GIS to CAD Conversion of Contour Data for Use in 3D Modeling

Updated February 7, 2012

Check the Version of ArcGIS

To convert GIS data into CAD data you must be using ArcGIS Arc**Info** software. There are three different types of ArcGIS licenses: ArcInfo, ArcEditor and ArcView. ArcInfo is the highest level of ArcGIS.

1. ArcGIS ArcInfo is only located in GIS Lab in Tisch Library
2. ArcGIS ArcEditor is in all other labs – One copy of ArcInfo is available in the CAD Lab in Anderson.
3. You can check the version of software you are using in ArcMap or in ArcCatalog. To check the version, go to the Main toolbar and click on Help - About ArcMap (or About ArcCatalog). This window will pop up and tell you which version of ArcGIS software you are currently using.
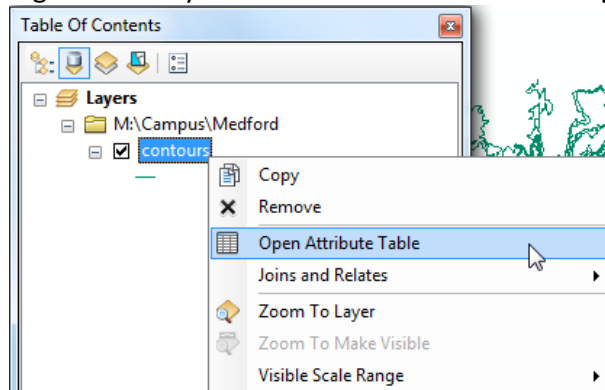
Check for the "Elevation" Field in the GIS data

To convert your GIS Data into CAD data and keep the elevation data within the CAD file, you must first have a field named "elevation"

To check for the "elevation" field while in ArcMap:
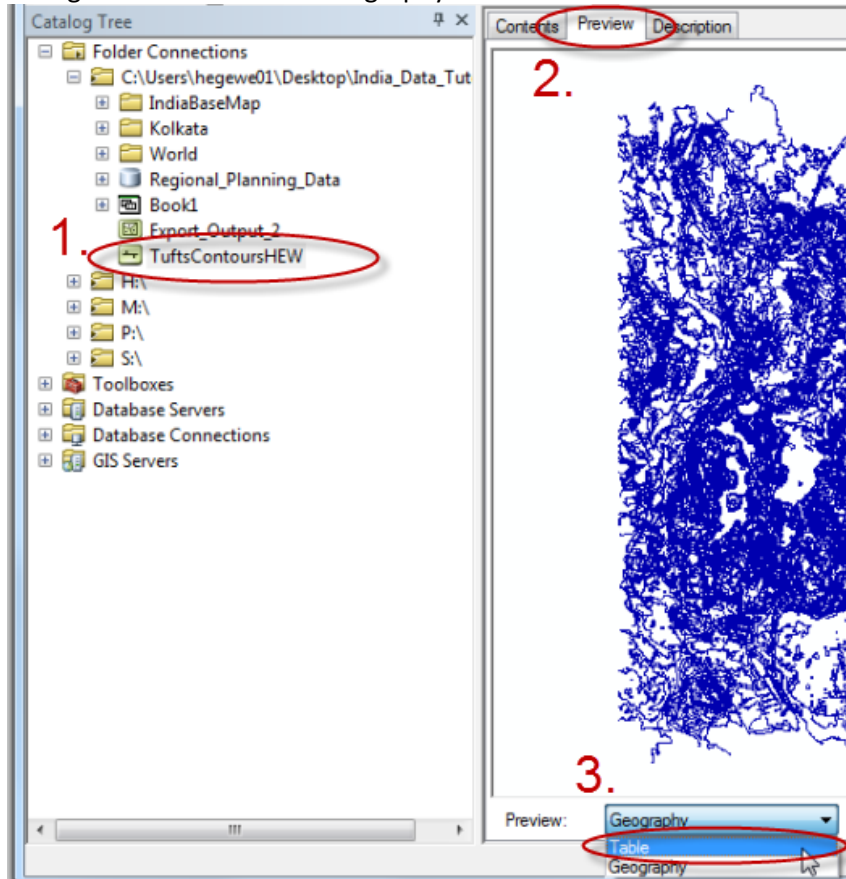
1. Right-click on your contour GIS file and select **Open Attribute Table**.

2. A table with all of the fields present in your contour layer will appear.

3. The field must be named "elevation" – not "elev" or "elev_ft". If your data has a field named "elevation," move on to *Checking for a Projection*. If not, move to **Adding a Field to the Attribute Table**.

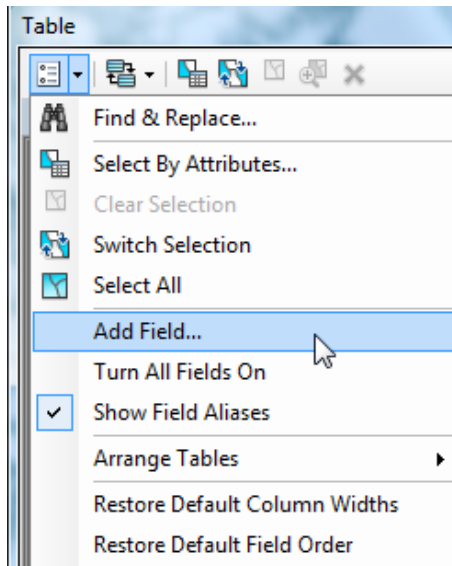## To check for the "elevation" field while in ArcCatalog:

1. Click on your contour dataset while in ArcCatalog

2. Click on the "Preview" tab.
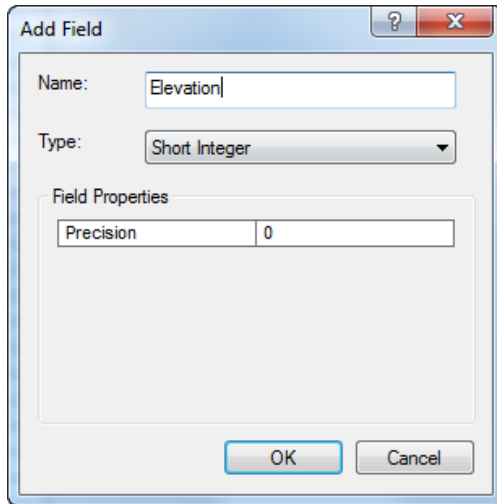
3. Change the Preview from Geography to Table.

4. The Attributes Table will now appear.

5. The field must be named "elevation" – not "elev" or "elev_ft". If your data has a field named "elevation," move on to *Checking for a Projection*. If not move to *Adding a Field to an Attribute Table*
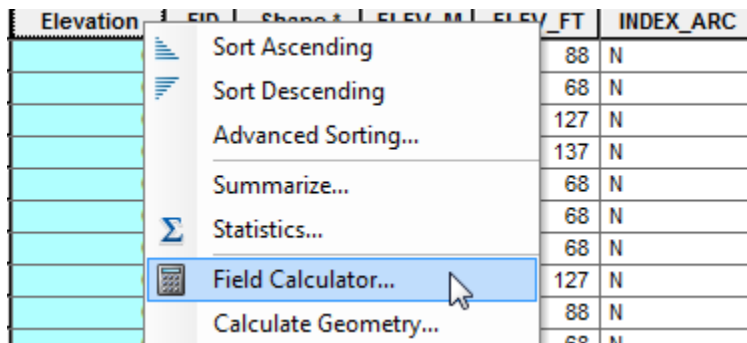
Adding a Field to an Attribute Table

1. Left Click on the **Table Options** ( ) button in the upper left-hand corner of the Attribute Table you just opened.
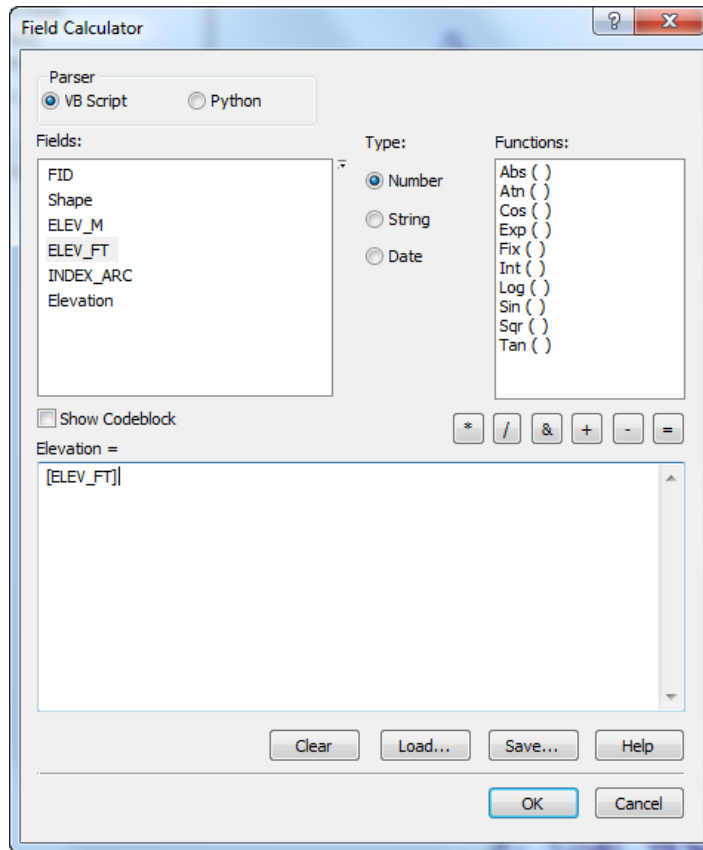
2. Click on **Add Field**

3. The window to the right will appear. Fill in the fields as shown and click OK.

4.   Find the existing elevation field in your dataset – it is probably called something like "elev_ft" or "elev".

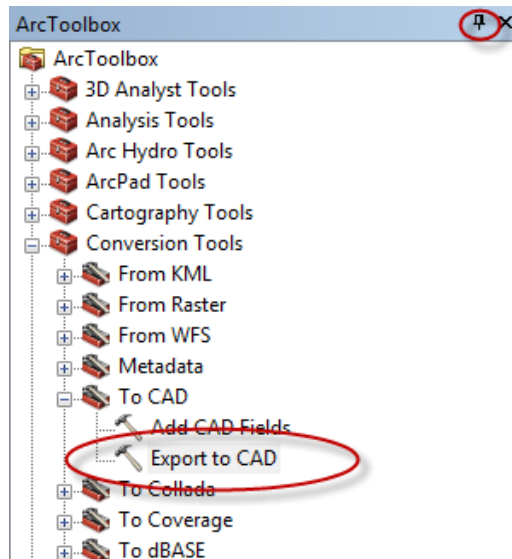6. Right-click on the "elevation" field you just created and click on **Field Calculator**.

7. The Field Calculator window will appear. Fill out the Calculator as shown below. This will set the elevation data in the newly created "elevation" field equal to the information in the old "elev_ft" field.
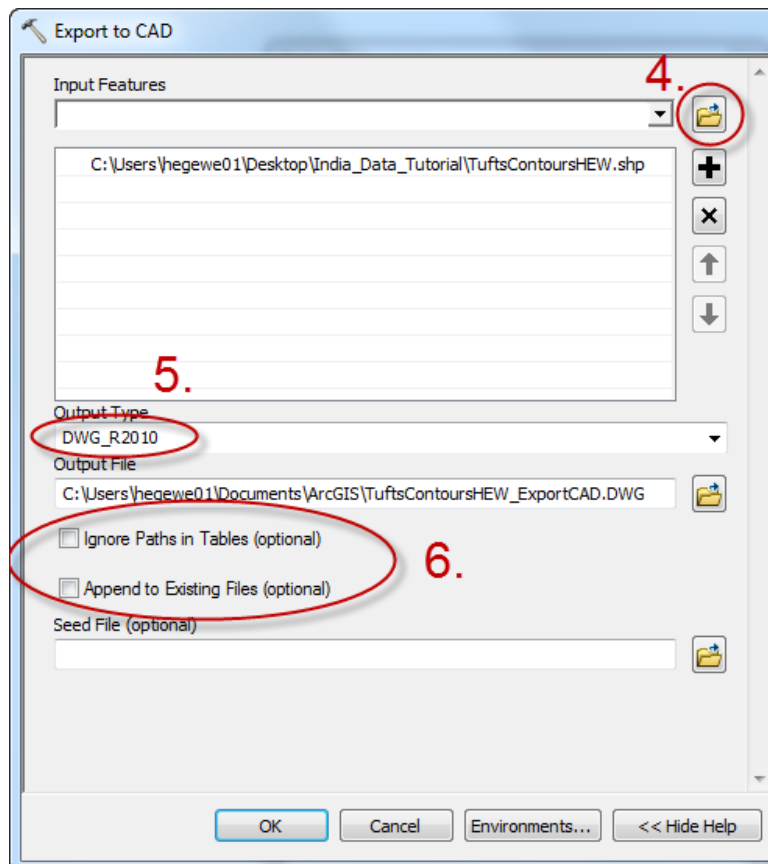

8. Click OK and your "elevation" field will be populated with the elevation data.

Convert GIS files to CAD

1. In the ArcMap toolbar, click the Arctoolbox window ( )

2. Click the **Auto Hide** button in the upper right corner of the window to pin it in place

3. Go to **Conversion Tools-To CAD-Export to CAD**

4. In the Conversion tool, add the contour you want to convert to the Input Features

5. Set the Output type to DWG _R2010 or DXF_R2010

6. Uncheck "Ignore Paths" and "Append to Existing files"

7. Do not need seed file

8. Click **OK** to Finish