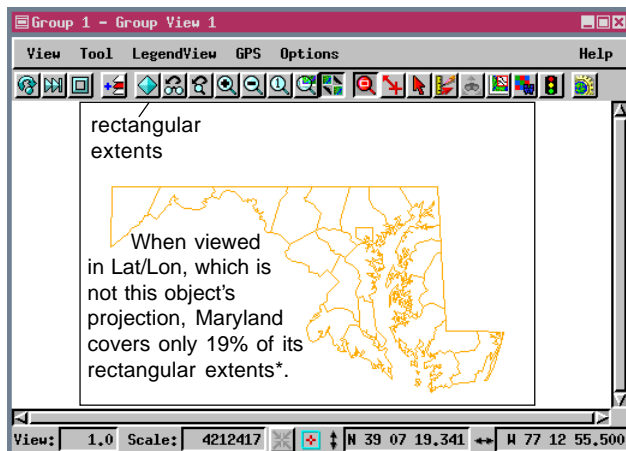
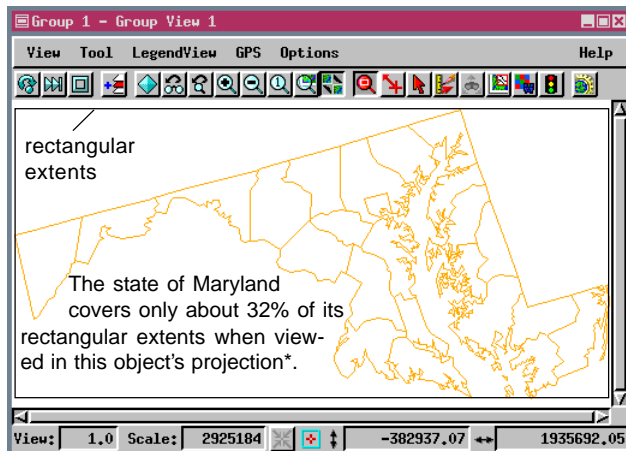


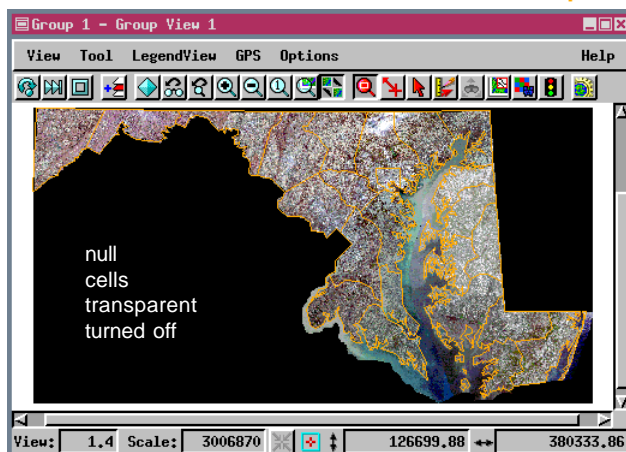
# Coverage and Containment

In order to effectively use TNTmips' GeoCatalog functions, you must understand what minimum coverage and minimum containment mean and how these interact with the projection of the group and the objects identified. The Minimum Coverage slider determines how much of the designated extents or region need to be covered by an object. The Minimum Containment value determines how much of the object must fall within the extents. Coverage and containment parameters apply when searching by coordinate range or by region; they do not apply when searching by point.

Minimum Coverage:   
 Minimum Containment:

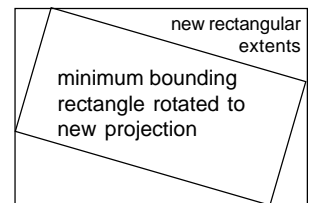


\* The extents percentages were calculated from the area of the region created after selecting all the polygons and the group extents delimited by the Placement tool.

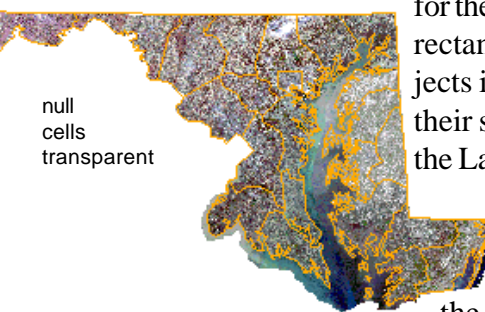


The appropriate Minimum Coverage value depends on how you are using the GeoCatalog. Are you trying to assemble a single group of objects with roughly the same extents, or are you using a large area, such as a state, for reference and trying to find all the objects you have that fall within it? If the case is the former, setting the Minimum Coverage to 90% is appropriate. In the latter case, you may want to set the Minimum Coverage as low as 0%. Some of the objects selected for the illustrations on the *Introducing GeoCatalogs* color plate cover less than 0.1% of the state of Maryland.

Projection of an object and the group it's in are intimately related to the coverage parameter when searching the GeoCatalog by range. When an object is displayed in the object's projection, the minimum bounding rectangle is equivalent to the rectangular extents. When an object is rotated, its rectangular extents increase. Thus, with 90% coverage specified, an object may be found in a GeoCatalog search in one projection but not another.



The Minimum Containment parameter requires a little thought, particularly when the search extents are specified by region. When searching by region, the irregular region boundary is used



for the reference object only; the rectangular extents of the objects in the catalog are used for their selection. Thus, although the Landsat image of Maryland (immediate left) may initially appear to be almost completely contained by the Maryland state outline, which was the region selected, turning off null value transparency (left) reminds us of its true rectangular extents. In fact, for the Maryland state outline *region* to find the Maryland counties vector object from which the region was made, Minimum Containment must be set to 32% or less.