





# **OpenCities™ Map CONNECT Edition**

Geospatial software to model your assets in your GIS repository

OpenCities Map provides efficient capabilities to model assets in a GIS repository. The software works with reality data to enhance your project context. The application also provides interoperability capabilities and a collection of thoughtful data standards. Directly edit features in spatial databases like Oracle Spatial, SQL Server, and PostGIS. OpenCities Map offers a strong, yet flexible, application program interface (API) with high-level geospatial functionality to increase application performance and reduce development time. Moreover, you can work with hundreds of additional file formats using optional FME integration.

# The CONNECT Edition

The SELECT® CONNECT Edition includes SELECT CONNECT services, new Azure-based services that provide comprehensive learning, mobility, and collaboration benefits to every Bentley application subscriber. Adaptive Learning Services helps you master the use of Bentley applications through the CONNECT Advisor, a new in-application service that provides contextual and personalized learning. Personal Mobility Services provides unlimited access to Bentley mobile applications, ensuring that you have access to the right project information when and where you need it. ProjectWise® Connection Services allows you to securely share application and project information, to manage and resolve issues, and to create, send, and receive transmittals, submittals, and requests for information (RFIs).

# **Intelligent Geospatial Object Creation**

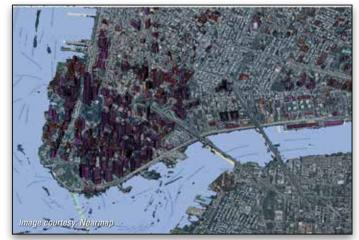
OpenCities Map includes advanced 2D and 3D design productivity innovations to create and maintain engineering-quality spatial data of the assets. You can create geospatial objects with ease using interactive snapping applications. OpenCities Map also includes dimensioning, annotation, raster display, editing, printing, publishing, and much more.

#### **Spatial Analysis and Presentation**

The software includes a full collection of spatial analysis and presentation capabilities using 2D and 3D data. Among these features are capabilities to create buffers around objects, perform topology overlays, create thematic maps, label, and more.

# Improved Interoperability

You can leverage the capabilities in OpenCities Map to improve interoperability with other GIS formats. A variety of file formats can be directly referenced from the OpenCities Map interface, including Esri SHP files, MapInfo TAB files, Oracle



Experience native Oracle Spatial support for 2D and 3D objects including the support of textures.

Spatial, ODBC, WMS, Google KML/KMZ, Esri File Geodatabase, 3D PDF, iModels, SQL Server Spatial, Bing Maps, PostGIS, and others. Data can also be exported into these formats and with other engineering disciplines. Moreover, OpenCities Map interfaces with FME from Safe Software, greatly extending interoperability.

#### **Symbology Synchronized with Attribution**

OpenCities Map Enterprise has administrative functions to define features, attributes, symbology, behavior, and placement capabilities. The software also can promote simple geometries to intelligent features with full attribution. The product ensures that feature symbology remains synchronized with attribution.

# **Reality Modeling Integration**

Using the 3SM format, you can work in a real-world digital context when integrating 3D reality meshes of any scale. OpenCities Map's classification feature allows you to easily add semantic information to the 3D reality mesh. Lastly, ProjectWise ContextShare enables you to share and stream 3D models across your distributed project teams to improve workflows.

# Field Access

OpenCities Map offers support for the OpenCities Map Mobile app for tablets and OpenCities Map Mobile Publisher, which both provide mobile workers access to rich OpenCities Map project information, allowing them to make better informed decisions in the field.

# **System Requirements**

# Operating System (64-bit)

Windows 10, Windows 8.1, Windows 8, Windows 7

#### **Virtualized Environments**

Citrix XenDesktop 7.6 using Microsoft Windows Server 2012 R2

#### Processor

Intel Pentium-based or AMD Athlonbased processor 2GHz or greater

#### Memory

1GB minimum, 2GB or more recommended (more memory typically results in better performance)

#### Connectivity

Internet connectivity is required to use some of the features of the product and installation of software pre-requisites.

#### **Disk Space**

5GB minimum free disk space.

# Find out about Bentley at: www.bentley.com

#### **Contact Bentley**

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#### **Global Office Listings**

www.bentley.com/contact

# **OpenCities Map At-A-Glance**

# **Mapping and GIS**

- · Compile and edit data efficiently
- Build and publish accurate maps and infrastructure models
- Allows you to enforce business and topological rules defined by the Geospatial Administrator
- Brings CAD accuracy and ease of use to GIS

#### All the Power of MicroStation®

- Smart and fast drawing and editing of GIS features
- Raster management
- AccuSnap, AccuDraw<sup>®</sup>
- Display priority, transparency
- Coordinate system assignment and on-the-fly reprojection
- · Full 3D modeling

# Map Manager

- Intuitive, easy-to-use, persisted map definitions
- Drag-and-drop layers to control display order
- Control all aspects of map display
- Automatic creation of thematic map from template
- Export layers to MicroStation elements

# **XML Feature Modeling**

- XML metadata-driven GIS
- Property-based symbology and annotation
- Convert simple elements to smart GIS features

### **Geospatial Administrator**

- Manage the XFM framework through one interface
- Runs outside MicroStation
- Define and maintain XFM project files
- Define features, properties, and the capabilities used to build those features

# **Choice of Data Stores**

- Three-tier connection to Esri ArcGIS
- Self-contained XFM DGN files
- MicroStation support for RDBMS/DGN

#### **Data Capture and Maintenance**

- · Polygon parallel creation
- · Digital terrain model support
- Dynamic domain lists

# Geographic Coordinate Systems

- Custom datum/ellipsoid
- · Create custom grid/graticule definitions

### **Oracle Spatial Editing**

- Oracle Spatial compliant
- Two- or three-tier connection
- 3D object support
- Adherence to native Oracle Spatial feature format

# **SQL Server Spatial Editing**

- Two-tier direct connection
- 3D object support

# **PostGIS Editing**

- Two-tier direct connection
- 3D object support

# Measurement Capabilities and Linear Adjustment

- Place points through radial or rectangular measurements from a baseline
- Create a list of radial or rectangular staking measurements
- Perform linear adjustments on inaccurate data

# **Support for Reality Meshes**

- High performance display of reality meshes created by ContextCapture
- Snap, measure, render, and interact with the model to help improve design
- Drop model to MicroStation mesh element for editing

#### **Presentation and Analysis**

- Spatial analysis
- Thematic display
- Buffer creation
- Dvnamic labeling
- Direct data access (DDA)
- Automatic geolocation of features instances\*
- Solar/shadow analysis

# **Map Generation and Printing**

- Interactive location map index with references
- WYSIWYG plot generation with user defined templates and legends
- Publishing to intelligent PDF, PostScript
- Solve integrity problems with imported or legacy data

 Easily adopt XFM schema for imported or legacy data through Dynamic Feature Scoring

# Interoperability

- Direct reference geospatial formats
- Support for Bing Maps
- MapInfo (TAB, MID/MIF), SHP files, Oracle Spatial, CSV, GML, Esri File Geodatabase, SQL Server Spatial, PostGIS, and ODBC sources
- Import/export capabilities
- Integration with Safe Software's FME
- Publish iModels with RDBMS properties
- · Spatial data streaming
- Web feature service client read (query) access

# **GIS Development Platform**

 Utilize Open API, C/C++, C#, NET other modern programming languages

# **Field Access Support**

- Support for OpenCities Map, OpenCities Map Mobile, and OpenCities Map Mobile Publisher
- Supported by Android and iOS Tablets, Windows
- Fast access to large geospatial databases
- Easy to use with standard tabletbased gestures
- · Simple query capabilities
- · GPS integration
- · Google Maps integration
- Apple Maps integration
- Disconnected, view-only operation for access without a network connection

\*Only applies to direct data access (DDA) graphical source connections (e.g. Oracle Spatial, SQL Server, WFS, etc.).

