



RELEASE GUIDE

M.App Enterprise 16.1.2

March 28, 2018



Contents

About This Release	3
M.App Enterprise Product	3
API Keys	4
Feature Analyzer Update	5
Issues Resolved	8
About Us	11



ABOUT THIS RELEASE

This document describes the enhancements for M.App Enterprise. 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 fixes. For information on fixes that were made to M.App Enterprise 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 of the details about the product's capabilities. See the online help and other documents provided with M.App Enterprise for more information.

M.APP ENTERPRISE PRODUCT

M.App Enterprise is an on-premises platform for creating geospatial apps for your organization. M.App Enterprise stores your imagery, vector and point clouds, workflows, analytics, and queries, all accessible in one place from an easy-to-use interface. With the M.App Enterprise platform, you can build and deploy your own geospatial applications (called Hexagon Smart M.Apps) to solve your organization's business problems. Hexagon Smart M.Apps are cloud-based targeted, lightweight, and dynamic apps that provide answers and present information in a visual and compelling way.

M.App Enterprise delivers a privately hosted solution for organizations that want to realize the value of a Smart M.App deployment, but stay within the confines of their enterprise network.

With M.App Enterprise, you can access Smart M.Apps anywhere within your organization's network for real-time answers.

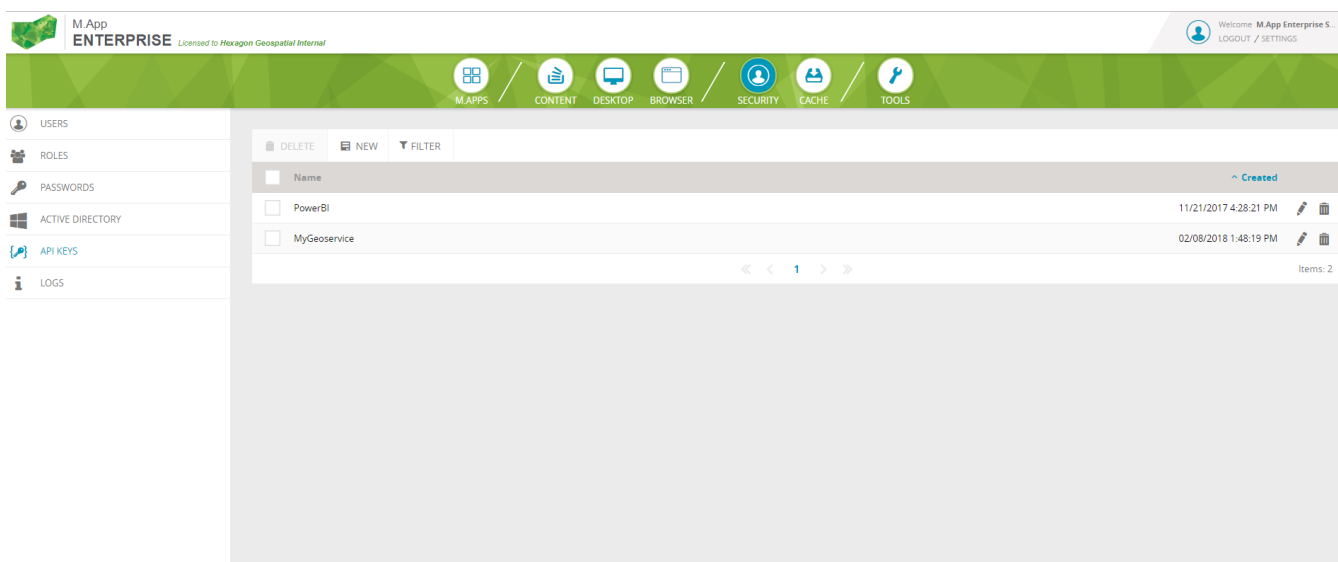


API KEYS

An API key describes some form of secret token which is submitted alongside web service (or similar) requests to identify the origin of the request. API Keys are a popular way to secure web services.

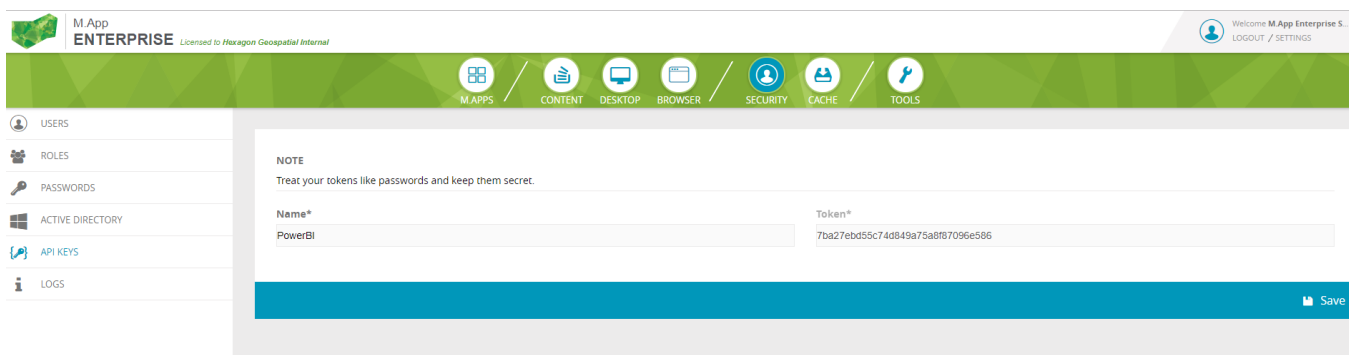
In M.App Enterprise you can now create and maintain API keys for your needs. This new option is available in M.App Enterprise Studio in the Security section.

The created keys can be used to secure your Geoservices, which means you can control the access to your hosted WMS, WMTS or WFS services. You can also use API keys for the available Power BI widget to authenticate against the M.App Enterprise backend. (No need to perform a login anymore)



The screenshot shows the M.App Enterprise interface. The top navigation bar includes icons for M.APPS, CONTENT, DESKTOP, BROWSER, SECURITY, CACHE, and TOOLS. The left sidebar lists menu items: USERS, ROLES, PASSWORDS, ACTIVE DIRECTORY, API KEYS, and LOGS. The main content area displays a table of API keys with columns for Name, creation date, and actions. The table contains two entries: PowerBI and MyGeoservice.

Name	Created	Actions
PowerBI	11/21/2017 4:28:21 PM	[Edit] [Delete]
MyGeoservice	02/08/2018 1:48:19 PM	[Edit] [Delete]



The screenshot shows the M.App Enterprise interface with the API key creation form. The top navigation bar and left sidebar are the same as in the previous screenshot. The main content area displays a form with a note: "Treat your tokens like passwords and keep them secret." The form has two input fields: Name* (with "PowerBI" entered) and Token* (with "7ba27ebd55c74d849a75a8f87096e586" entered). A blue Save button is at the bottom right.

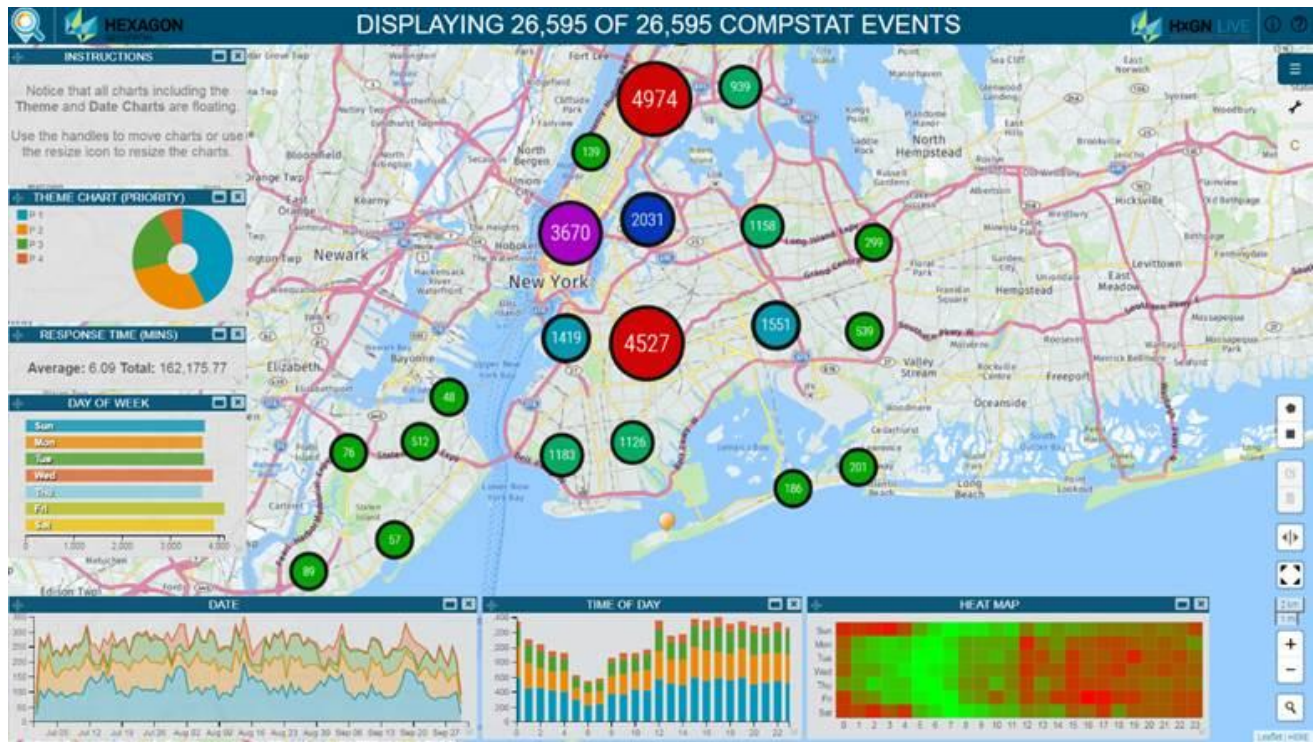
FEATURE ANALYZER UPDATE

This release includes an updated version of Feature Analyzer.

Highlights include:

CONFIGURATION SUPPORT FOR DATE & THEME CHARTS

You can now fully configure your date and theme charts. With this new approach, you are no longer limited to a predefined set of date and theme charts. You can create as many of these chart types as you like, and you can configure these using Styles, Colors, Labels, and Measures, and in turn place these charts wherever you want within the view.



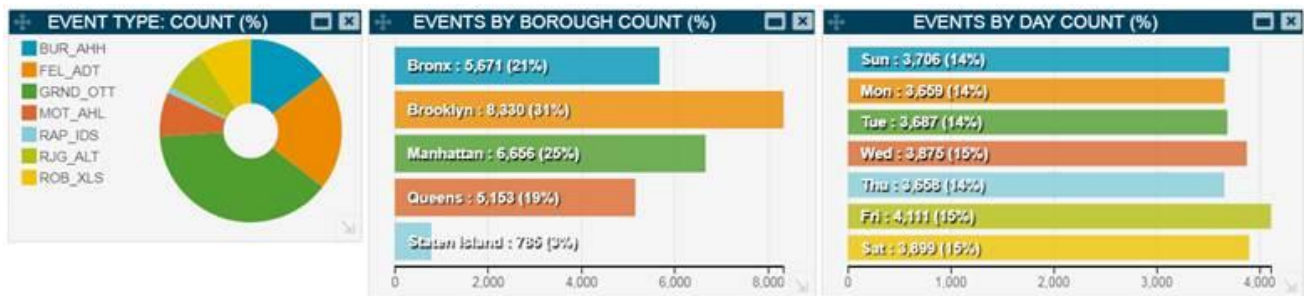
[Click me](#) to have an interactive look at this new feature in action.

FIT ALL BUTTON

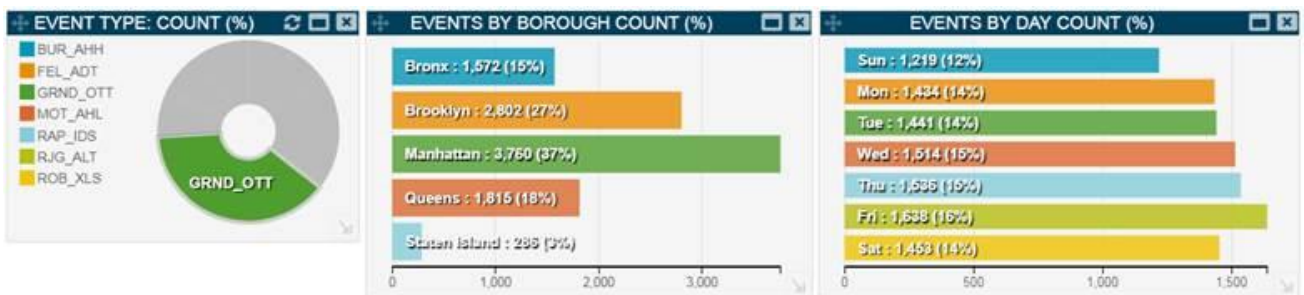
The Fit All button lets you quickly set the viewing extents of the map view to match the maximum extents of your data. If for example, you perform several cross filters using a combination of charts and you can no longer easily see your geospatial data in the map view, simply click the Fit All button. Once this button has been clicked, the map will zoom to the correct level and in turn match the extents of the geospatial data. This button is extremely also useful for finding a small collection of clustered point features. For example, in the case where the combination of cross filters has reduced to small collection of points from thousands to a few small clusters this new feature is invaluable.

PERCENT CALCULATIONS

Percentages can be an effective way to present statistics. A percentage is a number or ratio expressed as a fraction of 100. With this mathematical method, readers can deduce and rank entries quickly and easily. Couple **Percentage** calculations with **Measures** and your data takes on new meaning. In the example below, row charts are used to quickly determine the number of events by **Borough** and by **Day**.



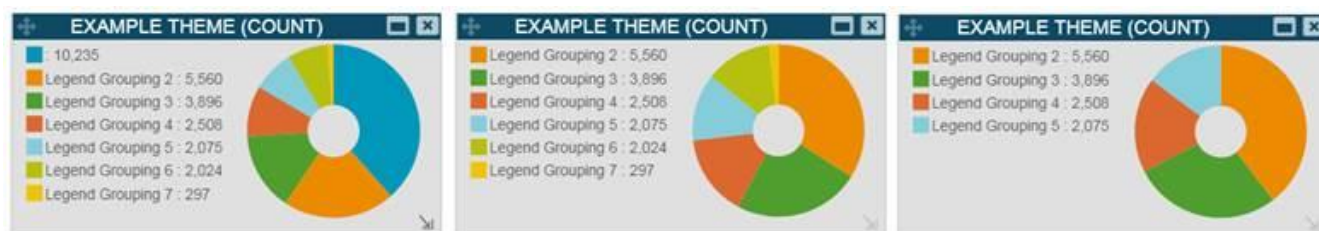
Since cross filtering is both interactive and dynamic, you can quickly drill into the data and get a report on the event type **GRND_OTT**.



[Click me](#) to have an interactive look at this new feature in action.

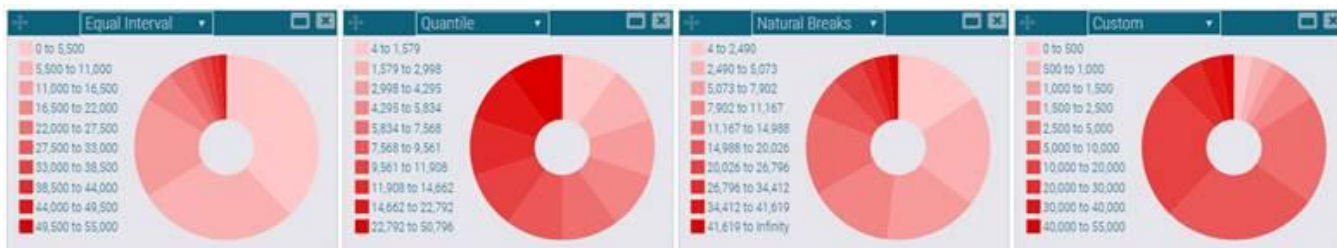
ADDITIONAL THEME/LEGEND SUPPORT

The **Theme** chart is a special type of chart as the **Theme** chart acts as the legend for your map content and hence, the **Theme** chart is critical to conveying the message. With this new release, you can now easily remove null-valued entries from the legend and specify how many legend groups you want to display. In the example below, the legend to the left is using the default settings (all groups), while the legend in the middle makes use of the **Remove Null** option, and the legend on the right make use of the **Remove Null** and **Number of Groups** (e.g. 4) options.



ADDITIONAL CLASSIFICATION

Classification is used to make choropleth maps. Classification organizes data according to the values of information and lets you make maps that your users use to recognize patterns in the data. Feature Analyzer now in addition to the **Unique**, **Equal Interval**, **Standard Deviation**, **Quantile**, and **Natural Breaks** supports custom ranges and hence allow you to organize data according to your specific needs. In the example below, four classification techniques are used, notice how the classification technique affects the proportional distribution. In instances, where you want full control over the proportional distribution within your charts, you can now make use of the **Custom** classification approach.



[Click me](#) to have an interactive look at this new feature in action.



ISSUES RESOLVED

CR #	Summary	Description / How to Reproduce
00022126	CRS NOT FOUND for 2053	In M.App Enterprise the system cannot recognize EPSG code 2053 when trying to import data into the Studio.
00022554	Wrong display of data in EPSG:27700	Customer has boundary data in EPSG:27700 shifted in M.App Enterprise.
00022354	Desktop App - Reprojection on the fly has data shift in EPSG:28992	If a project utilizes reprojection of the data, then shift occurs when EPSG:28992 is used either for vectors, or backdrop.
00022591	Raster imagery misplaced in Desktop App if WMTS is used (EPSG:25832)	ECW file from the customer aligns perfectly with the vector data in Desktop App (and in GeoMedia), if WMS is used. But if both WMS and WMTS options are checked, the complete raster layer gets shifted (WMTS is used by Desktop App automatically).
00022712	Can't set start date for publish job	In MAE 2016.1 SP1 there is no ability to select start date for publish job. In fact, it appears as though the entire Publish Job GUI is messed up from past versions. No longer is there available to select Repeat interval or dataset to publish either.
00022972	Rotated prints don't work in Desktop App	Rotation during printing leads to empty preview map.
00024562	Upload file in M.App Enterprise Workflow Form Error	
00022622	Vector sets are not being deleted from the server	After a vector set is deleted from the studio it still remains in the directory.
00023043	Single Feature GeoJSON fails to load in Feature Analyzer	When you try to load a single feature GeoJSON to Feature Analyzer as FEATURE DATA you get 'There was an error reading the input feature data' error.
00022779	WMS from EPSG 4326 shifted and rotated in Desktop M.App 3857	A WMS that has been added to MAE Geoservices in EPSG 4326 is getting shifted and/or rotated when viewed in Desktop M.App that uses EPSG 3857 It appears that there is either a transformation issue from 4326 to 3857 or that there is a coordinate swap introduced.



	Tile loading process is slow - especially tiled geoservices	
	WorkflowEditor - Icons missing in case of 4K display	
	Workflow in Desktop Client is either crashing or locking up the application or is consuming all system memory until System lock down.	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 j2launcher.exe . Java 64 Bit cannot be used actually for this customer, but has shown similar results. To ensure that this isn't a Java limitation I tested this also in a 64 Bit Java along with increased heap size (1600MB), the Client application didn't crash but as java is consuming all available memory during the time, the application / machine becomes unusable
	Implement X-Forwarded-Proto header	Usage of proxy servers can lead to the necessity of using this header value.
	Hidden property on theme is not honored in legend	In Studio setting theme hidden in legend is not honored. The theme is always displayed starting the Desktop client beside this setting. It works for individual layers.
	New vector import does not see other schemas on PostGIS	Only tables from schema 'public' are displayed.
	Browser map with Analyzer View not loading in IE11	With M.App Enterprise 16.1.1 a browser Analyzer M.App we have just made is not loading in IE11, version 11.726.15063.0. The M.App sticks on the 'Loading Feature Data' pane. The same M.App loads fine in Chrome and Edge.
	Wrong or expired WMS credentials cause Studio to fail as well	HTTP 401 from requesting the service's capabilities leads to an unauthorized error, followed by a logout in Studio.
	Support WMS 1.1.1 in Studio	
	PostGIS - Capture Point - SRID doesn't match	Only happens when table is empty.
	Workflows: ComboBox stays disabled after dependency (value not in list)	Two ComboBox-Fields (A & B) are defined. A changes and resolves dependency, B is getting resolved and has already a valid value. After resolving B has a new ListOfValue, the old value



		<p>of B is not valid anymore. B changes its value to null - "(None)" but stays disabled.</p>
	<p>Workflow: FormField with ListOfValue loses persisted value after is getting LOV-resolved</p>	<p>Create a lov formfield B; B.lov depends on Formfield A; B.value is already persisted; Change value in form of A; B.lov is getting resolved; Expected: B.value should be same; Result: B.value is null;</p>



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.

Hexagon (Nasdaq Stockholm: HEXA B) has more than 16,000 employees in 46 countries and net sales of approximately 3.4bn USD. Learn more at hexagon.com and follow us @HexagonAB.

Copyright

© 2016 Hexagon AB and/or its subsidiaries and affiliates. All rights reserved. Hexagon has registered trademarks in many countries throughout the world. Visit the [Trademarks Page](#) for information about the countries in which the trademarks are registered. See Product Page and Acknowledgments for more information.

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 acknowledgment 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](#).

