Workflow Guide
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Workflow Guide

Workflow Table of Contents

These workflows provide an overview of the steps to perform common GIS tasks.

Set Up

Set Up Your Work Environment

Customize the windows, menus, toolbars, and default settings for AutoCAD Map 3D to suit your work needs.

Switch between work environments  
Choose the workspace that is best for you

Customize your work environment  
Tailor windows, toolbars, and status bars to your needs
Set defaults for the Task Pane, the current map, default queries, how changes are saved to attached drawings, and more.

Specify background color, cross-hairs, and display options.
Set Up Your DWG Data

Use templates to set the defaults for all new maps; create any custom coordinate systems you need; specify user rights and credentials and set up AutoCAD Map 3D for multi-user editing of drawing objects; define classification systems and attribute data sources for your drawing objects.

- **Create templates**: Save default conventions, settings, and content for new maps in a .DWT file

- **Set up coordinate systems**: Define custom coordinate systems

- **Set up users and user rights**: Control access to AutoCAD Map 3D and editing privileges for maps

- **Set up for sharing maps**: Turn on login and object-locking options

- **Set up attribute data sources**: Define object data tables and attach records
Set up object classification

Classify objects by their properties and allowable settings
Create a Map Using Feature Sources

Connect to a geospatial data store, add feature class layers to your map, and style the layers. Create metadata and add a legend to your map.

1. Create a new map file
2. Assign a coordinate system
3. Connect to feature sources
4. Add raster images and surfaces
5. Style features

- Create a new drawing that uses a map template
- Specify a standard coordinate system so objects are properly positioned
- Connect to the feature data store. Each feature class you add becomes a display layer.
- Add 2D images, surfaces with elevations, Web-based images, and other raster graphics
- Specify how features appear in a map
Vary the display of objects on a feature layer based on their properties or attributes

Add information about the file

Identify features by style

Output the styled map (or its data) to a variety of destinations
Create a Map from CAD Data

Attach AutoCAD drawings, align them properly, attach attribute data, style the drawing objects, create metadata, and add a legend to your map.

1. Open or create a map file
2. Attach the drawings to use
3. Align attached drawing objects properly
4. Create seamless joins across the attached drawings
5. Attach data to the map

- Open or create a new drawing using a map template
- Make objects in existing drawings available to the map by attaching the drawings
- Assign a coordinate system or specify scale, rotation, and offset
- Clean up the edges so objects from different maps align to each other
- Attach any external attribute databases you plan to use
Use Quick View to preview the contents of active source drawings

Select objects based on their layer, object class, location, properties, or attached data

Specify how the selected drawing objects will look

Vary the style of drawing objects based on object properties or data associated with them

Add information about the file

Identify items in your map by style
Publish the map

Output the styled map (or its data) to a variety of destinations
Create a Utility Map

Add survey data to a map and overlay it on a feature—for example, show hydrants and parcels. Style the hydrants using symbols, and assign scale ranges so the symbols appear only at certain zoom levels. Style the parcels to include labels based on their attribute data, and assign scale ranges so the labels appear only at certain zoom levels.

1. Open or create a map file
   - Open or create a new drawing using a map template

2. Connect to survey data in an Access database
   - Connect to the database and add point data as a layer (for example, hydrant data)

3. Add SDF data
   - Connect to a data store and add each feature class as a layer (for example, parcels)

4. Create a symbol style for the point layer
   - Use symbols to represent and display point features

5. Create scale ranges for the symbols
   - Specify the zoom level at which the symbols appear
Specify the content and style of labels for the feature in a layer

Specify the zoom levels at which the labels appear

Create scale ranges for the labels

Add labels based on attribute data
Manage Data

Copy SHP File Data to Microsoft SQL Server, MySQL, or Oracle

Copy data from one geospatial format to another.

**NOTE** If you are copying data to SHP format, create a folder as the target data store, rather than a file.

1. Connect to the data source

2. Create a target data store (optional)

3. Connect to the target data store

4. Copy the data

   Use Bulk Copy to copy the data from the source to the target

   Connect to the SHP file whose schema you want to edit

   If you are not copying data to an existing data store, create one

   Connect to the target data store, but don’t add its data to your map
Create ArcSDE Features from Unclassified Drawings

Bring in an unstructured DWG file that needs to be cleaned up and georeferenced. Repair and classify the data, and export it to a geospatial file format (SDF). Then copy the resulting geospatial data to a central GIS repository (ArcSDE).

1. Open or create a map file
2. Attach drawing files
3. Assign a coordinate system
4. Query in all objects from the attached drawings
5. Clean up the drawing data

- Open or create a new drawing using a map template
- Attach the DWG files to use
- Assign a coordinate system to the current map and all attached drawings, so objects are positioned properly
- Use a Location condition and specify “All” to add all objects in the attached DWG files to your map
- Use drawing cleanup to correct common map errors resulting from surveying, digitizing and scanning errors
Copy Features from an FDO Feature Source to a DGN File

Get features and related attributes from a database and export them to DGN 8 format.

NOTE  The coordinate system for the map will automatically match your database. You don't need to assign a coordinate system to the map itself, unless you want to transform the data to a different coordinate system. Generally, you should edit in the same coordinate system as your database. If the data is in different coordinate systems, edit one layer at a time so you are always editing in a coordinate system that matches your data.
Open or create a new drawing using a map template

Set up database access

Set up the database to work with AutoCAD Map 3D and assign the proper privileges and credentials

Connect to the database and add data to your map

Each feature class you choose becomes a display layer in the map

Filter the resulting layers

Filter a display layer to display a subset of the features in your map

Save layers in SDF format

Save each display layer as an SDF file

Open or create a new map file

Open or create a new drawing using a map template
Import the SDF files to convert the SDF data to DWG data

Style the resulting DWG objects

Use AutoCAD styling features to change the appearance of the drawing objects

Export the objects to DGN 8 format

Export the styled DWG objects to MicroStation Design Version 8
Prepare an Existing Oracle Database for Use with Map 3D

Set up user access and run scripts to enable functionality. Create schemas for use with your data.

- Give database users the privileges required by AutoCAD Map 3D
- Optionally, create a new Oracle data store in your Oracle database
- Optionally, enable locking and long transactions
- Define a schema for the new data store

Use the FDO Manager command-line utility to set up users

Create new data stores if you have the necessary privileges in the target database

Use scripts in the /FDO/bin/com folder in your AutoCAD Map 3D folder

Specify feature classes and properties for the data store
Add a Property to an SDF Schema

The set of feature classes and their properties is called a schema. Properties are characteristics of all objects in the feature class. For example, a property of a Roads feature class might specify the number of lanes it has, or its speed limit. You can add a property to an SDF schema.

1. Connect to the data source
2. Display Schema Editor
3. Add a property

   - Connect to the SDF file whose schema you want to edit
   - In Map Explorer, choose the SDF data source to edit
   - Select a feature class, click New Property, and specify values
Add a New Feature Class to an FDO Data Source

Use Schema Editor to create a new feature class and define its properties.

**NOTE** The coordinate system for the map will automatically match your database. You don’t need to assign a coordinate system to the map itself, unless you want to transform the data to a different coordinate system. Generally, you should edit in the same coordinate system as your database. If the data is in different coordinate systems, edit one layer at a time so you are always editing in a coordinate system that matches your data.
/* The image contains a diagram flowchart detailing steps for importing vector data from another file format into AutoCAD Map 3D. Below is an outline of the process steps: */

**Import Vector Data from Another File Format**

If you have map data that is not in DWG format, you can import it into AutoCAD Map 3D. Importing converts data to drawing objects, while maintaining coordinate system information and links to data. You can limit the import to a specific area in the map or assign incoming data to existing AutoCAD Map 3D object classes.

1. **Open or create a map file**
   - Open or create a new drawing using a map template

2. **Assign a coordinate system**
   - Imported objects will use the coordinate system in the map

3. **Maintain any existing database links**
   - If the objects to import are linked to a database table, attach that table to the map, and create a link template for it

4. **Import the vector data**
   - For each incoming layer, specify the target layer, the original coordinate system, how to store the data, and an object class

5. **Clean up the drawing data**
   - Use drawing cleanup to correct geometry errors resulting from surveying, digitizing and scanning errors
The drawing objects you brought in use the new coordinate system, but the original drawing is unchanged.

NOTE Changes you make to imported objects do not affect the original map. To edit features and update the original source with your changes, connect to the data rather than import it. See Bringing in GIS Features in the AutoCAD Map 3D Help.
Digitize a Scanned Paper Map

Use Autodesk Raster Design to convert a scanned raster map to vector (DWG) format, and then use AutoCAD Map 3D to clean up any geometry errors and export the data in a geospatial format. Once you connect to the new geospatial data store, you can add attribute data.

1. **Convert a scanned raster map to vector**
   - Use Autodesk Raster Design to digitize a scanned raster map and convert it to DWG vector format.

2. **Clean up the data**
   - In AutoCAD Map 3D, correct any geometry errors introduced during scanning and digitizing.

3. **Export the vector data to a geospatial format**
   - Export the resulting DWG objects to SDF, a file-based geospatial format.

4. **In a new map, attach the SDF file you created**
   - Connect to the SDF file to bring the data into your map as geospatial features.

5. **Add attribute data**
   - Use the Data Table to add attribute data for the SDF features.
Work with Coordinate Systems

Transform a Geospatial Feature to a Different Coordinate System

Bulk Copy provides an easy way to transform the coordinate system of a feature source from any provider. This example transforms a SHP file's coordinate system.

1. Connect to the source file
2. Create the target file
3. Connect to the target file
4. Copy data from the source to the target

---

Connect to the file whose coordinate system you want to transform

Assign the desired coordinate system to a map file

Connect to the new map that uses the desired coordinate system

Use Bulk Copy to copy the data
Transform a DWG File to a Different Coordinate System

You can transform the coordinate system for drawing objects by adding them to a map that uses a different coordinate system.

1. **Open or create a map file**
   - Open or create a new drawing using a map template

2. **Assign a coordinate system**
   - Choose the target coordinate system for the source drawing

3. **Attach the drawing to transform**
   - Attach the drawing whose coordinate system you want to change

4. **Assign a coordinate system to the attached drawing**
   - Specify the drawing’s current coordinate system

5. **Query in the data you want**
   - Bring in the objects you want from the attached drawing
Detach the drawing

Right-click the drawing in Map Explorer and choose Detach

Save the map

The drawing objects you brought in use the new coordinate system, but the original drawing is unchanged.

Combine Data with Different Coordinate Systems

Map files and feature sources you use may be created with different coordinate systems. When you bring objects into a map from other sources, AutoCAD Map 3D automatically transforms those objects to the coordinate system of the current drawing.

Open the drawings to combine

Open each drawing directly, without attaching it to a map

Assign coordinate systems to the drawings

Specify the coordinate system for each drawing

Save and close the drawings

The drawings are saved with the assigned coordinate systems
Create a base drawing, into which you will add objects from other drawings and feature sources.

Create a new map file.

Assign a coordinate system to the new map file.

All data you add to this map is transformed to this coordinate system.

Connect to your feature sources.

Attach the drawings and connect to the geospatial feature sources for the map.

Add drawing data to the map.

Use a query to bring in objects from the attached drawings.

Save the map.

The added features and the queried drawing objects use the new coordinate system. The original sources are unchanged.
Create and Edit Data

Find and Edit Objects in Attached Drawings

You can edit objects in related drawing by attaching those drawings to the current map and querying in the objects you want.

1. Open or create a map file
2. Assign a coordinate system
3. Attach drawings
4. View the objects in the attached drawings
5. Add drawing objects to the map

- Open or create a new drawing using a map template
- All objects you add will use this coordinate system
- Attach the drawings that contain the objects to edit
- Quick View displays the objects in the source drawings, but does not copy them to the current map
- Use a query to add objects from attached drawings to Display Manager layers
**Edit Features in a Geospatial Feature Source**

Connect to geospatial feature sources to display the features in your map. You can then check out a feature, edit its geometry and data, and check it back in to update the feature source with your changes.

Open or create a map file

---

Open or create a new drawing using a map template
Assign a coordinate system

Features you add are transformed to this coordinate system

Connect to the feature source

Connect to the data source for the new features and create a version if your organization requires it

Locate the feature to edit

Find and select the feature to edit

Check out the feature

By default, features are checked out automatically when you edit them, so this step may be unnecessary

Edit the feature

Use AutoCAD and AutoCAD Map 3D options to edit the feature’s geometry

Optionally, set Update Edits Automatically

Queue your edits to save to the source all at once, or save them as you work
NOTE The coordinate system for the map will automatically match your database. You don't need to assign a coordinate system to the map itself, unless you want to transform the data to a different coordinate system. Generally, you should edit in the same coordinate system as your database. If the data is in different coordinate systems, edit one layer at a time so you are always editing in a coordinate system that matches your data.
Add DWG Data to an Existing Feature Source

You can add drawing objects to a geospatial feature source.

NOTE Use this workflow to add a few objects. To add many objects, use the workflow for exporting to SDF and then bulk copying to SDE, or export drawing data directly to Oracle.

1. Open the drawing file
2. Clean up the drawing data
3. Connect to the feature source
4. Create a new feature from geometry
5. Add attribute information for the new feature

Add the file containing the drawing objects you want to add to a feature source.

Use drawing cleanup to correct common map errors resulting from surveying, digitizing, and scanning errors.

Connect to the data source containing the features to which you want to add the DWG data.

Add a drawing object to a feature layer.

Enter feature attributes in Data Table.
Queue your edits to save to the source all at once, or save them as you work.

Save your changes and additions to the feature source and release any locks.
Add Features to an Existing ArcSDE Feature Class

You can add a new feature to an existing feature class in an ArcSDE database.

**NOTE** The coordinate system for the map will automatically match your database. You don’t need to assign a coordinate system to the map itself, unless you want to transform the data to a different coordinate system. Generally, you should edit in the same coordinate system as your database. If the data is in different coordinate systems, edit one layer at a time so you are always editing in a coordinate system that matches your data.

1. Open or create a map file
2. Connect to the feature source
3. Create a new feature
4. Add attribute information for the new feature

---

Open or create a new drawing using a map template

Connect to the data source for the new features and create a version if your organization requires it

Select the layer representing the feature class for the new feature, and create the feature

Enter feature attributes in Data Table
Queue your edits to save to the source all at once, or save them as you work.

Check in the feature.

Save your changes and additions to the feature source and release any locks.
Join Attribute Data to a Geospatial Feature

You can temporarily attach external data to a feature class in your map by specifying a field that the two data sources have in common. For example, you can add assessment data to a parcel layer, using the APN as the common field. You can view and edit the original feature data and the joined attribute data in the Data Table.

1. **Attach the feature data**
   - Connect to geospatial data stored in an FDO feature source

2. **Attach the attribute data**
   - Attach external data stores that contain the attribute information to join

3. **Join the attribute data to the feature**
   - Using a common field, join the attribute data to a geospatial feature class

4. **View the original and joined data**
   - Use the Data Table to see the original feature data and the joined attribute data

5. **Edit the attribute data**
   - Edit the data and update the original data store
Add Attribute Data Based on Constraints

For a GIS data store, add a property that has a limited set of values. For example, add a zoning property whose possible values are limited to a set you specify, or add a numeric property whose value must be within a range you specify.

1. **Export the entire drawing and all its information to a GIS format**
   - If you are starting from a DWG-based map, convert the drawing to SDF or Oracle

2. **Connect to the new GIS data store**
   - Use Data Connect to connect to the GIS data you created

3. **Change the schema for the data store**
   - Use the Schema Editor to add a new property to an existing feature class

4. **Add a new constrained property**
   - Add a property to the data store’s schema that is constrained to use only values within a specified set of criteria

5. **Enter values for the new property**
   - When you enter values for constrained fields, you are prompted to enter only valid values
Attach Attribute Data to Drawing Objects

You can attach data to objects in your drawings. The data can be stored in the map itself (which makes it easier to send the map and its data to another user), or in an external database like Microsoft Access or Excel (which makes it easier to share an existing data store with other maps and other users).

**NOTE** This procedure applies only to drawing objects. It does not apply to geospatial features.

**For object data:**

1. Define an object data table
2. Connect the data to the objects

**For external data:**

1. Attach the database, containing the external data
2. Create a link template
3. Attach the database to the map
4. Create a link template, to specify the key fields in the database
Link the data to the objects

Link a record from the database to the object
Work Offline from Enterprise Database

If you need to disconnect from the data sources in your map (for example, to work off-site), you can set up your map for offline editing.

1. Open the map file
   - Open the map file to edit offline
2. Connect to all feature sources
   - Connect to geospatial data stored in an FDO feature source
3. Export any joined data
   - Export layers with joined data to SDF and connect to that SDF file to create a copy of your data
4. Check out features
   - Check out features to edit, so they are locked and no one else can change them
5. Choose to work offline
   - AutoCAD Map 3D caches all your feature data connections
When you are back online, save your changes to the feature source and release any locks.

Check in your edited features.
Split a Feature

When you split a feature, you can draw or select line or polygon to split the feature geometry. The resulting feature property values are determined by rules you specify in the Split and Merge Rules dialog box.

1. Open or create a map file
   - Open or create a new drawing using a map template
2. Assign a coordinate system
   - Features you add are transformed to this coordinate system
3. Connect to the feature source
   - Connect to the feature data store and create a version, if the organization requires it
4. Specify how class property values will be calculated for the split feature
   - The type of feature property you select determines what types of rules are available
5. Locate the feature to split
   - Find and select the feature to split
Check out the feature

By default, features are checked out automatically when you edit them, so this step may be unnecessary

Split the feature

You can draw or select a line or a polygon to split the feature

Optionally, set Update Edits Automatically

Queue your edits to save to the source all at once, or save them as you work

Check in the features

Save your changes to the feature source and release any locks
Merge Features

You can merge two or more features of the same class into one feature. You can also merge features with drawing objects. The resulting feature property values are determined by rules you specify in the Split and Merge Rules dialog box.

1. **Open or create a map file**
   - Open or create a new drawing using a map template

2. **Assign a coordinate system**
   - Features you add are transformed to this coordinate system

3. **Connect to the feature source**
   - Connect to the feature data store and create a version, if the organization requires it

4. **Specify how class property values will be calculated for the merged feature**
   - The type of feature property you select determines what types of rules are available

5. **Locate the features to merge**
   - Find and select the features to merge
By default, features are checked out automatically when you edit them, so this step may be unnecessary.

Find and select any number of drawing objects to merge with one or more features.

You can specify a new or existing feature ID for the resulting feature.

Queue your edits to save to the source all at once, or save them as you work.

Save your changes to the feature source and release any locks.
Create Themed Maps and Analyze Data

Create a Theme to Reveal Patterns in Your Data

A theme can help you analyze map data and reveal patterns or trends in the data. Themes vary the display of your data based on properties or attributes of the data. For example, you can use different colors for different soil conditions or bigger dots for larger cities. The procedure varies, depending on whether you are theming features, drawing objects, or surfaces.

Add layers of data in Display Manager

Add layers from features sources, drawings, or raster-based surfaces

Edit the feature schema

Add any required properties (for example, population density or traffic rates)

Add attribute information to geospatial features

Add attribute data for the new properties

Add any attribute information to drawing objects

Link attributes to objects using a link template, or store data in the drawing using object data
Create a theme for features

The theme is based on the values of the feature's properties

Create a theme for drawing objects

The theme is based on the values of the object's attribute data

Create a theme for surfaces

The theme is based on the surface height (elevation), slope, or aspect (direction of slope)

Add labels to a feature theme

Specify the label text, font, size, format, color, background style and color, alignment, and rotation

Add labels to a drawing object theme

Display attribute text for drawing objects using annotation or as part of an import operation

Add a legend

List the theme's conditions and explain its colors, symbols, line patterns, shadings, and annotation
Use Surfaces, Rasters, and Contour Lines

Style a raster-based surface using hillshading, vertical exaggeration, and contour lines to show elevation. View the map in 3D, which realistically drapes any 2D data on the surface. Use AutoCAD visualization tools to display different views in 3D, so you can analyze the surface from different perspectives. Theme on height, slope, or aspect.

- Add a raster-based surface
  - Connect to a DEM (Digital Elevation Model), ESRI Grid, or DTED (Digital Terrain Elevation Data)

- Specify hillshading and vertical exaggeration
  - Cast sunlight across a surface from a direction and angle, and control the display of extreme elevation changes

- Add contour lines
  - Each contour line connects points of equal elevation on the surface

- Switch between 2D and 3D
  - Get a realistic view of all the data in 3D

- Use AutoCAD visualization tools
  - Use 3D orbit, 3D pan and zoom, and 3D swivel. Walk or fly through and record motion path animations
Resample/re-query the image

If you are zooming in, use the Query To View option to improve the display

Theme the surface layer

Theme on height, slope, or aspect to analyze the surface
Find and Select Features Within a Buffer Zone

Create a buffer that defines an area within a certain distance of a feature in your map. Then use a query to select the features on a particular layer that lie within that buffer zone.

1. **Add the features to analyze**
   - Connect to the feature to use as a buffer and the features to evaluate with the buffer

2. **Create the buffer**
   - Define the buffer and specify the distance that comprises the buffer zone

3. **Use a query to filter data, based on the buffer**
   - Use a Location Condition with a Polygon Boundary Type and Crossing Selection Type. Click the buffer in your map.

4. **Export the filtered features**
   - Save the display layers containing the filtered features to a geospatial format
Find and Select Features By Attribute and Location

You can find, filter, and select a specific subset of features using the Data Table.

1. Add layers of data in Display Manager
2. Open the Data Table
3. Locate a subset of data
4. Find map features by location and attributes

- Add layers from feature sources, DWG drawings, or raster-based surfaces
- Access, view, and edit feature source data contained in multiple layers
- Find and select features in your map based on their location or properties
- Display only the features or records you want to work with
Style and Label a Linear Feature

Specify the visual appearance of lines in a map. You can include composite lines to show a solid background with a dashed or solid midline. You can add intelligently placed labels that follow the linear path, or you can use multi-line labels that appear next to the lines.

1. Add the linear feature to the map
   - Use Data Connect to add the feature data to the map

2. Define the scale range for the style
   - Use the Style Editor to specify the zoom level at which the style will appear

3. If desired, filter the features that will be displayed and styled at the specified scale range
   - Create an expression for the Thematic Rules field in the Style Editor to determine which lines appear in the display map at the scale range you chose

4. Create a style for the lines
   - Specify the color, thickness, and pattern for the linear feature

5. If desired, create a composite line style
   - Build a style with several components and then style each component, for example, to show a dividing line for roads
If desired, add labels to the lines that follow the line path

Use the Advanced Placement option to add labels that follow the line’s path, stitch together line segment labels, and shrink to fit the line size. Note: You must choose either Advanced Placement or Multi-line Labeling.

If desired, add multi-line labels to the lines

Use the Multi-Line Labeling option to add labels that place text on multiple lines. Note: You must choose either Advanced Placement or Multi-line Labeling.
Exchange CAD and Geospatial Data

Send GIS Data to AutoCAD

You can convert feature data to drawing objects by attaching the feature sources to your map, adding the features you want, and then exporting the map to DWG format.

1. Open or create a map file
2. Assign a coordinate system
3. Connect to feature sources
4. Export to DWG

- Open or create a new drawing using a map template
- Imported objects will use this coordinate system
- Add features to the map as display layers and create a version if the organization requires it
- Export the entire map to DWG format to convert its contents to drawing objects
Move CAD Data to GIS

Migrate data from a file-based DWG data store to a relational database management system, locating the data in real space and organizing objects into real-world categories.

1. Assign a coordinate system to the drawing
   - Begin accurately placing your drawing in a real-world location

2. Geo-reference points in the drawing
   - Identify points within the drawing relative to the coordinate system you specified

3. If necessary, use rubber sheeting to accurately place data
   - Align your CAD vectors to real-world locations

4. Use queries and alter properties functions to remove extraneous information from the drawing
   - Find and remove objects that match specific criteria

5. Clean up the drawing geometry
   - Correct geometric errors introduced during drafting, digitizing, or data conversions
Apply standards and organize your data into real-world features

Use Object Classification to apply standards and organize data into real world features

Use Object Data to store object attributes

Create object data tables to store text and numerical information related to objects and attach records to objects

Link objects to data contained in a database or spreadsheet outside the drawing file

Link external data stores to existing block attributes, object data records, or AutoCAD text enclosed in a polyline

Convert the drawing to SDF or Oracle

Export the entire drawing and all its information to a GIS format

Evaluate other GIS formats

Based on your organizational needs, number of users, training requirements, cost, and other factors, decide if further data migration is needed

Use Bulk Copy to move the data from SDF to other GIS formats

Move or copy data from SDF to an RDBMS system
Print and Publish Data

Publish to the Web

You can publish your styled map to MapGuide for display on a Website.

1. Open or create a map file
2. Connect to feature sources
3. Style the feature layers
4. Optionally, add raster images
5. Publish to Autodesk MapGuide

- Open or create a new drawing using a map template
- Add features to the map as display layers and create a version, if the organization requires it
- Specify how each feature layer appears in the display map
- Add raster images to give visual context to the map
- Use MapGuide technology to publish map-related data on the web or on an intranet
Use MapGuide to present information on the Web

See the MapGuide documentation
Publish to a Georeferenced DWF

DWF (Design Web Format™) is an open, secure file format developed by Autodesk for sharing engineering design data.

When you publish to DWF, you create an electronic version of the map that can be displayed using Autodesk® Design Review, which you can download from the Autodesk Website. The DWF format can include attribute data and graphical elements, including any draped raster files. All layers and styles are published, with no loss of information.

1. Open or create a map file
2. Assign a coordinate system
3. Connect to feature sources
4. Style the feature layers

- Open or create a new drawing using a map template
- The DWF publish operation converts the map to latitude/longitude coordinates, for use by GPS devices
- Add features to the map as display layers and create a version, if the organization requires it
- Specify how each feature layer appears in the display map
As long as you have assigned a coordinate system to all the maps in your DWF file, the publishing operation will automatically convert the coordinate information to latitude/longitude coordinates. GPS devices that use the NMEA 0183 protocol and the Autodesk DWF Viewer can use the georeferencing information, for example, to pan and center maps dynamically.
Publish to a Map Book

A map book divides your map into multiple "tiles" and displays each tile on a separate page. Picture a grid overlaying your map. Each section of the grid represents a tile. Once you create a map book, you can publish it to a plotter or to DWF.

- Set up a map book template
  - Specify printer settings and the size and position of the legend, title block, and map tiles

- Identify layout placeholders
  - Identify each element in the map book template as a placeholder for a particular type of information

- Create the map book
  - Specify the source, sheet template, tiling scheme, naming scheme, and sheet set for the map book

- View and edit the map book tiles
  - View and change individual tiles or layouts for existing map books

- Publish the map book
  - Publish to a DWF file for electronic distribution or to a plotter for a printed version based on the current plot settings
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