



RELEASE GUIDE

ERDAS APOLLO 2018

February 13, 2018



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ABOUT THIS RELEASE

Enhancements for ERDAS APOLLO 2018 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 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 versions of 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, or Geospatial Portal
 - Provider Suite: ERDAS APOLLO
- 3) Make sure that for the products detected in point (2), there are compatible versions available.

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

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

The APOLLO Server Configuration Wizard may detect that you are missing some required features that were not required previously. It is possible that you already have these features installed and enabled. If not, you may use the Windows Server Manager to add them as needed.

IIS - DefaultDocument

Add feature Web Server (IIS) > Web Server > Common HTTP Features > Default Document

IIS - HttpCompressionStatic

Add feature Web Server (IIS) > Web Server > Performance > Static Content Compression

IIS - HttpCompressionDynamic

Add feature Web Server (IIS) > Web Server > Performance > Dynamic Content Compression

IIS - URL Authorization

Add feature Web Server (IIS) > Web Server > Security > URL Authorization



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.

NEW TECHNOLOGY

ADDITIONAL RESTFUL APIS FOR CUSTOMIZATION

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

In our 16.3 patch, we released the first round of APIs.

With this release, we are adding some additional APIs to include:

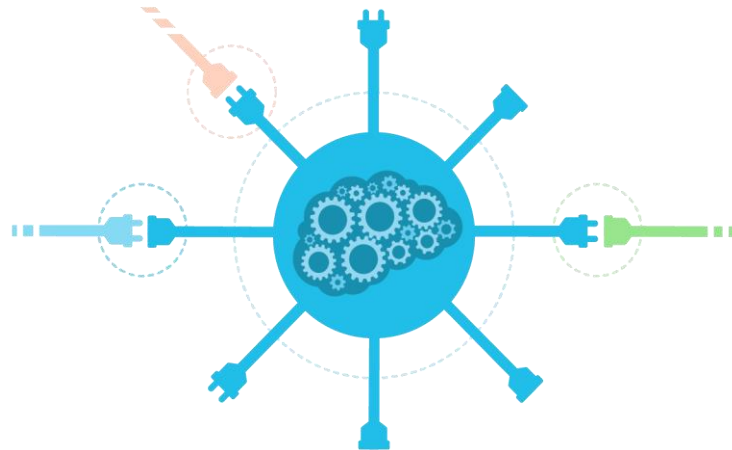
- Clip/Zip/Ship
- Download
- Bulk Update
- Improved Job Status Reporting

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.

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.

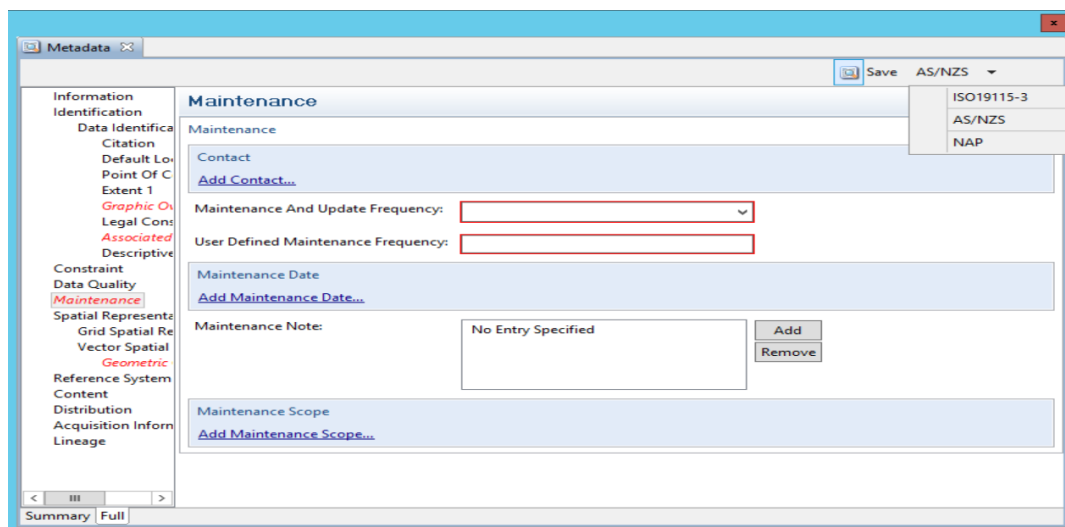
Using Swagger, the developer can input JSON requests that communicate with the ERDAS APOLLO server and receive the requested information back as JSON.



ISO METADATA UPDATE

Migration of ISO metadata to the latest standards began in the ERDAS APOLLO 2016 releases by creating new storage models to hold the latest ISO standard schemas and updating the Metadata Viewer and Metadata Editor. For this release, we have added:

- Support for profiles of the ISO metadata standard including North American Profile and ANZLIC.
- A validation tool that verifies all field values are in accordance to the profile and all mandatory fields are populated.



SINGLE SIGN-ON WITH INTEGRATED WINDOWS AUTHENTICATION

ERDAS APOLLO now includes support for Single Sign-On using Integrated Windows Authentication in the ERDAS APOLLO Server components.

When service requests (WMS, Catalog, etc.) are made from a client that supports Integrated Windows Authentication, you are automatically authenticated as the logged in Windows users.



OGC CATALOG BASED ON AN ISO METADATA MODEL

The current OGC Catalog (CSW) in ERDAS APOLLO uses the ebRIM Metadata Model. However, many communities around the world use an ISO Model to define their metadata. Since ERDAS APOLLO already allows for the management of ISO Metadata, it only makes sense that the ERDAS APOLLO CSW allows for a configuration that supports the ISO Metadata Model as well.



JPGPNG AND OUTPUT FORMAT TOGGLING

Historically, a conundrum for user of WMS and WMTS services is what output format to use. JPEG is smaller and faster but does not support transparency. PNG is larger and slower but does support transparency. ERDAS APOLLO 2018 offers a new format type called JPGPNG that addresses this problem by allowing the server to determine the most appropriate response based on the content of the output image. If transparent areas are detected, the server responds with a PNG format. If no transparent areas are detected, the server responds with a JPG format.



In addition to the new format, users can now control the desired output formats by enabling/disabling them. This will help to resolve client compatibility issues.

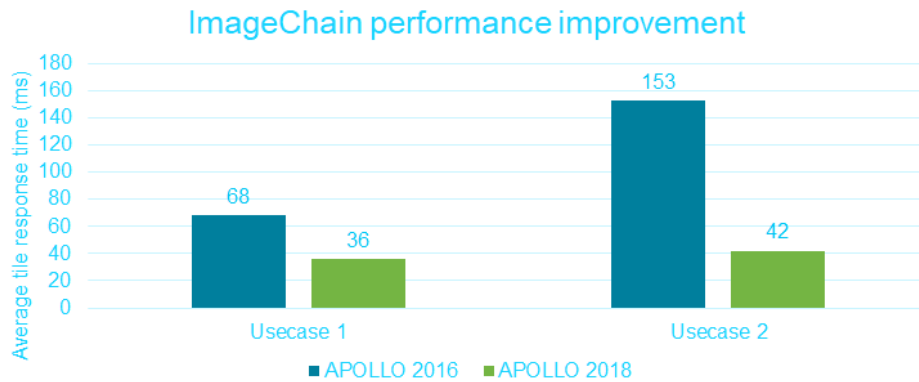


IMAGECHAIN IMPROVEMENTS

With ERDAS APOLLO 2018, substantial performance improvements have been made such that ImageChain now outperforms the existing Advanced Styling Core rendering engine. Also, users can now change default



values within the ImageChain.



OTHER UPDATES

In the ERDAS APOLLO 2018 release, additional updates include:

- **Stability Improvements**
 - ERDAS APOLLO Core resolved 20+ crashes reported by the crashdump reporting introduced in 2016.
 - Support for BigTIFF (output files larger than 4 GB) has been implemented in Clip/Zip/Ship of ERDAS APOLLO, improving the ability to generate extremely large images.
 - The IMAGINE GIO Decoder now depends fully on the 64-bit SMSDK for image decoding and will see far improved memory use and performance over prior releases
- ERDAS APOLLO 2018 has removed all dependencies on 32-bit Java. It is now 100% 64-bit JVM dependent so users can install and maintain security updates independently of the product.

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 2012 & 2012 R2 Standard and Enterprise Edition (64-bit) Windows Server 2016 Red Hat® Enterprise Linux® 6.x,7.x (64-bit) CentOS 6.x, 7.x (64-bit) 	<ul style="list-style-type: none"> Windows Server 2012 R2 Standard and Enterprise Edition (64-bit) Windows Server 2016
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 Latest JRE or JDK 1.8 (external dependency)
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	Geospatial Licensing Administrator 2018	
Application Servers	<ul style="list-style-type: none"> Microsoft® IIS 8 or higher (Windows) Apache 2.2 or higher (Linux) 	<ul style="list-style-type: none"> Microsoft IIS 8 or higher Tomcat 8.5 (embedded in installer)
Databases	N/A	<ul style="list-style-type: none"> Oracle Database 12c (12.1.0.1), Standard or Enterprise Edition Microsoft SQL Server® 2014 Express or Standard or Enterprise Edition (Express Edition should be used for testing & development purposes only) Microsoft SQL Server® 2016 Express or Standard or Enterprise Edition (Express Edition should be used for testing & development purposes only)



		<ul style="list-style-type: none"> ● PostgreSQL version 9.4 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 2018 (embedded in installer) ● ERDAS APOLLO 2018 Catalog Web Client (embedded in installer) ● GeoMedia® 2018 ● GeoMedia Viewer 2018 ● GeoMedia Professional 2018 ● ERDAS IMAGINE® 2018 ● 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 2012 & 2012 R2 Standard and Enterprise Edition (64-bit) ● Windows 8 (64-bit), Windows 10 (64-bit) ● Windows Server 2016 (64-bit) ● RHEL / CentOS v5.x, v6.x (Essentials only)



ISSUES RESOLVED

ERDAS APOLLO CORE 2018

Issue #	Summary
22808, IW-5473, IW-5443, IW-5263	Resolve crashes in GetFeatureInfo and ECWPv3 connections that could bring server down in specific scenarios
22580, IW-5429	Resolved crash in URI TokenTree parsing that could cause server instability
22124, IW-5335	Fixed issue with Virtualmosaics and child datasets not reconciling band-count differences which could cause invalid opacity band to be generated.
21679, IW-5277	Fixed ImageXJNI unmarshalling error caused in scenarios where requested image dimension is 1px
21797, 21598, IW-5265	Upgrading from 2015 to 2016 configuration failed to upgrade from v10 to v11 schema versions
21113, IW-5224	Custom WMTS TileMatrixSet definitions could sometimes show unexpected values intermittently
9793, IW-5026	Improved handling of ECW v3 files with incomplete Statistics Histogram embedded
22133, IW-4848	Improved logging and handling of NFS Data that might suffer unexpected connectivity loss. The server will now report failures and retry. If unsuccessful the file will be unloaded.
2155, IW-4086	Core Console can now sort the File Activity table to more easily review open file activity.
4919, IW-3799	Kroovak North Oriented EPSG 5516 and EPSG 5225 were not previously supported
7956, IW-3512	Add the ability to return a blank image tile rather than exception to signify areas of "no data"
22433, IW-3019	Add new option to control queryable / GetFeatureInfo ability on a per layer basis
22665, IW-1298	EPSG:4326 will now appear as part of the Output CS list and are able to remove entirely from the service if desired. Previously 4326 was always enforced.
IW-5598, IW-5577	Resolved very specific crash event on initialization of OGC and ImageX modules
IW-5566	Entering an invalid server port in APOLLO Core console would previously hang
IW-5563	Core Console Activity panel could not unload/disable files via the buttons, they would always be disabled
IW-5555	Fixed crash in logging initialization that could be called even though parent iwsFilter.dll had already been unloaded
IW-5548	Fixed edge case in resampling code that in very specific scenarios cause the server to crash
IW-5540	Improved handling of datasets with NoData bands defined.
IW-5536	Added support for Apache httpd_proxy_fcgi module for newer platforms where mod_fastcgi is deprecated (Linux)
IW-5535	Improved selinux configuration script and general improvements to the RPM installation workflow (Linux)

IW-5532	Setting all bands to AllOpacity could cause the server to crash.
IW-5472, IW-5370	After unloading files from Core, NTF file handles remained open
IW-5454	Significant improvements with error handling emitted from the ImageChain rendering engine
IW-5452	Upgrade to EPSG projection definitions to v9.1
IW-5440, IW-5401, IW-5357, IW-3616	Various improvements to handling of special and unicode characters across APOLLO Core
IW-5413	Core WMS 1.3.0 responses now advertises BLANK exception type, in addition to the existing XML support. This is useful in situations where clients expect an image response always
IW-5390	Fixed very specific bug that caused the Core Console Preview window to "clip" the image display in the output unexpectedly when inputs were EPSG:4326 and scalehints were defined
IW-5382	Fixed crash in Advancedsecurity caused by a nullterminated string in responses
IW-5374	Improved WMS Exception message to clarify when minx < maxx and equivalent, typically seen when incorrect axis order is used for a given EPSG
IW-5344	Configuration Wizard now exposed the IIS Application Pool Private Memory limits to more easily set maximum limits on the APOLLO process to prevent out-of-memory scenario
IW-5320	Upgrade GDAL to 2.1.2
IW-5317	Add support for Meta Raster Format (.MRF)
IW-5313, IW-4577, IW-3606, IW-3401	Add example STYLEPARAMS shortcut to the ImageChain Core console dialog as well as an overhaul of the dialog to allow overriding of default port values
IW-5279	Add support to APOLLOCatalogWMS endpoint to pull Style information expressed in the Core Console
IW-5259	APOLLO IIS ApplicationPool now sets a default value to 720mins as the previous default of 20mins was too short for many customers that lead to stability concerns. The server was always acting as expected, the frequency however was too short
IW-5230	Fixed JPIP server to correctly stream to JPIP supporting clients
IW-5189	Corrected unexpected display of paletted INT16 format types. They are now expanded and display as expected
IW-5158	Enabled new memory allocator in APOLLO Core to improve performance and scalability with large memory cache. An overhead of ~25% is expected on top of usual memory usage and cache values may need to be revised down to accommodate.
IW-5123, IW-5122, IW-5037, IW-4898, IW-4468	Improved logging statements and revised log levels to correctly reflect severity. Database connection details are no longer printed in clear text.
IW-5087	Add support for NTLM Single Sign on in APOLLO Core services via Advancedsecurity
IW-4815	Implement a new mixed mode JPGPNG mimetype to all image based protocols to dynamically toggle response based on contents of the image
IW-4749	In some circumstances, watched folders in APOLLO Core could be cleared unexpectedly after server restart
IW-4703	Add support for Oracle Service name connections
IW-4479	Virtualmosaics will now only advertise styles that are common/defined for all child datasets. Previously styles defined on only some children were still advertised and caused undefined behaviour

IW-1298	The dataset's native CRS will now always be listed as the first element in GetCapabilities documents
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ERDAS APOLLO ADVANTAGE/PROFESSIONAL 2018

Issue #	Summary
AP-10286, 00022645	Support GDA2020 CRS EPSG codes in APOLLO
AP-9528, 00015835, 00016303, 00013934, 00005812, 00001968, 00019656, 00022094	Config wizard throws error when hostname is changed
AP-10242	Always encrypt system passwords stored in config table
AP-9270, 00018123	Modifications needed in the "build.properties" file
AP-9269, 00010248	Modifications needed in the "applicationContext.xml"
AP-9810, 00020766	Pixel shift in APOLLO
AP-9614	Crawl SUP files with SMSDK
AP-9451	Remove all Java installations from APOLLO installer
AP-10166	Oracle cursor leak leads to ORA-01000: maximum open cursors exceeded
AP-8793, 00010745	Apollo is now more tolerant when encountering GeoMedia Text or Image type geometries
AP-9290	Fail to Crawl embedded Pseudo Mercator Imagery
AP-8921	BigTIFF Support in APOLLO
AP-9767, 00011681, 00009671, 00008507	Vector Analysis on WFS the integer field does not work
AP-9531, 00021932, 00020563,	When accessing Apollo portal Tomcat crashes and creates DMP files

00020620, 00002527	
AP-8041, 00002017	Misleading documentation regarding passwords found in server.properties
AP-10031, 00021707	Apollo 2016 Installation and configuration guides issues
AP-2463	As a DM user, I want to re-crawl an existing vector data source to add new feature classes to the catalog
AP-9907	Update EPSG support to latest EPSG database
AP-9983	Creating new aggregate using REST API needs to publish the folder like Data Manager
AP-10045, 00021755	Cannot create legacy vector service on single files
AP-9806	Add parameters for retaining completed jobs to all REST APIs that create jobs
AP-9698	Stop giving anonymous user read permissions to aggregates created through catalog CRUD API
AP-5591, 00007376	Unable to crawl SPOT 7 Data
AP-9852	WCS and WMS being set active on crawl regardless of selected options.
AP-10150	OCI/TNS option shown in Configwiz for non-Oracle databases
AP-10119	gmlSchemaLocation is missing from the vector services API
AP-10234	Excessive server log messages when ldap authentication is configured
AP-10052, 00021758	Registered multilayer CADRG does not work
AP-9411	Configuration Wizard command line option --configurewindowerrorreporting failing
AP-10010, 00017450	Apollo Cataog Query - Error in query
AP-10056, 00021757	Wrong WMS GetMap return @ TIFF from Legacy WMS endpoint (no issue with Core WMS)
AP-4301	WPS & Thumbnail generation fails when using Active Directory (LDAP)
AP-9557	ISO Metadata Validation
AP-10080, 00021897	metadata parser ISO19139 does not work with some files
AP-10244	Support ISO 19110 Feature Catalog metadata standard
AP-9912	Images REST API endpoint needs validation on input parent id
AP-10129	Implement REST ClipZipShip API
AP-10128	Give Apollo the ability to restart RDS and retry a command to RDS if RDS reports an unexpected error
AP-10047, 00022205, 00021850, 00021470	cluster issue when the load balancer is not the 1st APOLLO node

AP-9967	Show catalog item ID in Data Manager Properties view
AP-9954	Pyramid REST API will return 202 result for invalid JSON body.
AP-9445	Need FGDC metadata parser
AP-10178, 00022002	LDAP – Cannot encrypt passwords if admin accounts have been renamed (ApacheDS and Windows AD)
AP-9778	Delete Resources Job hangs intermittently.
AP-10057, 00021754	Wrong WMS GetMap return @ ECW from Legacy WMS endpoint (no issue with Core WMS)
AP-10022, 00021681	NorDef: Oversampling problem
AP-10161	API allows creation of catalog items with invalid/null parentId
AP-9645, 00022582, 00017883	Apollo failed to crawl IMAGINE sample JP2 image
AP-7128	APOLLO calculates dataset extents different than IMAGINE
AP-10193, 00022218	datasets containing "\$" cannot be displayed if using the Core WMS (also can't generate pyramids or view metadata in DM)
AP-10148	.img dataset failing to register with essentials
AP-9634	Implement batch update REST API
AP-10331	Large Output Trigger of 7500 causes memory problems with default settings
AP-10115, 00021982	"insufficient permissions" for FgdbService during configuration wizard
AP-9524, 00022065, 00013188, 00008271	Generating pyramids in data manager locks catalog [MS SQL Server]
AP-10262	Cannot delete harvested OGC service
AP-9630	Remove raster styling option in Data Manager when Core WMS is used
AP-8616	Vector Style Editor don't show up on SSL and Tomcat
AP-9468	Remove command line params that are no longer valid for Java8
AP-10127, 00022029	Unable to Register external WPS using Web Catalog Interface
AP-10329, 00022028	ISO metadata viewing issue in Geoportal
AP-10214	Disallow showing ISO Metadata if the catalog item does not have a metadata document
AP-10304, 00022856	ActiveMQ doesn't support non-standard hostname but no warning at configuration
AP-10231, 00022300	Some single file crawls fail under heavy load from simultaneous crawls

AP-10458	Crawling point cloud files for the first time with a clean catalog might fail once
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GEOSPATIAL PORTAL 2018

Issue #	Summary
SR-5203, 00022983	Bing Maps V8 not working in IE
SR-5189, 00022944	Geospatial Portal Username containing '@' breaks printing
SR-5122, 00022758	Applying attribute filter to analysis results of WFS layer removes the original spatial/attribute filter from the results.
SR-5107, 00022683	Measurements incorrect in EPSG:3436
SR-5095, 00018822	[P2] Expand legend images does not occur with couple of alternate application opening .aspx files.
SR-5084, 00013211	[P3] Register and choose layers doesn't allow choose layers
SR-5063, 00020774	Proxy.WebClient.ashx" to get the SVG/SVGZ map – follow up on CD 1-XO6VW8 / MO 1-XYDW9C / SR-4553
SR-5041, 00022457	Pan/Drag map event does not release properly, if GS Portal window has been resized (and not refreshed).
SR-4993, 00022361, 00022076	Portal does not work properly with ASP.NET Session State service
SR-4991, 00022195	User 'administrator' vs 'Administrator' - case sensitivity
SR-4952, 00021941	Local print does not work with Portal browse in HTTPS on LOB env.
SR-4901, 00021673	Analysis update with spatial filter doesn't work if 'Limited by map range is unchecked'
SR-4798, 00020949	Feature Info call to WMS affected by IE11 Edge document mode and Zoom Level
SR-4784, 00020959	Some of the delivered annotation icons do not print
SR-4782, 00019276, 00021115, 00020956, 00022098, 00022505	Portal printing does not always produce map when SVG format is used
SR-4772, 00016207	The crosshairs on the overview map become misaligned after opening the clipboard
SR-4771, 00020374	Exporting features from the clipboard does not work
SR-4752, 00020803	Geospatial Portal matchCase value on WFS requests defaults to 'false'

SR-4751, 00020912	Print area cannot be moved after measurements are added
SR-4750	Configure display of Data Window buttons - Remove All/Selected Features
SR-4715, 00016752	EPSG:27493 has wrong definition in CRSConfig
SR-4713, 00020650	Delete Features crashes Portal app pool
SR-4709, 00016684	Printing: Conversion to PDF will result in wrong page size
SR-4705, 00020691	Print Function in Geomedia webmap 2016 outputs to incorrect symbology
SR-4647, 00020035	WFS LIKE requests run into error
SR-4605, 00017483, 00022098, 00022461, 00022505	Could not print google map in Apollo portal
SR-3061, 00003015	Feature info from an Analyses query result of WMPS incorrect
SR-2141, 00018924	Cannot select recently added CRS on the settings (EPSG 4267 and EPSG 4269)



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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