VISUALIZE A PREVIEW USING ERDAS IMAGINE IMAGE CHAIN
eTRAINING

Introduction

Demonstrates flexible ways to view a preview image using the ERDAS IMAGINE Image Chain.

Software

- ERDAS IMAGINE

Data

- QuickBird-2 image of Cherokee County, Georgia. Image provided by DigitalGlobe.

Transcript

0:09

Welcome to Hexagon Geospatial eTraining. Our topic: flexible ways to visualize a preview using the ERDAS IMAGINE Image Chain.

In this module, you will generate an NDVI image preview to see how to use the image chain introduced in ERDAS IMAGINE 2015 to swap display modes from panchromatic to pseudo color, enabling the preview to be color-coded for easier interpretation.

0:33

The ERDAS IMAGINE Image Chain allows full control over the display properties of Spatial Model Previews. Previews are loaded using an appropriate display mode; however, Image Chain provides a tool to seamlessly switch between display modes when needed. Display mode options, such as integrated predefined color ramps, are available through galleries, with previews, making selections quick and easy.

0:57

The options available through the Image Chain can make visual interpretation of many data types easier and more intuitive.

1. Begin with a multispectral image in the Viewer.

2. Next, start by opening the **Indices** dialog to generate an NDVI preview.

3. Define the input multispectral image and the appropriate sensor type. In this instance you'll be working with a QuickBird 2 image provided by Digital Globe.

4. Verify that you have the desired index chosen. In this case, leave it set to **NDVI**.

5. Click **Preview** to have the Spatial Modeler perform the NDVI processing in real-time and display it in a 2D View.

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As you roam around the NDVI results, you can see how bright values indicate areas of healthy vegetation and dark values show a lack of vegetation. However, the grayscale display is sometimes difficult to interpret. Color is a much more compelling way to present information.

6. Without needing to reopen or restart the NDVI processing, go to the **Panchromatic** tab and click the **Image Chain** button.

This presents a gallery of image chain display modes to quickly choose from.

7. To apply a color ramp to continuous data such as an NDVI image, select the pseudocolor image chain.

The **Panchromatic** tab has been updated to the **Pseudocolor** tab, and provides a new set of tools for this type of display.

8. To apply a color ramp to the NDVI values, click on the **Color Ramp** button to see a list of available ramps.

9. Hovering the mouse over a color ramp will preview its effects into the 2D display.

10. Once the desired color ramp is identified, it can be selected by clicking, and is applied to the 2D View.

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Here you've selected a ramp which is actually two visually discrete ramps to help discriminate between locations of vegetation and non-vegetation. This is a Hot Metal ramp and consists of a grayscale ramp for cooler data and a red-through-yellow ramp for hotter data, indicating the areas of vegetation.

11. To set the discriminant points between vegetation and non-vegetation, you'll bring up the enhancement options by clicking the **Stretch Panel**.

On this panel you can see both the output histogram resulting from the stretch being applied to the vegetation indices as well as the mapping to the selected hot color ramp.

You can adjust the mapping of values through the color ramp by selecting a contrast method such as **Linear**, and adjusting the slope and shift values to achieve the desired thresholds.

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The image chain capabilities are not limited to indices. They can be used in any spatial model where a preview operator has been included and the model previewed to display.

In this module you have introduced the capabilities of using the image chain for manipulating the display properties of a spatial model preview layer.

3:45

Thank you for watching this eTraining module from Hexagon Geospatial. For more eTraining, visit hexagongeospatial.com/eTraining.