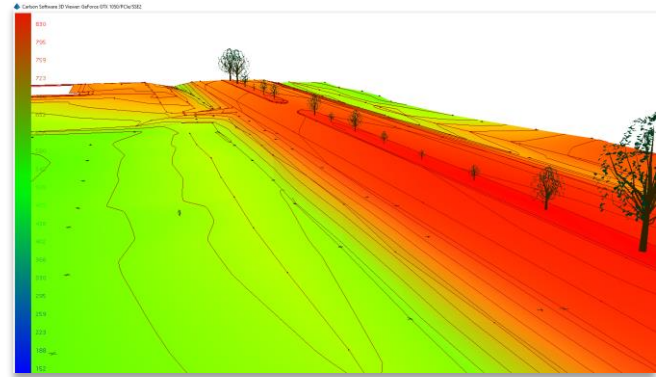


WELCOME

Surfaces, Contours,
Terrain Models, Volumes
and How To's with
Carlson Software



Presenter:
Michael Hyman
Carlson Software
mhyman@carlsonsw.com



Creating Contours - History

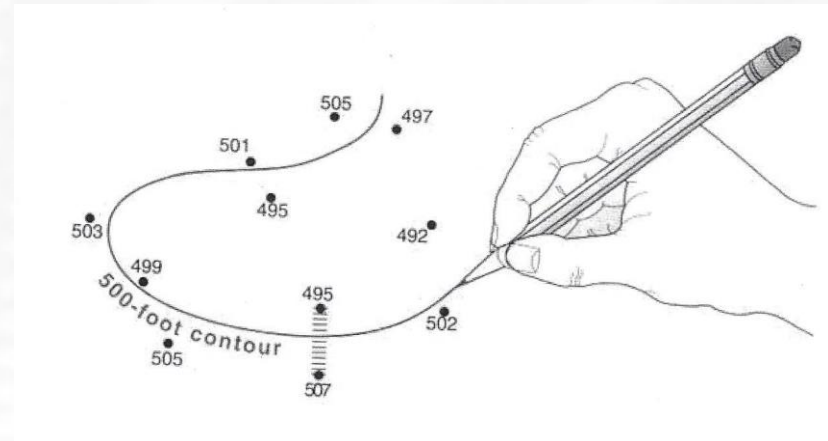


➤ Point Plot via Hand with a Light Table or Point Plot via Printer

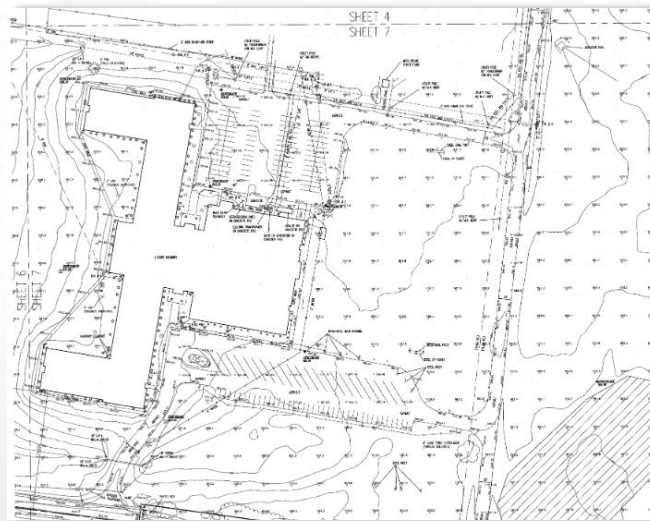
➤ Hand Drawn Contours – Interpretive

➤ Can Be Creative to *Get the Job Done*

➤ Easy To Modify as Needed



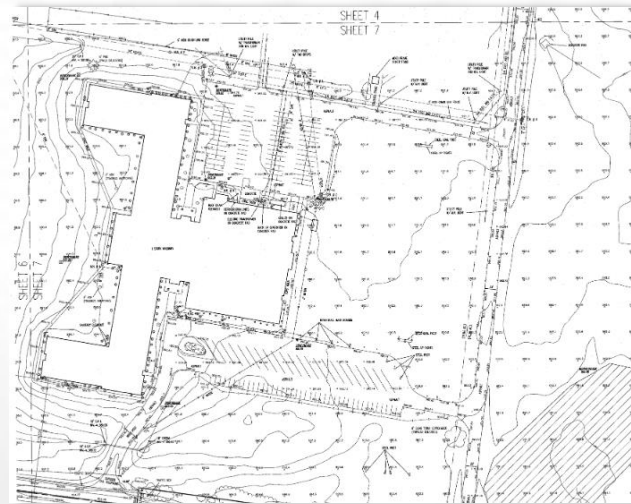
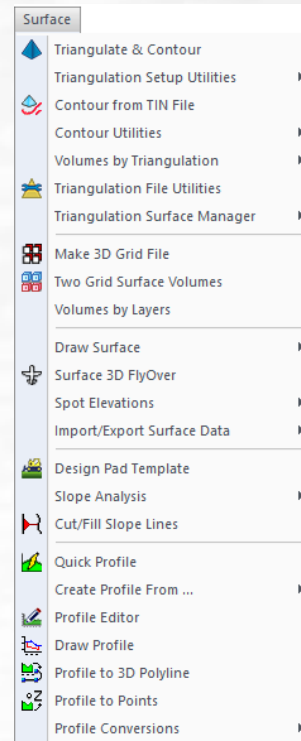
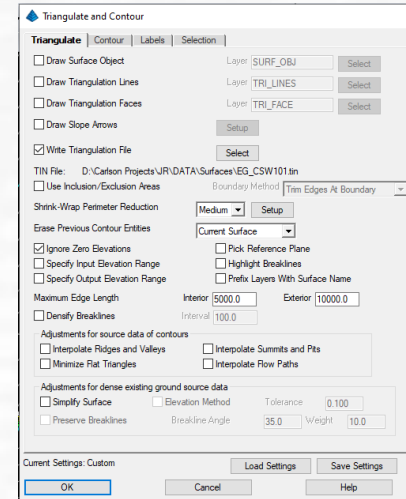
➤ Allowed Drafters and Surveyors to Create *'their'* Topographic Survey Map...



Creating Contours with Software



- CAD Software – Creating DTM, TIN or DEM... along with other new surface formats
- Various data sources – Not just from the field with traditional Topographic Collection Methods
- Software needs to be flexible with settings and output options to create contours
- Easy To Modify as Needed
- Allowed Drafters and Surveyors to Create *'their'* Topographic Survey Map...



Creating Contours with Software



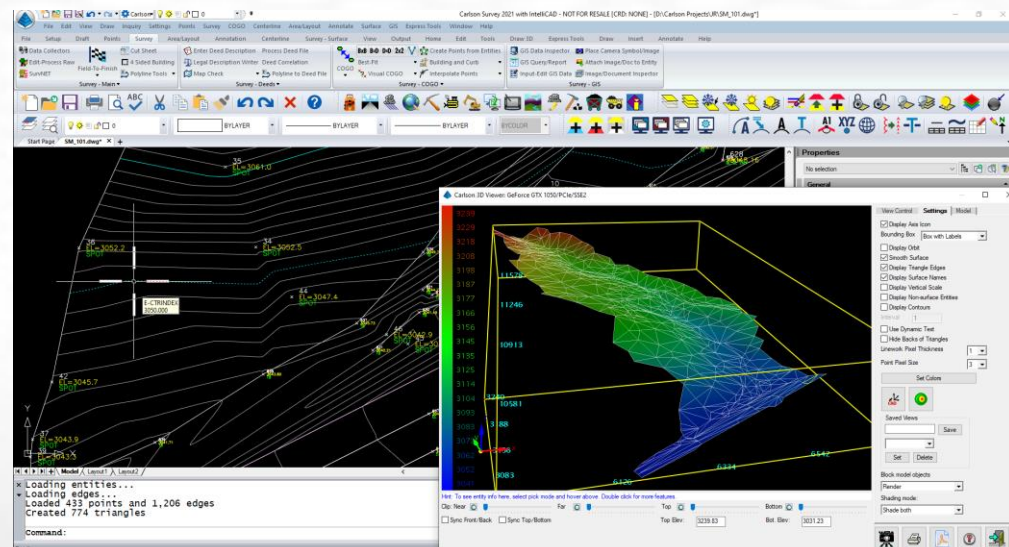
Creating Surfaces and Contours with Carlson Software

- Points or Points and Break-Lines (aka. Fault Lines)
 - 3D Break Lines
 - 3D Points
 - *Fun Fact...* Carlson Points Can be also 2D Points w/Elevation Labels
- Ability to Create Multiple Topographic Contour Map Styles for Output
- Electronic Surface Model File Creations → Send to others easily...
- Use the surface file types for... Volume Calculations, Profiles and other functions within your software package

Average Cut Depth: 1.61 feet
Average Fill Depth: 6.78 feet
Cut to Fill ratio: 0.03
Import Volume: 145,180.1 C.Y.
Elevation Change To Reach Balance: -5.719
Volume Change Per .1 ft: 2,538.4 C.Y.

Cut (C.Y.) / Area (acres): 329.57
Fill (C.Y.) / Area (acres): 9556.88

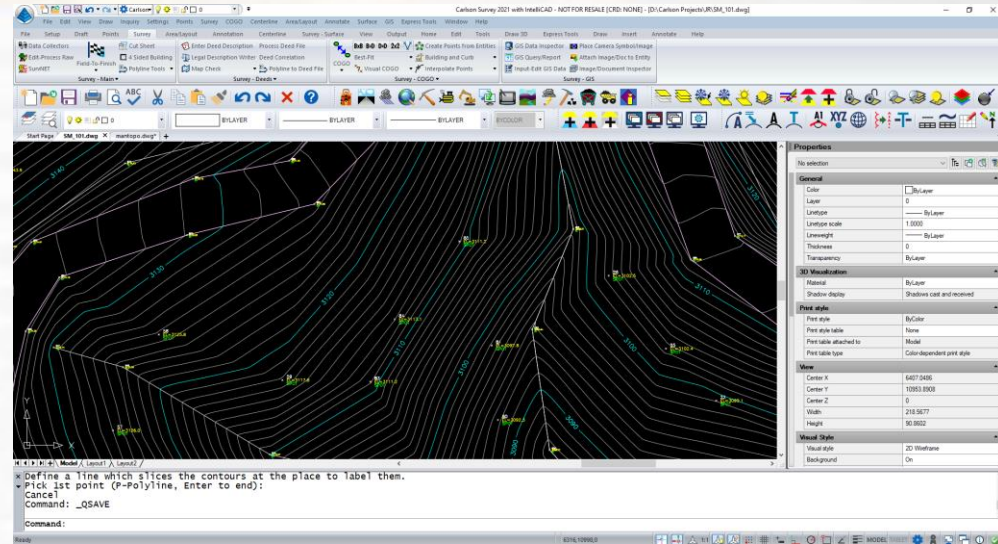
Max Cut: 5.424 at 4967.384,4636.224
Max Fill: 9.842 at 4301.094,4180.869



Let's Take A Look...



- Creating Surfaces with Topo Points
- Creating Surfaces and Contours with Break Lines
- Creating Surfaces and Contours with Points and Break Lines
- Evaluate and Analyze TIN/DTM Creation with
 - 3D Viewer(s) Tools
 - Profile(s)
- Editing Surfaces and Contour Tools to... 'Create your Map'
- Surface to Surface Volume Calculations...
- Output and Export Options for various types of deliverables...



THANK YOU



Surfaces, Contours,
Terrain Models, Volumes
and How To's with
Carlson Software

