

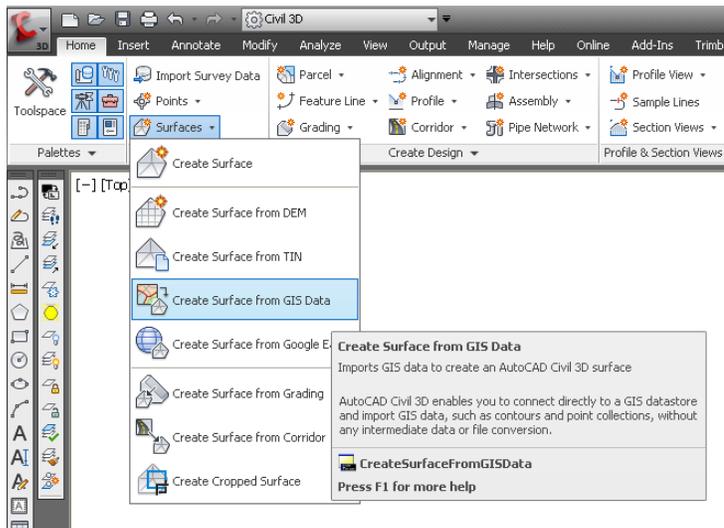
This guide covers the procedure for creating a terrain surface in Civil 3D using a shapefile which contains elevation data in the form of contours. The shapefile that is being used to create the surface is located on a local hard drive or shared server.

Make sure a coordinate system is assigned to the Drawing

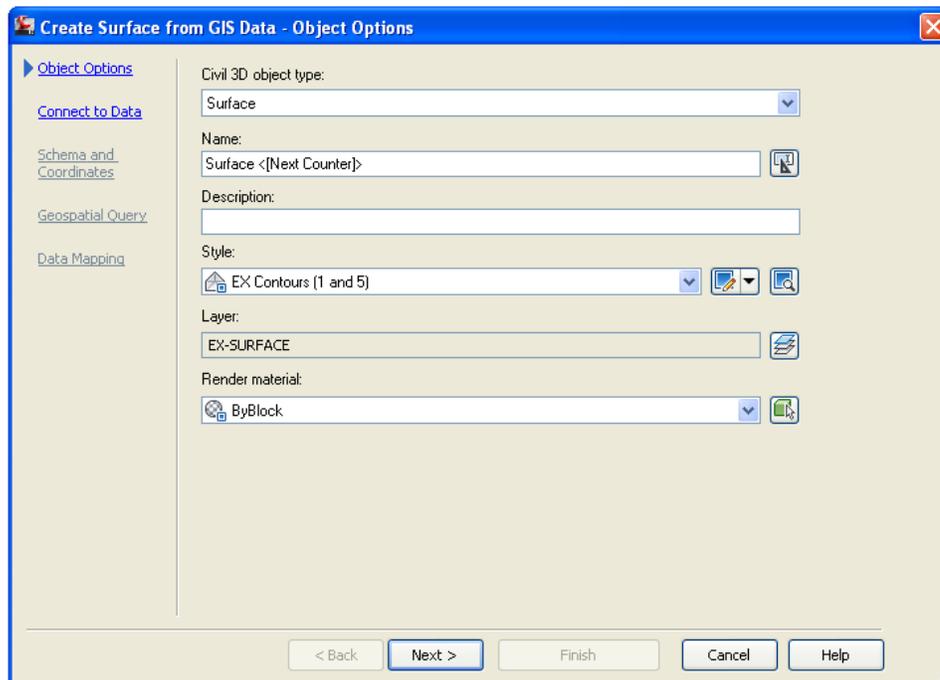
1. Go to the Settings tab on the Toolspace.
2. Right click on the drawing name and select *Edit Drawing Settings...*
3. In the *Drawing Settings* window, go to the *Units and Zone* tab.
4. Select the coordinate system for the drawing from the list of available coordinate systems in the *Zone* section.

Create a Surface from the Shapefile

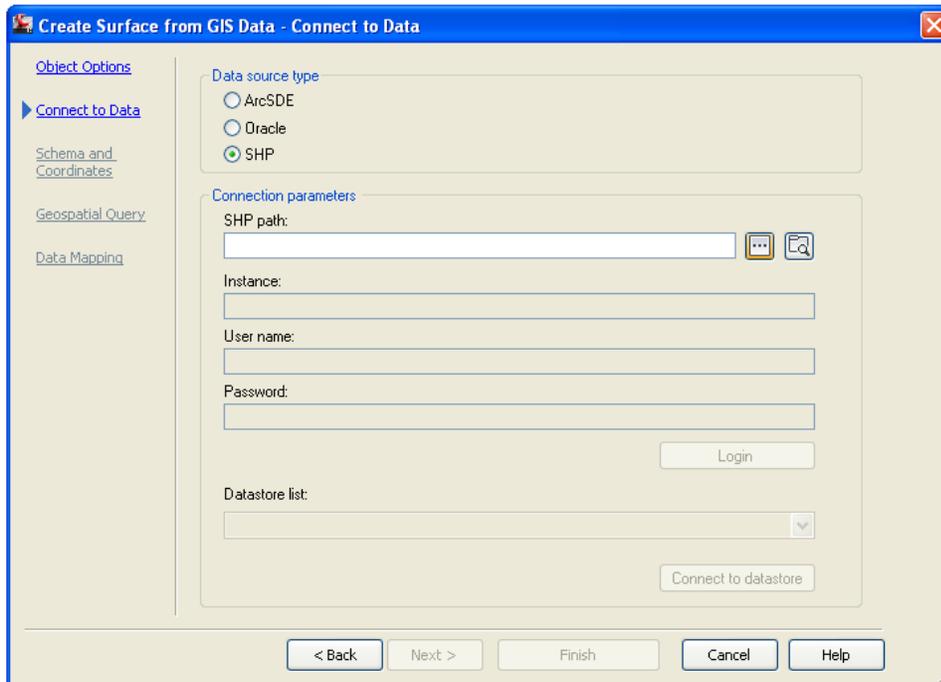
1. Click on the down arrow next to *Surfaces* on the *Create Ground Data* panel on the *Home* ribbon and select *Create Surface from GIS Data*.



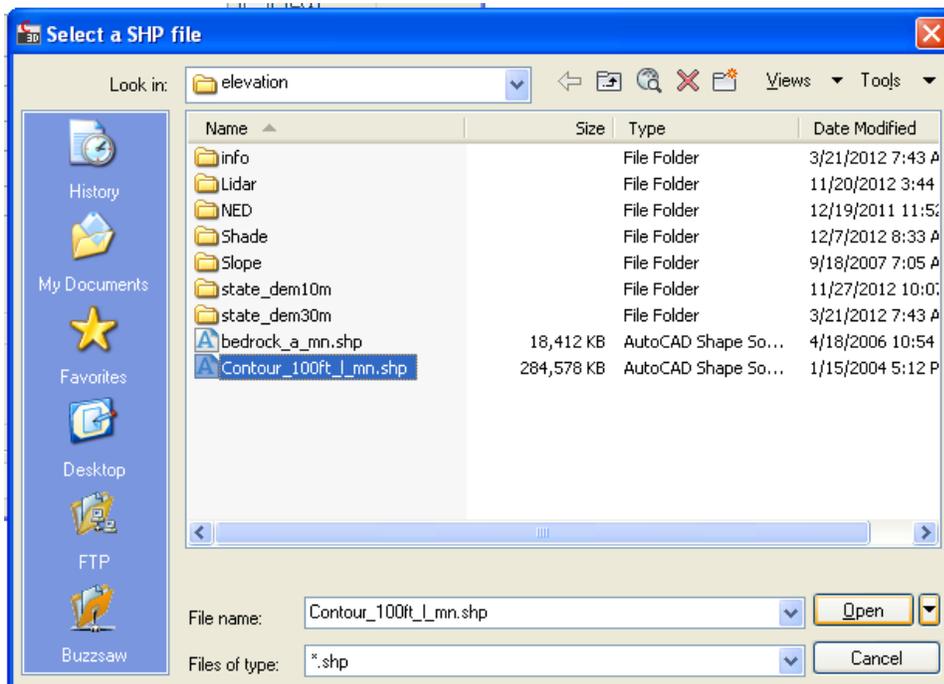
2. The Create Surface from GIS Data window will open. The Object Options tab is used to provide a name and optional description for the surface and to select a style, layer and rendering material.



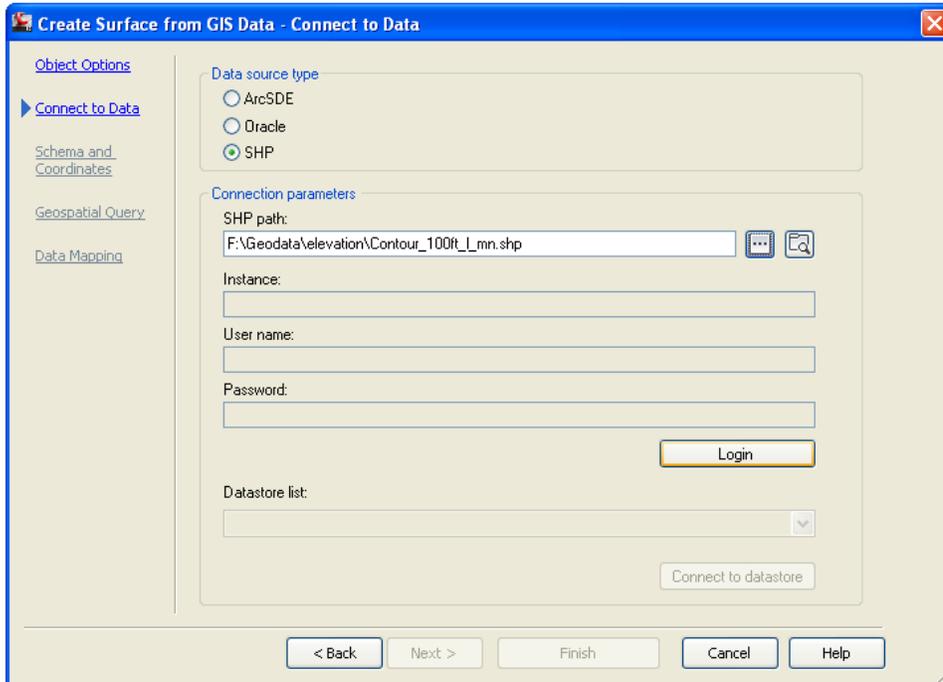
1. Click on the Next > button to open the Connect to Data window. There are three types of source data that can be used, ArcSDE, Oracle or SHP. For this exercise, select SHP.



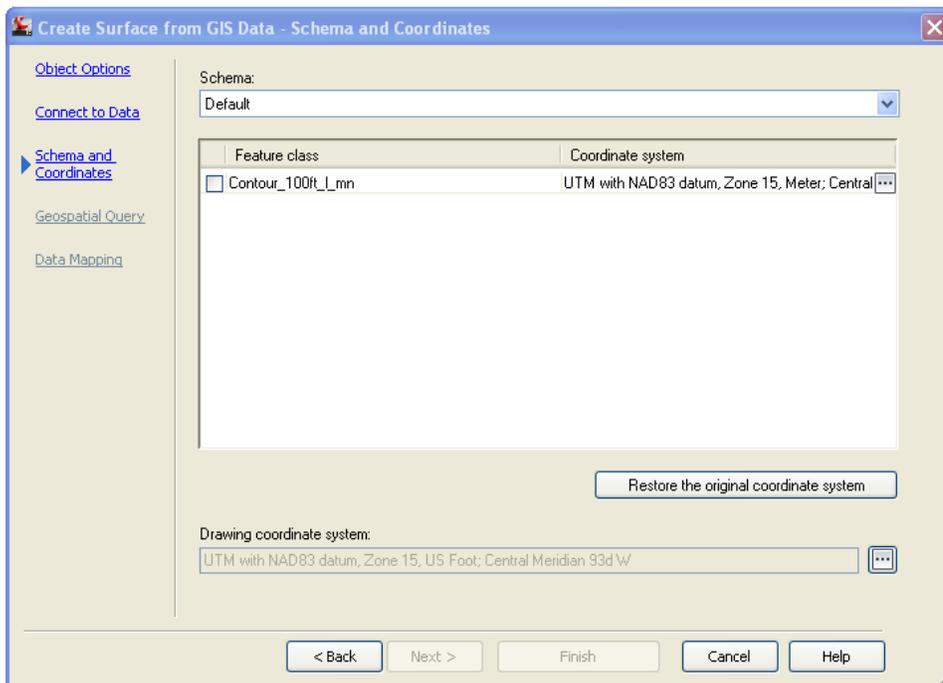
2. Select the shapefile by clicking on one of the icons next to *SHP path*: The icon on the left will allow you to browse and select an individual .shp file, while the icon on the right allows you to select all of the shapefiles in a folder. Browse and select the shapefile and click on the Open button.



- Back in the *Create Surface from GIS Data – Connect to Data* window, click on the Login button.

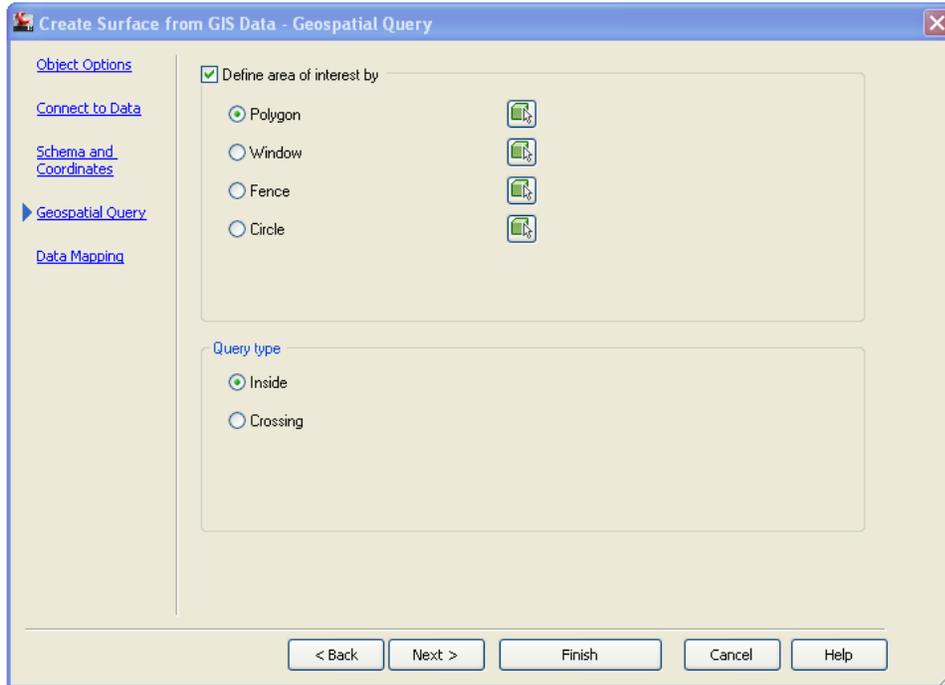


- The *Create Surface from GIS Data – Schema and Coordinates* window will appear after the login completes (this may take a few seconds). The shapefile name and its coordinate system will appear in the center window, and the drawing's coordinate system will be listed at the bottom of the window.

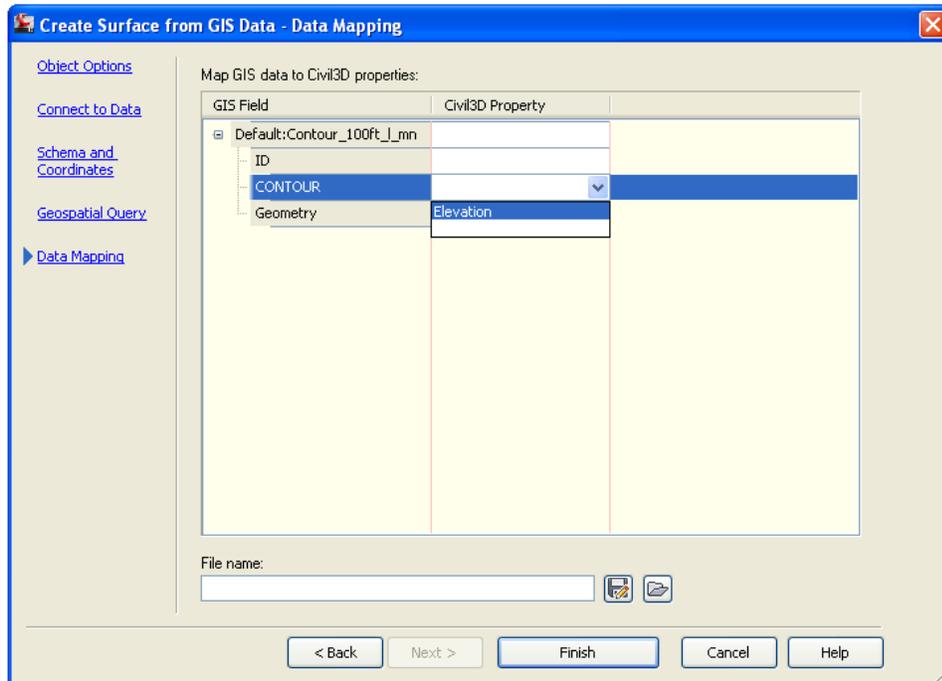


Check the box next to the shapefile name and click on the *Next >* button.

- In the *Create Surface from GIS Data – Geospatial Query* window, you can define an area of interest in order to limit the area of the surface, and you can choose a query type. Uncheck the box next to *Define area of interest by* to use all of the contours in the shapefile to build the surface. Click on the *Next >* button.



- In the *Create Surface from GIS Data – Data Mapping* window, click on the cell next to CONTOUR in the Civil3D Property column to assign elevation values from the shapefile contours to the Civil 3D surface.



- Click on the *Finish* button to create the surface.