

Displaying 4-Band, CIR imagery in ArcMap 10

GRANIT, December, 2010

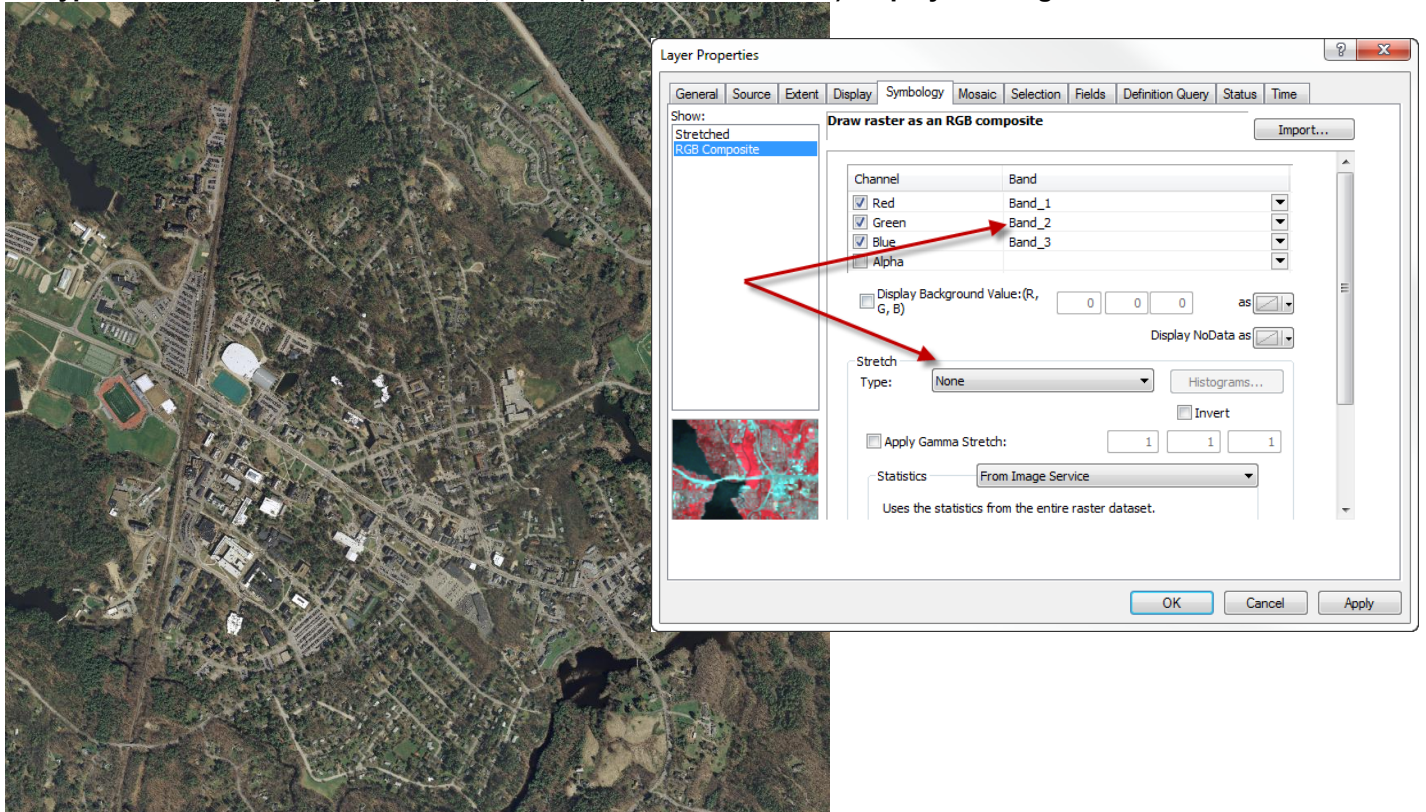
The 2010 digital orthophotos are composed of 4 bands or channels of 8-bit image information. Each band comprises a grid of pixels containing digital numbers ranging from 0-255, and representing colors in the red, green, blue (RGB) or near infrared (NIR) portions of the electromagnetic spectrum.

Typical Z/I Digital Mapping Camera system (DMC) spectrum characteristics are as follows:

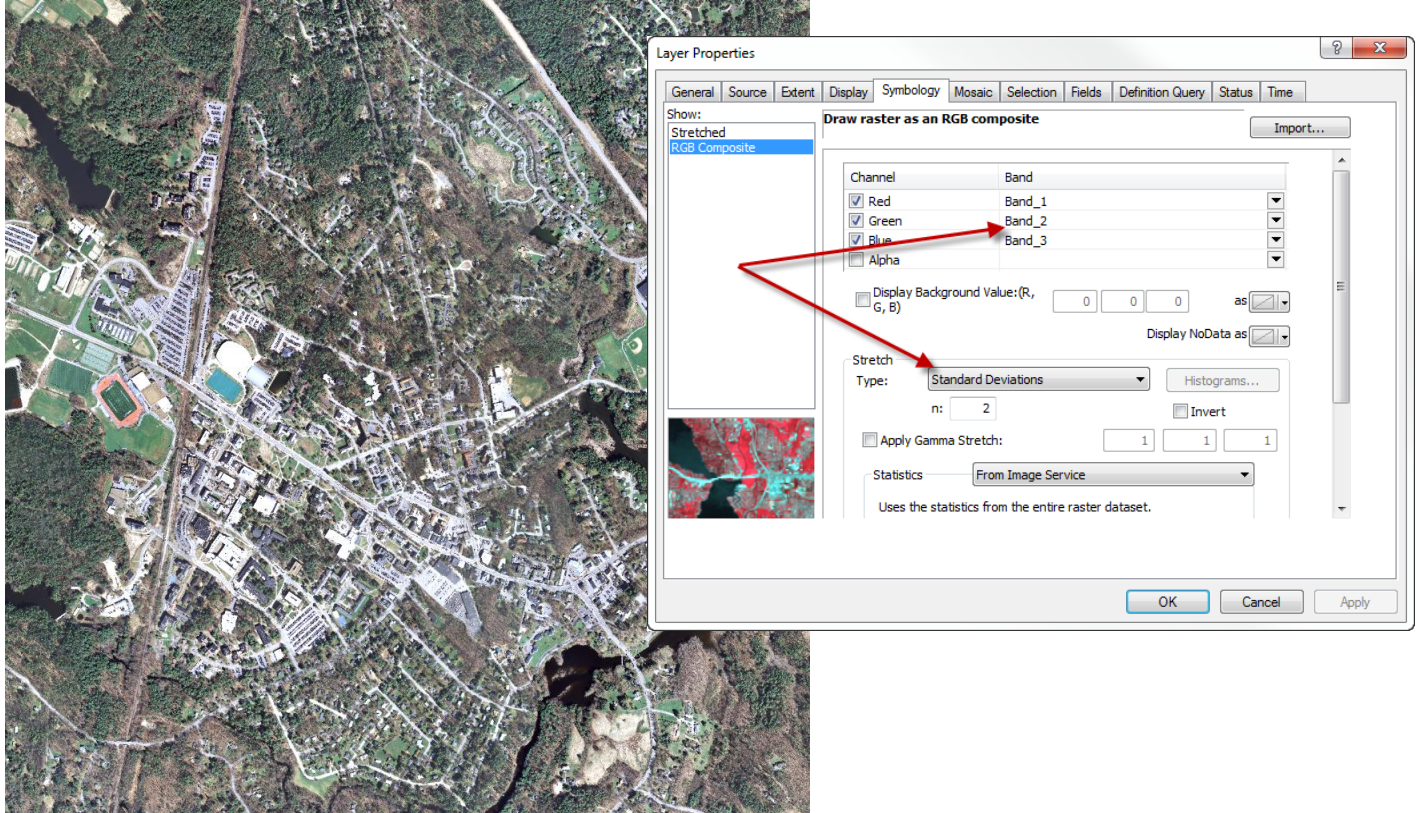
- Band 1 = red (590-675 nm)
- Band 2 = green (500-650 nm)
- Band 3 = blue (400-580 nm)
- Band 4 = near infrared (675-850 nm)

The following screen-shots illustrate various band and stretch examples using ArcMap (v10). Typically, the band combination defaults to 1, 2, and 3 (but this can be controlled in your ArcMap Options under the “Raster” tab). To explicitly set the band combination and stretch, right click the image layer in the Table of Contents, select Properties, then set the “Red” channel to “Band_1”, the “Green” channel to “Band_2”, and the “Blue” channel to “Band_3”. To change the stretch, set the “Stretch Type” to your selection (seen here as “None”).

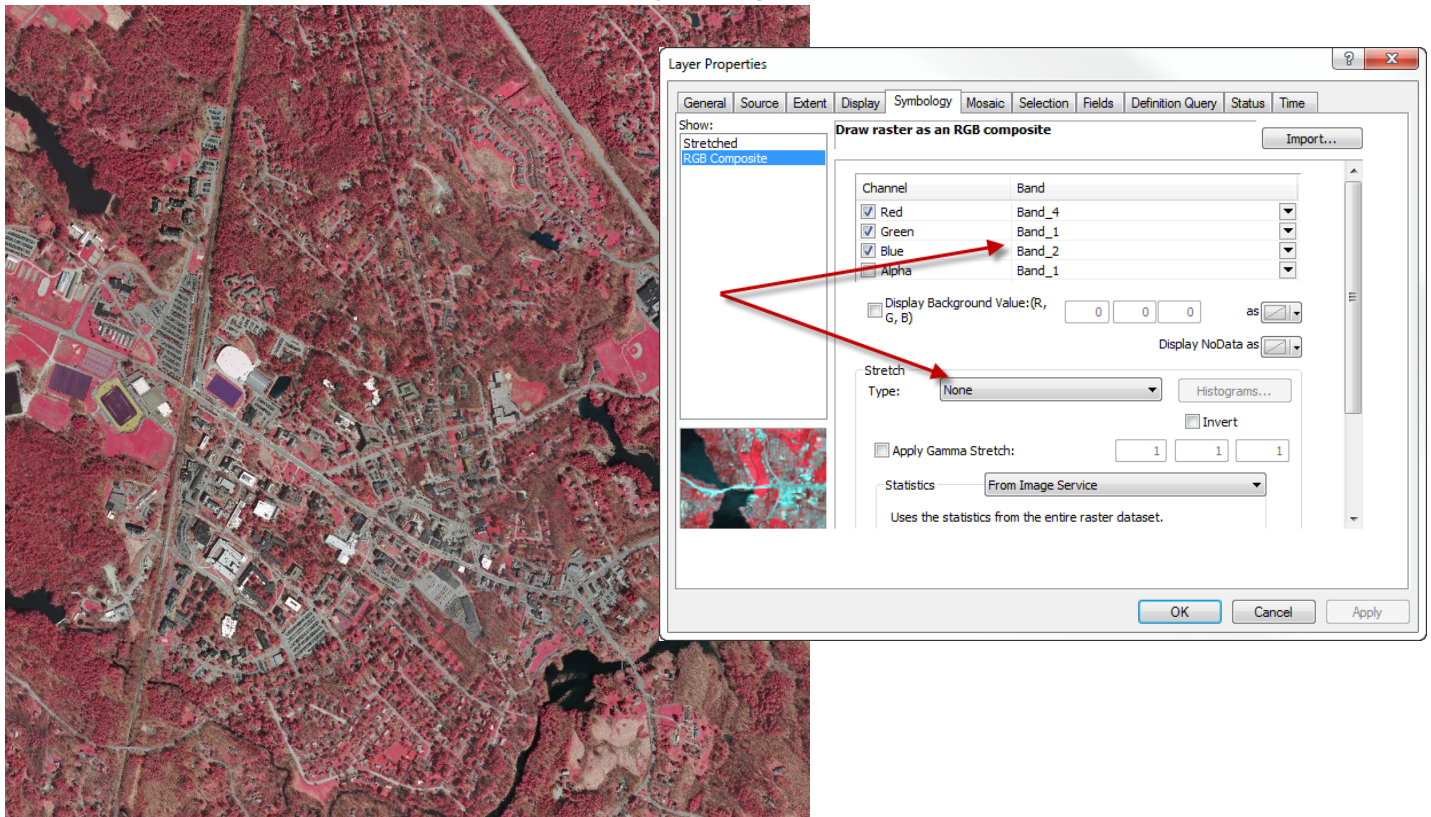
1. Typical default display: Bands 1, 2, and 3 (RGB or “true color”) displayed using no stretch.



2. Bands 1, 2, and 3 (RGB or “true color”) displayed using a standard deviation stretch of 2.



3. Bands 4, 1, and 2 (CIR “false color composite”) displayed using no stretch.



4. Bands 4, 1, and 2 (CIR “false color composite”) displayed using a standard deviation stretch of 2.

