# RELEASE GUIDE

## GEOMEDIA SMART CLIENT 2018

February 27, 2018

# Contents

# ABOUT THIS RELEASE

This document describes the enhancements for GeoMedia® Smart Client. Although the information in this document is current as of the product release, see the Hexagon Geospatial Support website for the most current version.

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

# NEW PLATFORMS

## LICENSING

Starting with the Power Portfolio 2018 release, licenses are no longer based on Certificate-file based technology. Instead, licenses are based on Activation IDs, allowing you to activate products without providing Host IDs or other hardware-related parameters. You can also re-host without emailing the licensing team for assistance. The Power Portfolio 2018 release also includes improved tools that make it easier to install licenses, set up license servers, and provide more professional error handling. Finally, the Power Portfolio 2018 release includes improved customer notification in the products, such as an "end of subscription" message in the Start-up screen. These more secure and automated processes, along with a new licensing portal, provide you with a better overall user experience.

# GEOMEDIA SMART CLIENT PRODUCT TIERS

GeoMedia Smart Client is a GIS workflow management system that connects tasks and dependencies across different roles in a process and dynamically configures to reflect a user's role and specific workflow steps.  End users can use advanced geospatial functionality via simple-to-use, map-based tools, disentangling them from non-essential tasks and focusing their time on their area of expertise.

Workflow Manager is a standalone product and a rich toolset that lets you construct highly-focused business workflows that primarily support attributive data, but also may contain a spatial component. It provides the means for third parties, contractors, and even the public to make use of task-specific, highly-specialized processes that tie back to your enterprise operations.  No programming skills are required to build optimized form-based workflows that can be made available in the browser and through Geospatial Portal.

GeoMedia Smart Client is available in three product tiers (Essentials, Advantage, Professional) to complement a broad range of customers – from a small business with a few users doing simple vector editing, to large, multi-disciplinary environments supporting multiple business workflows across various departments.

## GEOMEDIA SMART CLIENT ESSENTIALS

Organizations can provide high-end vector redlining functionality and the ability for an unlimited number of users to display raster and vector maps, analyze and query data, print, measure, and use dimensioning functions.

## GEOMEDIA SMART CLIENT ADVANTAGE

The Advantage level tier of GeoMedia Smart Client contains all the features and functionality of the Essentials product, plus the ability for an organization to use predefined business process workflows and edit data. The additional Workflow Manager – Runtime module enables customers to run pre-built workflows, edit attributes, or capture and change spatial data on the web client and push the changes back to the server database.
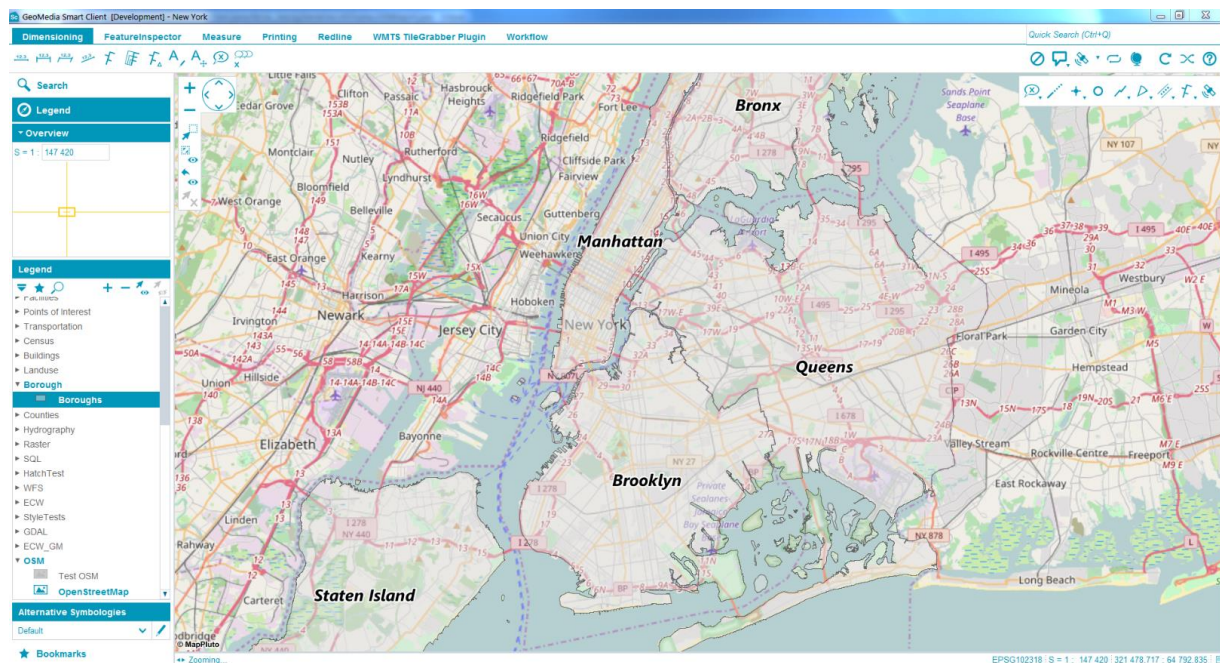
## GEOMEDIA SMART CLIENT PROFESSIONAL

The Professional level tier of GeoMedia Smart Client contains all the features and functionality of the Advantage product, plus it includes Workflow Manager – Editor, enabling an organization to develop workflows or revise the structure, process, and forms of current ones.

# NEW IN 2018

## OPENSTREETMAP INTEGRATION

OpenStreetMap© (OSM) integration provides an easy way to setup a new project without any background data. OSM in GMSC 2018 is available for the Java client as well as for Public Maps.



The background map content is based on information provided from OSM contributors.

| Feature ^ | WMS |
| --- | --- |
| | WFS |
| Features | WMTS |
| New Feature | IWS |
| Current: | Bing Maps |
| WMTS | OSM |
| New WMTS | |

**Configuration**

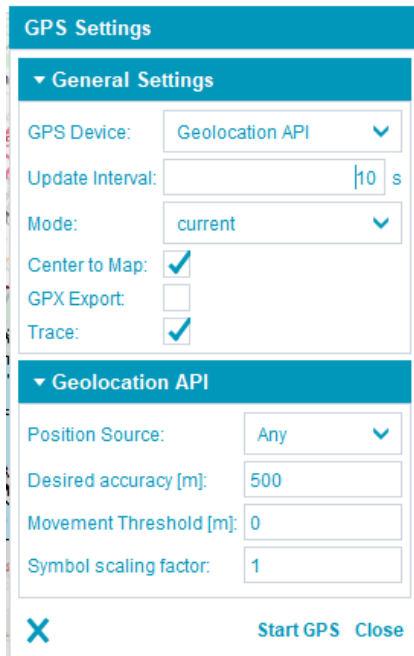| Template: | OpenStreetMap ∨ |
| --- | --- |
| Url: * | OpenStreetMap |
| | Thunderforest - OpenCycleMap |
| | Thunderforest - Transport |
| | Custom |
| Copyright: | |

OpenStreetMap contributors

OpenStreetMap® is open data, licensed under the Open Data Commons Open Database License (ODbL) by the OpenStreetMap Foundation (OSMF). Please consider the copyright and license information at https://www.openstreetmap.org/copyright/en before adding this layer to your project. Please read also the Tile Usage Policy.

Templates simplify the OSM configuration in Smart Client Administrator and Public Maps Administrator.

# WINDOWS 10 LOCATION API

Use GPS positions via the standard Windows 10 API with no additional drivers or protocols.

**GPS Settings**

**▼ General Settings**

| | |
|---|---|
| GPS Device: | Geolocation API ▾ |
| Update Interval: | 10  s |
| Mode: | current ▾ |
| Center to Map: | ✔ |
| GPX Export: | ☐ |
| Trace: | ✔ |

**▼ Geolocation API**

| | |
|---|---|
| Position Source: | Any ▾ |
| Desired accuracy [m]: | 500 |
| Movement Threshold [m]: | 0 |
| Symbol scaling factor: | 1 |

✕                    Start GPS  Close

Desired accuracy must be a meaningful value. To help determine desired accuracy values, Microsoft offers a valid range for each position source. For more information, visit: https://docs.microsoft.com/en-us/uwp/api/windows.devices.geolocation

Accuracy with different settings:

**GPS:** within approximately 10 meters

**Wi-Fi:** between approximately 30 meters and 500 meters
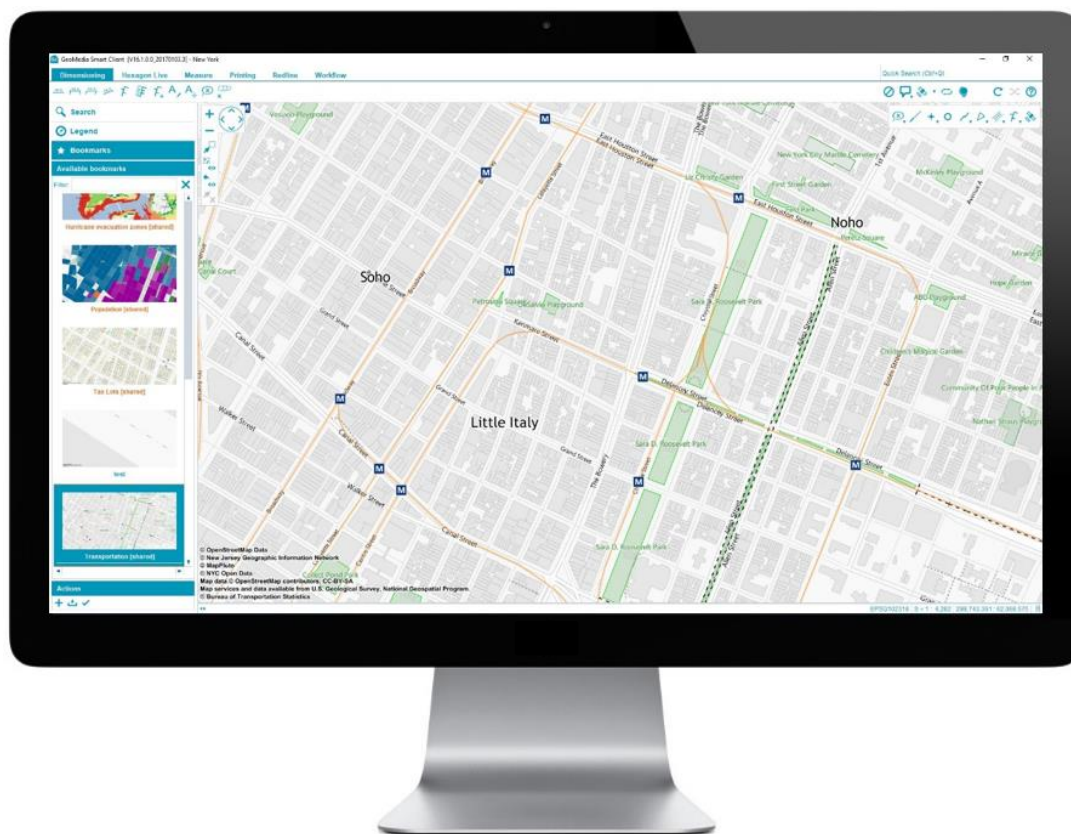
**Cell towers:** between approximately 300 meters and 3,000 meters

**IP address:** between approximately 1,000 meters and 5,000 meters

# 4K DISPLAY SUPPORT

With GeoMedia Smart Client 2018, you get full 4K support in the Java client, Workflows, and Public Maps.
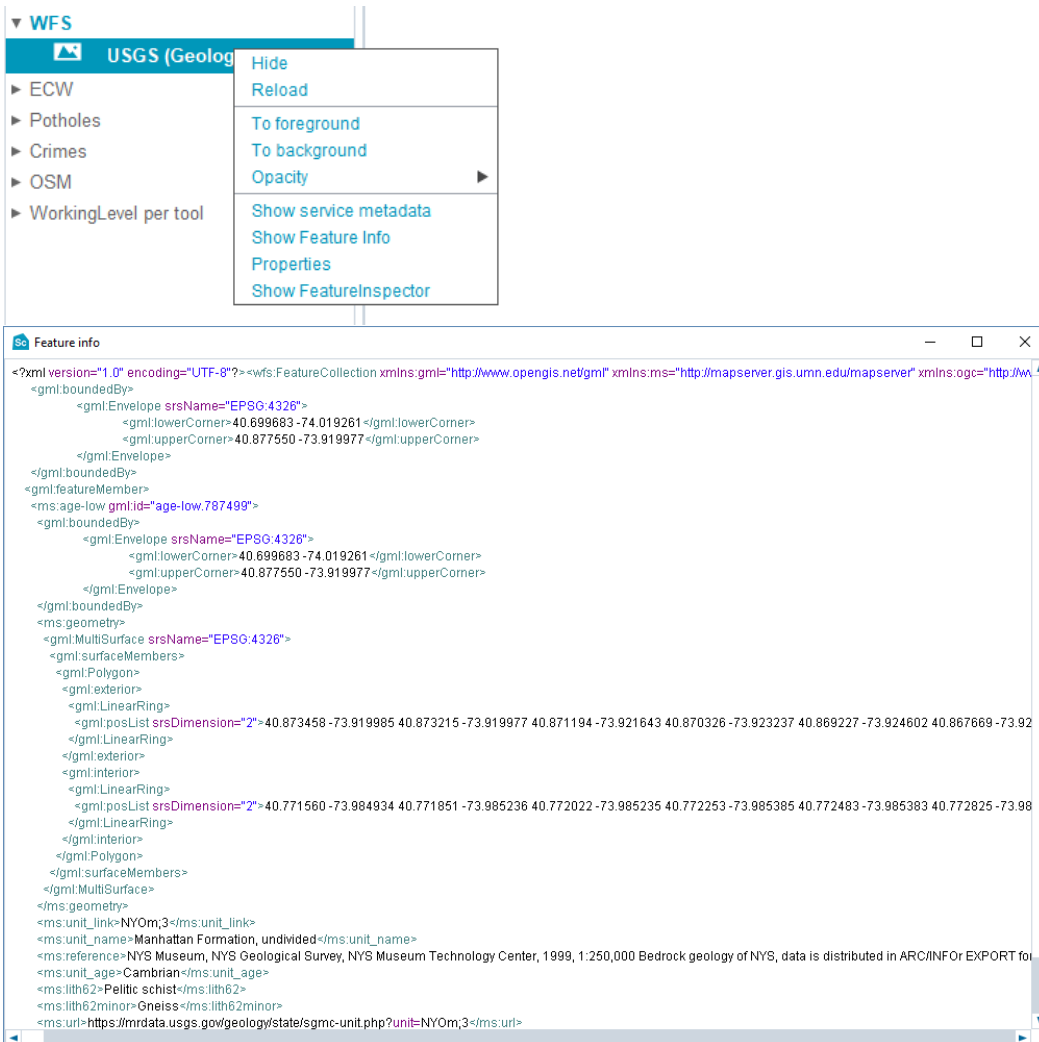


**Limitation:**

GeoMedia Smart Client 2018 doesn't support the generation of HiDPI raster map tiles.

# EXTENDED OGC SERVICE SUPPORT

There are three additional actions for your Open Geospatial Consortium Web Map Service (WMS), Web Feature Service (WFS), and Web Map Tile Service (WMTS):

- Discover Service Metadata

- Legend Graphic integration (only WMS and WMTS)

- Get Feature Info

## JAVA 9

GeoMedia Smart Client 2018 is compatible with Java 9 which guarantees free Java SE Public Updates from Oracle to maintain system security. Because Java 9 won't support 32-bit any longer, only 64-bit browser and client operating systems are usable for GeoMedia Smart Client 2018.

## SEAMLESS START OF GEOMEDIA SMART CLIENT

With GeoMedia Smart Client 2018, the client, as well as the PrintLayout Editor, has a seamless start. This eliminates the need for downloads.

## ADDITIONAL CHANGES

### ACTIVE DIRECTORY

In GeoMedia Smart Client 2018, multilevel hierarchy on Active Directory is supported, giving you access to nested groups.

### ASSEMBLY CACHE

In GeoMedia Smart Client 2018 the Assembly cache moved from **\WINDOWS\Microsoft.NET\assembly\GAC_MSIL** to the corresponding folders directly in the installation folder. All *.dll's are now found in the different folders of **\GeoMedia Smart Client\Program\**.

### DECIMAL REPRESENTATION OF GEOGRAPHIC COORDINATE REFERENCE SYSTEM

Every geographic coordinate reference system will also be shown in a decimal representation in the status bar.

### LINUX & MAC OS X SUPPORT

Linux and Mac OS X are considered viable for GeoMedia Smart Client 2018. However, these operating systems will no longer be supported in subsequent releases.

### WORKFLOW - RESOLVE DEPENDENCIES

A ComboBox field receives a new value by dependency-resolving only if the value is in its list of values. Otherwise, its value is set to null. All children of a ComboBox field were resolved with the valid value or null, not last persisted value anymore.

### WORKFLOW - EXTENDED LENGTH OF FORM FIELD NAMES

Names of form fields can now be longer than 30 characters. Therefore, more complex database schemas can be managed.

## MIGRATION STEPS FROM 2016 TO 2018

**Note: Only needed for queries, if the column type in the database is TEXT based and the input could be a number.**

You must change the queries and cast the input to match the database column type:

**SELECT .... FROM TABLE WHERE ATTRIBUTE=CAST({ENTITY.ATTRIBUTE} AS text)**

# SYSTEM REQUIREMENTS

## GEOMEDIA SMART CLIENT

| | |
|---|---|
| Computer/ Processor | Server side: requires 1.4 GHz minimum (64-bit)<br><br>Client side: 1 GHz minimum (64-bit) |
| Memory (RAM) | Server side: 8 GB minimum<br><br>Client side: 2 GB minimum |
| Disk Space | Server side: 512 MB for application<br><br>Additional disk space requirements vary depending on the amount of geodata |
| Operating Systems | Server side:<br><br>● Windows® Server 2012 (64-bit)<br>● Windows® Server 2012 R2 (64-bit)<br>● Windows® Server 2016<br><br>Windows® Server will be supported until the end of Microsoft's Mainstream support of the product.<br><br>https://support.microsoft.com/en-us/lifecycle<br><br>Client side:<br><br>● Any Microsoft operating system which is certified for Java Runtime Environment (JRE) version 9<br><br>For example:<br><br>● Windows® 7 SP1 (64-bit)<br>● Windows® 8.1 (64-bit)<br>● Windows® 10 (64-bit)<br><br>Windows® OS will be supported until the end of Microsoft's Mainstream support of the product.<br><br>https://support.microsoft.com/en-us/lifecycle |

| | |
|---|---|
| Database Server Engines | Database Servers (Read / Write)<br><br>● Oracle® Server 12c or higher (32-bit and 64-bit)<br>● SQL Server® 2014 SP2 or higher (32-bit and 64-bit)<br>● Postgres SQL 9.3 or higher (32-bit and 64-bit) |
| Additional Software | Server Side:<br><br>● .NET Framework 4.5.2<br>● Windows Installer 3.1 or higher<br>● MDAC 2.7 or WDAC 9.0.1<br>● IIS 8 or higher<br><br>Depending on database:<br><br>● Access Database Engine (64-bit) - part of the GMSC installation media<br>● Oracle 12c ODAC or higher<br><br>Client side:<br><br>● Java Runtime Environment (JRE) Release 9. |
| Browser | ● IE 11 and Microsoft Edge<br>● Chrome 63<br>● Firefox 57 |
| Graphics Displays | Recommended screen resolution of 1280 x 1024 or better with 24-bit color |
| Peripherals | Server side: Access to DVD drive<br><br>Client side: Mouse or pen for geodata input |
| Input device for tablets | Client side: Digitizer is recommended |

# ISSUES RESOLVED

| Issue # | Summary | Description / How to Reproduce |
|---------|---------|-------------------------------|
| SC-851 | Workflow: List-Row has still hover-state after action-click and mouse is moved away | View a WF-LIST with row actions.<br>Move the mouse over some of the rows.<br>Row with mouse-hover changes to another background color.<br>Click on a row action (no redirect action), and the row has still mouse-hover state. |
| SC-869 | Workflow: List columns do not wrap words at spaces | If the columns of a list are wrapped because of auto-sizing (kendoUI grid width), the words are hard wrapped instead of wrapped at spaces. |
| SC-873 | RuntimeLicence: FormSettings and WorkflowSettings files are not validated before upload | It is possible to upload any xml file.<br><br>Expected: only valid (formsettings.xsd and workflowsettings.xsd) xml files are allowed. |
| SC-923 | Workflow: attribute editable="false" on <FormFile> doesn't work properly | If the user defines editable="false" for <FormFile>, clicking on the "Select" button allows the user to select a file. |
| SC-1600 | Licensing: Version check isn't correct | The licensing API returns the wrong version, which is 0. This would allow a GMSC 2013 license (if the expiration date isn't reached) to work for a GMSC 2016 download. |
| SC-1838 | Two different tile services publishing the same feature at the same time causes issues | Both servers get a job with the same featureclass in it, and then there are problems with the tmp and delete folders in the servercache, which causes problems, including the possibility of the publish task to fail. |
| SC-1964 | Bookmark displays "Visible featureclasses", even when this option is not checked when saving the BookmarkWorkflowEditor: Sql and Session value editor always attach scope | Bookmark with "Center of the map" as the only option. When this bookmark is loaded, it also loads "Visible featureclasses". |

| SC-1988 | Unable to delete project | Some projects cannot be deleted, resulting in an error: 08.02.2017 11:33:01 ERROR - Controller Project has raised an exception in Action Delete. System.Data.SqlClient.SqlException: Subquery returned more than 1 value. This is not permitted when the subquery follows =, !=, <, <= , >, >= or when the subquery is used as an expression. The statement has been terminated. <br><br> It has been found that anytime there are multiple Actions associated with a project in the Administrator, that project cannot be deleted due to the query containing the '=' operator. In cases where there is a single Action assigned to a project, that project can be deleted. Trigger should be altered to contain 'IN" operator instead of '='. <br><br> 'RPI_PLUGINACTION_DEL_TRG' and 'RPI_PROJECT_DEL_TRG' <br><br> Workflow to replicate: <br><br> 1. Login at the administrator. <br><br> 2. Make TestAction the current project. <br><br> 3. Review actions 'Test' and 'Test1' noting that they are assigned to the project 'TestAction' (actions are not setup to function, testing this case only) <br><br> 4. Attempt to delete the 'TestAction' project and observe the message 'Unexpected error occured' in the browser dialog. If the log file is reviewed, it will show what is reported above (log file attached). <br><br> 5. Review again the actions, and change 'Test' action to have no associated project, leaving only a single action associated to the project 'TestAction'. <br><br> 6. Attempt to delete the project 'TestAction', and note that it does as it should. |
|---|---|---|
| SC-1989 | Workflows: resolve dependency issue of multiple ComboBoxes | |
| SC-1993 | PublicMaps:  Magnifying Glass right of the fulltextsearch with nofull text search option does not function | There was a Magnifying Glass (button) to the right of the fulltextsearch with no functionality, and it has been removed to allow for better usability. |
| SC-1994 | The Fulltextsearch in PublicMaps does not zoom to a result when using the Enter key | The Fulltextsearch in PublicMaps requires an additional Mouse Click to zoom to a result when the user enters (or cuts and pastes) the correct and full search string and then hits the Enter key. |

| SC-1996 | Smart Client cannot reproject WMS layers | The WMS from Environment and Climate Change Canada is displaying incorrectly in Smart Client |
|---|---|---|
| | | We are using EPSG 3395 as the project coordinate system. The incoming WMS is in EPSG 3857. |
| | | After various tests, we think the issue has to do with the way Smart Client reprojects the WMS layer. |
| | | In previous versions of GMSC, you were able to select a coordinate system for WMS from a dropdown list. In the latest version you can only manually type in an SRS. The axis order is also a required field now. Is this problem related to the new required fields, the coordinate system, or something else? The WMS displays correctly in GeoMedia. We do not have an ini file for this feature. There is no username or password required. Also note: If you have a saved username and password, Smart Client will automatically try to add the password parameter to the WMS URL. This will cause the URL to be invalid. |
| | | Steps to replicate: |
| | | In the Smart Client Administrator, create a new project using EPSG 3395 as the coordinate system. Add Bing Maps as your background layer. Add a new WMS feature using the WMS URLs mentioned above. Add the features to the legend, assign the feature role, and log into Smart Client. Turn on the Bing Maps layer. Once that has loaded, turn on the WMS layer. Notice that the weather layer displays as a smear in the wrong areas. The location of the smear changes as you pan the map around. Also note, when zoomed to the full project extents (in our case, Canada and America), the layers are not lined up. Turn the opacity down to do a comparison of the layers. |
| | | WMS 1<br>WMS URL: http://geo.weather.gc.ca:80/geomet/?lang=E&service=WMS<br>WMS Entity: RADAR - Radar reflectivity (Rain)<br>WMS Get Capabilities:<br>http://geo.weather.gc.ca/geomet/?lang=E&service=WMS&request=GetCapabilities<br>Axis Order: Easting Northing<br>SRS: 3857 |
| | | WMS 2<br>WMS URL:<br>https://basemap.nationalmap.gov:443/arcgis/services/USGSTopo/MapServer/WMSServer?service=WMS<br>WMS Entity: Layers<br>WMS Get Capabilities:<br>https://basemap.nationalmap.gov/arcgis/services/USGSTopo/MapServer/WMSServer?service=WMS&request=GetCapabilities<br>Axis Order: Easting Northing<br>SRS: 3857 |

| SC-1998 | Multi-geometry features not displaying correctly in PublicMaps | Client reported that multi-geometry features from a polygon feature class do not display in PublicMaps, whereas the other non-multiple geometry features i.e., individual polygons, display fine. This issue was replicated in 16.02, and research was extended to other feature classes including point, line, and compound.  That research is included in a document attached to this guide.<br>---<br>Support notes: It seems there is a problem with the projection EPSG:2193. SQL queries were traced, and in MS SQL, the data displayed correctly. Data display correctly in GMSC as well. It is only PublicMaps not displaying all features. The problem could not be reproduced when working with data exported to EPSG:3857.<br><br>Attached:<br>1) GMSC.zip - project database (MSSQL 2016, database version is 13)<br>2) GeoTranSpatial02.zip - database with the sample data located in New Zealand (MSSQL 2016, database version is 13)<br>3) Screenshots from GeoMedia, MSSQL, SmartClientGeoMedia Smart Client, and PublicMaps showing the differences.<br>4) Original document from the customer |
| --- | --- | --- |
| SC-2015 | Workflow with PostGIS leaves open connections | After a few (>13) successful workflow calls, the workflow engine can no longer connect to PostGIS<br>System.Exception: Timeout while getting a connection from pool.<br>    at Npgsql.NpgsqlConnectorPool.RequestConnector(NpgsqlConnection Connection)<br>    at Npgsql.NpgsqlConnection.Open() |
| SC-2018 | LTT - W3P.exe - Cannot perform operation while another user is in revision set | Experiencing issue using GeoMedia Smart Client with Oracle Workspace Manager activated (LTT).<br>It appears that GeoMedia Smart Client has some open sessions at the DB level (locked by W3P.exe). As this keeps the Oracle Workspace locked, we cannot merge/commit this Workspace. |
| SC-2021 | java.lang.NullPointerException at GMSC start - error during map mouse event | The NullPointerException will be caught and logged by the Map. No negative side-effects are found. |
| SC-2034 | Administrator - New Features import does not see other schemas on PostGIS | The New Features -> From Database import tool in GMSC Administrator ignores tables located in schemas other than public. For example, GeoMedia recognizes all schemas that are available for a user (see GeoMedia.png).<br>Steps to reproduce:<br>1) On a PostGIS server with some data that is visible to GMSC Administrator, create a new schema.<br>2) Export any data to the new schema.table.<br>3) Run GMSC/Administrator.<br>4) Try to import new Postgres features -> only features from public schema are recognized.<br><br>A workaround is to replicate the features in public schema, import them, and then change the table names in GMSC metadata. |

| | | |
|---|---|---|
| SC-2038 | GMSC Workflow is either crashing/locking up GMSC or is consuming all system memory until System lock down. | <ul><li>GMSC 2015.4 at Saxonia Police, most recent Java on Windows 7 x64<br>When using Java 32 Bit client, the workflow can be executed about 10-30 times before the application is crashing with a Memory usage of about 1000 MB for j2plauncher.exe . Java 64 Bit cannot be used actually for this customer, but has shown similar results. Also a short term update to GMSC 2016 seems not possible, but the issue is replicate able there as well. To ensure that this isn't a Java limitation, it was tested also in a 64-Bit Java along with increased heap size (1600m), the Client application didn't crash but as java is consuming all available memory during the time, the application / machine becomes unusable. Style tests don't work.</li><li>Excludes various sources from language update.</li><li>Commit warning if ws_src or xsd_src does not exist.</li><li>Replace NotImplementedException with UnsupportedOperationException.</li><li>Add module java.xml.bind to compiler.</li></ul>Build does not fail if unit tests fail. |
| SC-2067 | Client: No Legend Icon for dynamic labeling | |
| SC-2076 | LegendiconLegend shows incorrect icon for GPS feature | |
| SC-2078 | Tansparency is not handled correctly for GWMxxx Datasources | GWM doesn't handle transparency any more using GMSC 2016 / GWM 2016. Even when color FFFFFF is defined in symbology as transparent color, transparency is not handled as expected. |
| SC-2081 | Administrator: Username and Password of WMS causes an error | 04.12.2017 13:44:05 ERROR - Controller Feature has raised an exception in Action ResolveDependency.<br><br>Intergraph.Emea.Workflows.ResolveModelException: Could not resolve property 'DefaultValue'. |
| SC-2082 | Circles cannot be added to or subtracted from a polygon or circle | The actions "Merge" and "Spatial Difference" are not enabled, so users cannot add a circle to or subtract it from a polygon. |
| SC-2084 | Client: Exception during reload | 5 Dec 2017 09:11:21 SEVERE: --> [Thread-10] com.intergraph.web.ui.searchhub.SearchHub$SearchQueueThread.run<br><br>java.lang.InterruptedException |
| SC-2090 | PublicMaps: Cannot save new POI | |
| SC-2095 | QuickPick with geometry doesn't select all matching objects if the geometry is larger than the map bounds | If SelectionMode.Geometry is used for SpatialAnalysis and the geometry is larger than the map bounds then only those objects are selected which intersect the border of the selection geometry and not those which are inside the geometries because the server-side search only uses the Intersects-operator where the client side search uses both, intersects and contains. |

| | | |
|---|---|---|
| SC-2096 | Wrong connection was used to get type converted map selection | com.intergraph.web.plugin.media.MediaSupportPlugin.processWorkflowActio n<br><br>06.12.2017 09:00:51 SEVERE:      Browse fails for url!                        --> [pool-4-thread-1] com.intergraph.web.plugin.media.MediaSupportPlugin.processWorkflowActio n<br><br>java.io.IOException: Server returned HTTP response code: 500 |
| SC-2098 | Administrator: Actions label color is black while mouse-hover | |
| SC-2112 | PublicMaps: Full Text Search hovering color/highlight issue | Broken color/highlight of selected/hovering (keyboard) items in full text search result |
| SC-2126 | Insert HTML ComboBox is missing for PostGIS features | When editing properties of a feature imported from PostGIS database, the "Insert HTML" combo box is missing on the Tooltip dialog. |
| SC-2160 | GMSC throws error for Raster Feature containing SRID (other than null) | All of Customers Features contain SRIDs in the Oracle database. This works well for vector Features in GMSC. For Raster Features which contain SRID Definition, an error is thrown and Features do not Display. The coordinate System is all the same for Feature, Project and Raster data. |
| SC-2174 | Snapping two following vertices on overlapping points (same X,Y but different Z) - the second vertex is not created | There are more points with same X,Y but different Z at one place. Snapping works fine in most of the cases, but there is a problem, when user wants to snap line to two points at one place, each time on different Z (e.g. make a vertical stair). |
| SC-2176 | Remove DB icon for 'Hatch pattern type' (for Polygon) in Style Editor | |

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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.