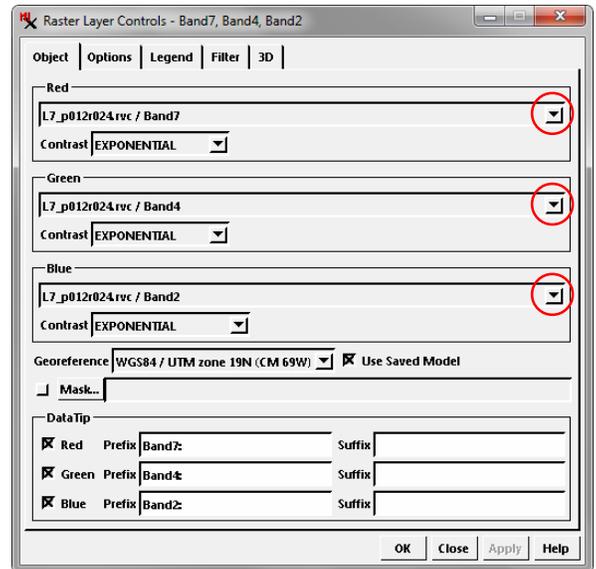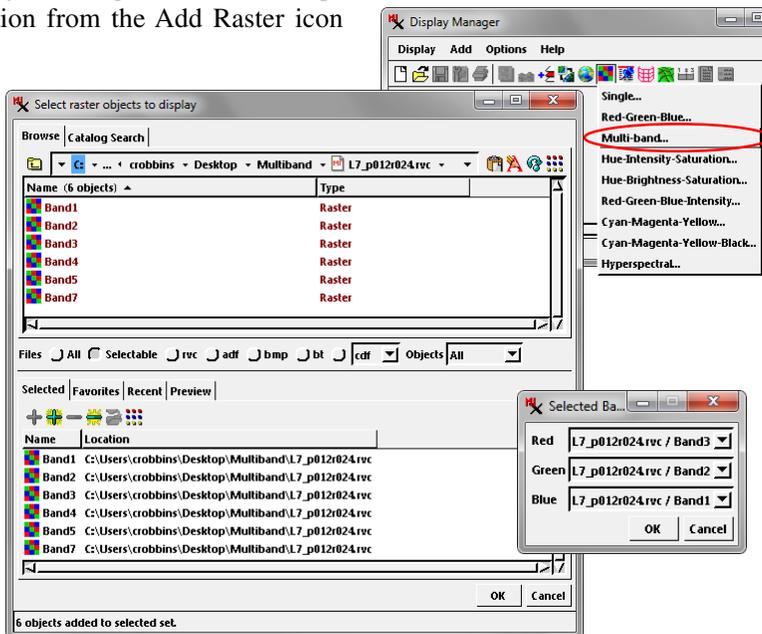# Multi-band Image Layers

Multi-band Image layers are raster display layers consisting of three or more image bands (matching in row-column dimensions) that are displayed in color using your choice of three of the bands. You can change the color display choice at any time without otherwise changing the layer. For example, you can select all multispectral bands from a four-band image with blue, green, red, and near-infrared bands and display either natural color or color-infrared band combinations, changing between them at any time in the same layer. Or add six multispectral bands of a Landsat Thematic Mapper image and choose between multiple color combinations, as illustrated below.

You can add a multi-band image layer in the Display Manager by selecting the Multi-band option from the Add Raster icon

button menu, by choosing Add / Layer / Raster / Multi-band, or by choosing multiple image bands using the Add icon button (see the Technical Guide entitled *Spatial Display: Select Multiple Rasters for Separate, Multi-band, or RGB Layers*).

You are prompted to choose image bands for the Red, Green, and Blue components of the color display. If any bands are named "Red", "Green", or "Blue" (or variants thereof), they are set as the initial default selection in the menu for their respective color component.
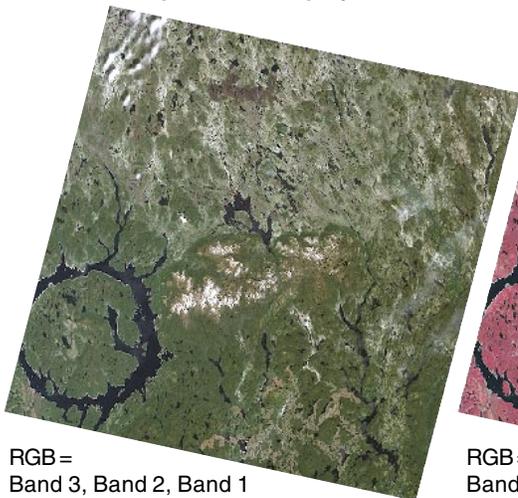
To change the color assignments for a multi-band image layer, open the Raster Layer Controls window. The Object panel on this window for a multi-band image layer includes a menu for the Red, Green, and Blue components allowing you to change the color-component assignments for the layer.

When you choose the Multi-band raster layer display option, you can add 3 or more image bands as a single multi-band layer. You are automatically prompted to choose initial band assignments to the red, green, and blue components of the color display.

Open the Raster Layer Controls window for a multi-band raster layer and use the Red, Green, and Blue menus to select a different combination of image bands for the color display.
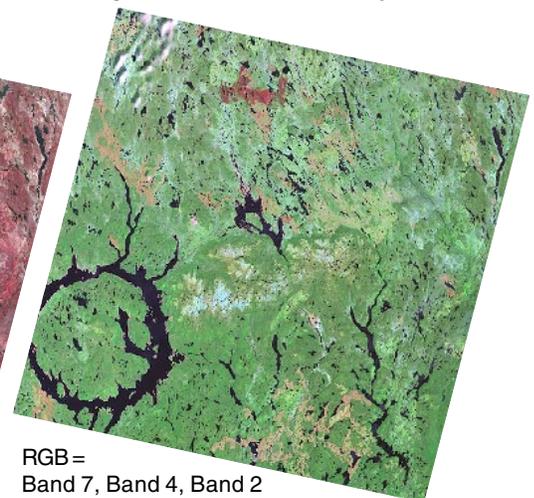
Sample color displays of a 6-band Landsat Thematic Mapper image from a single multi-band raster layer.

RGB =
Band 3, Band 2, Band 1

RGB =
Band 4, Band 3, Band 2

RGB =
Band 7, Band 4, Band 2