Bentley®
Advancing Infrastructure

ARTICLE

Integrating Geospatial Context with MicroStation®

Upgrade Your CAD Designs with MicroStation's Geospatial Context Workflow

Geospatial context is where every design project starts.

With MicroStation, computer-aided design (CAD) projects do not have to start with a blank canvas. MicroStation's geospatial context capabilities bring geospatial data to the forefront of design projects, natively.

Utilizing geospatial data as part of a CAD design enables users to work with real-world data that is referenced to the earth, leveraging that information for analysis, modeling, simulations, and visualization. Whether you are designing a building, road, bridge, or something else, infrastructure projects and designs have context when connected to a place on earth. Using that information to design around existing infrastructure, analyze elevation challenges, or understand utility access allows your designs to be informed and your process to be more efficient.

MicroStation includes a geospatial context workflow that concentrates the full capabilities needed to create and access all types of contextual data in one place and provides users with the ability to easily incorporate geospatial context into your design. Whether the information is on utilities, underground piping, types of soil, urban planning, or streets, you can now incorporate that geospatial context into design files because of MicroStation's direct integration with:

GIS features from:

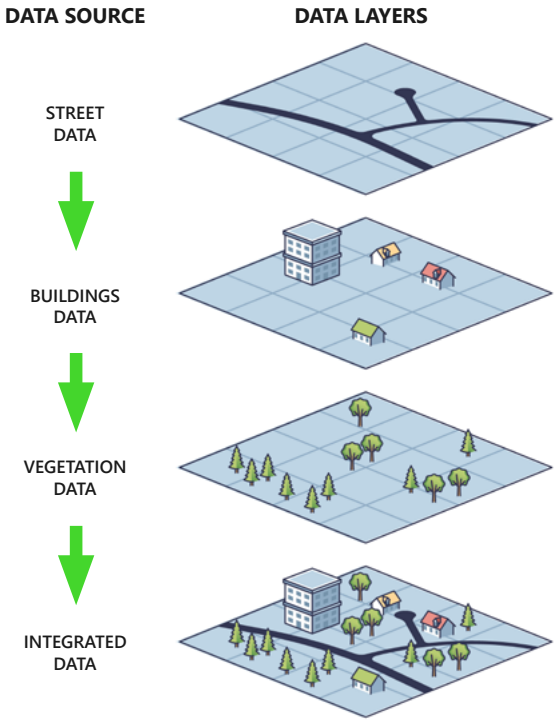
- Esri ArcGIS REST feature Service
- OGC Web Feature Service (WFS)

Background maps from:

- Esri ArcGIS REST Map and Image Service
- Microsoft Bing Maps
- OGC Web Map Service (WMS)
- OGC Web Map Tile Service (WMTS)

Bentley
Advancing Infrastructure

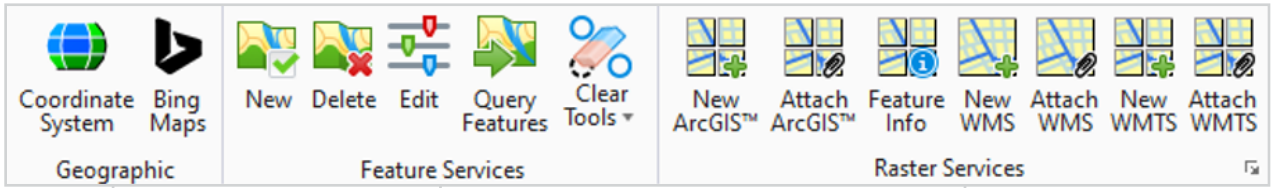
GEODATA LAYERS



There are two primary forms of geospatial data: **vector data** and **raster data**.

Vector data is data in which points, lines, and polygons represent features, such as properties, roads, mountains, and water. **Raster data** is pixelated or gridded cells identified according to row and column. Raster data creates imagery that is substantially more complex, such as satellite images.

MicroStation ingests and utilizes both.



Geographic

- View data

Geographical coordinate systems online mapping (Bing Maps)

Esri ArcGIS Feature Service and OGC WFS Services

- View data
- Edit data locally
- Search data

This **vector** data is published from either services created by organizations (many owner-operators have their own GIS services), or the data can be published from open data/ open access, governmental organizations.

Esri ArcGIS Map and Image Service, OGC Web Map Service, OGC Web Map Tiling Service

- View data
- Review properties (Esri ArcGIS Map and Image Service)

This **raster** data is published from either services created by organizations (many owner-operators have their own GIS services), or the data can be published from open data/open access, governmental organizations.

Geospatial data is any data that has a geographic or locational component as it relates to locations on Earth. Geospatial data describes objects, events, or other features with location, attribute, and temporal information. Weather maps, directional maps, and real estate lightings all utilize geospatial data to show where something is located and the characteristics of that location.

MicroStation's new geospatial context ribbon displays the options for geospatial data that can be incorporated into a design.

MicroStation's geospatial capabilities provide better integration and interoperability, allowing users to view designs and geospatial context in a single environment, add maps as contextual information in the background, and improve collaboration among different departments with enhanced visualization functionality. These geospatial features provide real-time updates, save time with easier workflows, improve visualization, enhance collaboration, and deliver the precise location of design projects—natively in MicroStation.

Get the geospatial integration you need with MicroStation.