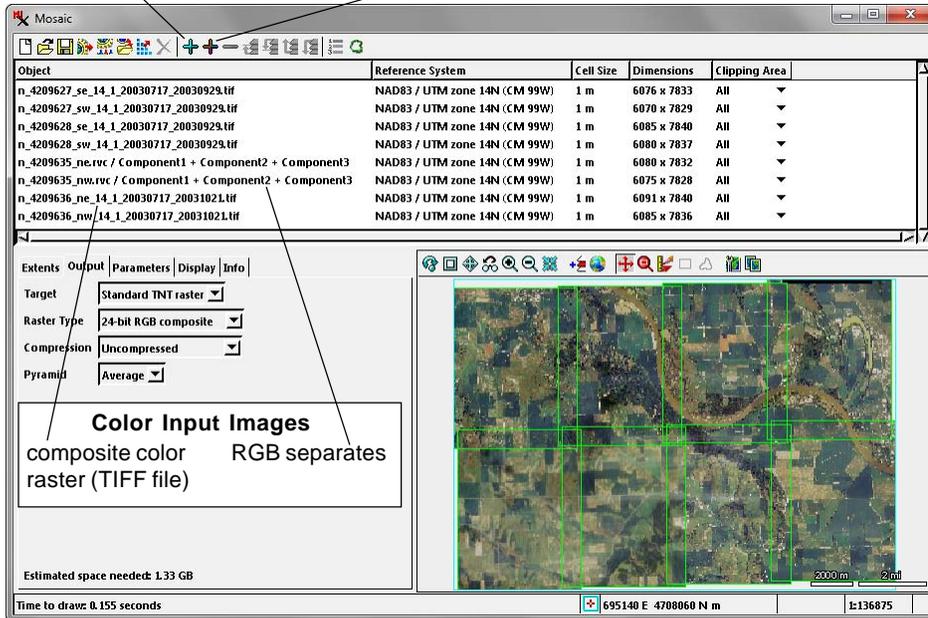


# Grayscale, Multiband, and Color

The Mosaic process in TNTmips (Image / Mosaic) allows you to mosaic grayscale, color, or multiband input images. The input image type is automatically set by the first image you select, and determines the type of additional input images you can select and the types of mosaic you can make.

Use the Add Raster icon button to add composite color images, single grayscale rasters, or individual band rasters for a multiband mosaic.

Use the Add RGB Separates icon button to add separate Red, Green, and Blue color components for an image.



## Multiband Input Images

The multiband input image mode allows you to simultaneously mosaic some or all of the individual multispectral bands for a set of images, such as Landsat, IKONOS, or QuickBird scenes. The selected bands in each multispectral image must be exactly coincident (same dimensions, cell size, extents, and georeference). You cannot mix bands with different resolution from the same image, such as multispectral and higher-resolution panchromatic bands; for this example you would have to mosaic the multispectral and panchromatic bands in separate operations.

Input Image Type	Output Mosaic
Grayscale	Grayscale
Color composite and/or RGB separate	Color composite, RGB separate
Multiband	Multiband, Color composite

Use the Add icon button to select the multispectral images to mosaic. In the common case where all of the bands in each input image file (Project File, GeoTIFF, GeoJP2, etc.) have the same cell size, the bands are in the same order in each file, and you wish to mosaic all bands, you can select all of the bands in the same

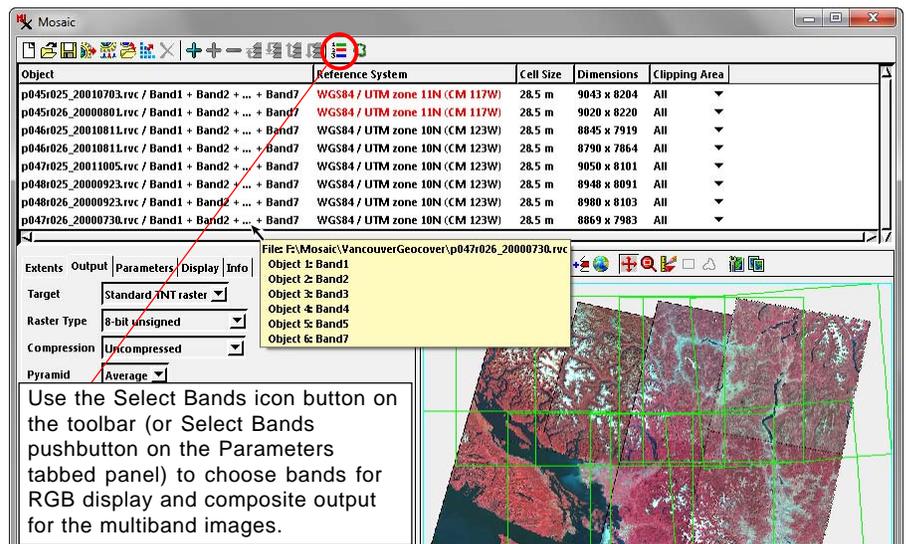
You add images to a mosaic layout using two icon buttons on the Mosaic window. Use the Add RGB Separates icon button to add a set of three matching rasters as an RGB color image. Use the Add button to add all other image types.

operation using the Add All icon button on the Select objects dialog; each image is added to the mosaic layout as a multiband object with one entry in the Object list. (If the images you are mosaicking are segregated into one or more directories, you

## Color Input Images

The color input image mode is set when you choose an RGB composite image (24-bit or 16-bit) using the Add icon button or choose an RGB raster set using the Add RGB Separates icon button. From that point on, the Add icon button only allows selection of color composite images, and the Add RGB Separates icon button remains active to allow selection of additional RGB raster sets.

Color input images can be mosaicked to either a single color composite raster or to an RGB raster set. This choice is set using the Raster Type menu on the Output tabbed panel. To mosaic color input to RGB separates, choose 8-bit unsigned as the output raster type. For composite output, choose either 24-bit RGB composite or 16-bit RGB composite.



A multiband mosaic layout. Use the Add button to select multiple bands with matching dimensions and georeference for a multiband mosaic. A DataTip on the object list shows details about the underlying input image.

(over)

can quickly add all of the images in each directory by navigating into the directory to view the file list, then pressing the Add All icon button to add all of the contained bands to the Selected list.) If you are mosaicking a selection of bands from each input image, you will need to select each set of image bands separately. After the first band set is selected, each subsequent use of the Add icon button requires selection of the same number of coincident bands, and you should select the bands in the same order for each image. (The Add RGB Separates button is disabled when you have selected any multiband images.)

Multiband input images with three or more bands are automatically displayed in color in the Mosaic view pane. You can choose which bands to use for the color display by pressing the Select Bands icon button on the toolbar or the Select Bands pushbutton on the Parameters tabbed panel.

A set of multiband images can be mosaicked to either multiband output or to a color composite using the displayed color combination. To specify composite output, choose 24-bit RGB

composite or 16-bit RGB composite from the Raster Type menu on the Output tabbed panel. You can change the color display choice at any time, enabling you to make different color mosaics from the same set of multiband images in the same session.

To specify multiband output, choose one of the non-composite raster types from the menu. Common optical satellite images are distributed with 8-bit or 16-bit unsigned integer cell values, so to preserve the datatype of these input images you would choose either *8-bit unsigned* or *16-bit unsigned* from the Raster Type menu.

### Single-Band Input Images

To mosaic a set of single-band grayscale images (with or without color palettes), simply use the Add icon button to select one or all of the images. Each image is added to the layout as a separate object. The Add RGB Separates button is disabled and the Add button only allows selection of grayscale rasters. With single-band grayscale input images the Raster Type options for the mosaic are limited to non-composite raster types.

