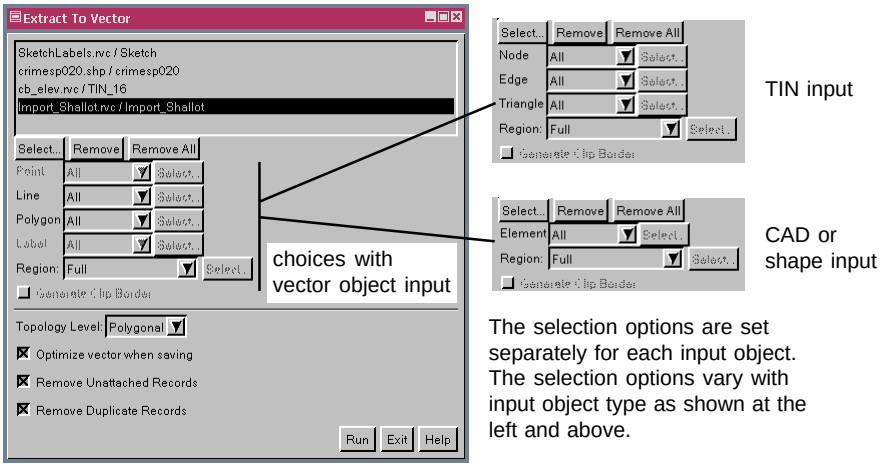
DRAFT

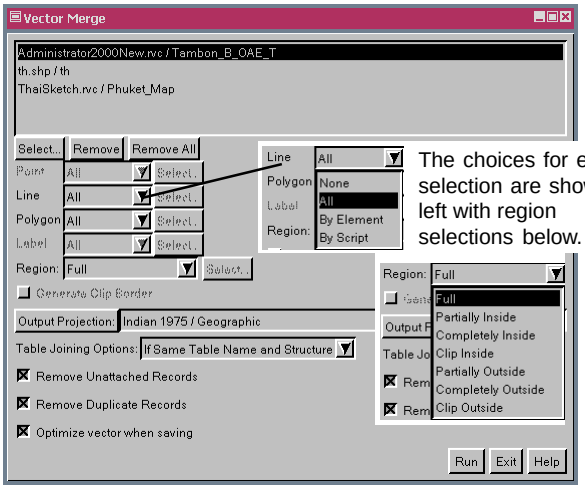
# Geometric Object Conversion

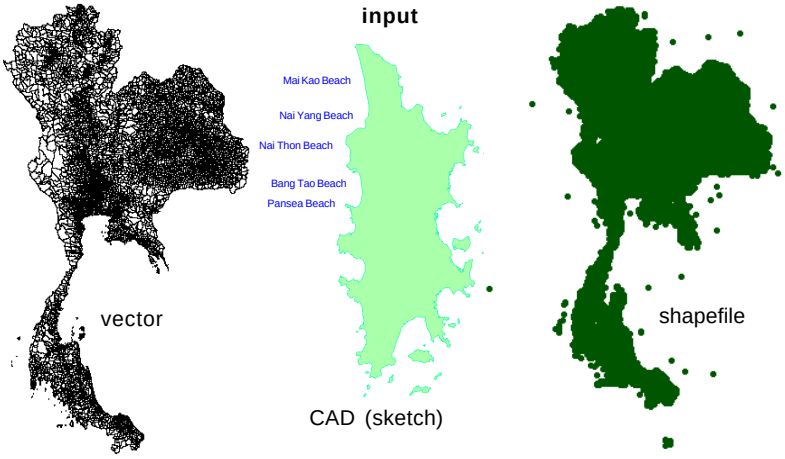
Geometric object types in the TNT products include vector, CAD, TIN, region, sketch, and shape objects. The TNT products have long provided methods for converting entire objects or complete element sets (for example, points, lines, and/or polygons) from one object type to another. Now any number of objects of any geometric type can be used as input in the Vector Extract and Merge processes generating an equal number of objects in vector format in the Extract process and a single vector object in the Merge process. Similarly, any number of objects of any geometric type can be used as input for the CAD Extract and Merge processes, producing the same number of output objects in CAD format as the number of input objects or a single output object in CAD format, respectively. The only difference between Vector Extract or Merge and CAD Extract or Merge is the type of output object.

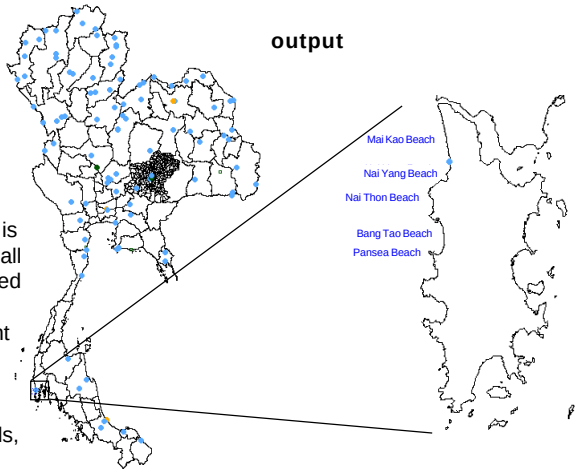



The selection options are set separately for each input object. The selection options vary with input object type as shown at the left and above.

Prior to V7.0 of the TNT products, only one object could be selected as input for the Extract processes and the Merge processes did not allow selection of a subset of elements from the input objects to produce the merged result. As stated above, Extract now processes multiple input objects to produce multiple output objects. Merge now also lets you limit the elements selected from the input objects by element, by attribute, or by script and lets you limit the input region. Thus, if you have objects from which you wish to extract some elements for subsequent merging with some or all elements from other geometric objects, you can do it all in the Vector or CAD Merge process; you do not have to run the Extract process first. These objects can be in the same or different map projections.




The input objects for the merge illustrated are shown above. The left object above is a vector object with lines selected by script for merging so that detail is reduced in all provinces except one. The center object is a sketch object with only lebels selected for merging. The right object is point data in shapefile format with only airports, airfields, and airbases selected for the merge process. The input can be in different projections with different scales. The result of the process with elements selected as described is a single vector object shown at the right with an enlargement to show the labels that came from the sketch object. This vector object shows province outlines with original detal maintained in a single province, airports, airfields, and airbases, and labeling of some of the beaches in one of the provinces.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