

Clipping Input Images

TNTmips can prepare standard web tilesets whose structure conforms to those described by Google, Microsoft, and NASA for their popular viewers. These include:

- Tile Overlays for Google Maps
- Super-Overlays for Google Earth
- Custom Tile Layers for Microsoft Bing Maps
- Tile Layers for NASA's World Wind

and also TNT raster object tilesets for use in MicroImages' commercial products. Each of these standard tilesets must conform to its vendor's specific file naming and directory structure. Each directory level contains tile files of specified size, image file format, and zoom level. These tileset structures are designed to ensure rapid retrieval and display of the required tiles at any zoom level. Tile formats and tileset zoom levels are described, respectively, in the Technical Guides entitled *Tile Image Formats* and *Tilesets: Setting Zoom Levels*.

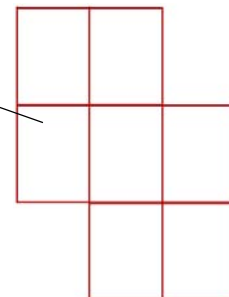
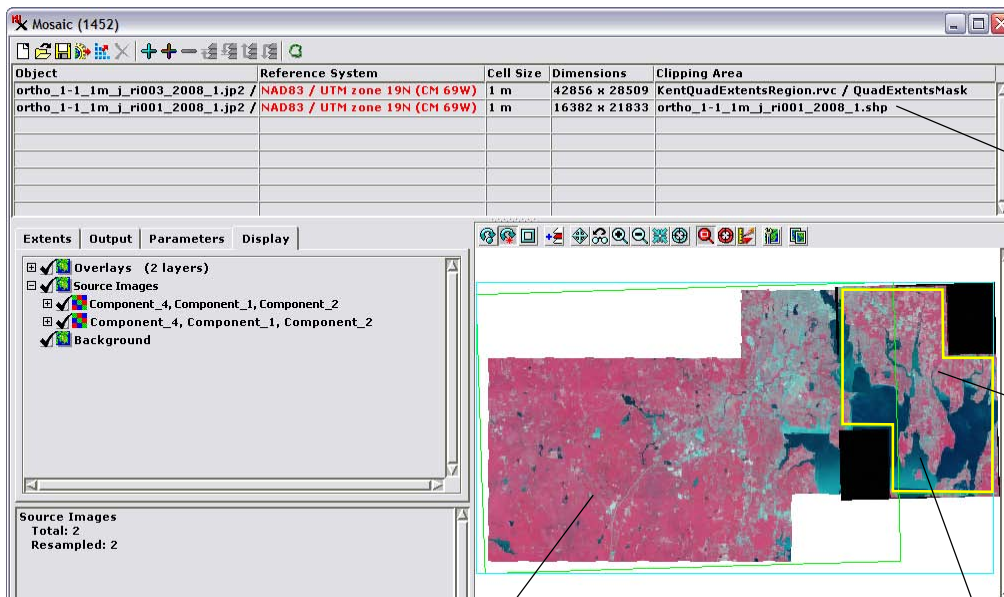
When you prepare tilesets in the Export Raster Tilesets and

Auto Mosaic processes in TNTmips, you can designate an individual clipping area for each input image to define the portion of that image to be used in creating the output tileset. You also have the option to apply an outer buffer zone to the clipping areas. (The TechGuide entitled *Tilesets: Clipping to a Project Boundary* describes how you can also use a region to limit the overall extents of the output tileset or tilesets.)

You can choose a previously-created geospatial object to define the clipping area to be used for each image. The object you choose can be a region, vector, or shape object in any coordinate reference system. It can also be a binary raster object that matches the dimensions of the input image. If you choose a vector or shape object that includes more than one polygon/shape, the outline of the union of these polygons (i.e., the outer boundary excluding islands) is used to define the clipping area. You can choose objects to define clipping areas for all input images or only for selected images. You can also use standard drawing tools to manually draw polygons for selected input

images in the view and save them as region objects to define clipping areas, as shown on the reverse.

The Clipping Area column in the Object list shows the name of the spatial object you have chosen to define the clipping area for that input image. The default entry in this field is *All* to use all of the input image if you haven't specified a clipping area.

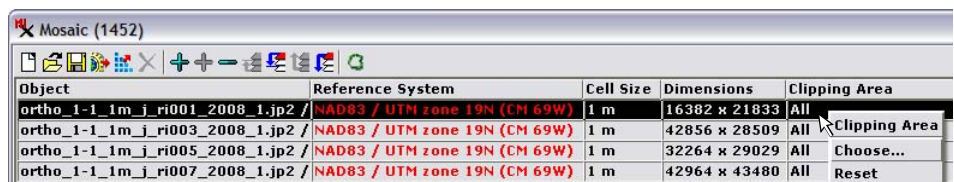


The image on the left in this mosaic layout has a clipping area defined by a binary raster object, which is automatically applied as a mask to make the masked-out (clipped) areas transparent in the Mosaic window's view pane. The full rectangular extents of the input raster continue to be outlined in color (green in this illustration).

The input image on the right in this mosaic layout has a clipping area defined by a shape object (shown in the red outlines above right) made up of several shapes (polygons) outlining map quadrangles; only the outer boundary of this set of shapes is used to define the clipping area. When you define the clipping area using a shape, vector, or region object, the extents outline of that input raster is modified automatically to show only the clipping area you have defined (outline shown in yellow).

Choose Clipping Area for Single Input Image

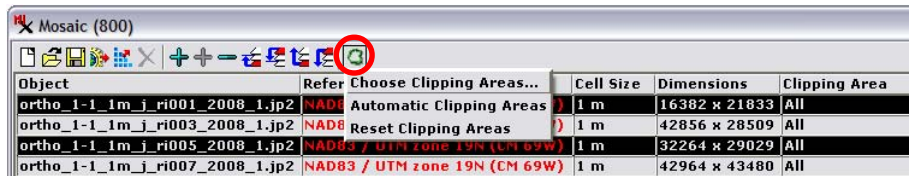
You can designate the clipping area for a particular input image by right-clicking on the Clipping Area field for that image's entry in the object list in the Mosaic or Export Raster Tilesets window, as illustrated to the right. From the popup menu that appears, select *Choose*; the standard Select Object dialog then appears to allow you to choose a region, vector, or shape object or a coincident binary raster object.



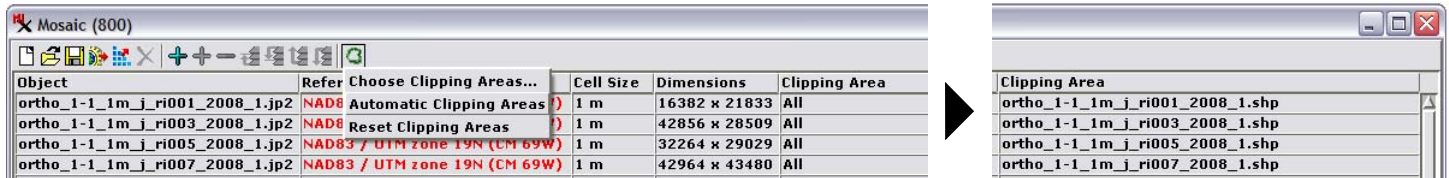
(over)

Choose Clipping Areas for Multiple Inputs

You can also designate clipping areas for one or more input images in one operation using the Clipping Areas icon button (circled in red in the illustration to the right). This button operates on input images you have selected in the Mosaic or Export Raster Tilesets window's input image list. Left-click on an entry to select a single input image; press the <ctrl> key while left-clicking on the desired entries to select multiple input images. With the desired images selected, press the Clipping Areas icon button and select Choose Clipping Areas from the dropdown menu. The standard Select Object window then appears to allow you to select a clipping area object for each of the highlighted input images. If no input images are highlighted when you press the Clipping Areas icon button, you are prompted to select a clipping area object for each of the input images.



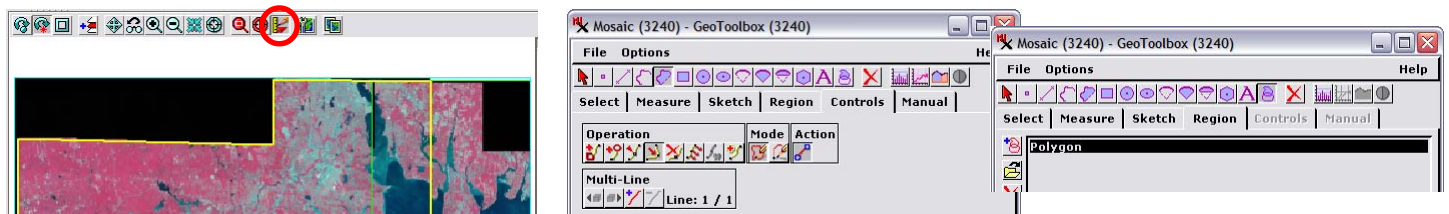
Automatically Add Clipping Areas



An automatic procedure for adding clipping areas is available when the input images you are processing are files in image formats supported for direct use in TNTmips (JP2/GeoJP2, TIFF/GeoTIFF, MrSID, among others) and the clipping area for each image is defined by a shape file with the same filename as the

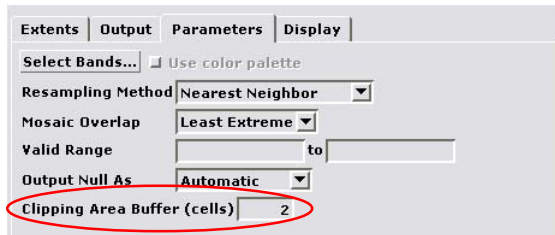
image file. Press the Clipping Areas icon button and choose Automatic Clipping Areas from the menu. The selection procedure looks for the matching shapefile in the same directory as its associated image; if it is not found, you are prompted for a directory to search.

Using the GeoToolbox to Draw and Save Regions to Define Clipping Areas



To manually define a clipping area for an input image, press the GeoToolbox icon button at the top of the Mosaic or Export Raster Tilesets window's view (circled in red in the illustration to the left). You can use the drawing tools in the standard GeoToolbox dialog to draw the desired area, create a temporary region from it, and save the region to a Project File. You can then use the procedures described above to choose that saved region object to define the clipping area for an input image. Use of the GeoToolbox to define regions is described in the Tutorial booklet entitled *Interactive Region Analysis*.

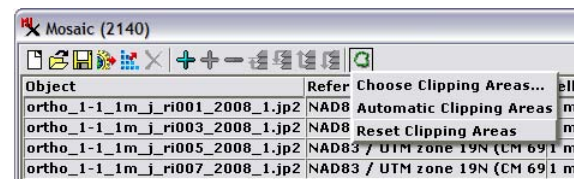
Set Clipping Area Buffer



If the clipping areas you are using are political (county, state, provincial, national...) or other defined boundaries, you might not want to clip the input images exactly at these boundaries. You might instead want to include a portion of the image surrounding the outside of each boundary for context. The Parameters tabbed panel on the Mosaic and Export Raster Tilesets windows includes a *Clipping Area Buffer* field where you can set the width of an outside buffer zone in image cells. This distance is automatically used to create buffer zones around all of the clipping areas you have set.

Reset Clipping Areas

To remove the clipping area for a particular input image and thus revert to using its full extent, right-click on the Clipping Area field for that image's entry in the input list and choose Reset from the popup menu.



To clear the clipping areas for all input images, press the Clipping Areas icon button and choose Reset Clipping Areas from the dropdown menu.