HEXAGON
GEOSPATIAL

RELEASE GUIDE

GEOMEDIA 3D 2018

Version 16.5
July 06, 2020

Contents

ABOUT THIS RELEASE

This document describes the enhancements for GeoMedia 3D. 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 enhancements, see the New Technology section. For information on fixes that were made to GeoMedia 3D for this release, see the Issues Resolved section.

This document is only an overview and does not provide all the details about the product's capabilities. See the online help and other documents provided with GeoMedia 3D for more information.

GEOMEDIA 3D

GeoMedia 3D is an add-on product that is specifically designed for use with GeoMedia Desktop. GeoMedia 3D is a set of well-integrated commands that give you a wide range of geospatial processing capabilities for defense, intelligence, government, transportation, utilities, communications, public safety, and security applications.

GeoMedia 3D extends the functionality of GeoMedia Desktop by integrating 3D visualization and analysis. You can visualize, navigate, analyze, and interact with 3D data natively in GeoMedia Desktop. Additionally, you can dynamically integrate surfaces, imagery, feature data, and vector data to provide a 3D view of all data sources in the GeoMedia 3D map window.

NEW PLATFORMS

GEOMEDIA DESKTOP 2018

GeoMedia 3D has been updated for compatibility with GeoMedia Desktop 2018.

FME 2017

The Import 3D Objects module has been updated to use the 2017 version of FME from Safe Software, Inc.

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

SAVE AND LOAD IMPORT 3D OBJECTS SETTINGS

The ability has been added in the **Import 3D Objects** command to persist (in user-definable XML files) the settings used for the command.

PREDEFINED STYLES

GeoMedia 3D now delivers a set of predefined styles.

FIRST PERSON VIEW

The **First Person View** enables a navigation mode that simulates a walk through the 3D scene. It displays what a person would see when turning around, looking up or down, or walking straight ahead. A new slider is also provided to allow dynamic adjustment of the field of view value.

LATIN-1 (ISO-8859-1) CHARACTER ENCODING

The ability has been added in the **Import 3D Objects** command to use alternate Latin-1 (ISO-8859-1) character encoding during model file parsing rather than the default UTF-8 encoding.

LOCAL ORIGIN DEFINITION FOR TRIMBLE SKETCHUP FILES

The ability has been added in the **Import 3D Objects** command to define the local origin latitude and longitude values when the embedded origin is missing from a Trimble SketchUp Model file (1-K1PFTD).

DEFINE COORDINATE SYSTEM FOR HEXAGON POINT CLOUDS

Hexagon Point Cloud (HPC) files should be encoded with proper coordinate system metadata. However, in cases where such files do not contain this metadata, the **Insert HPC Footprints** command now allows the user to define a coordinate system (1-XNRVQ6).

SYSTEM REQUIREMENTS

Software	• GeoMedia Essentials, Advantage, or Professional 2018
System Dependencies	• Microsoft® .NET Framework 3.5[1] • Microsoft Primary Interoperability Assemblies 2005[2]
Operating Systems[3]	• Windows 7 SP1 Professional and Ultimate (64-bit) • Windows 10 Professional and Enterprise (64-bit)
Computer/ Processor	64-bit: Intel 64 (EM64T) or equivalent

Memory (RAM)	4 GB minimum (8 or more recommended)

Disk Space	• 1.5 GB total:
	  ○ 227 MB installation (required)
	  ○ 1.3 GB Import 3D Utility (optional)

Database Server Engines	GeoMedia 3D does not directly access databases. It goes through GeoMedia. See the *GeoMedia Desktop Release Guide* for database server engines that are supported in this version.
Database Client Engines	GeoMedia 3D does not directly access databases. It goes through GeoMedia. See the *GeoMedia Desktop Release Guide* for database client engines that are supported in this version.
Virtual Server and Virtual App Technology	N/A
Graphics Display	Minimum SVGA display with 1024 x 768 resolution; 1280 x 1024 or higher and 32-bit true color recommended. 4K Ultra HD monitors are not currently supported.
Recommended Graphic Cards	Mid-level to high-end professional video card with a minimum of 1 GB of dedicated video memory and DirectX Version 9 or higher support.
Peripherals	Software security (Hexagon Geospatial Licensing) requires one of the following: • Internet connection for online license activation • Ethernet card for offline license activation • One USB port for hardware key for offline license activation Optional Installation: • Logitech® Dual-Action® Controller

SYSTEM REQUIREMENTS NOTES

[1] For information on installing .NET Framework 3.5 for Windows 10, see the *Installing .NET Framework 3.5 (Windows 10 only)* section in the *GeoMedia 3D Installation Guide*.

[2] To install, right-click on <root-media>\Repository\Prerequisites\vs_piaredist.exe and select **Run as administrator**.

[3] 32-bit versions of the Windows operating systems are not supported. GeoMedia Desktop and GeoMedia 3D run on 64-bit systems in 32-bit emulation mode.

ISSUES RESOLVED

CR #	Summary	Description / How to Reproduce
1-KHTL8G	Insert 3D Mesh Layer fails to display in 3D map window	The customer is not able to Construct 3D Mesh. Memory management was enhanced to address the problem.
1-B6UKYA	GML import results in Import Aborted message	Large GML files were causing the process to run out of memory and crash.
1-K8OA1D	Import of GML file never completes	GeoMedia 3D Import of GML file never completes. Problem is due to a combination of large size and data containing umlauts.
1-U5ALTF	Import of KML/KMZ file fails due to umlauts	The customer is not able to import the KMZ data. Umlauts are causing the issue.
1-M0IY6U	CityGML building entrances display abnormally in GM3D map window	3D CityGML building entrances display abnormally in GM3D map window. The CityGML model is created using Tridicon's utilities. The customer generates CityGML building models in the format of *.tdc using Tridicon's "tdc2CityGML" tool with Input is a *.tdc file and Output is a CityGML model. Then, import the CityGML file to GeoMedia 3D by using "Import 3D Objects" tool. Then, load the 3D model in the GeoMedia 3D map window which results in the entrances of buildings displaying in Red-colored textures using GM 3D 2015, and in GM 3D 2016 most all the Red-colored textures are gone, but a couple of building entrances have a grey color displayed.
1-K1PFTD	Import 3D Objects using SketchUp file successfully imports but does not display in 3D map window	Import 3D Objects using SketchUp file successfully imports but does not display in 3D map window. 1) SketchUp files were imported successfully using Import 3D Objects utility. 2) A new table was created in the corresponding warehouse. 3) Table contains only 1 record, but no geometries. 4) No obvious problem listed in the log file. SketchUp file displays fine in SketchUp Viewer.
1-8WOUF3	Transformation Failure of ECW when Toggle 3D - custom named datum	Customer uses custom coordinate system based on custom named. When toggling to 3d, there is a shift between the vector and the Raster (tried only ECW data). The .ecw file does not respect the named datum, while the vector does. Customized datum and coordinate system are used. Copy provided autodt.ini and NamedHDatum.ini to the correct folder. Open provided .gws, restore connection to provided shapefile data (edit the Test3D -ITM_DATUM.ini appropriately). Restore connection to provided .mdb file. Use Manage Data > Images to correct path to provided .ecw image. Two 2D views are displayed. Toggle 3D for right view. Notice image registration is lost - image moves ~100meters WSW.
1-KUYAQL	Import 3D Objects fails using Tridicon City GML model with "'System.Out Of Memory Exception"	Import 3D Objects fails using Tridicon City Discover Light City GML model with "'System Out Of Memory Exception" in log file. The raw 3D model originally in 3DS format was converted to City GML data format using Tridicon software.
1-JF09SZ	3D Import locks up when importing large GML file	The import utility locks up when importing City GML files bigger than 100 MB. The process works fine for some minutes (FME.exe and Import Utility are both using RAM and CPU). After some time, the FME process no longer uses CPU and nothing happens anymore. When closing the Import Utility dialog by clicking on

		the "X" button to exit the utility, the FME process in the task manager is still there and starts working again until FME process is finished. It appears in the export folder. Files are missing, and the export is not complete.
1-K1PFVC	Import of KML files fails	The input files indicated that they are UTF-8 character encoded when in fact they are Latin-1 encoded. An option has been added to the Import 3D Objects command to allow the importation of Latin-1 (ISO-8859-1) character encoded input.
1-9NZG2G	Import of KML files fails to display textures in 3D window	There was a problem with donut face conversions. This issue has been fixed.
1-B5TFZ1	Import of KMZ files fails	The input files indicated that they are UTF-8 character encoded when in fact they are Latin-1 encoded. An option has been added to the Import 3D Objects command to allow the importation of Latin-1 (ISO-8859-1) character encoded input.
1-M2R33J	Import from Tridicon random features are missing textures	Features with donut faces sometimes fail to import. This has been fixed.
1-KR01JN	Errors importing large data set from Fort Saskatchewan	The Import 3D Objects command runs to completion, but with errors. When viewing the data in the 3D view, there are no textures on the buildings/structures.
1-XPV9KV	Error Importing 3D Objects with Collada data	Customer is trying to ingest 3D KML/Collada Objects into GeoMedia 3D using the Import 3D Objects Utility. Even if the customer can successful import the KML data, all the 3D objects are discarded.
1-U2T1VD	3D Installs incorrect version of Define Coordinate System	The 2016 version of this utility has a key-in field displayed on the General tab labeled "Coordinate reference system authority" which allows the user to key in an EPSG code to define a CSF. At this point, a look in the c:\program files\common files folder shows no sub-folder labeled 'Intergraph'. If GeoMedia 3D is then installed, there is a new folder: c:\program files\common files\Intergraph. In one of the sub-folders is a new, 64-bit version of the Define Coordinate System File utility. This version of Define CSF is incorrect/out of date. It also changes the default association for .csf files, such that double clicking on a .csf now brings up the 64-bit version. The 64-bit version delivered with GM3D does not have the "Coordinate reference system authority" key-in field. Removing GeoMedia 3D from the system removes the 64-bit executable, but it also removes the application association of .csf files. Double-clicking on .csf file now brings up Windows dialog asking the user what application should be used to open the file.
1-K1N0SA	3D - City GML file displays spatially incorrectly based on EPSG 31467	City GML file displays spatially incorrect based on EPSG 31467 or without EPSG code. City GML data set is attached. 1) City GML were imported successfully. 2) A new table was created in the corresponding warehouse. 3) Table contained a meaningful number of records. 4) But, the objects are not shown in the correct position (shift of more than 1000km). The data should be somewhere in southwest Germany. After the import, the data are somewhere near Kazakhstan.

1-LG90HN	Insert Hexagon Point Clouds command Search option fails on some files	To reproduce this problem: 1) Start GeoMedia in a workspace with at least one read-write warehouse connection. 2) From the 3D ribbon bar, run Hexagon Point Clouds->Insert command. 3) Click the Search button. 4) Enter "\\hgdfileserver\serenity\Products\GeoMedia3D\Data" as the search folder. 5) Click the Start Search button. 6) After the search is completed, notice that four of the files found have the following message in the Projection field: "Unable to create the coordinate system object." Note: using the Add button to select these HPC files works correctly and retrieves the coordinate system.
1-TCMCIX	Default_Internet.fly can be overwritten	Initially, user has a Geoworkspace with Default_Internet.fly set as base content file. After using Default_Local.fly due to lack of internet connectivity, the Default_Internet.fly file is changed/overwritten in some way - the file gets the current date and does not work anymore. It does not fetch the globe from the Terragate Server. Although internet connectivity is given, it behaves like the Default_Local.fly. To reproduce or see attached document results: 1) Open a GeoWorkspace with Default_Internet.fly as base content file and internet connectivity (license server). 2) Close the GeoWorkspace. 3) Disable internet connectivity (need node lock license) and open the GeoWorkspace again. 4) Toggle to 3D map window without internet connectivity and Default_Internet.fly set as base content file. The Default_Internet.fly file becomes overwritten. 5) Choose Default_Local.fly file as base content file, save, and close the GeoWorkspace. 6) Reconnect machine internet connectivity again and open the GeoWorkspace. Change the base content file from Default_Local.fly to the overwritten Default_Internet.fly file. See the display result in the attached document.
IG-3200	Problem trying to use Motion Video Analyst while GeoMedia 3D is installed	To reproduce this problem: Start GeoMedia in a workspace with multiple map windows. Click on the title bars of different map windows to change the active map window. Display the Video Center dialog and change the video map window setting. An error message will be displayed indicating that a COM object has been separated from its underlying RCW. If GM3D is uninstalled (or its startup command is disabled in the registry), then the workflow steps above will work correctly.
IG-5897	Grid > Calculator does not process 'byte' data type correctly.	Customer provides .mdb file (attached) with a single area feature. Feature attribute 'ls_geo_strength' has 2 possible values (32 & 35) stored as 'byte'. Customer wishes to create a grid with grid cell values equal to this attribute. After displaying customer data, a Grid study area was created around the data. The 'Rasterize Legend Entry' was run on the area feature. Then, the Calculator was used, selecting the 'Geomaterials_Mapunits' feature, the 'ls_geo_strength' attribute, multiplied by 1. The output grid contained only null (fill area) 32 and 35 as the values, but the output was identical to the input grid. Testing with a simplified data set (byte value attributes) that is processed in a similar manner shows the same error occurs, but if the attribute is of type integer, the output reflects the desired attribute values. Also, creating a functional attribute query of the customer's data where the attribute is cast to integer and the same workflow applied to the result produces the desired output.

		This workaround (using integer type instead of byte) was provided to the customer. The customer changed the attribute to integer in SQL and found the command worked without error.
GeoMedia 3D 16.5 Update 1		
IG-10349	Using internal, evaluation concurrent licenses results in GeoMedia 3D 16.5 displaying NAG "Software License Notification" 5 second dialog every time when toggling between 3D commands	I am using an internal license. Every time I use a GM 3D command or toggling to the 3D map window or refreshing it, NAG "Software License Notification" 5 second dialog pops up. I have to wait for 5 seconds and press the "Agree" button in order to get the 3D map window. This behavior is unbearable, especially in demos or training. The NAG "Software License Notification" 5 second dialog should only appear once when selecting first 3D command and no longer when in that GeoWorkspace session.

DEPRECATED

WINDOWS 8

The Windows 8.0 and 8.1 operating systems are no longer supported.

ABOUT US

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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.

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