



IMAGINE Enterprise Editor™ PRODUCT DESCRIPTION

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IMAGINE Enterprise Editor™ provides the first integrated image processing and spatial feature editor which can be used to manage data both via the web and connected directly to Oracle Spatial. This enables editing of Oracle Spatial geometries, topology and attribute data in an intranet or web environment. Completely integrated with Oracle, IMAGINE Enterprise Editor natively supports all the Oracle server-side spatial data analysis functions and transaction management capabilities, promoting scalability, performance and manageability. IMAGINE Enterprise Editor leverages the complete Oracle technology stack to provide a fully scalable, robust and standards-based Oracle Spatial editing solution for web-based or directly connected users. The IMAGINE Enterprise Editor Web Client even supports Oracle GeoRaster enabling enterprise-wide access and management of raster imagery via the web. This provides the benefit of managing imagery in a web-accessible environment with integrated vector editing in real time, thereby providing accurate and up-to-date intelligence which enables faster response times and immediate decision-making for a more cost effective operations process.

Benefits

- Integrated image processing and vector data management and manipulation
- Same software functionality for all types of user connections
- Complete integration with Oracle Spatial technology platform
- Support for Oracle Enterprise Wide Security - not normally associated with traditional GIS products.

Key Features

- Supports connected editing of Oracle Spatial topology, geometries and attribute data
- Native support of Oracle GeoRaster for enterprise-wide imagery access and maintenance
- Offers connected editing of Oracle Spatial topology data which enables quick and efficient determination of topological relationships for immediate validation in field based data collection operations
- Supports rendering of all symbology defined and stored in the database using the Oracle Map Definition Tool
- Comprehensive tolerance and snapping capability that substantially improves productivity and reduces the risks of operator error
- Controls the automatic segmentation (splitting) of crossing features and creates all relevant objects and relationships
- Associates topology primitives to pseudo primitives and features thereby offering full control of the topology management and enforcing third party business logic where necessary
- Powerful set of polygon editing tools that support topological maintenance of polygon geometries
- Supports spatial contiguity maintenance
- Comprehensive set of attribute editing capabilities including automated data validation
- Utilizes both optimistic and pessimistic locking principles for transaction management

Detailed Features

Connection

- Direct or via HTTP web connection
- Specify Server Name, Instance, Port, User Name and Password
- Select base map from database
- Discovery options
 - User-defined location and extent
 - Current Viewer extent
 - Search by feature attributes
 - Extent of selected theme

Oracle Spatial Display Support

- Geometric Primitive Types
 - Points
 - Line Strings, including
 - Arc Line Strings
 - Compound Line Strings
 - Self-crossing Line Strings
 - Polygons, including
 - Polygons with holes
 - Compound Polygons
 - Optimized Polygons
- Elements
 - Basic building blocks of a geometry
 - Same as geometric primitive types
 - Element types
 - Point
 - Line
 - Polygon
 - Compound Linestring
 - Compound Polygon
 - Constructed using ordinates
- Geometries
 - Represent a spatial feature
 - Consist of a ordered set of elements
- Layers
 - Consist of geometries that share common sets of attributes
 - Layer is a geometry column in a table
- Topological Data Elements
 - Nodes
 - Edges
 - Faces
- Styles
 - Color
 - Marker
 - Line
 - Area
 - Text
 - Advanced (Bucket Style)
- Themes (a visual representation of a particular data layer)
- Maps - consisting of a combination of elements and attributes, such as the following
 - Background image
 - Title
 - Legend
 - Query window
 - Footnote (such as a copyright notice)
 - Base map
 - Themes (in addition to any in the base map)
 - JDBC queries
 - JDBC image queries

Controls

- Set active theme
- Set display and/or edit capability per theme
- Set feature type filters for point and click selection
- Editing locks (on/off)
 - Dissolve
 - Segmentation
 - Dangle (Start)

- Dangle (End)
- Rubber Band
- Theme
- Axis
- Grid
- Explicitly type commands
- General Settings
 - Pessimistic / Optimistic locking
 - Snapping distance and symbology
 - Editing precision
 - Selection display options
- Start the Oracle Map Definition Tool (for database stored symbology)*
 - * An unsupported tool provided by Oracle and delivered with IMAGINE Enterprise Editor for the convenience of the customer

Editing Tools

- Miscellaneous
 - Selection Filters
 - Primary
 - None
 - Simple Geometry
 - Topo Feature
 - Topology Primitive
 - Active Theme
 - Secondary
 - None
 - Point (Node)
 - Linear (Edge)
 - Polygon (Face)
 - Collection
 - Drive to user-defined coordinate/scale
 - Criteria-based feature search and locate
 - Stop all actions
 - Identify user-selected object (display attributes)
 - Undo, Undo All and redo last edit
 - Save (commit to database)
- Geometry Tools
 - Place point
 - Place line
 - Place polygon
 - Place Circle (by three circumference vertex clicks)
 - Place Circle by Center (and point on circumference)
 - Place Rectangle
 - Place Arc
 - Split Line
 - Extend selected lines to point of intersection
 - Modify a Geometry
 - Insert Vertex into a Geometry
 - Remove Vertex from a Geometry
 - Group Geometry
 - Ungroup Geometry
 - Split Polygon
 - Merge Polygon
 - Move a Geometry
 - Copy a Geometry
 - Delete a Selected Geometry
- Topology Tools

- Place Node
- Place Edge
- Delete a Selected Topology Primitive
- Split Edge
- Modify an Edge Vertex
- Insert Vertex into an Edge
- Remove Vertex from Edge
- Move Edge
- Move Isolated Node
- Move Node
- Feature Tools
 - Place Point Feature
 - Place Line Feature
 - Place Polygon Feature
 - Place Interact Polygon Feature
 - Select Active Feature
 - Add a Feature (by selecting existing topology primitives)
 - Associate a Feature (to a topology primitive)
 - Disassociate a Feature
 - Delete a Selected Feature

HTML/Web

As discussed above, IMAGINE Enterprise Editor can also be deployed using a server component on the Oracle database to provide http connection through to either the ERDAS IMAGINE Viewer-based editing tools or a Java-based web client editor. These tools can be deployed in a platform-independent manner and are designed to integrate with map-rendering applications.

This section describes the main components unique to this style of deployment

- Rendering engine (Java class library) that provides cartographic rendering capabilities (map renderer)
 - Connect to Oracle via Java Database Connectivity (JDBC)
 - Loads the map metadata (such as map definitions, styling rules, symbology, etc)
 - Applies metadata to retrieved spatial data
- Extensible Markup Language (XML) API that provides a programmable interface
 - Submit map requests
 - Handle map responses
- Applet that allows editing of data on the client side
- MapBuilder engine
- MapWriter engine

Requirements

Server (direct connect):

- Oracle Spatial10g Release 2 or higher
- Oracle Fusion Middleware (Oracle Application Server) (must be licensed from Oracle, but does not need to be installed / running if connecting directly to the Oracle database server)
- Please refer to your Oracle documentation for Oracle's system requirements

IMAGINE Viewer-based Client:

- Same as for ERDAS IMAGINE

Server (HTTP connect):

- Oracle Application Server 10g (9.0.4) or later, or a standalone version of Oracle Application Server Containers for J2EE (OC4J) release 9.0.4.0.0 or later
- Oracle Spatial or Oracle Locator (release 8.1.6 or later).
- Oracle Client (release 8.1.7 or later), if you need to use Oracle Call Interface (OCI) features.
- Java JDK 1.4 or later

Deployment Mode

The IMAGINE Enterprise Editor product can be purchased and deployed in three ways:

- The ERDAS IMAGINE Viewer-embedded IMAGINE Enterprise Editor client via a direct Oracle Connection
- The ERDAS IMAGINE Viewer-embedded IMAGINE Enterprise Editor client via an http/web Enterprise Server Connection to Oracle
- ERDAS ADE Enterprise embedded in a web page via an http/web Enterprise Server Connection to Oracle

The direct Oracle Connection option offers a simplified architecture for customers that prefer a more conventional client server approach for their spatial editing systems. When deploying IMAGINE Enterprise Editor using the Oracle Connection, a direct connection must be available to the Oracle database. To use this type of connection you must use the ERDAS IMAGINE Viewer embedded IMAGINE Enterprise Editor tools and purchase licenses for each seat of IMAGINE Enterprise Editor, which is to act as a client connection to the server.

When deploying IMAGINE Enterprise Editor using the Enterprise Server Connection, the connection to the Oracle database is made via http managed by the Oracle Application Server and ERDAS ADE Enterprise tools on the server computer. This enables editing of Oracle Spatial geometries, topology and attribute data in the field. In this instance you must purchase licenses for ERDAS ADE Enterprise based on the number of CPUs in the server computer. Client connections are then at no additional cost (i.e. as many simultaneous client applications or web pages can be run as the CPUs of the server will support).

Additionally, when deploying using the Enterprise Server Connection you have the choice of two types of client-side editing environment. The first is to utilize the ERDAS IMAGINE Viewer-embedded IMAGINE Enterprise Editor tools, which gives the user access to the full suite of ERDAS IMAGINE image processing and analysis capabilities as well as the Oracle Spatial topological feature editing tools. The second is to use ERDAS ADE Enterprise embedded into a web page which provides the same topological feature editing tools, but provides more limited image processing capabilities. In both cases the client-side tools are available at no additional cost (above the per-CPU cost of licensing ERDAS ADE Enterprise), but the ERDAS IMAGINE viewer-embedded mode does require the purchase and licensing of ERDAS IMAGINE at the IMAGINE Essentials® level on the client computer, whereas ERDAS ADE Enterprise has no such requirement.

About ERDAS

ERDAS – The Earth to Business Company – helps organizations harness the information of the changing earth for greater advantage.

ERDAS creates geospatial business systems that transform our earth's data into business information, enabling individuals, businesses and public agencies to quickly access, manage, process and share that information from anywhere.

Using secure geospatial information, ERDAS solutions improve employee, customer and partner visibility to information, enabling them to respond faster and collaborate better. It also means better decision-making, increased productivity and new revenue streams.

ERDAS is a part of the Hexagon Group, Sweden. For more information about ERDAS or its products and services, please call +1 770 776 3400, toll free +1 866 534 2286, or visit www.erdas.com.