



INTRODUCTION TO GEOCOMPRESSOR eTRAINING

Introduction

Compress imagery in an ECW version 3 format using GeoCompressor and review the imagery in ERDAS IMAGINE.

Software

- GeoCompressor

Transcript

0:09

Thank you for watching Introduction to GeoCompressor from Hexagon Geospatial eTraining.

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In this video we'll use GeoCompressor to compress imagery in an ECW version 3 format, and then review the imagery in ERDAS IMAGINE.

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GeoCompressor is a standalone program used to convert and compress images to the ECW or JPEG 2000 format. It's a cross-platform 64-bit application with both simple wizard-based and command-line interfaces.

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Once GeoCompressor has been started, to compress imagery, click the New ECW JP2 in the upper-left corner. This opens the Image Compression Wizard.

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There are three compression options.

1. For our example today, select Compressing a Single Image or a Set of Images and click Next.

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There are three different ways to select imagery for compression: First, we can select individual images from different locations. Second, we can add the contents of a complete folder. Or third, we can simply drag and drop from Windows Explorer. Here we'll quickly add 20 images that we want to compress.

2. From Windows Explorer, navigate to the directory containing your data and select the images to compress.

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Here I have 20 images selected.

3. Once the images are selected, simply drag and drop them into the dialog.
4. Close Windows Explorer and click Next in the dialog. Now define the compression options.

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First, the Output Directory needs to be defined. This is where the compressed imagery will be saved.

5. Set the Output Directory to: C:/Temp/ECWOutput.

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We also need to select a Filename Template used to create the final file name for each compressed image. There are multiple filename templates, such as FILENAME.EXTENSION.ECW. This option gives us the original image name, plus the original extension, for example: TIFF, and then the final ECW extension.

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In our instance, we are going to use a variable that includes the original filename as well as the date the ECW file is created. We'll also customize this by adding a precursor to the front of the filename.

6. Set the Filename Template to: GCTrain_\$(FILENAME)-\$(DATE).ecw.

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Next select the Format. We can select ECW version 3, ECW version 2, or JPEG 2000.

7. Select ECW v3 from the Format drop-down list.

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The Color Space can be Greyscale, a three-band RGB image, or for imagery with more than three layers, a Multiband image.

8. Select Auto from the Color Space drop-down list. This allows the software to select the option for us.

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Bit Depth can be defined as 8-bit, 16-bit or Auto.

9. Select Auto from the drop-down list.

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The Target Rate defines the amount of compression used. 10-to-1, 15-to-1, or 20-to-1 compression ratios are available.

10. Select 15 from the Target Rate drop-down list.

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We can select either Tile or Line as the Method of compression. When using ECW it is best to select Tile.

11. Select Tile from the Method drop-down list.

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It's important to note that when using JPEG 2000 compression, the Method must be Line. Even if Tile is selected, the program will ignore it and use Line. Leave the default Threads value of 0.

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When selecting the number of Threads used on your system while running the compression, it's recommended to leave the default 0 value. This defines an automatic option and allows the image compressor to select the number of threads used based on your available system resources.

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Finally, with version three, we can select the Edit Metadata Defaults. Here we can add additional metadata about the ECW files that we are creating. Define any needed metadata such as the sensor used to collect the imagery, copyright information, or contact information.

12. Click Edit Metadata Defaults to open the metadata dialog, add appropriate metadata, and then close the dialog when finished.

13. Click Next to open the Opacity Channel Options dialog.

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For this example, keep the default, Copy from Source File. This will create the opacity channel based on the source file. If preferred, we can choose not to create an opacity channel. Or, we can define an opaque region using a Shapefile.

14. Click Next.

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Finally, we are presented with a Summary reviewing all the information we have defined using the wizard. This includes the format type, color space, and the files that will be compressed.

15. Review the Summary log, and if all is correct, click Finish to load the information.

16. To begin processing the data, click Start.

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As the data goes through the compression, it generates two files. One is a Log file, the other is the ECW output file.

17. Click the Log file to bring up information about the compression in a text editor.

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This information includes the name of the file, the original file type (in this case TIFF), and the file size. Scrolling down, we can see the output file size as well as the structure.

18. Close the text editor, and click the icon in the View column.

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This will open up the finished product using the default program associated with the ECW format on your computer. On this system ECW files are associated with ERDAS IMAGINE.

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Once the image is open in ERDAS IMAGINE, we can review it along with the metadata.

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Our example is an 8 band image. Here we can verify the image projection and file size

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Finally, the Compression Job Complete message will display.

19. Turn off the notification and close the dialog.

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