



RELEASE GUIDE

ERDAS APOLLO 16.0 EP03

July 18, 2017



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ABOUT THIS RELEASE

Enhancements for ERDAS APOLLO 16.0 EP03 are described in this document.

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 ERDAS APOLLO for more information.

IMPORTANT

READ CAREFULLY BEFORE YOU START INSTALLING THIS RELEASE

If multiple Hexagon Geospatial products are installed on the same server, it is required that every Platform Suite WebGIS and Provider Suite product that is installed on the server must have the same release and patch version. Before you start installation, follow these steps to facilitate the server update process:

- 1) Verify the products installed on the server
- 2) Check if the product installation/upgrade concerns two or more of the following products:
 - Platform Suite: GeoMedia WebMap, Geospatial SDI, Geospatial Portal
 - Provider Suite: ERDAS APOLLO
- 3) Make sure that for the products detected in point (2), are compatible patches are available.

Make sure all products detected in point (2) are upgraded to the compatible patch before you initiate the ERDAS APOLLO instance upgrade procedure. Do not proceed with the installation if some of the products installed on the server do not provide a compatible patch.

NOTE: IIS URL authentication system feature must be installed on the server before installing the Geospatial Portal 16.0 EP03 patch or later.

Please contact Support in case of any questions regarding compatibility of products and patches.



WHAT'S NEW IN ERDAS APOLLO 16.0 EP03

MODERNIZED RESTFUL APIS FOR CUSTOMIZATION

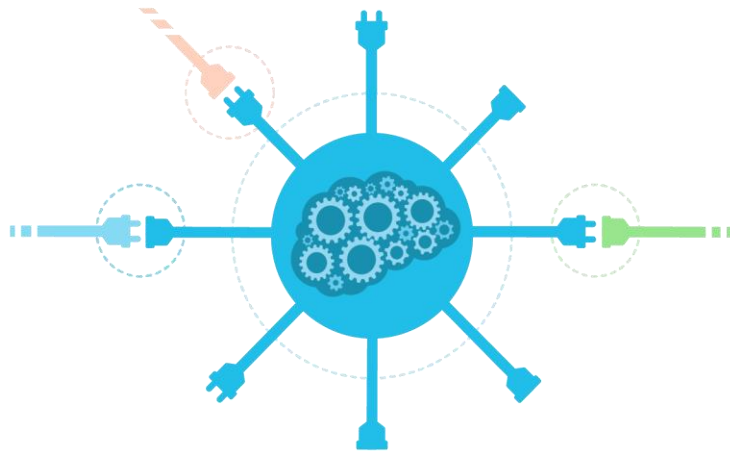
ERDAS APOLLO is an extensible platform allowing users to build custom applications on top of the framework.

ERDAS APOLLO Solution Toolkit, a Java-based SDK, was traditionally used to extend and customize ERDAS APOLLO.

With this release, we have migrated to ERDAS APOLLO RESTful (Representational State Transfer) API Framework.

RESTful API uses simple HTTP requests rather than requiring Java programming experience. RESTful API is easier to integrate into existing software packages.

The exposed ERDAS APOLLO web services are better integrated into various applications by allowing only those modules needed for a customer's particular needs or workflows to be integrated.



The following API categories are available in the ERDAS APOLLO 16.0 EP03 release:

- Crawl data into the catalog
- Query/Delete/Edit catalog records
- Create/Delete Aggregates
- Generate Pyramids
- Generate Thumbnails
- Harvest external web services
- Create/Manage/Delete OGC Services

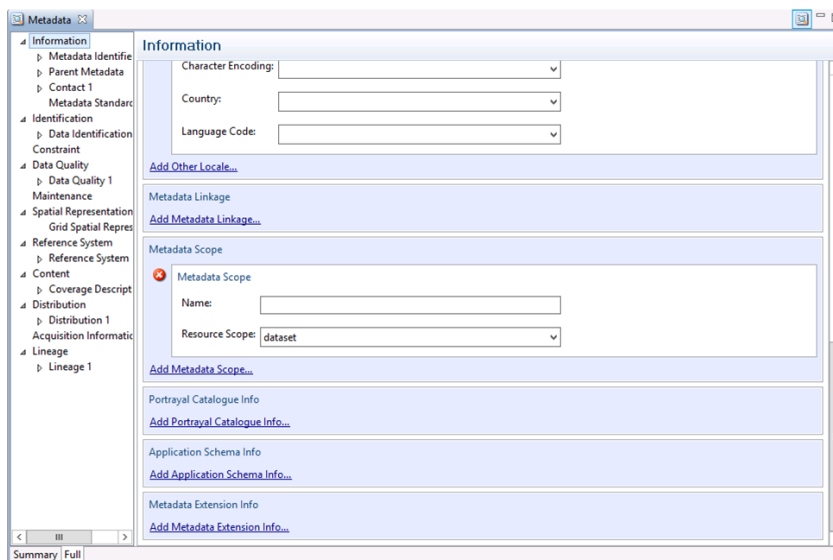
ERDAS APOLLO API Framework is implemented through an Open API RESTful Documentation Specification known as Swagger. Documentation for these APIs is built directly into the product and can be reached at the URL <http://<YourServer>/erdas-apollo/api-docs>. Details about each API's inputs and outputs, error codes, and schemas are provided.

Using Swagger, the developer can input JSON requests that communicate with the ERDAS APOLLO server and receive the requested information back as JSON.

ISO METADATA UPDATE

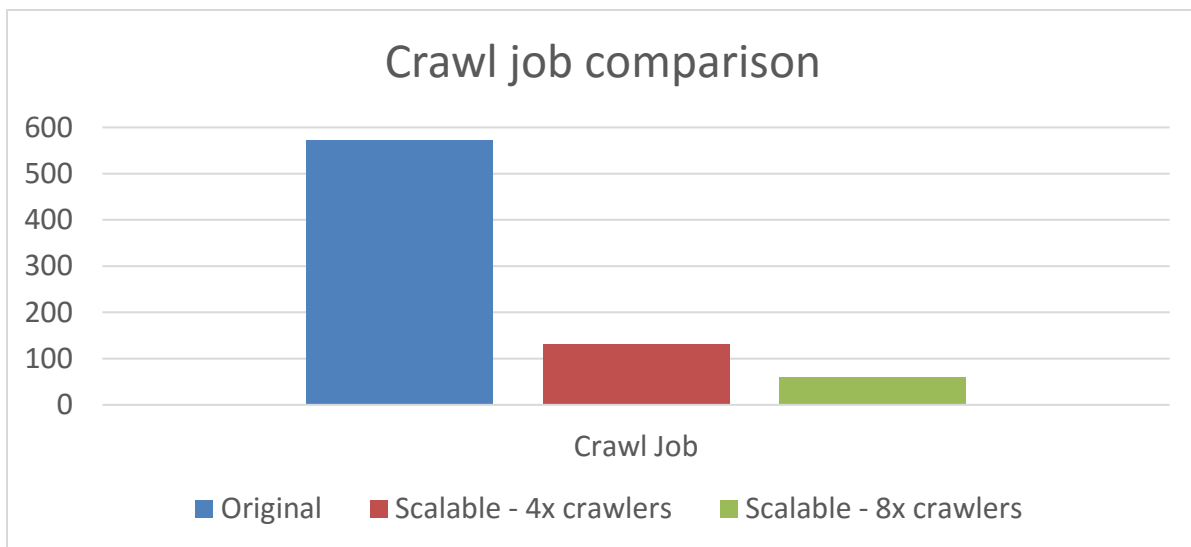
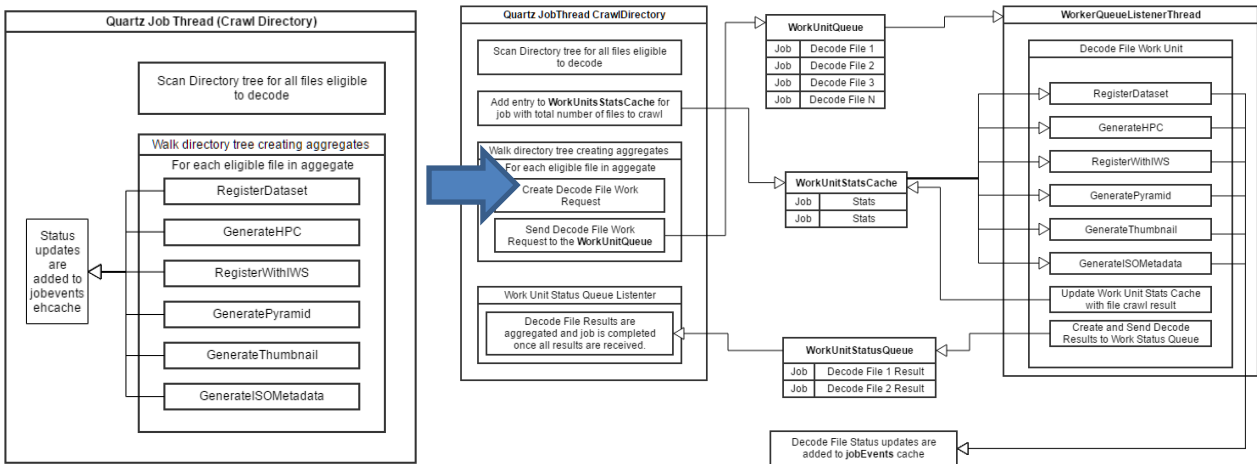
Migration of ISO metadata to the latest standards began in the ERDAS APOLLO 16.0 EP01 release by creating new storage models to hold the latest ISO standard schemas. The 16.0 EP03 release delivers a more complete solution, including:

- Updated to support 19115-3:2016 standard as well as ingest 19115-1 and 19115-2 documents
- Migration tool to convert an aggregate of data to the latest ISO 19115-3:2016 version
- Includes backward capability with ISO 19115:2003, 19115:2003 Cor.1:2006, 19115-2:2009, 19115-1:2014
- Updated viewer with better styling that matches the latest metadata schemas



SCALABLE MULTI-THREADED CRAWLER

Up to now, the ERDAS APOLLO crawler has been performed in a serial manner. ERDAS APOLLO 16.0 EP03 release introduces a new “scalable crawler” to distribute jobs across available CPUs. This scaling works across cluster configurations as well. Current testing has shown 3x – 5x performance boost in time elapsed in seconds.



OTHER UPDATES

In the ERDAS APOLLO 16.0 EP03 release, additional updates include:

- Continuing integration of underlying Core WMS
- Catalog query performance improvements
 - General performance improvements with SQL Server (2x – 3x improvement)
 - Hibernate optimizations (2x – 7x improvement)



- WMTS performance improvements
- Platform updates to Java, Tomcat connector, Tomcat 8.5
- Additional improvements in the Essentials tier
 - Stability improvements based on customer reported crashes
 - Improved file handle locking and performance for NFS datastores
 - DatabaseUpgrader speed improvements
 - Miscellaneous optimizations to dataset registration

SYSTEM REQUIREMENTS

ERDAS APOLLO

	ERDAS APOLLO Essentials	ERDAS APOLLO Advantage & Professional
Computer/ Processor	Intel ® or AMD quad-core processor with a clock speed of 2.0 GHz or higher	
Memory (RAM)	8 GB or higher	8 GB or higher (16 GB recommended)
Server Disk Space	~500 MB for application footprint	4 GB for application footprint
Spatial Data Storage	Minimum: 7200 RPM speed disk storage Recommended: High Speed Disk Storage, >15000 RPM, SSD, RAID Arrays, or External SAN/NAS ¹	
Network Backbone	100 MB or higher. 1 GB recommended	
Server Operating Systems	<ul style="list-style-type: none"> • Windows Server® 2008 R2 Standard and Enterprise Edition (64-bit) • Windows Server 2012 & 2012 R2 Standard and Enterprise Edition (64-bit) • Red Hat ® Enterprise Linux ® 5.x,6.x (64-bit) 	<ul style="list-style-type: none"> • Windows Server 2008 R2 Standard and Enterprise Edition (64-bit) • Windows Server 2012 R2 Standard and Enterprise Edition (64-bit)

	<ul style="list-style-type: none"> CentOS 5.x, 6.x (64-bit) 	
Cloud Environments	Amazon Elastic Cloud Compute (EC2)	
Supplementary Operating Systems for Testing & Development	Windows 7 can be used for development purposes, but deployments must be done on supported Server Operating Systems listed above.	
Software	N/A	<ul style="list-style-type: none"> Microsoft®.NET Framework 4.5 JDK 1.8.0 (-33 or higher, 64-bit) and Java Advanced Imaging 1.1.3 (both embedded in installer)
Minimum Client Software	<ul style="list-style-type: none"> Internet Explorer® versions 9.0 or higher Firefox® 14.0.1 or higher Google Chrome™ 21.0.1180.79 m or higher Safari® 5.1.7 or higher Java JRE v1.6 or higher (for administration console use) 	
Licensing	Intergraph Common Licensing 11.13.2	
Application Servers	<ul style="list-style-type: none"> Microsoft® IIS 7 or higher (Windows) Apache 2.2 or higher (Linux) 	<ul style="list-style-type: none"> Microsoft IIS 7 or higher Tomcat 8.5 (embedded in installer)
Databases	N/A	<ul style="list-style-type: none"> Oracle Database 11g, Standard or Enterprise Edition Oracle Database 12c (12.1.0.1), Standard or Enterprise Edition Microsoft SQL Server® 2012 R2 Express or Standard or Enterprise Edition (Express Edition should be used for testing & development purposes only) Microsoft SQL Server® 2014 Express or Standard or Enterprise Edition (Express Edition should be used for testing & development purposes only) PostgreSQL version 9 or higher (with PostGIS 2.0 extension)



Admin Tools	ERDAS APOLLO Essentials Administration Console	<ul style="list-style-type: none"> ● ERDAS APOLLO Data Manager ● ERDAS APOLLO Style Editor (embedded in installer)
Compatible Client Applications	<ul style="list-style-type: none"> ● Geospatial Portal 2016 (embedded in installer) ● ERDAS APOLLO 2016 Catalog Web Client (embedded in installer) ● GeoMedia® 2016 ● GeoMedia Viewer 2016 ● GeoMedia Professional 2016 ● ERDAS IMAGINE® 2016 ● Esri® ArcGIS® for Desktop plugin ● ECWP-enabled applications ● OGC-compliant WMS, WMTS, WCS, WPS client applications 	
Admin Tools Operating Systems	<ul style="list-style-type: none"> ● Windows 7 (32-bit and 64-bit) ● Windows Server 2008 R2 Standard and Enterprise Edition (32-bit and 64-bit) ● Windows 8 (64-bit), Windows 10 (64-bit) ● Windows Server 2012 & 2012 R2 Standard and Enterprise Edition (64-bit) ● RHEL / CentOS v5.x, v6.x (Essentials only) 	



ISSUES RESOLVED

ERDAS APOLLO CORE 16.0 EP03

Issue #	Summary
1-VQEV35 IW-4751	Update the WMTS REST endpoints introduced in EP01 to replace the "?" character with "/" to meet URI requirements
1-VUA39M IW-4985	ECW v3 UINT16 files with statistics could fail to display with some Styling options such as 2.5% Left Clip
1-TS522Z IW-5014	When a file under watch is updated with an extra band, metadata is not updated as expected
1-U4GV2Z IW-5026	APOLLO Core fails to render image with invalid statistics
IW-4998	Add a new service level option to toggle supported output formats for WMS and WMTS
IW-4927	Improvements to memory usage and performance using ImageChain renderer
IW-5027	Update references to old watermark image to remove "Unable to open watermark file" throughout some customer installations
IW-5019	Update SDI Components and Portal templates for 16.0.2
IW-5042	XML files cause directory load times to increase when adding to APOLLO Core
IW-2924	Add IIS Dynamic Compression module as new install requirement
IW-5018	State of MN Projection issues in ArcOnline
IW-4950	WMTS capabilities document missing RESTful entries
IW-4988	In some circumstances, the Core Console would apply 0.5% or 99% styling clip unexpectedly
IW-5027	Default watermark image reference in service is not updated
IW-4955	Make database upgrader smarter and do not always recrawl datasets to improve deployment times for upgrades
IW-4977	Error in uninstalling APOLLO Core configured with Geospatial SDI components
IW-5028	Improved logging quality in a few areas to improve customer diagnosis
IW-5036	Resolved crash that could occur requesting GetCapabilities documents under high user load

ERDAS APOLLO ADVANTAGE/PROFESSIONAL 16.0 EP03

Issue #	Summary
1-B9QT4D 00012179 AP-5659	Improved robustness crawling SaUP files to prevent files from being registered with NaN extents that would cause other cascading Catalog failures

1-LM1RFN AP-8654	Now correctly crawls Oracle databases with spaces present in connection name
1-LU6ZDC 00019582 AP-8759	Calls to com.erdas.apollo.config.service.ConfigurationService bean now denied to prevent configuration information leakage
1-M3U71B 00007392 00007393 AP-8823	Fixed issue with WFS MultiPointGeometry returning simple PointGeometry unexpectedly
1-SKD2XO 00008978 AP-9104	Catalog database connection strings with very long names would fail to crawl
1-TQ6K6O 00014289 AP-9260	Resolved performance problem introduced in 16.2 that caused a slowdown on adding many datasets into an APOLLO Service. In some situations such as adding 15,000 files the regression was clearly noticeable
1-W13G7V AP-9655	In the APOLLO Portal Catalog results panel, search results are now selectable and supports copy/paste workflows
1-W1BFE0 00011659 AP-9485	Opening Catalog search results in panel "as plain text" now reports the expected number of entries
1-X6X864 AP-9507	APOLLO Portal search panel now returns results order by Registration Date rather than Class
1-ZU9QWE 00019304 00005657 AP-9592	Resolved failure retrieving WPS Process list with a large number of published Models to the server. DescribeProcess calls now support "All" so Portal will always display all expected Processes
00020673 AP-9781	Catalog search endpoint now returns expected content types as requested. A regression in 2016 meant text/plain, .xip was not working as expected
AP-9663	Fixed possible deadlock in Crawling workflow reported by read timeouts in RMISynchronousCacheReplicator
AP-9554	Resolved band reordering issue with BigTIFF to ECW CZS workflows
AP-9480	The Language Code dropdown when editing Metadata is now in alphabetical order
AP-9479	The Country field in the Metadata Editor is now populated with expected country list
AP-9450 AP-9452 AP-9504	Upgraded embedded Tomcat from v7.0.69 to v8.5.11 and the Tomcat Connector for security fixes and performance improvements
AP-9838	Upgraded embedded JDK to v8u131 for security and performance improvements
AP-9384	All database connection pools now use the high performance Hikari database connection pool
AP-9672	Internal IMAGINE Raster platform SDK has been updated for various bug fixes and is now synchronized with the version deployed with APOLLO Core for a more seamless integration of raster plugin architectures
AP-9691	Fixed metadata bug that could prevent Aggregate pyramids from being generated in specific circumstances
AP-9626	CAD file crawler made more resilient to prevent crashes
AP-9636	CZS output will now generate BigTIFF output to support larger file output sizes for TIFF
AP-9789	CZS Provisioning emails are now encoded in UTF-8 to correctly support all character sets
AP-9440	Embedded documentation has been removed from the installer. Please refer to the online help at http://fluid as the engineering team will continue to push updates to this location

AP-9692	Resolved reprojection issue in WCS that could be seen on ECW output but also other OutputFormat types
AP-9810	Resolved incorrect half pixel shift detected in WMS / WCS output

GEOSPATIAL PORTAL 16.0 EP03

Issue #	Summary
SR-4782	Portal printing does not always produce map when SVG format is used
SR-4778	Add ability to remove thematic rules rows from already defined list in Portal
SR-4772	The crosshairs on the overview map become misaligned after opening the clipboard
SR-4771	Exporting features from the clipboard does not work
SR-4752	Geospatial Portal matchCase value on WFS requests defaults to 'false'
SR-4750	Configure display of Data Window buttons - Remove All/Selected Features
SR-4726	FeatureInfo tool selects the clicked feature
SR-4709	Printing: Conversion to PDF will result in wrong page size
SR-4690	AdminWMS incorrect connection
SR-4676	Upgrade proj4js library in Geospatial Portal
SR-4660	ERDAS APOLLO Essentials link in the services.xml file is out of date.
SR-4644	Verify new EPSG:5514 and EPSG:28992 CRS definitions in Portal
SR-4631	The Zoom to Action in the data panel only works for some features
SR-4627	Add imageFormat selection while registering the WMTS
SR-4626	MyVr Plugin is missing or outdated message in the FireFox browser
SR-4609	Navigation toolbar breaks after adding/removing buttons from it
SR-4605	Could not print google map in APOLLO portal
SR-4602	Register and display after providing datasource is not working
SR-4579	Credentials dialog is displayed for close/ESC of "Define a data source" command
SR-4553	Security vulnerabilities discovered in Geospatial Portal.
SR-4523	The PSS Annotation can be only partially removed in the Geospatial Portal
SR-4501	Geospatial Portal saving WFS queries incorrectly in Workspace
SR-4437	Request for authorizationPipe to support outputFormat=application/gml+xml; version=3.2"
SR-4393	Add the format context menu for WMTS Layers in Portal
SR-4352	Include EPSG 2326 in those CRS' hard coded to use Easting/Northing coord order
SR-2117	Enhance Geospatial Portal to support Google Maps API for Work license.



ERDAS APOLLO CORE 16.0 EP02

Issue #	Summary
1-VQEV35 IW-4751	Update the WMTS REST endpoints introduced in EP01 to replace the "?" character with "/" to meet URI requirements
1-VUA39M IW-4985	ECW v3 UINT16 files with statistics could fail to display with some Styling options such as 2.5% Left Clip
1-TS522Z IW-5014	When a file under watch is updated with an extra band, metadata is not updated as expected
1-U4GV2Z IW-5026	APOLLO Core fails to render image with invalid statistics
IW-4998	Add a new service level option to toggle supported output formats for WMS and WMTS
IW-4927	Improvements to memory usage and performance using ImageChain renderer
IW-5027	Update references to old watermark image to remove "Unable to open watermark file" throughout some customer installations
IW-5019	Update SDI Components and Portal templates for 16.0.2
IW-5042	XML files cause directory load times to increase when adding to APOLLO Core
IW-2924	Add IIS Dynamic Compression module as new install requirement
IW-5018	State of MN Projection issues in ArcOnline
IW-4950	WMTS capabilities document missing RESTful entries
IW-4988	In some circumstances, the Core Console would apply 0.5% or 99% styling clip unexpectedly
IW-5027	Default watermark image reference in service is not updated
IW-4955	Make database upgrader smarter and do not always recrawl datasets to improve deployment times for upgrades
IW-4977	Error in uninstalling APOLLO Core configured with Geospatial SDI components
IW-5028	Improved logging quality in a few areas to improve customer diagnosis
IW-5036	Resolved crash that could occur requesting GetCapabilities documents under high user load

ERDAS APOLLO ADVANTAGE/PROFESSIONAL 16.0 EP02

Issue #	Summary
1-M0KGK3 AP-8766	CZS Output Resolution
1-MOKGL5 AP-8767	Results in Result Panel of Portal fail to display
1-BB0KC7 AP-8783	Hide File URI from Users

1-M0LAVS AP-5368	Remove WPS Output Info from Portal
1-AXJL1T AP-9286	Be able to reset queryables search in Apollo portal
1-LM0IKF AP-8497	Data Manager not honoring to schedule job to run "fiveminutely"
1-LM0IIT AP-8232	Search bug in Catalog Web Interface
1-AXJL1T AP-5351	Drop Box processing is delayed by N hours when system timezone is UTC +N
AP-8735	OGC Unique Name includes parent path
AP-9416	Patch fails to add "" to catalog_sys_params table

GEOSPATIAL PORTAL 16.0 EP02

Issue #	Summary
1-T199VO	Annotation issue
1-SKHGPZ	Login & Password provided in WFS connection string are not stored nor used when retrieving layers of
1-RXQNAY	Unable to select geometry using Remove part of geometry command
1-RKRJJN	Google Maps will not display in Portal. Provides warnings in console and 'Oops!...' in Portal
1-RK0QLT	WMS Time changes unexpectedly the date
1-RJM3W7	(500) Remote server is thrown on providing the user credentials on GSP instance set with starting workspace having authorized service saved without credentials.
1-OVTTAE	Refreshing portal instance causes error in Data Window's Action column
1-KN2YEW	Cannot select features from spatial query layer
1-L9K79I	The ampersand in the WMS URL returns error in EP 05
1-L0TGcj	Analysis in Portal will fail when there is an apostrophe in attribute value from WMP application
1-KR4UQH	Redlines drawn with a defined measurement in EPSG:3857 are inaccurate
1-JO28FX	User is able to click on 'grey out' Layer scale band check box
1-JJFO85	Information feature shows blank window
1-ISC868	Personal Layer - Editing text in an annotation is difficult and inconsistent between browsers
1-CTKYJG	Be able to reset queryables search in Apollo portal
1-BB0KC7	Hide File URI from Users
1-M0KGL5	Results in Result Panel of Portal fail to display
1-M0KGK3	CZS Output Resolution
1-M0LAVS	Remove WPS Output Info from Portal
1-SGL0U9	Legend icons for WMS are not present in print out
SR-4448	The PSS Annotation style cannot be changed in the Geospatial Portal
SR-4402	Disable lighting & shadows in default Geospatial Portal configuration

SR-4388	Increase number of workers used by mMap
SR-4359	Correct searching apostrophe in parameterized queries in query window (gwmpub.aspx)
SR-4357	Consumer Portal displays whole underground parts of 3D objects instead of hide them.
SR-4356	In the Consumer Portal there is hard coded connection to the terrain source.
SR-4355	Consumer Portal doesn't support is-highmap flag in the 3D mode.
SR-4351	Portal does not handle multiple ResourceURL elements in WMTS getcapabilities response
SR-4323	If PSS feature is created without layer in the legend, than it's not visible when the layer is added to legend later.
SR-4301	Correct geometry clipping (cloned elements have wrong parent)
SR-4239	Simplify Geospatial Portal upgrade versions TrasformationPathFactory
SR-4195	Portal incorrectly transform WFS request bbox filter occasionally
SR-4144	Browser printing - enhance quick print in Portal
SR-4096	Error handling issue when a Transaction failed
SR-4084	Admin Portal GUI shall allow to configure NonTiled WMS for Consumer Portal
SR-4065	Resuming after 20 minutes idle loses map state
SR-3943	In the 3D mode Portal addresses WMS getmap request URL to improper endpoint
SR-3840	Pins are rendered with background (GP and CP)
SR-3715	Labels from WFS are not displayed in Geospatial Portal



ABOUT US

Hexagon Geospatial helps you make sense of the dynamically changing world. We enable you to envision, experience and communicate geographic information. Our technology provides you the form to design, develop and deliver solutions that solve complex, real-world challenges. Ultimately, this is realized through our creative software products and platforms.

CUSTOMERS. Globally, a wide variety of organizations rely on our products daily including local, state and national mapping agencies, transportation departments, defense organizations, engineering and utility companies, and businesses serving agriculture and natural resource needs. Our portfolio enables these organizations to holistically understand change and make clear, reliable decisions.

TECHNOLOGY. Our priority is to deliver products, platforms and solutions that make our customers successful. Hexagon Geospatial is focused on developing technology that displays and interprets information in a personalized, meaningful way. We enable you to transform location-based content into dynamic and useable business information that creatively conveys the answers you need.

PARTNERS. As an organization, we are partner-focused, working alongside our channel to ensure we succeed together. We provide the right platforms, products, and support to our business partners so that they may successfully deliver sophisticated solutions for their customers. We recognize that we greatly extend our reach and influence by cultivating channel partner relationships both inside and outside of [Hexagon](#).

TEAM. As an employer, we recognize that the success of our business is the result of our highly motivated and collaborative staff. At Hexagon Geospatial, we celebrate a diverse set of people and talents, and we respect people for who they are and the wealth of knowledge they bring to the table. We retain talent by fostering individual development and ensuring frequent opportunities to learn and grow.

HEXAGON. Hexagon's solutions integrate sensors, software, domain knowledge and customer workflows into intelligent information ecosystems that deliver actionable information. They are used in a broad range of vital industries.

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Questions

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