Introduction

Demonstrates how to create, look at, preview, and generate an output NDVI image using ERDAS IMAGINE.

Software

- ERDAS IMAGINE

Data

- Subset.img

Transcript

0:09

Hello and thank you for watching this Hexagon Geospatial training video on creating an NDVI image using ERDAS IMAGINE.

Start today with an open instance of ERDAS IMAGINE and a Landsat scene loaded in the viewer. The image you see here is a subset of a full Landsat image focusing in on a river valley within Washington State. It's displayed using a near infrared band combination and you'll notice the vegetation as shade of red, and bare ground areas being displayed as a cyan blue color.

Your objective today is to create an NDVI image using the Indices dialog within ERDAS IMAGINE. In this video you'll see how to find and open the **Indices** dialog, check and set your **NDVI preferences**, look at and preview the image, and finally, generate an output NDVI image.

1:00

To begin, open the NDVI dialog within the ERDAS IMAGINE ribbon.

1. Use the **Help** tab to search for NDVI and help you locate it within the ERDAS IMAGINE ribbon.

2. In the search commands, type `NDVI` and click **Search**.

The software provides two options to launch the NDVI functionality directly from the **Help** tab. You can also hover over one of these buttons to find the location of this functionality within the ERDAS IMAGINE ribbon. This is a great way to learn where to find this functionality the next time you need it.

You can see here that it's found in the **Raster** tab, under the **Classification** group.

3. Click **Raster**, find the **Classification** group, and open **NDVI**. This is the **Indices** dialog.

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To get started, you will need to define your input and output file names. You can see here that the input file has been predefined as *subset.img*. This is based on the image loaded in the ERDAS IMAGINE viewer when you launched the indices dialog.

Next, you'll need to define the output filename.

4. Use the **File Chooser** button to define the location for the output file.

5. Once that's finished, go into the dialog, type in the output file name, and press **Enter**.

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The sensor also needs to be defined. You can see here that it's currently set to **Landsat 4 TM – 6 Bands**. The selection is based on the header information that's associated with the input image.

If you open the menu, you can see a few other options that are available and you can select them if necessary. In this case, **Landsat 4 TM**, or the default option, is exactly what you need.

The **Index Options** tab allows you to see the Index that's defined, the formula that's being used, and also make any modifications to the band selections that are being used to fulfill the formula.

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In this case, the index being used has been predefined as NDVI. This is because you used the NDVI option within the ribbon to launch the indices window. If you open up the menu, you can see that there are a lot of other indices that are available based on the sensor that's defined.

If you are using a different sensor, you may see a modified list.

Once you're happy with your preferences you can generate a preview image by clicking the **Preview** button. A second viewer opens and shows the results of the NDVI index. You can preview the image and see if the formula creates the expected results.

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With the **Preview** window open, you can now make changes to the band selections being used to define the Near Infrared and Red bands within the formula. You can do this by:

6. Moving the checkmarks within the **Band Selection** window. You can see that when these checkmarks are moved, it gives you a live, automatic update in the preview window.

7. Set it back to the original.

8. When you are happy with the preview, you are ready to generate the output image, click **OK**.

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The **Process** list shows that the status of the NDVI image.

9. When it says **Done**, you can click **Close**.

10. You can close the **Preview** viewer.

11. You can now open the NDVI image.

4:27

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