



Release Guide

GeoMedia Advanced Collection 2022

Contents

About This Release	3
New Platforms	3
GeoMedia Desktop	3
New Technology	3
General.....	3
Licensing.....	3
High-DPI Monitors	3
Spatial Modeling	3
New Operators	4
Functional Attributes.....	7
System Requirements	7
System Requirements Notes	8
Issues Resolved	8
Contact Us	Error! Bookmark not defined.
About Hexagon	9

About This Release

This document describes the enhancements, fixes, and system requirements for GeoMedia Advanced Collection 2022.

This release includes enhancements, fixes, and compatibility with GeoMedia Desktop 2022. For information on new features, see the New Technology section. For information on fixes, see the Issues Resolved section. For information on hardware and software requirements, see the System Requirements 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 Advanced Collection for more information.

GeoMedia Advanced Collection provides comprehensive data capture and data validation capabilities. The product can be used with either GeoMedia Advantage or Professional and includes capabilities to support the Multinational Geospatial Co-production Program (MGCP) and other international specification-driven collection programs. In addition, the GeoMedia Advanced Collection product provides an interface to execute the third-party (GAIT) validation software package that is required by the MGCP program.

New Platforms

GeoMedia Desktop

GeoMedia Desktop 2022 is required for this release.

New Technology

General

Licensing

A new product license is required for the 2022 release. The latest Geospatial License Administration tool should be downloaded and used for this release.

High-DPI Monitors

A manifest is now delivered that instructs Windows 10 to run GeoMedia using the high-DPI scaling override mode of "System" so that when running with Display Settings that scale the size of text, apps, and other items to greater than 100%, the system will automatically adjust to counteract certain negative effects of that scaling and GeoMedia will present better on high-resolution monitors.

Spatial Modeling

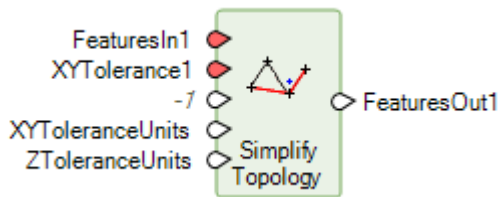
GeoMedia Advanced Collection now delivers a suite of mapping operators for Spatial Modeler, as well as additional expression functions for producing functional attributes from operators delivered by GeoMedia

Desktop such as the Generate Functional Attributes operator. These additional components are automatically integrated into Spatial Modeler upon installation, but they require a GeoMedia Advanced Collection license in order to run.

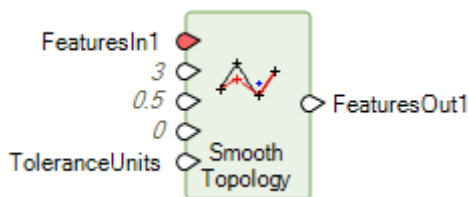
New Operators

The following new mapping operators are delivered with GeoMedia Advanced Collection:

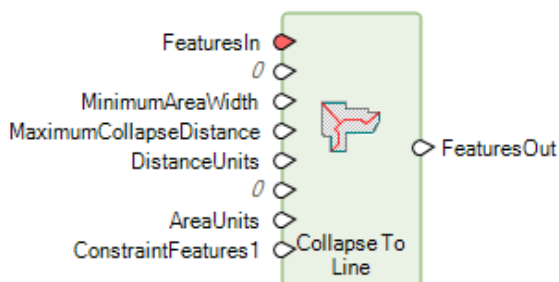
- Simplify Topology. This operator simplifies the geometry of the input features using an algorithm based on the classical Douglas-Peucker algorithm, with further adaptation to preserve the original topology (i.e., all spatial relations between input features and their topological elements are maintained).



- Smooth Topology. This operator smooths the geometry of the input features using an algorithm based on the weighted average algorithm, with further adaptation to preserve the original topology (i.e., all spatial relations between input features and their topological elements are maintained).



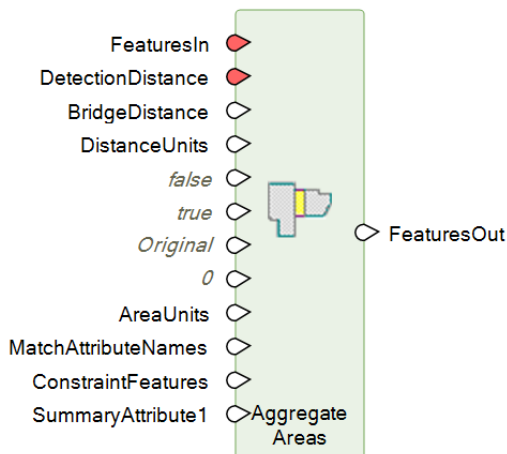
- Collapse To Line. This operator collapses an area geometry to line geometries, generating a skeleton for each area and maintaining connectivity of each skeleton with other geometries connected to the original area. The operator can generate either full skeletons as line geometry fields, or partial skeletons as vector geometry fields containing a mix of collapsed and uncollapsed portions of an area.



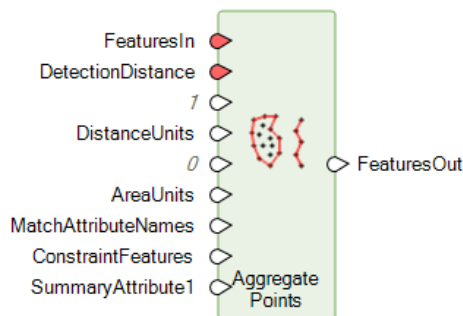
- Collapse To Point. This operator collapses an area, line, or point geometry to a single point using a chosen collapse mode of centroid, center point, or interior point.



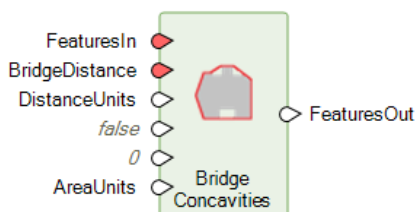
- Aggregate Areas. This operator groups area features together based on proximity and optional attribute matches and spatial constraints, creating an aggregated area geometry for each group that bridges the original geometries, and summarizing data for the groups via functional attributes.



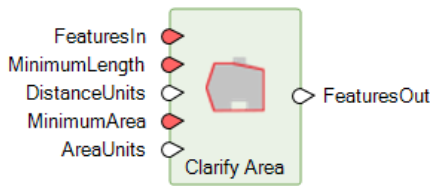
- Aggregate Points. This operator groups point features together based on proximity and optional attribute matches and spatial constraints, creating an aggregated area, line, or point geometry for each group that contains the original geometries, and summarizing data for the groups via functional attributes.



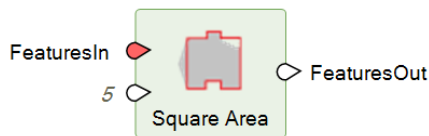
- Bridge Concavities. This operator produces an area geometry with part or all of each eligible concavity of the input area absorbed into the interior of the area by construction of a bridge that spans from one part of the boundary to another.



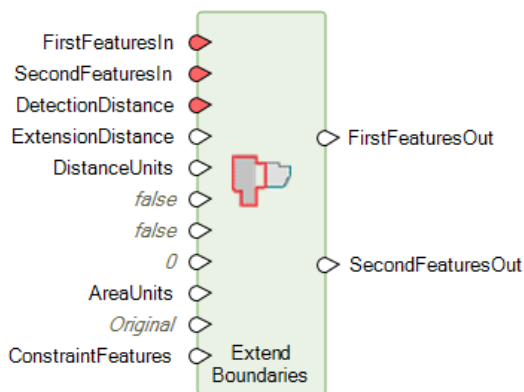
- Clarify Area. This operator produces an area geometry with protrusions and concavities removed.



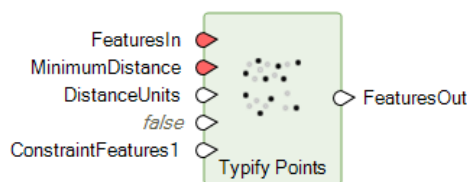
- Square Area. This operator produces an area geometry with angles made perpendicular and sides parallel to one another.



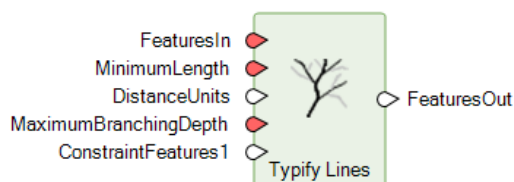
- Extend Boundaries. This operator extends one or both sets of area boundaries or linear geometries to meet one another based on proximity and spatial constraints, bridging the space between the original geometries.



- Typify Points. This operator typifies a set of point features by filtering them based on proximity and distribution balancing logic, leaving a subset of the original points that is typical of the original set in its distribution.



- Typify Lines. This operator typifies sets of connected line features by filtering them based on length and branching depth, leaving subsets of the original lines that are typical of the original sets in their distribution.



Functional Attributes

The following new expression functions are available for use in defining functional attributes for operators such as Generate Functional Attributes, Merge Features, and Summarize Related Features operators:

- **BRIDGECONCAVITIES.** This expression function returns an area geometry with all eligible concavities of the input area absorbed into the interior of the area by construction of a bridge that spans from one part of the boundary to another.
- **CLARIFYAREA.** This expression function returns an area geometry with protuberances and concavities removed.
- **SQUAREAREA.** This expression function returns an area geometry for which all angles have been made perpendicular and sides parallel to one another.

System Requirements

Computer/Processor	<ul style="list-style-type: none"> • Any x64-based processor
Memory (RAM)	<ul style="list-style-type: none"> • 16 GB or more recommended
Disk Space	<ul style="list-style-type: none"> • 1 GB for software • Data storage requirements vary by mapping project¹
Operating Systems ²	<ul style="list-style-type: none"> • Windows® 10 (64-bit) • Windows Server® 2016 (64-bit)² • Windows Server® 2019 (64-bit)²
Peripherals	<ul style="list-style-type: none"> • Software licensing requires an ethernet card
Virtual Server and Virtual App Technology	<ul style="list-style-type: none"> • GeoMedia is a standard Windows application that has been shown to be compatible with a variety of virtualization technologies such as VMware, Hyper-V, VirtualBox, and XenApp. While running GeoMedia in such environments is supported, any problems that uniquely occur in a virtualized environment are considered to be issues with the virtualization software.
Database Servers ⁶	<ul style="list-style-type: none"> • Oracle® Server 12.1 • Oracle® Server 12c (12.2.0.1) • Oracle® Server 18c (12.2.0.2) • Oracle® Server 19c (12.2.0.3) • SQL Server® and SQL Server® Express 2012 • SQL Server® and SQL Server® Express 2014 • SQL Server® and SQL Server® Express 2016 • SQL Server® and SQL Server® Express 2017 • SQL Server® and SQL Server® Express 2019 • Azure SQL Database compatible with SQL Server® 2014, 2016, 2017, or 2019
Database Clients ⁶	<ul style="list-style-type: none"> • Oracle® Client 12.1, 32-bit³ and 64-bit⁴ • Oracle® Server 12c (12.2.0.1), 32-bit³ and 64-bit⁴ • Oracle® Server 18c (12.2.0.2), 32-bit³ and 64-bit⁴ • Oracle® Server 19c (12.2.0.3), 32-bit³ and 64-bit⁴ • SQL Server Native Client 10.0 or higher⁵

System Requirements Notes

¹ Disk I/O is usually the slowest task in geospatial data processing. Faster hard disks improve productivity. Reading data from one disk, writing temporary data to a second disk, and writing data to a third disk improves performance. Disk arrays improve productivity, but some RAID options slow performance. Network disk drives are subject to network limitations.

² GeoMedia runs on 64-bit systems in 32-bit emulation mode.

³ Oracle Data Access Components (ODAC) is required if using the Feature Accessor option for Oracle in the PublishIFC utility, or if using the Database Utilities utility to manage an Oracle warehouse. ODAC is normally delivered by the Oracle Client Administrator installer, but not by the Oracle InstantClient installer. ODAC contains many components, of which PublishIFC requires the Oracle Data Provider for .NET, and Database Utilities requires the Oracle Provider for OLEDB.

⁴ GeoMedia requires Oracle 32-bit client software. Oracle 64-bit client software is used only when connecting to Oracle using Spatial Model Editor.

⁵ SQL Server Native Client 10.0 or higher is needed in order for the Database Utilities utility to automatically create the correct GeoMedia metadata for date, time, and datetime2 data types when using a SQL Server or SQL Server Spatial warehouse. You may get SQL Server Native Client 10.0 or higher from the corresponding Microsoft websites. If the SQL Server Native Client is not installed on the system, you need to manually choose Date as the data type from the dropdown combo box for these data types in the Feature Class Properties dialog and set the format properly.

⁶ In all cases of database software, support for a specific version is dropped in the GeoMedia context when the database vendor ends support for that version.

Issues Resolved

Support Ticket	Description
N/A	N/A

About Hexagon

Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Safety, Infrastructure & Geospatial division improves the performance, efficiency and resilience of vital services. Its Safety & Infrastructure solutions enable smart and safe cities. Its Geospatial software leverages the power of location intelligence.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 21,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at [hexagon.com](https://www.hexagon.com) and follow us [@HexagonAB](https://twitter.com/HexagonAB).

Copyright

© 2021 Hexagon AB and/or its subsidiaries and affiliates. All rights reserved

Warning: The product made the subject of this documentation, including the computer program, icons, graphical symbols, file formats, audio-visual displays and documentation (including this documentation) (collectively, the "Subject Product") may be used only as permitted under the applicable software license agreement, and subject to all limitations and terms applicable to use of the Subject Product therein. The Subject Product contains confidential and proprietary information of Intergraph Corporation, a member of the Hexagon Group of companies ("Hexagon"), its affiliates, and/or third parties. As such, the Subject Product is protected by patent, trademark, copyright and/or trade secret law and may not be transferred, assigned, provided, or otherwise made available to any third party in violation of applicable terms and conditions cited further below.

Terms of Use

By installing, copying, downloading, accessing, viewing, or otherwise using the Subject Product, you agree to be bound by the terms of the EULA found here: https://www.hexagonsafetyinfrastructure.com/-/media/Legal/Hexagon/SI/Licenses/EULA_SA_SIG-Eng_062021.pdf.

Disclaimers

Hexagon and its suppliers believe the information in this publication is accurate as of its publication date. Hexagon is not responsible for any error that may appear in this document. The information and the software discussed in this document are subject to change without notice.

Language Translation Disclaimer: The official version of the Documentation is in English. Any translation of this document into a language other than English is not an official version and has been provided for convenience only. Some portions of a translation may have been created using machine translation. Any translation is provided "as is." Any discrepancies or differences occurring in a translation versus the official English version are not binding and have no legal effect for compliance or enforcement purposes. Hexagon disclaims any and all warranties, whether express or implied, as to the accuracy of any translation.

Reasonable efforts have been made to provide an accurate translation; however, no translation, whether automated or provided by human translators is perfect. If any questions arise related to the accuracy of the information contained in a translated version of Documentation, please refer to its official English version.

Additionally, some text, graphics, PDF documents, and/or other accompanying material may not have been translated.

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 does not endorse companies or products to which it links.

Third party websites are owned and operated by independent parties over which Hexagon has no control. Hexagon 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.

Hexagon provides access to Hexagon international data and, therefore, may contain references or cross references to Hexagon products, programs and services that are not announced in your country. These references do not imply that Hexagon intends to announce such products, programs or services in your country.

Revisions

Hexagon 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.

Questions

[Contact us](#) with any questions regarding these Terms.