Release Guide

GeoMedia Feature Cartographer 2022

Version 16.7

21 October 2021

Contents

About This Release

This document describes the enhancements, fixes, and system requirements for GeoMedia Feature Cartographer 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 Feature Cartographer for more information.

GeoMedia Feature Cartographer provides map producers with the tools to quickly generate accurate hard-copy maps and charts. GeoMedia Feature Cartographer accelerates standard map production workflow steps to facilitate faster response times to meet mission needs for maps on demand.

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

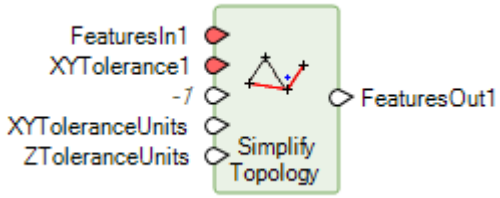
GeoMedia Feature Cartographer now delivers a suite of mapping operators for Spatial Modeler, as well as additional expression functions for producing functional attributes from operators delivered by GeoMedia Desktop such as the Generate Functional Attributes operator. These additional components are automatically

integrated into Spatial Modeler upon installation, but they require a GeoMedia Feature Cartographer license in order to run.

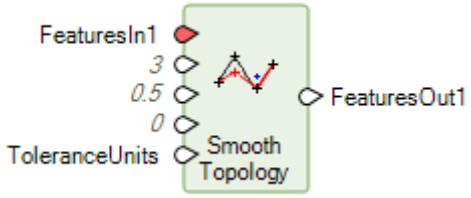
New Operators

The following new mapping operators are delivered with GeoMedia Feature Cartographer:

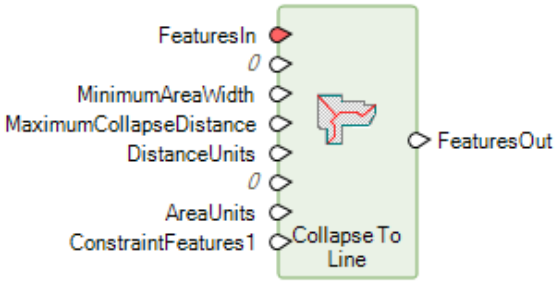
- Simplify Topology. This operator simplifies the geometry of the input features using an algorithm based on the classical Douglas-Peucker algorithm, with further adaptation to preserve the original topology (i.e., all spatial relations between input features and their topological elements are maintained).



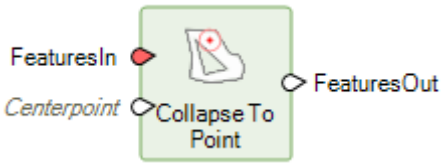
- Smooth Topology. This operator smooths the geometry of the input features using an algorithm based on the weighted average algorithm, with further adaptation to preserve the original topology (i.e., all spatial relations between input features and their topological elements are maintained).



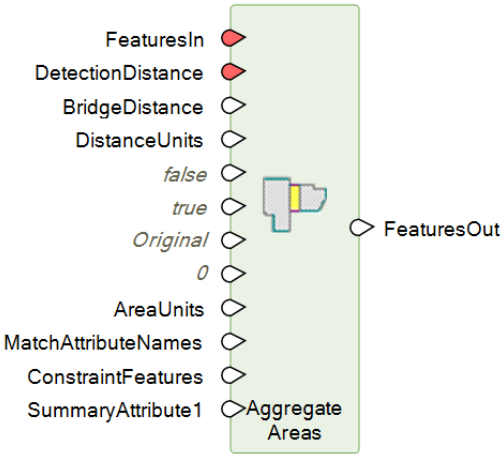
- Collapse To Line. This operator collapses an area geometry to line geometries, generating a skeleton for each area and maintaining connectivity of each skeleton with other geometries connected to the original area. The operator can generate either full skeletons as line geometry fields, or partial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



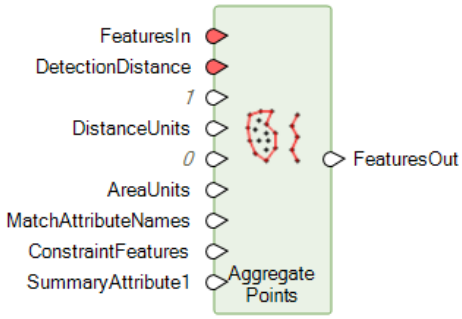
- Collapse To Point. This operator collapses an area, line, or point geometry to a single point using a chosen collapse mode of centroid, center point, or interior point.



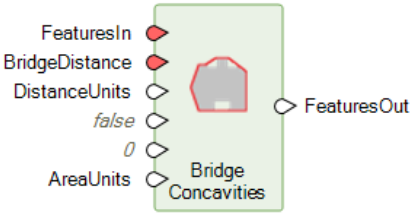
- Aggregate Areas. This operator groups area features together based on proximity and optional attribute matches and spatial constraints, creating an aggregated area geometry for each group that bridges the original geometries, and summarizing data for the groups via functional attributes.



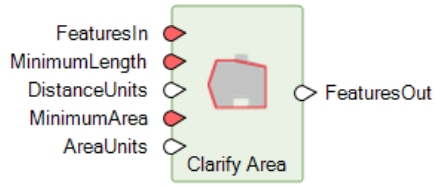
- Aggregate Points. This operator groups point features together based on proximity and optional attribute matches and spatial constraints, creating an aggregated area, line, or point geometry for each group that contains the original geometries, and summarizing data for the groups via functional attributes.



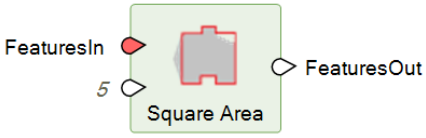
- Bridge Concavities. This operator produces an area geometry with part or all of each eligible concavity of the input area absorbed into the interior of the area by construction of a bridge that spans from one part of the boundary to another.



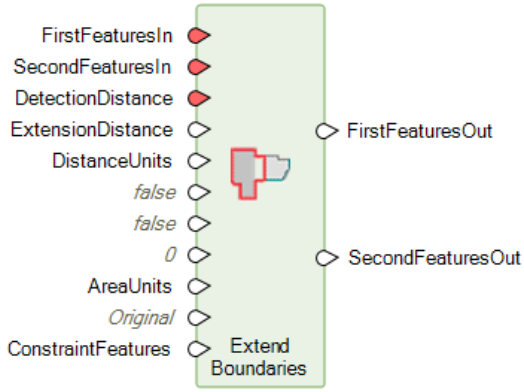
- Clarify Area. This operator produces an area geometry with protrusions and concavities removed.



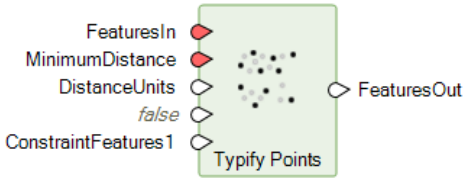
- Square Area. This operator produces an area geometry with angles made perpendicular and sides parallel to one another.



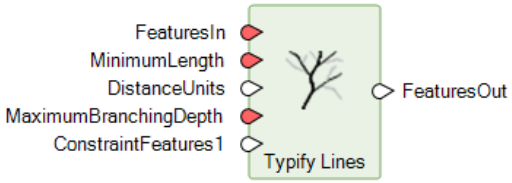
- Extend Boundaries. This operator extends one or both sets of area boundaries or linear geometries to meet one another based on proximity and spatial constraints, bridging the space between the original geometries.



- 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	• Any x64-based processor
Memory (RAM)	• 16 GB or more recommended
Disk Space	• 1 GB for software • Data storage requirements vary by mapping project[1]
Operating Systems[2]	• Windows® 10 (64-bit) • Windows Server® 2016 (64-bit)[2] • Windows Server® 2019 (64-bit)[2]
Peripherals	• Software licensing requires an ethernet card
Virtual Server and Virtual App Technology	• 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]	• 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]	• Oracle® Client 12.1, 32-bit3 and 64-bit4 • Oracle® Server 12c (12.2.0.1), 32-bit[3] and 64-bit[4] • Oracle® Server 18c (12.2.0.2), 32-bit[3] and 64-bit[4] • Oracle® Server 19c (12.2.0.3), 32-bit[3] and 64-bit[4] • SQL Server Native Client 10.0 or higher[5]

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 (16.6 Update 1)

Support Ticket	Description
00011778 00029362 00002886	Generate Marginalia results in rotation/shifted marginalia feature classes using Lambert coordinate system.
00063669	Generated map marginalia are rotated after generation.

Issues Resolved (16.7)

Support Ticket	Description
N/A	N/A

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