Viewing NAIP Imagery in the Color Infrared (CIR) and in the Normalized Difference Vegetation Index (NDVI)

The purpose of this how-to document is to show how to: a) effectively access NAIP imagery in ArcMap software, b) view NAIP imagery in the Color Infrared (CIR), and c) view NAIP imagery in the Normalized Difference Vegetation Index (NDVI).

1. Open ArcMap

2. Open the Catalog window

3. While in Catalog, navigate to GIS Servers and click Add ArcGIS Server.

4. The Wizard will appear. Follow the steps below:
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5. After you complete the Wizard, you will notice that the USDA GIS server is now under GIS Servers in your catalog window. Expand it and navigate to the North Carolina imagery. Then, drag and drop the imagery into ArcMap by hold selecting it and holding down the mouse button.

6. Now that the North Carolina NAIP imagery is loaded into ArcMap, right-click on it and go to Properties.

7. In Layer Properties, go to the Symbology tab and on the left-side of the screen select RGB Composite. Finally, change the channels to the appropriate bands as documented below and click OK.
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8. Your imagery is now in the infrared! Notice how all of the vegetation is now red. Stop here if you do not want to see NDVI.

9. Next, to see NDVI you have to open the Image Analysis window. For this exercise, we first changed the bands in order to see the CIR. You DO NOT have to change the bands in order to see the NDVI. Click Windows at the top of your screen and then click Image Analysis. The Image Analysis Window pops up.

10. Click on your imagery (in this case, the NAIP\North_Carolina_2014_1m) and then click the under Processing.

11. The NDVI version of your imagery will appear in ArcMap. Turn off your other imagery in the Table of Contents so ArcMap will go faster. You are done! See images below for further instruction.
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