

GeoMedia Fusion

GeoMedia® Fusion helps users create and maintain collections of geospatial feature data. Because geospatial data is collected using differing methods and sources, organizations often receive data that varies in content and quality. When comparing sources for integration into the enterprise database, the data contains redundant information, missing attribute and feature details, or information defined differently than an enterprise's data model.

GeoMedia Fusion contains the tools to successfully integrate data – providing the capabilities to transform data into a data model (schema) defined to meet enterprise needs, select or digitize appropriate geometries to represent features, and populate attribution appropriately. From data ingest through selection, filtering, and validation, GeoMedia Fusion assists the operator in all phases of data integration.

Conflation

- Compare two datasets with multiple representations of the same features and then selectively combine their geometries and attributes to create a singular representation
- Create specific rules for linking features, conflation, and conflation of geometry and/or attributes
- Combine geometries and/or attributes from both datasets
- Create queue(s) of features – linking results for review
- Use embedded tools to edit links
- Use streamlined methods of handling unlinked features and attributes

Advanced validation

- Automatically review datasets with the intent of searching for specific geometric and relational characteristics
- Create specific rules for features to be validated, tests to be performed, routines to be applied, and parameters for validation

- Perform validation checks on the geometry of individual features or the geometries of features to other features
- Use graphical queues to edit results

Queued edit

- Create queues automatically with functional software by adding items to pre-existing queues or by creating a new queue list and adding items
- Graphically present a list of items in a single environment for review and resolution
- View queue items in a separate window and/or an overview window with a tracking crosshair to view the items in context of the complete dataset
- Manage queues easily – including the creation of subqueues
- Add query results into the queuing system

Schema remodeling (Technical preview)

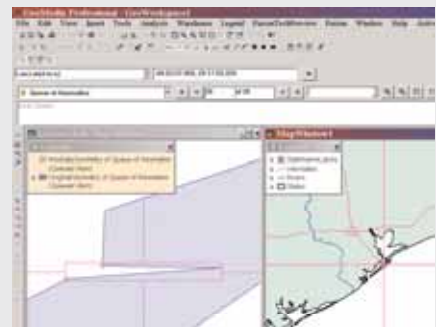
- Create, modify, and manage data schemas
- Define rules to easily remodel schemas
- Store schemas and mapping rules definitions in a database – making them reusable or capable of being used as templates
- Transform data according to the mapping “rules” defined for viewing or for export

Open architecture

As a founding and principal member of the Open Geospatial Consortium (OGC™) (formerly known as Open GIS Consortium), Intergraph is a visible force in ongoing OGC initiatives for industry standards and spearheads interoperability in the GIS and IT marketplace. Intergraph Security, Government & Infrastructure is committed to open systems solutions and data interoperability.

Real-world benefits from GeoMedia Fusion

- Take advantage of automated collection, integration, and use of feature data from multiple, diverse source materials – achieving superior levels of completeness, accuracy, and currency
- Construct database holdings by integration versus collection – resulting in lowered costs
- Use tools and processes to ensure the consistency and integrity of data by using validation techniques, including assessing geometry, topology, and topological relationships
- Create, maintain, and exploit data holdings as you want – minimizing software constraints
- Structure database stores in multiple data models to achieve a “collect-once, use-many” scenario – saving significant resources
- Conflate data in a highly automated way – saving time and money



GeoMedia Fusion provides a graphical Queued Editing interface to quickly and effectively work through data review and editing tasks.

Technical Information

Interoperability

- Seamless data integration using open systems solutions

Create Validation Rules

- Specify features
- Specify validation techniques
- Specify parameters
- Auto correction

Validate Geometry

- Empty geometry
- Unknown geometry
- Invalid geometry
- Too few vertices
- Uncontained holes
- Zero-length lines
- Zero-coverage areas
- Invalid coordinates
- Area loop
- Kickback/duplicate point
- Kink
- Loop in line
- Z out of range
- Not monotonic
- Not flat
- Z-breaks

Validate Connectivity

- Dead ends (dangle)
- Overshoot
- Undershoot
- Unbroken intersecting geometry
- Node mismatch
- Shared edge
- Shared face
- Sliver
- Gap

Create Conflation Rules

- Specify features
- Specify geometric parameters

- Specify attribute filters
- Specify attribute comparisons

Conflation

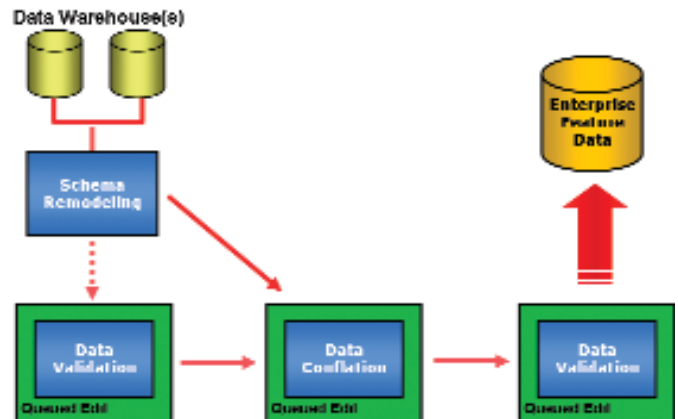
- Create feature conflation links
- Edit conflation links
- Conflate linear features
- Conflate area features
- Conflate point features
- Conflate attributes

Queued Edit

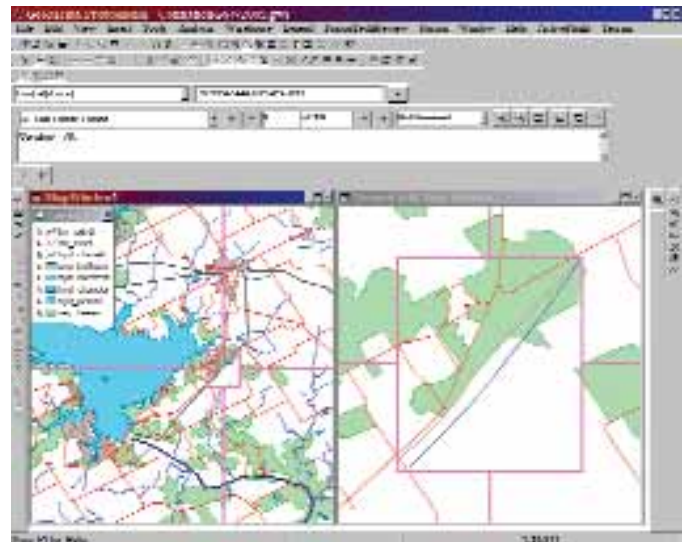
- Select queues
- Create subqueues
- Sort queues/subqueues
- Create queued edit data window
- Generate queue statistics
- Present queue items
- Manage queue appearance

Schema Remodeling

- Create new schema
- Edit existing schema
- Copy existing schema
- Append to existing schema
- Delete existing schema
- Create new rule set
- Edit existing rule set
- Copy existing rule set
- Delete existing rule set
- Remodel attributes
- Remodel features
- Remodel attribute values
- Remodel one feature to one feature (1:1)
- Remodel multiple features to one feature (M:1)
- Remodel one feature to multiple features (1:M)
- Remodel features conditional on attribute existence or value



With GeoMedia Fusion, users have a complete workflow solution for integrating diverse data sources into the enterprise database. Use some or all of the functionality – depending on your requirements.



As users work through the process of conflating two data sets, GeoMedia Fusion is with them every step of the way – providing clear, clean graphical interfaces to speed work and increase productivity.

The Intergraph Solution

Intergraph Security, Government & Infrastructure (SG&I), headquartered in Huntsville, Alabama, serves a broad range of clients, including local, regional, and national governments; businesses, both public and private; and security and public safety organizations. Intergraph SG&I focuses on providing software and services to enable our clients to make the right decisions at the right time using the right information.

For more information, visit our Web site at www.intergraph.com/sgi.