

This guide covers the procedure of importing a LIDAR DEM into a Civil 3D surface. You must have a DEM converted to feet to be able to use it effectively in Civil 3D. The original DEM's can be exported right out of ArcMap into Civil 3D but the elevation that is originally in meters does not change. This could be changed by raising the surface by a conversion from meters to international or U.S. Survey feet. A tool can be developed to do this automatically in ArcMap.

Begin by opening ArcMap and starting with a county template or even a blank template.

- Add the dem03inft

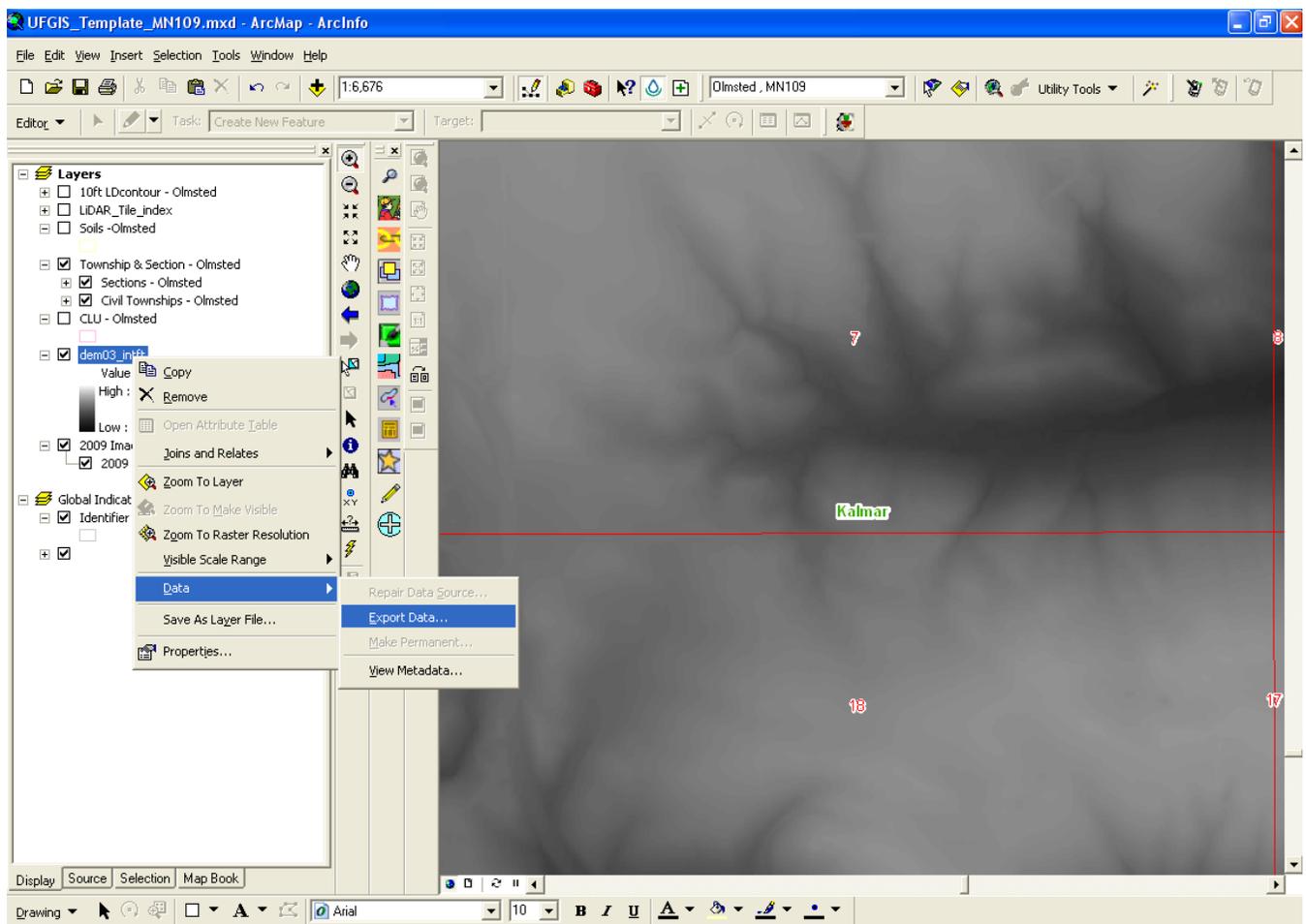
- Zoom to the area of interest

 - (Include all the area that you want to use in Civil 3D in the data frame)

- Right-click on the dem03inft layer

 - Data

 - Export Data



The following window will appear and check for the following settings:

-Extent

-Data Frame (Current)

-Spatial Reference

-Raster Dataset (Original)

-Location

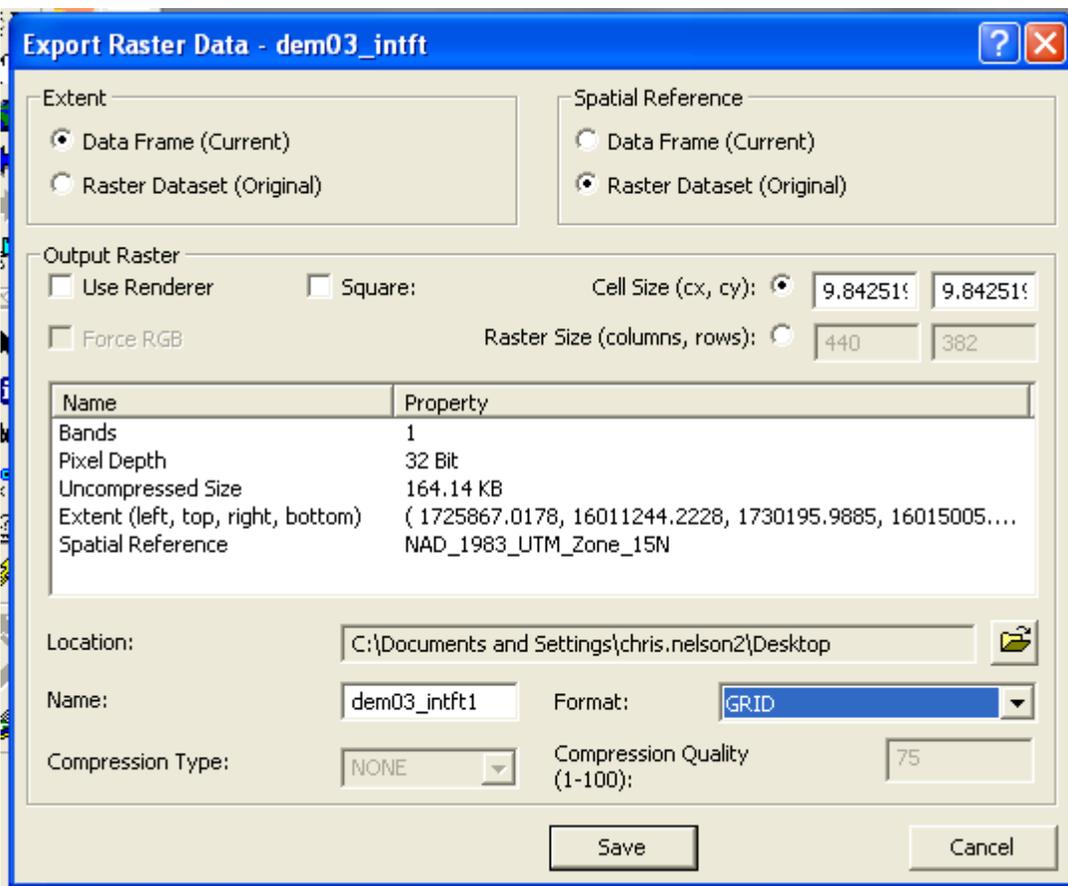
-Choose the folder where you want the files to be places

-Format

-Grid

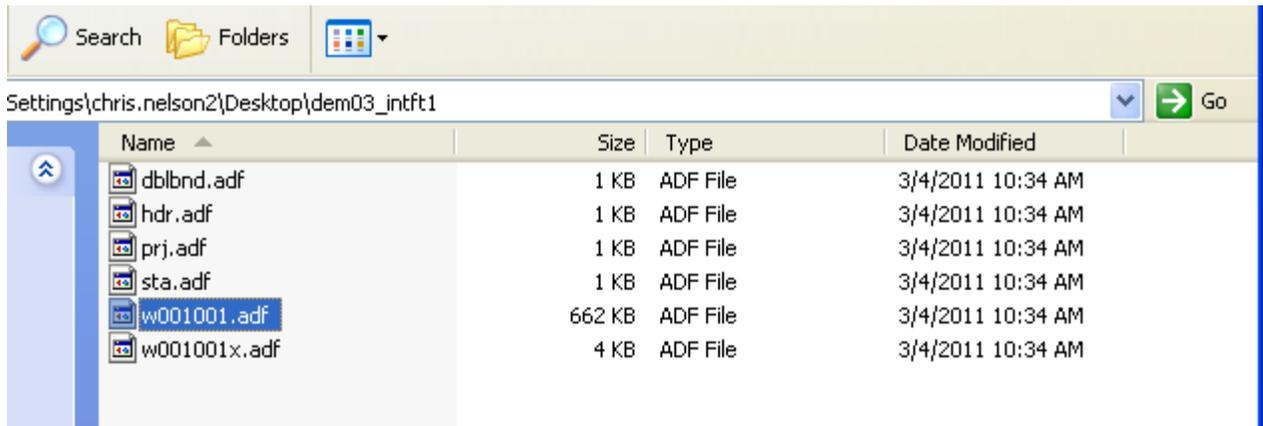
-Click **Save**

---You will be asked if you want to add the data to the map as a layer which you can say no because you won't need it in ArcMap.

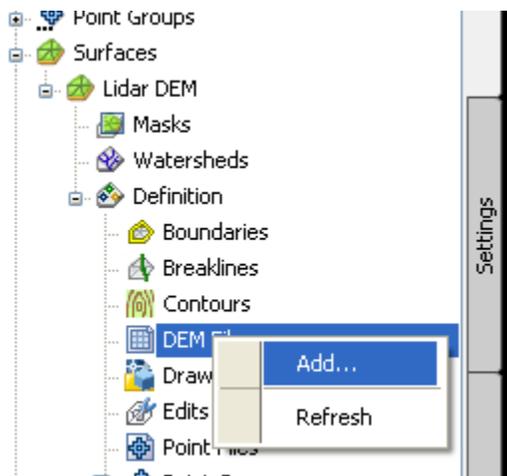


**All of the other settings should be the default settings that appear automatically.

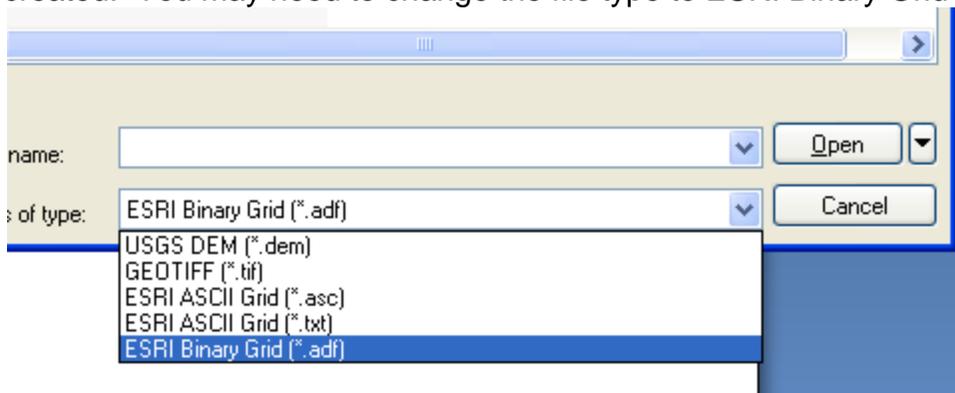
This process will develop a series of files located in the location that you selected that are in an **.adf** format. The file that you are looking for is the largest file in the folder.



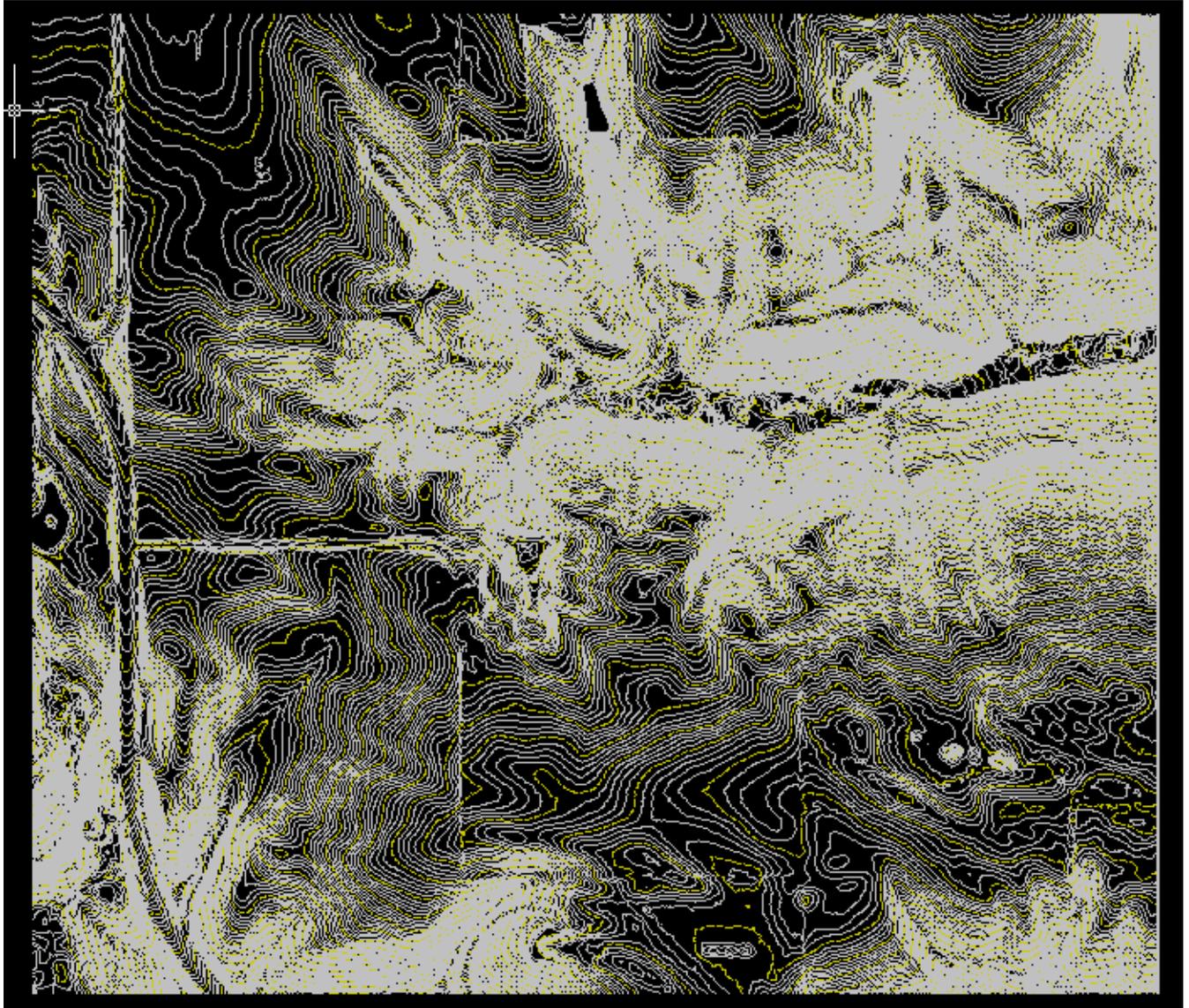
Open Civil 3D and go to the **Toolspace** and either create a new surface called Lidar Dem or use one that is already created. Expand the surface and navigate to the definition and right-click on DEM Files and select Add.



A window will appear that will allow you to navigate to the location of your DEM that you created. You may need to change the file type to ESRI Binary Grid (*.adf).



Zoom to the extents of the drawing to see that the surface was created. You will notice on the right side of the surface there will be an area that seems to be referencing a “zero” elevation. This can be remedied by adding a boundary to the surface.



Keep in mind that larger surfaces like this have a tendency to slow the functionality of the system and have caused the program to lock up at times. It seems that if the size of the DEM is kept around the 150kb size it is more manageable and that may be remedied by increasing the virtual memory on the computer.