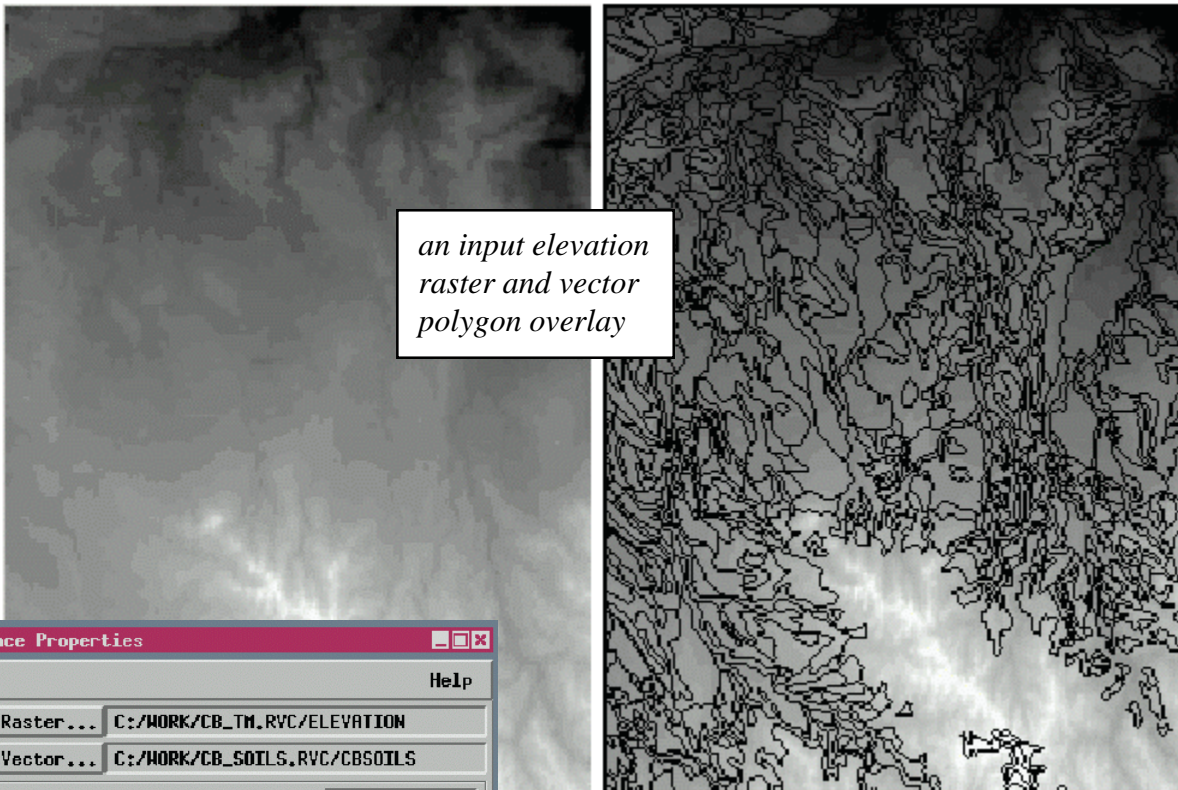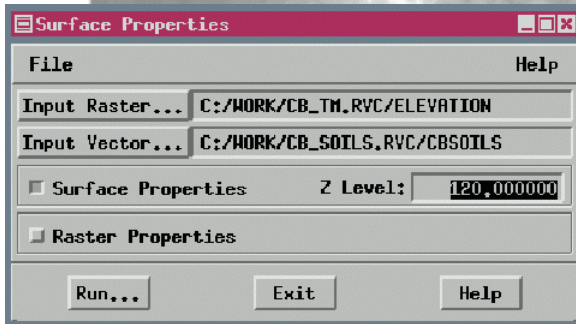# Surface Properties

The new Surface Properties process uses a georeferenced elevation raster object (e.g. DEM) to compute new tables containing surface measurements for vector elements as well as raster properties. The area can be specified by an existing vector object or by a vector object created within the Surface Properties process.
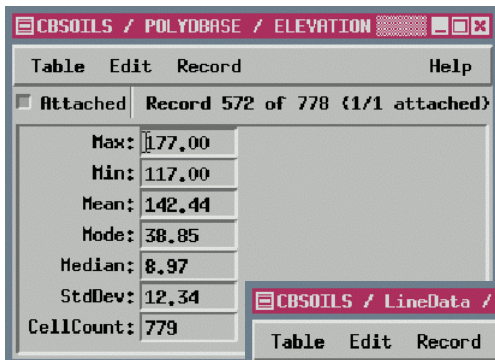

an input elevation raster and vector polygon overlay

Surface Properties

File   Help

Input Raster...   C:/WORK/CB_TM.RVC/ELEVATION
Input Vector...   C:/WORK/CB_SOILS.RVC/CBSOILS

☐ Surface Properties   Z Level: 120.000000
☐ Raster Properties
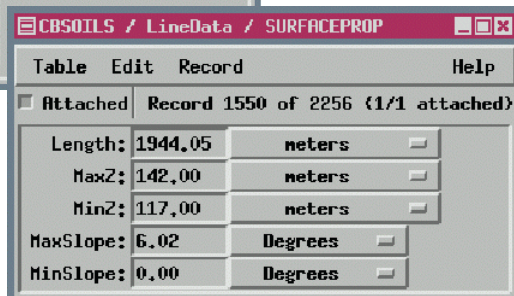
Run...   Exit   Help

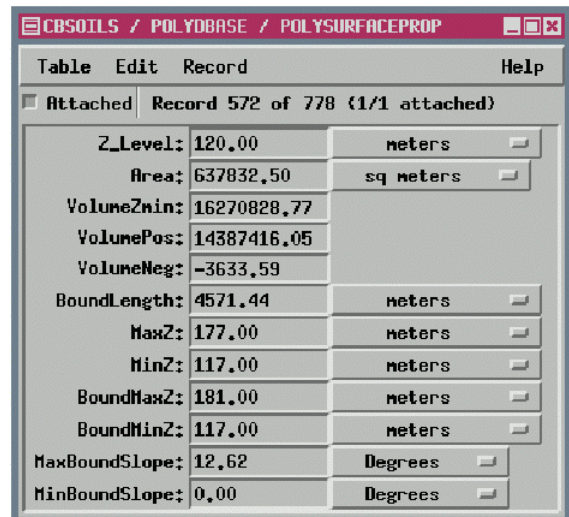*the Surface Properties process control window for input and output*

The process automatically attaches the properties it computes to the vector object as new database tables. You can select a line or polygon element in the display process and view the associated records.

CBSOILS / POLYDBASE / ELEVATION

Table   Edit   Record   Help

☐ Attached   Record 572 of 778 (1/1 attached)

Max:	177.00
Min:	117.00
Mean:	142.44
Mode:	38.85
Median:	8.97
StdDev:	12.34
CellCount:	779

the elevation table shows properties of the elevation raster for a selected polygon

CBSOILS / LineData / SURFACEPROP

Table   Edit   Record   Help

☐ Attached   Record 1550 of 2256 (1/1 attached)

Length:	1944.05	meters
MaxZ:	142.00	meters
MinZ:	117.00	meters
MaxSlope:	6.02	Degrees
MinSlope:	0.00	Degrees

the surface property tables show properties of polygon and line elements

CBSOILS / POLYDBASE / POLYSURFACEPROP

Table   Edit   Record   Help

☐ Attached   Record 572 of 778 (1/1 attached)

Z_Level:	120.00	meters
Area:	637832.50	sq meters
VolumeZmin:	16270828.77	
VolumePos:	14387416.05	
VolumeNeg:	-3633.59	
BoundLength:	4571.44	meters
MaxZ:	177.00	meters
MinZ:	117.00	meters
BoundMaxZ:	181.00	meters
BoundMinZ:	117.00	meters
MaxBoundSlope:	12.62	Degrees
MinBoundSlope:	0.00	Degrees

The surface properties more completely describe the terrain than the standard projected two-dimensional area properties of vector elements.