

CE 4020 - Computer Applications in CEE

Classwork Assignment

October 20, 2010

Developing and Analyzing Terrains Using Realistic Satellite Data

Objective: The objectives of this assignment are:

- Demonstrate the ability to set up a drawing in Civil3D
- Demonstrate an understanding of object oriented structure of Civil3D by creating a new Surface object using satellite data presented in the form of DEM files
- Demonstrate the ability to develop and edit surfaces from realistic data sources
- Demonstrate the ability to analyze a surface and display analyzed information in a presentable layout
- Demonstrate the ability to query the surface using geographical identifiers such as latitude and longitude to identify specific features on a surface

Please follow these instructions:

- Download DEM files from the class web-site and carefully investigate the meta-data files (the .txt files)
- Build a new surface and define it using the downloaded DEM files
- Appropriately edit the surface and ensure that no inaccurate and unnecessary information is displayed
- Analyze the surface and develop an appropriately scaled layout in pdf format
- Look up Google Maps and identify at least one geographical or man made feature in the are that you are familiar with (for example, Michigan Tech campus, Econo Foods, or a particular street etc.
- Using a parcel or an alignment please identify the specific land-mark and create a mask to only display the vicinity of the land-mark.
- Create an appropriately scaled pdf layout of the chosen landmark.

Please store the completed file and pdfs in your class folder.