me** button and the **Show my location** options on the Settings panel will not be displayed, and the features will not be available.
The same mechanism applies for **Search** bar. If no search engine is configured for Consumer Portal, then the search controls are not displayed for users.



New Display Settings for Consumer Portal and Improved Legend Entry Behavior

Administrators can adjust the Consumer Portal to the users' needs. With the new **Appearance** tab in the Administration Console, the following display options can be enabled or disabled:

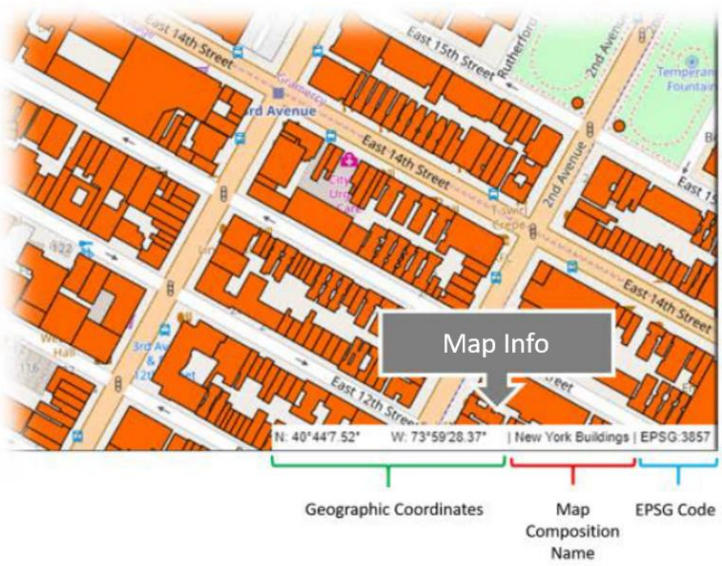
- Show Map Info
- Show Scale Bar
- Collapse Legend Group



Map Info provides a set of information about the active map:

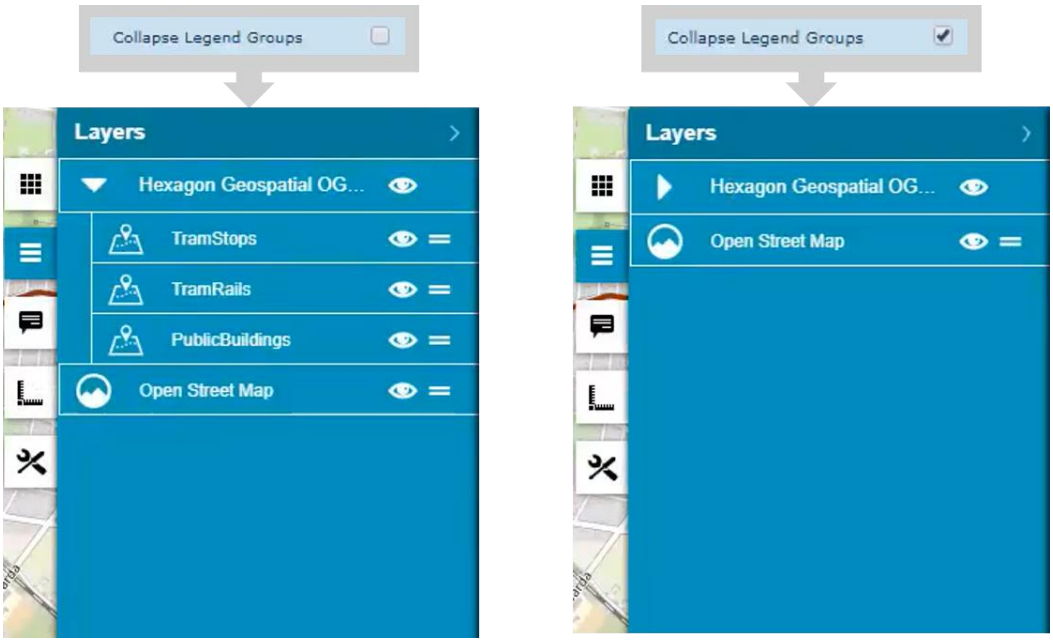
- Geographic latitude and longitude for the current cursor position in a map window
- The name of active Map Composition
- The coordinate system EPSG code of the current map

Map info is displayed in the bottom right corner on the screen application.



Scale Bar provides approximate information about the scale and distance on the map.

The **Collapse Legend Entry** setting allows users to decide whether all layers in the Consumer Portal legend should be collapsed on start or not. If enabled, all groups in the Consumer Portal Legend are collapsed when Consumer Portal starts. This is especially useful when multiple map layers from several data sources are in the workspace and as an administrator you do not want to show them all when the user runs Consumer Portal.



Preserve Legend Settings Between Map Composition Switches

Further improvements for Consumer Portal include a memory for legend changes during one session. When a user adjusts layer properties (layer display on/off, transparency, layer order), switches the Map Composition, and displays the previous Map Composition again, all layer settings will be the same as set before.

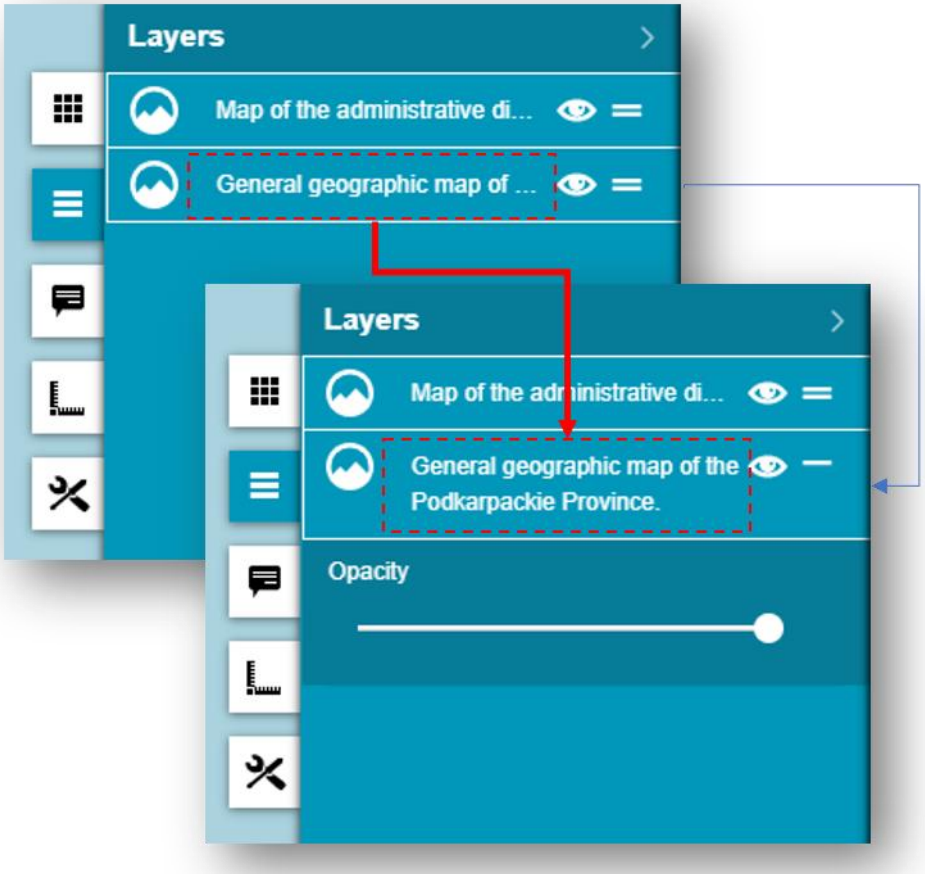
Consistent Mechanism of Scale Bounds Handling for WMS, WMTS, and WMPS

Consumer Portal handles scale bands advertised by Web Map Tile Service.

If scale ranges have been set for the data served by the WMTS service, the same ranges will apply when displaying them in Consumer Portal. This function does not require any additional steps on the administration side of the Consumer Portal, and it works in the same way as for the services (such as WMPS or WMS).

Allow Display of Long Layer Names in Consumer Portal

Now users can see the entire name of the feature class in Consumer Portal legend, even if the panel is shorter than the name. Long names in the collapsed Consumer legend panel are still truncated, as was the case prior to the 16.6.2 version, but expanding the legend control allows you to view the full name.

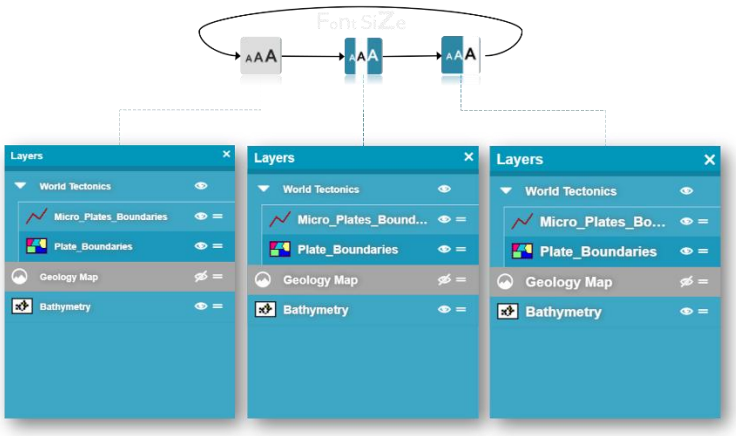


High Contrast Mode and Font Size Change (WAI Design)

The new High Contrast mode is now available for both Geospatial Portal and Consumer Portal. High contrast makes Consumer and Geospatial Portal more accessible and usable to people with disabilities. High Contrast mode was designed in accordance with W3C Web Accessibility Initiative (WAI) guidelines and standards and is user-friendly — users can turn on or off the high contrast mode with one click of a button that is easily accessible.

The next facilitation is the ability to change the size of the text font in the Geospatial Portal and Consumer layouts. Three font sizes are available, and users can adjust the font size by pressing one dedicated button.

For the sake of product consistency in the portfolio, the same icons are used in both Consumer and Geospatial Portal. The font size and contrast features work with every Portal theme, current and legacy. These features reduce digital exclusion among your audience.

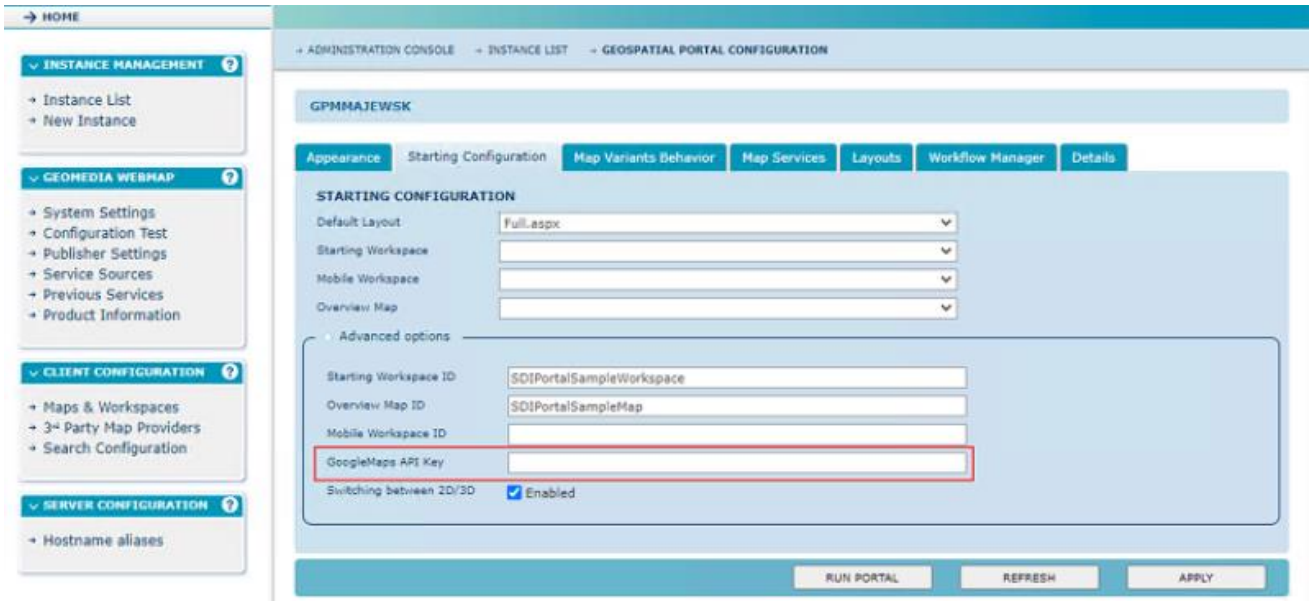


Easier Registration of Google Maps API key for Portals

The Google Maps layer configured with Consumer Portal can be used as a base map and/or a standard layer added to the legend. To configure and use Google Maps layers in the Geospatial Portal and/or Consumer Portal layout, you must register a Google Maps API Key.

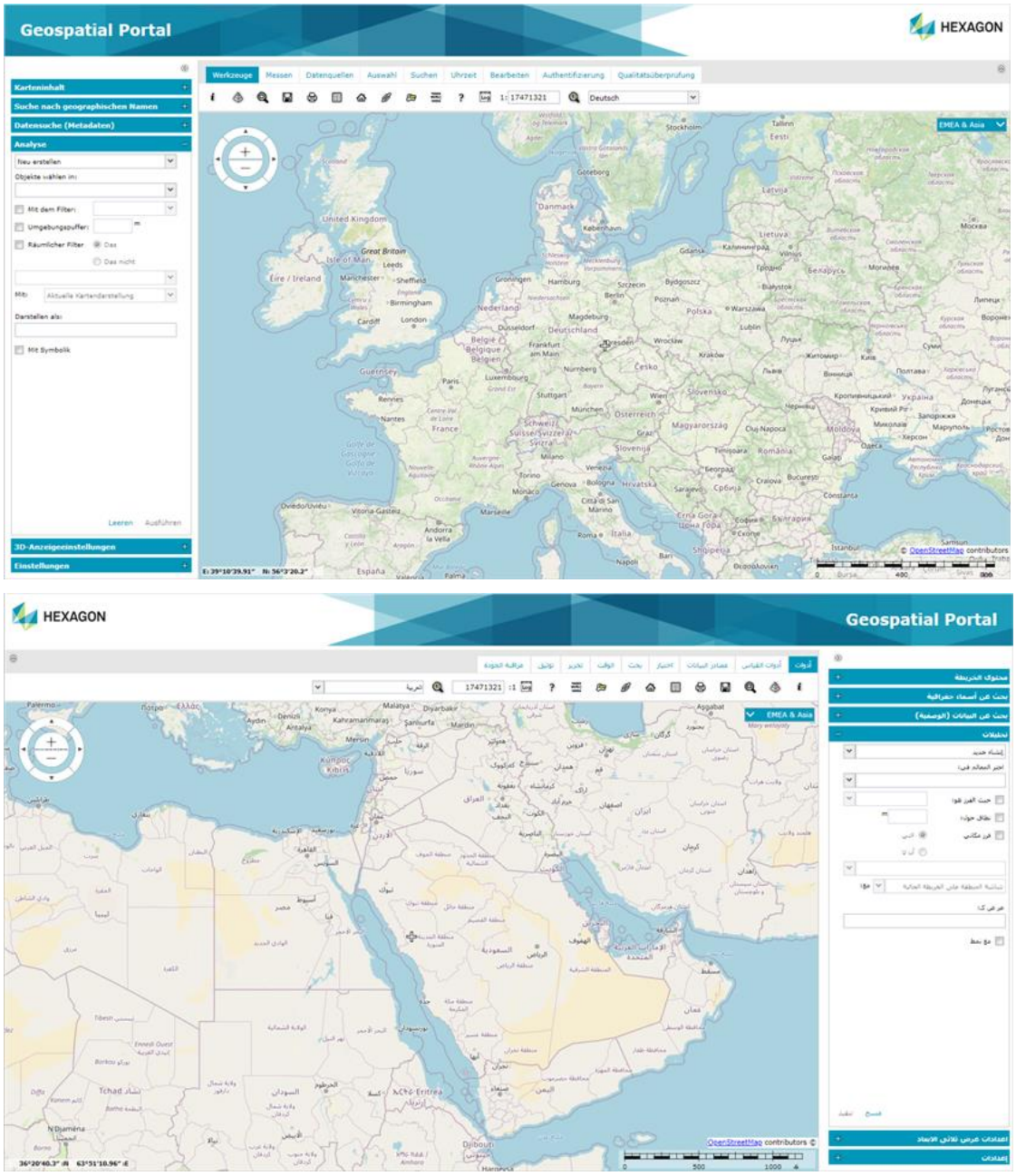
Administrators can register the Google key for a Geospatial Portal or Consumer instance directly in the Administration Console. There is no longer a need to edit the Web.config file for each instance anymore.

Go to the **Advanced options** group in the **Starting Configuration** tab of Administration Console and type the key value in the **GoogleMaps API Key** field.



Auto Adaptation of the Portal Layout to RTL Languages

One of the Geospatial Portal improvements relates to multilingualism. Portal starts in the same language as the default setting for the web browser. You can change the language using the drop-down list that contains the available languages. Geospatial Portal supports both LTR (left to right) and RTL (right to left) languages. If a RTL language is selected (e.g., Arabic or Hebrew), the layouts will be automatically adapted. The display of the controls for the layout is changed, and the text is aligned to the right.

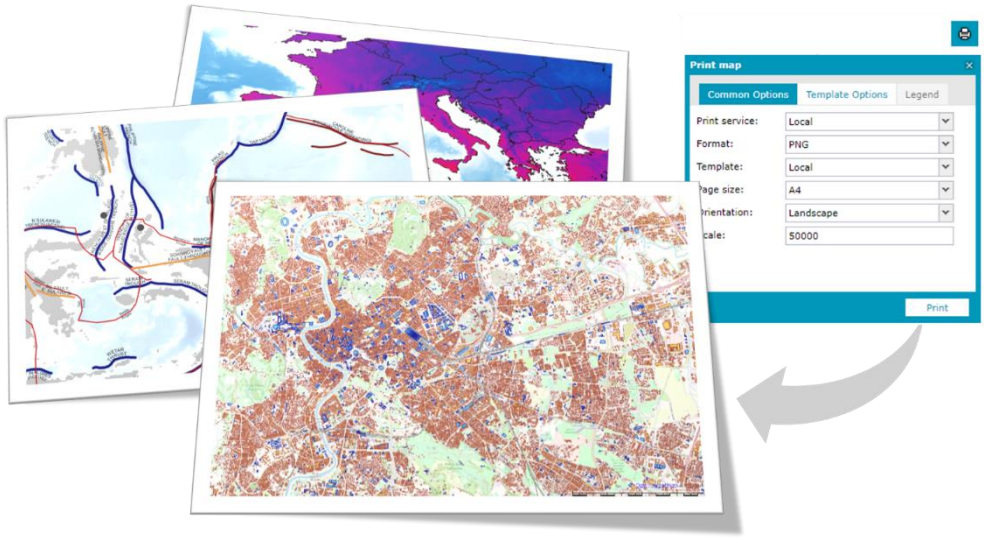


New Print Engine Support in Geospatial Portal

It is now possible to configure a Chrome print engine. You can print maps using Internet Explorer, phantomJS, and Chrome (new). The engine definition is stored in the WebConfig file for the Portal instance and requires only two parameters: the type of engine and the path to the executable file.

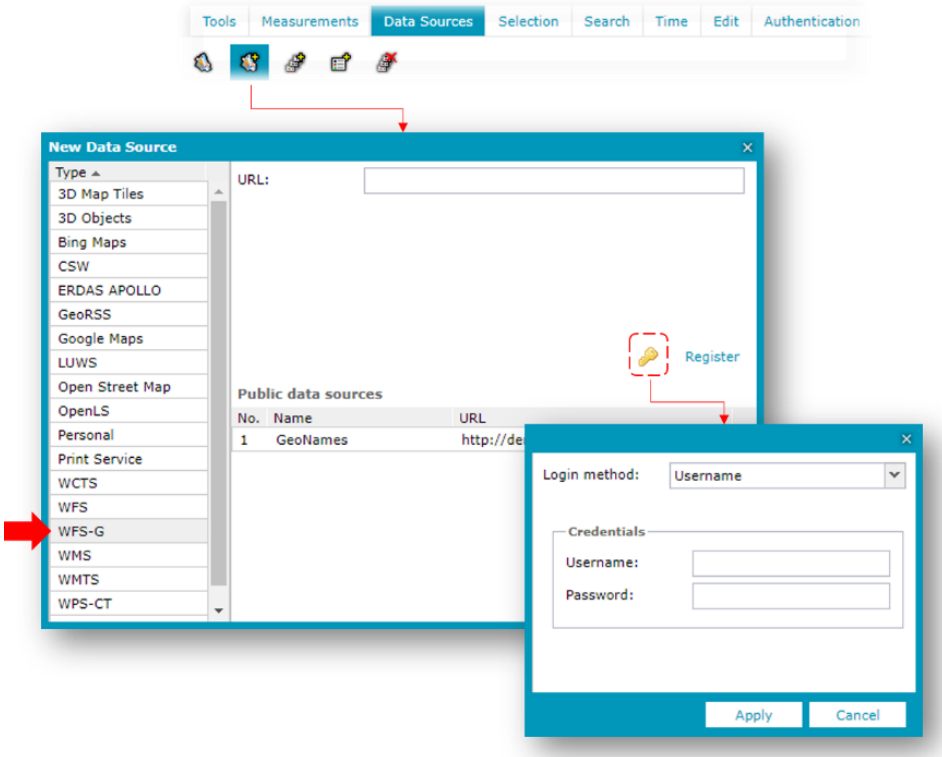
Sample:

```
<printing tileSize="2000" mapSizeLimit="5000" timeout="00:02"
defaultService="FirstExternal" precisionGeographic="7" precisionProjected="0"
printingEngine="chrome" chromeProgramLocation="C:\Program Files
(x86)\Google\Chrome\Application\chrome.exe"/>\
```



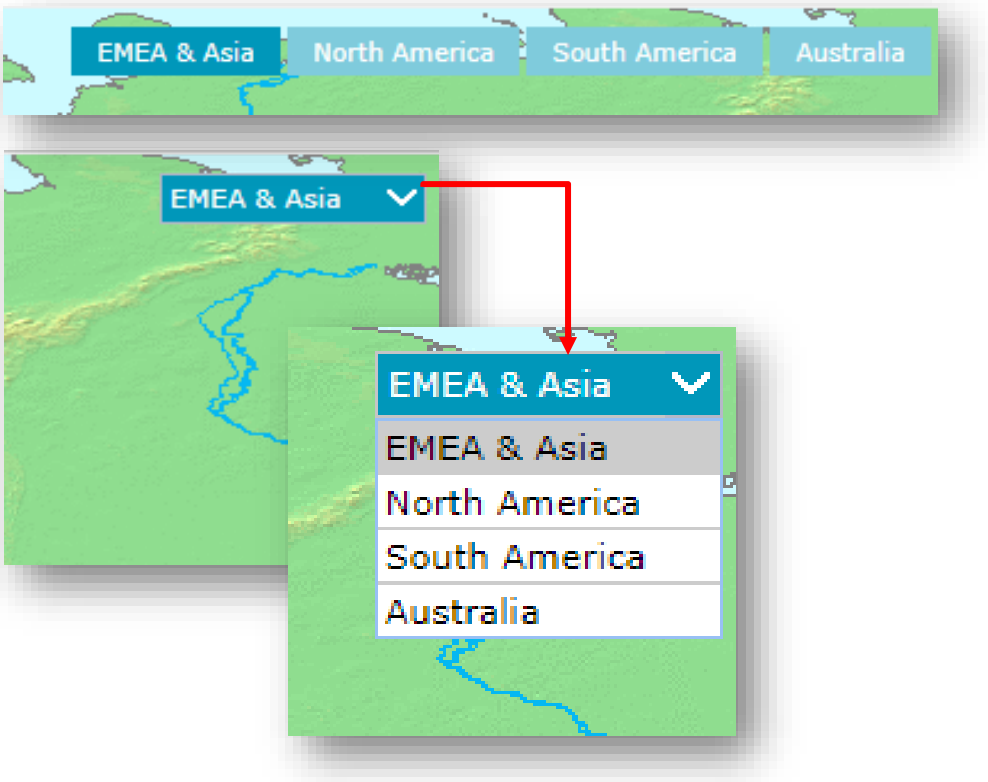
Ability to Connect to Secured WFSG Services in Geospatial Portal

The new release gives you the benefit of registering an authorization-protected WFS-G service. In the **New Data Source** window for the WFS-G connector, a new key button has been added. This key button opens a registration form to provide credentials for the WFS-G service. After registering a secured WFS-G service, the Geospatial Portal search engine works as it used to.



Improved UX for Switching Map Variants in Geospatial Portal Layouts

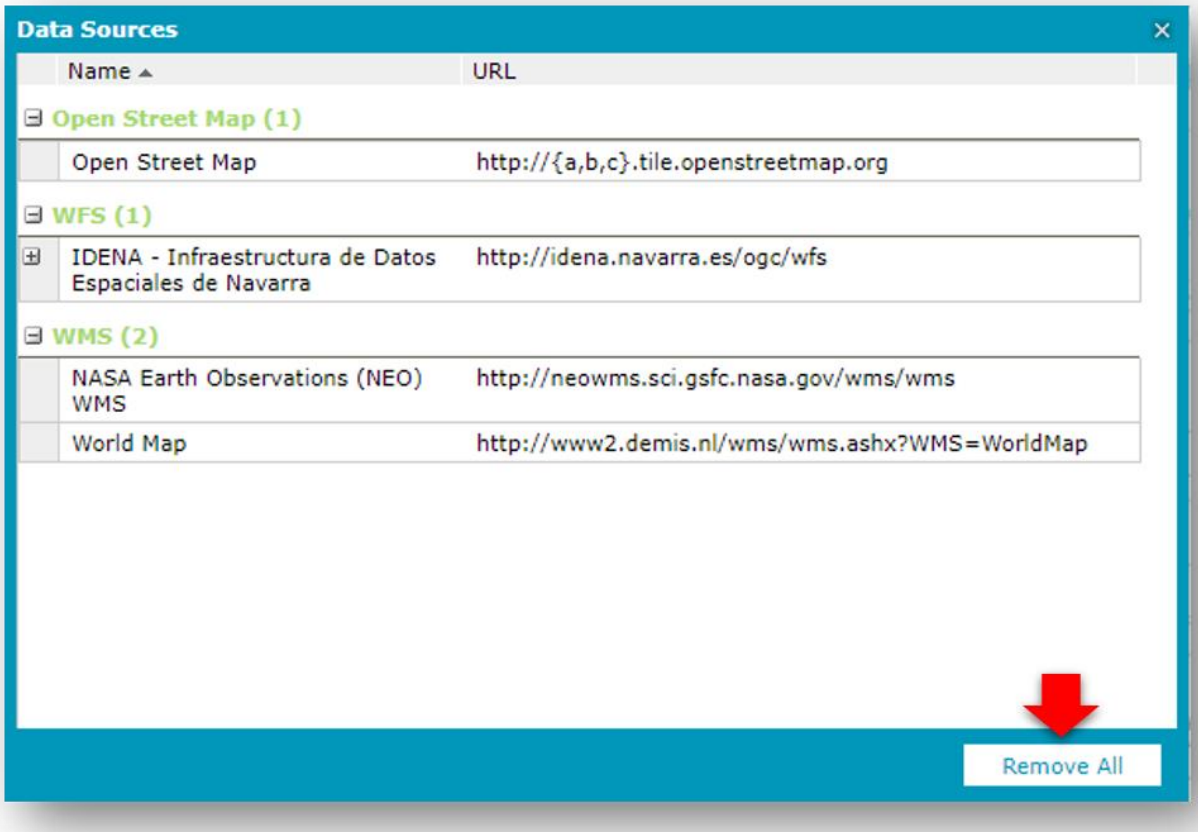
The combo box style map variant switcher was slightly redesigned in order to make it more consistent with the rest of the Geospatial Portal styling.



Remove all Connections and Clear Workspace with One Command in Geospatial Portal

It is possible to remove all registered data sources and thus completely clear the workspace with one click. Press the **Remove All** button located at the bottom of the **Data Sources** window. Then confirm the removal operation, and all registered sources will be deleted, the legend entries will be removed, and the map window cleared.

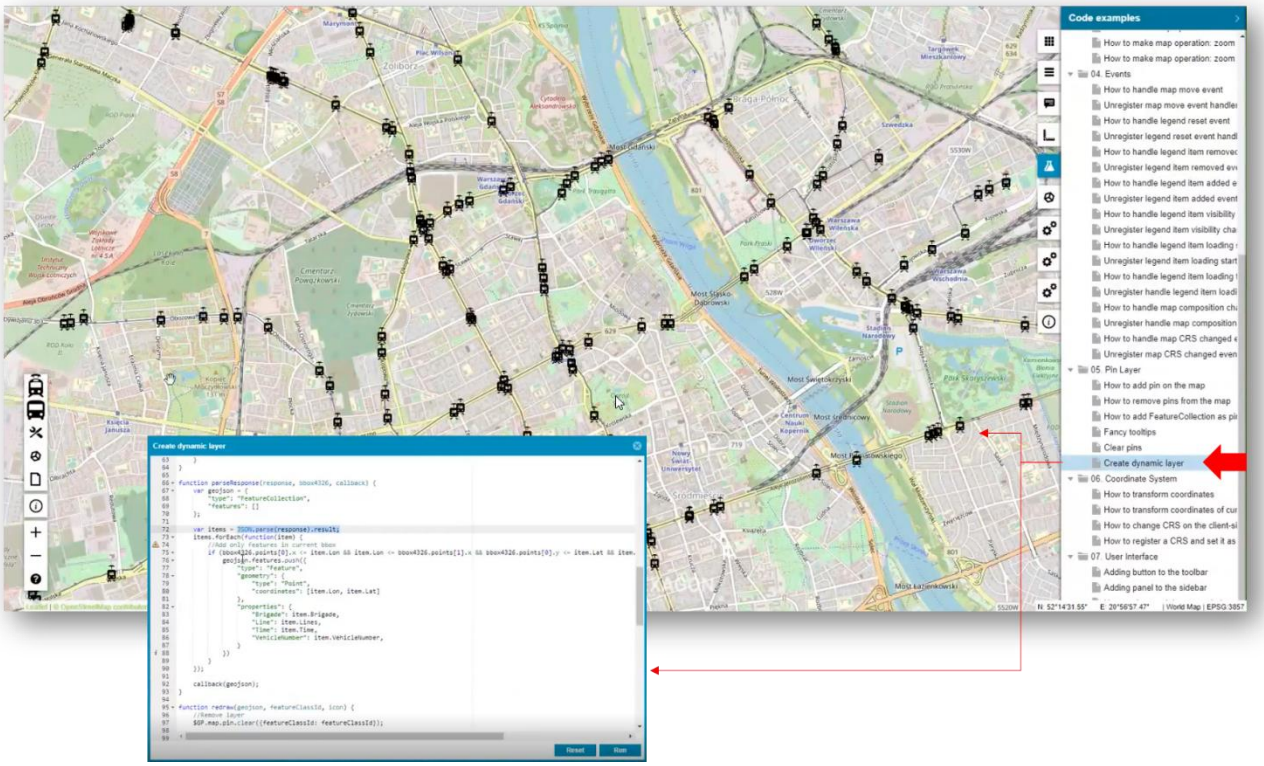
Now you can start to register new sources by selecting the **Define a data source** button from the toolbar.



Using Consumer Portal SDK: Dynamically Refreshed Content

Consumer Portal now supports dynamically refreshed content so you can observe objects moving on the map in real time (e.g., public transport, railway, metro, buses, planes, etc.). Dynamically refreshed content is based on third-party API services. An SDK example showing how to implement dynamic layers has been introduced and can be used to enhance Consumer Portal's capabilities with a layer of data updated online.

In short, from a technical point of view, the response from the custom API format is parsed to the JSON format, and all features are collected within the current bounding box and then displayed on the map. The layer is refreshed by the time set.



Moreover, each dynamically displayed feature on the map has a tooltip with additional information. The tooltip is displayed when the user clicks on the feature.

Geospatial SDI

OGC WFS and WCS 2.0 Façade Conformance

Web Feature Service Façade and Web Coverage Service Façade delivered with Geospatial SDI follow the OGC 2.0 International Standard.

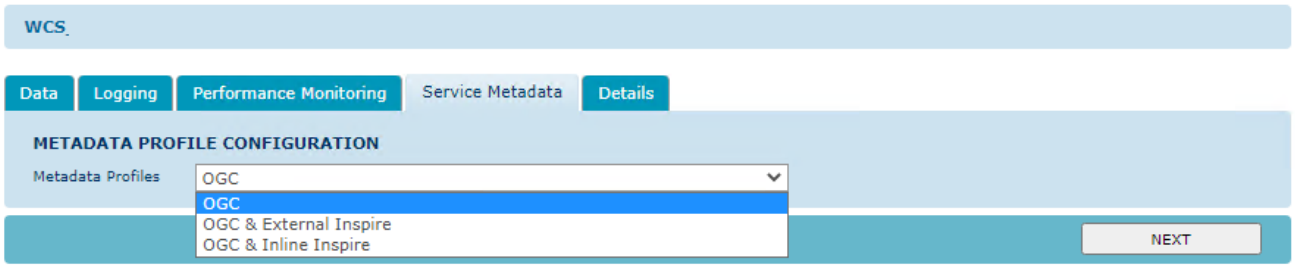
The OpenGIS Web Feature Service 2.0.0 Interface Standard (also ISO 19142) has been implemented for Simple WFS, Basic WFS, Spatial Filter, and Transactional WFS conformance classes.

The OGC Web Coverage Service 2.0.1 Interface Standard has been implemented.

INSPIRE-Ready and Enhanced Metadata Editor

Geospatial SDI services have been adjusted to meet the most recent INSPIRE Directive technical specifications. The INSPIRE Technical Guidance for View Services, Download Services, Discovery Services, and Coordinate Transformation Services were followed and implemented.

Metadata Editor for Geospatial SDI Web Coverage Service Façade was introduced in Administration Console, which provides the ability to easily set OGC and INSPIRE (both Inline and External) metadata profiles. This works in the same way as for services such as WFS or WMS.



Administration Console: GeoMedia WebMap, Geospatial Portal, Geospatial SDI

Manage Multiple Instances with Administration Console

The enhancements also reached the Administration Console, the basic instance management tool for administrators of products such as WebMap, Portal, or SDI. The possibility of batch management of instances in the scope of upgrading and/or deleting instances was introduced.

Prior to version 16.6.2, upgrading multiple instances to a newer version or removing multiple instances required the administrator to update/remove each instance individually.

Two new buttons — one for upgrade, and the second for removing instances — were added on the top bar of the Administration Console. Now the administrator can select multiple instances (using checkboxes) and then update or delete the selected instances with one click.

System Requirements

GeoMedia WebMap	
Operating Systems	• Windows Server® 2016 (64-bit) • Windows Server® 2019 (64-bit) Notes: • All later service packs are considered viable unless otherwise noted. See the Support website for specific notices. • On the Client side (Geospatial Portal and/or GeoMedia WebMap Publisher Portal), any operating system equipped with one of the supported browsers will work.
Operating Systems for GeoMedia WebMap Mobile App	• iOS version 12.x or later • Android version 5 or later • Windows 10
Server-Side Database Engines	• Oracle® Server 12c R1 (12.1.0.1) • Oracle® Server 12c R2 (12.2.0.1) • Oracle® Server 18c (12.2.0.2) • Oracle® Server 19c (12.2.0.3) • Oracle® Client 12.1.0 (32-bit) • Oracle® Client 12.2.0 (32-bit) • Oracle® Client 18.5.0 (32-bit) • Oracle® Client 19.12.0 (32-bit) • SQL Server® 2012 • SQL Server® Express 2012 • SQL Server® 2014 • SQL Server® Express 2014 • SQL Server® 2016 • SQL Server® Express 2016 • SQL Server® 2017 • SQL Server® Express 2017 • SQL Server® 2019 • SQL Server® Express 2019 • SQL Server Native Client 10.0 or higher • Azure SQL Database compatible with SQL Server® 2014, 2016, 2017, or 2019 • PostgreSQL 9.6 with compatible version of PostGIS • PostgreSQL 10 with compatible version of PostGIS • PostgreSQL 11 with compatible version of PostGIS • PostgreSQL 12 with compatible version of PostGIS • PostgreSQL 13 with compatible version of PostGIS Notes:

	• All later service packs are considered viable unless otherwise noted. See the Support website for specific notices. • Access (MDB) is considered viable. • No database engine is required on the client side nor to run the Administration Console. • SQL Server Native Client 10.0 or higher is needed in order for the Database Utilities utility to automatically create the correct GeoMedia metadata for date, time, and datetime2 data types when using a SQL Server or SQL Server Spatial warehouse. You may get SQL Server Native Client 10.0 or higher from the corresponding Microsoft websites. If the SQL Server Native Client is not installed on the system, you need to manually choose Date as the data type from the drop-down combo box for these data types in the Feature Class Properties dialog and set the format properly.
Client-Side Internet Browsers (Client is Geospatial Portal and GeoMedia WebMap Publisher Portal)	• Google Chrome™ 93 or higher • Firefox® 92 or higher • Internet Explorer® version 11 • Microsoft Edge 93 or higher • Safari 12 or higher Notes: • For browsers: Firefox and Google Chrome versions stated above are the versions certifications were conducted on. The software should work on newer versions of these browsers, but they were not officially certified. • The 3D features of Geospatial Portal Classic require native WebGL support. WebGL is available in Firefox, Chrome, and Edge. • 3D functionality in Geospatial Portal Classic/GeoMedia WebMap Publisher Portal is enabled by default in Firefox and Google Chrome browsers. In Edge, 3D is available only if the administrator enables it. • Web browser issues found on the GeoMedia WebMap product that are no longer supported by the browser vendor can be addressed within a limited scope by Hexagon. Refer to vendor sites for information on their web browsers support policies. • Geospatial Portal Classic is not supported to work in Compatibility View in Internet Explorer browsers. This option must be switched off by the user. • The mobile versions listed as supported web browsers are compatible with GeoMedia WebMap. However, differences in system architecture and mobile device limitations may result in some of functionality being unavailable when running on a mobile browser. Hexagon will attempt to address any mobile browser issues; however, a solution may ultimately depend on support from the browser provider.
Server-Side Internet Browsers	• Internet Explorer version 11 Notes: • Internet Explorer is required on the server side only to provide printing functionality unless Google Chrome or PhantomJS engine is used. • To run the Administration Console directly on the server host machine, any browser listed in Client-Side Internet Browsers can be used. Administration Console can be run remotely from the client side.
Client-Side System Dependencies and Additional Software	• GeoMedia or GeoMedia Professional 16.7 Notes: • GeoMedia or GeoMedia Professional is required for GeoMedia WebMap Publisher Administrator.

Server-Side System Dependencies and Additional Software	• .NET Framework 4.7.2 • Microsoft Identity Foundation • Windows Installer 3.1 or higher • Internet Information Services (IIS) 10.0

Geospatial Portal	
Server-Side Operating Systems	• Windows Server® 2016 (64-bit) • Windows Server® 2019 (64-bit)
Database Engines	• Oracle® Server 12c R1 (12.1.0.1) • Oracle® Server 12c R2 (12.2.0.1) • Oracle® Server 18c (12.2.0.2) • Oracle® Server 19c (12.2.0.3) • Oracle® Client 12.1.0 (32-bit) • Oracle® Client 12.2.0 (32-bit) • Oracle® Client 18.5.0 (32-bit) • Oracle® Client 19.12.0 (32-bit)
Client-Side Internet Browsers	• Google Chrome 93 or higher • Firefox 92 or higher • Microsoft Edge 93 or higher • Internet Explorer version 11 • Safari 10 or higher Notes: • For browsers: Firefox and Google Chrome versions stated are the versions that certification was conducted on. The software is expected to work on newer versions of these browsers, but they were not officially certified. • The 3D features of Geospatial Portal require native WebGL support. WebGL is available in Edge, Firefox, and Chrome. • The 3D functionality in Geospatial Portal Classic/GeoMedia WebMap Publisher Portal is enabled by default in Firefox and Google Chrome browsers. In Edge, 3D capabilities are only available if enabled by the administrator. • Web browser issues found on the Geospatial Portal Classic product that are no longer supported by the browser vendor can be addressed with a limited scope by Hexagon Geospatial. Refer to vendor sites for information on their Web browsers support policies. • The mobile versions listed as supported web browsers are compatible with GeoMedia WebMap. However, differences in system architecture and mobile device limitations may result in some of functionality being unavailable when running on a mobile browser. Hexagon will attempt to address any mobile browser issues; however, a solution may ultimately depend on support from the browser provider. • Geospatial Portal does not work in Compatibility View in Internet Explorer browsers. This option must be switched off by the user.

Server-Side Internet Browsers	• Internet Explorer version 11 Notes: • Internet Explorer is required on the server side only to provide printing functionality unless Google Chrome or PhantomJS engine is used. • In order to run the Administration Console directly on the server host machine, any browser listed in Client-Side Internet Browsers can be used. Administration Console can be run remotely from the client side.
Server-Side System Dependencies and Additional Software	• .NET Framework 4.7.2 or higher • Windows Identity Foundation • Windows Installer 3.1 or higher • Internet Information Services (IIS) 10.0

Geospatial SDI	
Operating Systems	• Windows Server® 2016 (64-bit) • Windows Server® 2019 (64-bit)
Database Engines	• Oracle® Server 12c R1 (12.1.0.1) • Oracle® Server 12c R2 (12.2.0.1) • Oracle® Server 18c (12.2.0.2) • Oracle® Server 19c (12.2.0.3) • Oracle® Client 12.1.0 (32-bit) • Oracle® Client 12.2.0 (32-bit) • Oracle® Client 18.5.0 (32-bit) • Oracle® Client 19.12.0 (32-bit) • SQL Server® 2012 • SQL Server® 2014 • SQL Server® Express 2012 • SQL Server® Express 2014 • SQL Server® 2016 • SQL Server® Express 2016 • SQL Server® 2017 • SQL Server® Express 2017 • SQL Server® 2019 • SQL Server® Express 2019 • SQL Server Native Client 10.0 or higher • Azure SQL Database compatible with SQL Server® 2014, 2016, 2017, or 2019 • PostgreSQL 9.6 with compatible version of PostGIS • PostgreSQL 10 with compatible version of PostGIS • PostgreSQL 11 with compatible version of PostGIS • PostgreSQL 12 with compatible version of PostGIS • PostgreSQL 13 with compatible version of PostGIS • Access® 2010 (MDAC2010 v14) Notes: • For all later service packs, see the Support website for specific notices. • NHibernate, Log4Net, and ADO.NET are used for accessing databases in SDI Pro Security and Logging mechanisms. The full list of supported database engines depends on these third-party frameworks. However, SDI services were used successfully with listed engines. • 64-bit Oracle Data Access Components (ODAC) is required for Catalogue (CSW) services running with Oracle Server 12 (64-bit). • SQL Server Native Client 10.0 or higher is needed in order for the Database Utilities utility to automatically create the correct GeoMedia metadata for date, time, and datetime2 data types when using a SQL Server or SQL Server Spatial warehouse. You may get SQL Server Native Client 10.0 or higher from the corresponding Microsoft websites. If the SQL Server Native Client is not installed on the system, you need to manually choose Date as the data type from the drop-down combo box for these data types in the Feature Class Properties dialog and set the format properly.

Internet Browsers (required to run Administration Console)	• Google Chrome 93 or higher • Firefox 92 or higher • Internet Explorer version 11 • Microsoft Edge 93 or higher Notes: • For browsers: Firefox and Chrome versions stated are the versions that certification was conducted on. The software is expected to work on newer versions of these browsers, but they were not officially certified. • Web browser issues found on the Geospatial SDI product that are no longer supported by the browser vendor can be addressed with a limited scope by Hexagon. Refer to vendor sites for information on their browser support policies.
Server-Side Internet Browsers	• Internet Explorer version 11 Note: • Internet Explorer is required on the server side only to provide printing functionality unless Google Chrome or PhantomJS engine is used. • In order to run the Administration Console directly on the server host machine, any browser listed in Client-Side Internet Browsers can be used. Administration Console can be run remotely from the client side.
Server-Side System Dependencies and Additional Software	• .NET Framework 4.7.2 • Windows Identity Foundation • Windows Installer 3.1 or higher • Internet Information Services (IIS) 10.0 Note: • All later service packs for the system dependencies are considered supported unless otherwise noted. See the support website for specific notices.

Issues Resolved

Geospatial Server 2022

GeoMedia WebMap, Geospatial SDI, Geospatial Portal

Support Ticket	Summary
00035178	The content type for getFeature, GetPropertyValue and describeFeatureType should be at least application/gml+xml; version=3.2.
00055008	Service Source Configuration Utility Initialize button doesn't consider Map Server Pools.
00057589	Problem with printing in Geospatial Portal- PhantomJS printer cannot finish printing (endless loop).
00056716	WFS info not cached across sessions for 'action=columns' request.
00002457	Some WFSG services do not work. The error message "Sequence contains no elements" is displayed.
00059412	Service Source Configuration Utility cannot connect remotely to a server with large number of services.
00077056	Data window in Geospatial Portal - issues with selection behavior on multiple pages.
00079672	Autofill feature in GeoMedia WebMap Mobile app doesn't work properly for Integer column in offline mode.
00077029	WMPS hotspot 'Opens an URL' fails if URL starts with https.
00069088	Server-side request forgery.
00054647	Update of documentation with notes regarding Map Server Memory Threshold.
00066269	LUWS search doesn't work in the Geospatial Portal.
00081117	WMPS queries don't work when Portal uses session state service.
00072271	Consumer Portal cannot display WMS where Capabilities is in version 1.3.0 only.
00067015	GetFeatureInfo command and Selection tools returns wrong results on thematic legends.
00067405	Issue with display of long layer names in Consumer Portal.
00072240	WFS GetFeature issue for EPSG:31255. It expects swapped coordinates.
00060346	Cannot generate route for the provided inputs using HERE (NAVTEQ) datasets.
00068472	Save photo form Mobile app issue: WFS-T over PostGIS cannot update 'memo' field.

00072323	INSPIRE WFS - the possibility to add “metadataURL” to the existing SpatialD\ataSetIdentifier element.
00057780	Consumer Portal in 3D mode shows incorrect sun position.
00078872	Can't connect to an HTTPS WMPS on a different server (domain).
00078906	WCS 2.0.1 Facade doesn't work.
00079548	WCSfacade - missing rows in the capabilities document.
00073656	HTTPS Portal and WMPS service fail to re-connect after period of inactivity.
00061437	Consumer portal does not filter fields and displays Geometry and Geometry_SK fields and does not display alternate field names.
00030872	Map Content legend manipulation does not ignore dynamic legend entries while generating LRF.
00077167	Mobile Publisher - Works broken after WFS-T attribute(s) update.
00079485	Geomedia WebMap Mobile app (for Windows) timeouts when waiting for offline data.
00069073	Mobile Publisher cuts off custom parameters from WMTS service.
00074104	Error while publishing metadata - Oracle metadata corruption.
00077168	Spatial Limitations Issue for Geospatial SDI Security Console Upgraded WMS/WFS instances fails with error Required attribute 'CRSTableName' not found.
00025185	WFS Metadata Editor: Wrong Tooltip and exception for Feature types Keywords in the INSPIRE profiles.
00064164	Issue with displaying WMS by https in Consumer Portal - WMS doesn't return Capabilities version 1.1.1 if both HTTP & HTTPS bindings are available on the server.
00064133	CSW search results list doesn't show starting from page 3.
00067144	Measurement Tools not working when "Go to my location" is enabled.
00068537	Google logo and trademark are always on top of Portal forms and windows.
00054729	Misleading documentation for Oracle client requirements.
00042886	MatchCase for WFS queries is not documented nor available in web.config template.
00065027	Problem with dynamic labels - publisher generates 0kB LRF until certain map window is deleted.
00063902	Issue with synchronizing legend to Publisher Portal. Label Rule File is not updated.
00065380	WebMap WMS TimeDimension doesn't work on MS SQL warehouse connection.

00065639	One of the main services of National Geographic Institute of Spain cannot be used with Mobile Publisher.
00044102	WFS-T - cannot update DATE column with NULL value.
00020867	WFS-T does not handle date field changes.
00057704	The language parameter ignored for WMS INSPIRE queries.
00059355	WebMap WMS does not render layer which was in the GM Legend turned off.
00067042 00056264	Geospatial SDI Security Console crashes showing – “Object reference not set to an instance of an object.”
00059316	Creation of a new service fails in Service Source Configuration Utility when there is 2000+ services.
00064447	WFS-T Insert operation in Geospatial Portal doesn't work with {http://www.opengis.net/gml/3.2}id.
00057429	WMPS icons are not shown in Consumer Portal legend.
00055312	WebMap does not display all records through AttributeFilterPipe - Missing records in map.
00054983	Bing maps cannot be displayed over https.
00055155	WMTS layer is not displayed after first search in Consumer Portal.
00060970	Consumer Portal GUI localization issues: Unify translation keys in consumer-portal and webgis-core. Add translation for hardcoded values in consumer-portal.
00070626	Blocked cookies issue after chrome cookie policy update.
00067703	WMS GetFeatureInfo returns no attributes from GeoPackage data source.
00064028 00063864	GeoMedia WebMap still delivers MSXML4 which is EOL.
00066064	CSW search results can add only a WMS service layer.
00066833	SDI WFS Facade not working properly for geoserver WFS.
00066012	GeoMedia WebMap Mobile app crashes on devices with Android 10.
00064940	Security Console’s Spatial Limitations Issue - Bounding Boxes not working under EPSG 31256.
00064780	Issues with Portal print service over HTTPS.
00065590	Some mapserver doesn't respond on Service Source ConfigurationUtility.

0064949	Error in Geospatial Portal fetching WFS Geometry with arc in internal ring.
00065940	Portal GetFeatureInfo command fails on Postgres based WMS after modifying WebPub Admin Display Field settings.
00051504	$GP.dynamicFeatureEvents don't work with WMPS.
00037597	Raster file not displayed in WebMap WMS.
00057729	WFS does not honor Map Server Pool setting.
00068687	No layers initially loaded from a gpw file.
00067839	'Session' handler enabled in AuthenticationPipe adds default port numbers to URL.
00071273	Printing with Chrome does not work.
00015622	“Select features by bbox” on filtered WFS feature returns all records within bbox.
00071781	WFS - parameter count ignored if KML outputFormat is specified.
00069523	Admin Console ignores the port of an HTTPS IIS Website Binding unless specific IP address binding is set.
00015243	WFS errors/does not accept http://www.opengis.net/gml/3.2 in the GetFeature XML Post request.
00013309	SDI Logging doesn't support WFS-T – Redlining issues.
00027030	Cannot display all layers from WMTS with both png and jpg layers.
00061287	Data view zoom button doesn’t honour swap coordinates service quirks.
00070713	WMS does not render linear features with style type “Dash Line Style”.
00005154	Long picklist values are truncated in display.
00073891	Analysis not removed from Data view using Analysis.remove() function & Analysis not removed from map on layouts without Sidebar.
00074156	Memory leak on WMPS initialization – with Thematic legend (Range).
00076815	SDK - Issues with WMPS registrations and queries - $GP.queries.add fails to execute.
00078660	WFS area features not drawn when saved GPW loaded. Selected WFS feature doesn't change color.
00079836	The WMS request GetFeatureInfo does not respect scale ranges for layers.

00081411	Custom Feature Info doesn't work with new Portal template SDK - layerNameSuffixes error on $GP.map.draw.clear().
00082042	STS-secured services unable to recover after Portal session times out (HTTPS/LOB environment).
00078433	Mobile Backend - Offline generation fails if specific attribute name is present in WFS.
00081897	Insert Marker/Annotation dialogue missing tabs under HTTPS.
00080099	Printing doesn't work in a Load Balanced environment - WFS-G service serialization issues when printing in LOB.
00077772 00016223	WMTS facade - Capabilities document - Layer - Style - LegendURL is not replaced with the façade URL.
00078139	LUWS for EPSG:5514 not working properly under Portal with EPSG:3857.
00062193	Multiple WMS instances in the same application pool throw assembly error.
00081042	Loss of WMS Image Resolution in WebMap Mobile in Offline Mode.
00081762	MapServer memory usage too high for Oracle connection.
00079752	Offline mode doesn't offer quick switch when editing overlapping features.
00082832	Track Option not showing any moving marker on map in Geomedia WebMap mobile app.
00063197	Invalid license page has a wrong link to the licensing portal.
00071568	Authorization Bridge web.config template needs updating for newer targetFramework.
00059467	Issue with Access to AuthorizationBridge in Security Console via https.
00065643	Layer not listed on a Work when editing but listed on mobile app.
00056637	Incorrect definition for the root element in schema for WFS with authorization.
00064151	Error initializing map service when registering service using its URL with https.
00070530	GeoMedia WebMap Mobile layout broken.
00064585	WCS 2.0.1 is not supported.
00022844	Feature Info command ignores existing WMS Filter.
00070900	Portal Area Measurement Issue.
00070746	Problems with redlining in Geospatial Portal.

00070802	Portal error under Chrome -- CSRF prevention. Request not allowed. Token inconsistent with cookies data.
00063894	WMS synchronize publisher map fails when having label entries.
00036517	Publisher Administrator Map Content - Synchronise/Update & Append - Not Updating Label Rule File.
00059543	Unable to display https WMS in Consumer Portal.
00056538	Missing Inspire metadata elements on a WMS GetCapabilities Request.
00030868	Publish from GeoMedia LabelManager to LRF produces incorrect results.
00012654	DWithin operator is not available in the Geospatial Portal Analysis for the WFS created from GeoMedia.
00066259	GetFeatureInfo command and Selection tools return additional records nearby.
00066039	WMPS - File Path Manipulation security issue.
00065540	High severity vulnerability found in WMPS MapService.svc.
00069601	Audio record doesn't work on Mobile.
00064226	Attribute names and attribute aliases of WMS have - by Customer - insufficient configuration option.
00062043	Error defining WMPS Search for Consumer Portal - "WMPS connection string is flawed"
00059849	Connection to a https CSW fails
00063124	Repeat error when trying to assign a role to a group in the SDI security console
00057781	Consumer Portal 2020 - new Information Bar is not updating Map Composition Name as it changes
00056348	LabelWeb crash and Map Server hang
00041306	Critical Security Audit Report Jsquery 1.10 has known vulnerability
00060498	There is no graphic in GetMap request where Postgres in 11 version is involved
00060467	Problem with PostGIS data and WebMap 2020
00055034	WFS version 16.6 fails to retrieve features
00038927	WebMap WMS IIS Application Pool - CPU thread looping
00049656	Spatial restriction with SDI on a WFS not working

00048760	WCTS service does not work on https
00008307	Can't edit point features in WFS
00015236	Redlining error
00039773	Apollo 2018 install WMS image not displaying - cannot run Get capabilities
00034442	AdministrationService.svc always called using HTTP
00019316	Annotations do not print as displayed on screen
00083420	Could Not Load Luciad Fusion WFS at Portal
00079627	LabelWeb causes MapSvr.exe hangs/crashes
00080673	Secure WFS from ESRI is not displaying in Geospatial Portal
00082476	Secure WFS from ESRI connection error

About Hexagon

Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.

Hexagon's Safety, Infrastructure & Geospatial division improves the performance, efficiency and resilience of vital services. Its Safety & Infrastructure solutions enable smart and safe cities. Its Geospatial software leverages the power of location intelligence.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 21,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at hexagon.com and follow us @HexagonAB.

Copyright

© 2021 Hexagon AB and/or its subsidiaries and affiliates. All rights reserved. Hexagon and the Hexagon logo are registered trademarks of Hexagon AB or its subsidiaries. All other trademarks or service marks used herein are property of their respective owners.

Product Documentation Terms of Use

PLEASE READ THESE TERMS CAREFULLY BEFORE USING HEXAGON GEOSPATIAL'S DOCUMENTATION ("DOCUMENT"). USE OF THIS DOCUMENT INDICATES ACCEPTANCE OF THIS AGREEMENT WITHOUT MODIFICATION. IF YOU DO NOT AGREE TO THE TERMS HEREOF ("TERMS"), DO NOT USE THIS DOCUMENT.

Use Of This Document

All materials in this Document are copyrighted and any unauthorized use may violate worldwide copyright, trademark, and other laws. Subject to the terms of this Agreement, Hexagon Geospatial (a Division of Intergraph Corporation) and Intergraph's subsidiaries ("Intergraph") hereby authorize you to reproduce this Document solely for your personal, non-commercial use. In consideration of this authorization, you agree to retain all copyright and other proprietary notices contained therein. You may not modify the Materials in any way or reproduce or publicly display, perform, or distribute or otherwise use them for any public or commercial purpose, except as specifically authorized in a separate agreement with Hexagon Geospatial.

The foregoing authorization specifically excludes content or material bearing a copyright notice or attribution of rights of a third party. Except as expressly provided above, nothing contained herein shall be construed as conferring by implication, estoppel or otherwise any license or right under any copyright, patent or trademark of Hexagon Geospatial or Intergraph or any third party.

If you breach any of these Terms, your authorization to use this Document automatically terminates. Upon termination, you will immediately destroy any downloaded or printed Materials in your possession or control.

Disclaimers

ALL MATERIALS SUPPLIED HEREUNDER ARE PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-

INFRINGEMENT. Hexagon Geospatial does not warrant that the content of this Document will be error-free, that defects will be corrected, or that any Hexagon Geospatial Website or the services that make Materials available are free of viruses or other harmful components.

Hexagon Geospatial does not warrant the accuracy and completeness of this Document. Hexagon Geospatial may make changes to this Document at any time without notice.

Limitation Of Liability

IN NO EVENT SHALL HEXAGON GEOSPATIAL BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, DATA OR USE, INCURRED BY YOU OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, ARISING FROM YOUR ACCESS TO, OR USE OF, THIS DOCUMENT.

Indemnification

You agree to defend, indemnify, and hold harmless Hexagon Geospatial, its officers, directors, employees, and agents from and against any and all claims, liabilities, damages, losses or expense, including reasonable attorneys fees and costs, arising out of or in any way connected with your access to or use of this Document.

Use Of Software

Use of software described in this Document is subject to the terms of the end user license agreement that accompanies the software, if any. You may not download or install any software that is accompanied by or includes an end user license agreement unless you have read and accepted the terms of such license agreement. Any such software is the copyrighted work of Hexagon Geospatial, Intergraph or its licensors.

Links To Third Party Websites

This Document may provide links to third party websites for your convenience and information. Third party websites will be governed by their own terms and conditions. Hexagon Geospatial does not endorse companies or products to which it links.

Third party websites are owned and operated by independent parties over which Hexagon Geospatial has no control. Hexagon Geospatial shall not have any liability resulting from your use of the third party website. Any link you make to or from the third party website will be at your own risk and any information you share with the third party website will be subject to the terms of the third party website, including those relating to confidentiality, data privacy, and security.

Trademarks

The trademarks, logos and service marks ("Marks") displayed in this Document are the property of Hexagon Geospatial, Intergraph or other third parties. Users are not permitted to use Marks without the prior written consent of Hexagon Geospatial, Intergraph or the third party that owns the Mark. "Intergraph" is a registered trademark of Intergraph Corporation in the United States and in other countries. Other brands and product names are trademarks of their respective owners.

Find additional trademark information.

Procedure For Making Claims Of Copyright Infringement

Notifications of claimed copyright infringement should be sent to Hexagon Geospatial by mail at the following address: Intergraph Corporation, Attn: Intergraph Legal Department, P.O. Box 240000, Huntsville, Alabama 35824.

US Government Restricted Right Materials are provided with "RESTRICTED RIGHTS." Use, duplication, or disclosure of Materials by the U.S. Government is subject to restrictions as set forth in FAR 52.227-14 and

DFARS 252.227-7013 et seq. or successor provisions thereto. Use of Materials by the Government constitutes acknowledgement of Hexagon Geospatial or Intergraph's proprietary rights therein.

International Use

You may not use or export Materials in violation of U.S. export laws and regulations. Hexagon Geospatial makes no representation that Materials are appropriate or available for use in every country, and access to them from territories where their content is illegal is prohibited.

Hexagon Geospatial provides access to Hexagon Geospatial international data and, therefore, may contain references or cross references to Hexagon Geospatial products, programs and services that are not announced in your country. These references do not imply that Hexagon Geospatial intends to announce such products, programs or services in your country.

The Materials are subject to U.S. export control and economic sanctions laws and regulations and you agree to comply strictly with all such laws and regulations. In addition, you represent and warrant that you are not a national of, or otherwise located within, a country subject to U.S. economic sanctions (including without limitation Iran, Syria, Sudan, Cuba, and North Korea) and that you are not otherwise prohibited from receiving or accessing the Materials under U.S. export control and economic sanctions laws and regulations. Hexagon Geospatial makes no representation that the Materials are appropriate or available for use in every country, and access to them from territories where their content is illegal is prohibited. All rights to use the Materials are granted on condition that such rights are forfeited if you fail to comply with the terms of this agreement.

Revisions

Hexagon Geospatial reserves the right to revise these Terms at any time. You are responsible for regularly reviewing these Terms. Your continued use of this Document after the effective date of such changes constitutes your acceptance of and agreement to such changes.

Applicable Law

This Document is created and controlled by Hexagon Geospatial in the State of Alabama. As such, the laws of the State of Alabama will govern these Terms, without giving effect to any principles of conflicts of law. You hereby irrevocably and unconditionally consent to submit to the exclusive jurisdiction of the United States District Court for the Northern District of Alabama, Northeastern Division, or the Circuit Court for Madison County, Alabama for any litigation arising out of or relating to use of this Document (and agree not to commence any litigation relating thereto except in such courts), waive any objection to the laying of venue of any such litigation in such Courts and agree not to plead or claim in any such Courts that such litigation brought therein has been brought in an inconvenient forum. Some jurisdictions do not allow the exclusions or limitations set forth in these Terms. Such exclusions or limitations shall apply in all jurisdictions to the maximum extent allowed by applicable law.

Questions

Contact us with any questions regarding these Terms.