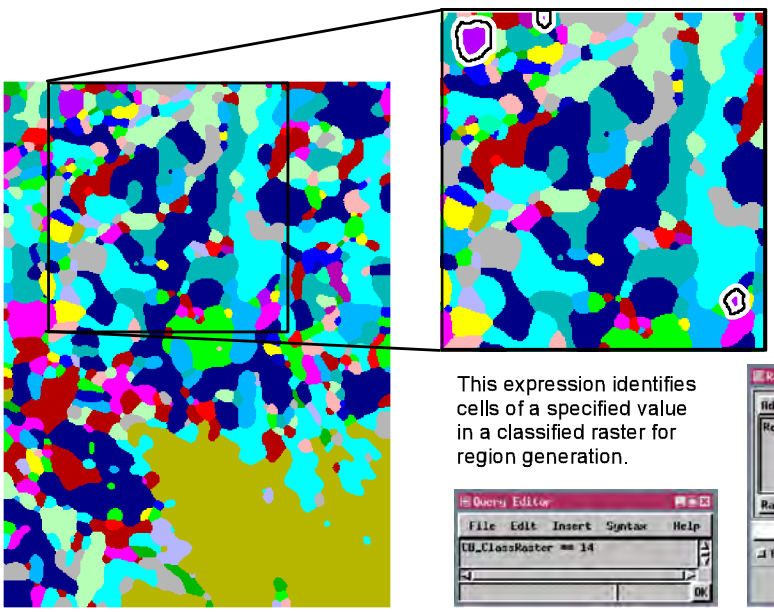
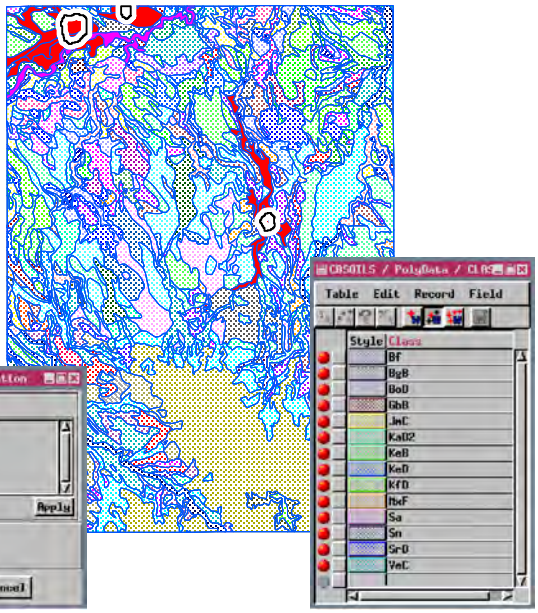
Regions from Raster Expressions

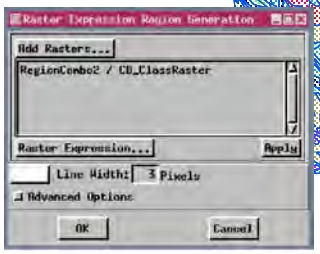
The upper example generates a raster expression region based on a classification raster then uses that region to select soil polygons that fall at least partially inside the region. It is a simple method for determining which soil types (or other attributes of interest) are associated with a particular ground cover class.



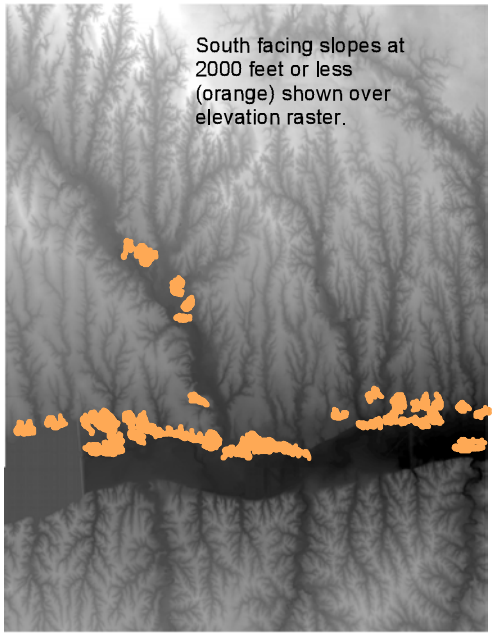
The region was used to select poly-gons in a soil map. The associated records are shown below.



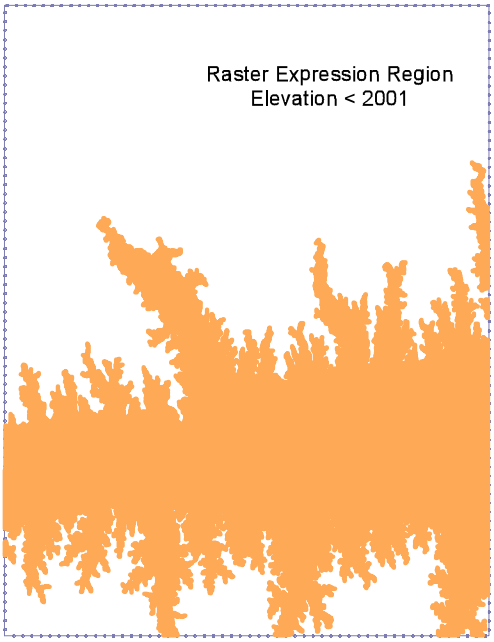
This expression identifies cells of a specified value in a classified raster for region generation.



The example below uses information from two different rasters to generate a region that identifies potential habitats for a noxious weed species known to grow only on south facing slopes at elevations below 2000 feet. The two rasters referenced in the expression are an elevation raster for the area and an aspect raster generated in TNTmips.

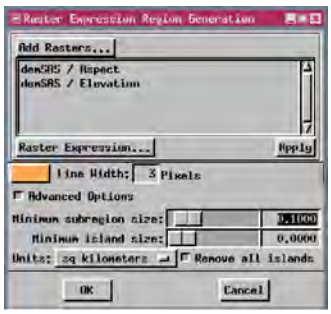


South facing slopes at 2000 feet or less (orange) shown over elevation raster.

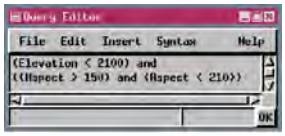


Raster Expression Region
Elevation < 2001

Raster Expression Region
(Aspect > 150)
and (Aspect < 210)



Above Left: Region produced by expression shown over DEM (note that advanced options have been applied to remove subregions less than 0.1 square kilometers and islands). Above Center: Region produced if expression applied to elevation raster only. Above Right: Region produced if expression applied to Aspect raster only.



The region at the left that includes south facing slopes at elevations below 2000 feet serves as input for the Region Combinations example (another of the color plates attached) in which the potential weed habitat is intersected with buffer zones generated around roads to determine the area for a weed control program.