Introduction

Demonstrates how to take two orthorectified images and mosaic them to create a single seamless output image.

Software

- ERDAS IMAGINE

Data

- LMK2000_pan_ortho.tif

- WV2_pan_ortho.tif

Transcript

0:09

Thank you for watching this Hexagon Geospatial eTraining module: Create a Mosaic using ERDAS IMAGINE MosaicPro. In this module, you'll look at how to use MosaicPro to take two separate images and combine them to create a single seamless output image.

0:25

Begin with two orthorectified images displayed in an IMAGINE viewer. These are the images that will be used in the mosaic.

1. Once opened, from the View group on the **Home** tab select the **Swipe** tool to easily see where the two images overlap.

Now start the mosaic workflow.

2. From the Raster tab, select **Geometry group > Mosaic > Mosaic Pro**.

3. From the MosaicPro toolbar, select **Add Images**.

4. If necessary, navigate to the directory that contains the first image, select it but don't click OK.

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5. Since the image has a background, select the **Image Area Options** tab and enable the **Compute Active Area** radio button.

6. Click the **Set** button and make sure the Boundry Search Type is set to **Corners**.

7. Add a check mark in front of Crop Area and change it to **20%.** This will eliminate unnecessary fiducial maks on the edges.

8. Click **OK.**

9. Click **OK** in the Add Images dialog.

1:41

Once the first image is added and the edges look correct, add the second image.

10. Repeat the previous steps to add the second image.

11. Since the second image does not have a background, deselect **Crop Area**.

12. Select **OK**, then **OK** in the Add Images dialog.

13. Under the **Vis** cell, place a checkmark by both of the images.

14. From the toolbar along the top, click **Show Images** to display all of the images in the workspace.

2:18

Notice that the two images have different color contrasts and it is obvious where one image ends and the other begins.

15. Next, select the **Color Correction** options to modify the image histograms. This will create a smoother transition from one image to the next.

16. Click **Color Corrections Options**.

17. Enable the **Use Histogram Matching** and **Use Illumination Equalizing** checkbox, then click **OK**.

18. Make sure the the **Display Seam Polygons** button is toggled on.

19. Select the **Automatically Generate Seamlines** icon.

20. Click the **Weighted Seamline** radio button and then click **OK.**

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The seamlines that are automatically created display in the workspace. Notice how rigid the seamlines look. In the next step, edit the seamline to hide it in naturally occurring features within the image.

21. Click **Edit Seamlines Polygon**.

22. To edit, digitize a polygon around the seamline. The side of the seamline from which the polygon originated will increase in size when the polygon is completed.

Here's a tip: Try to run the seamlines along natural barriers in the image. This will create a more crisp final product.

23. From the toolbar, select the **Set Seamline Function** icon. This button is used to set the function used to calculate the digital number for the pixels within the overlapped area.

24. Enable the **Feathering** radio button and change the Distance to **50.**

25. Click **OK.**

4:07

Before running the mosaic you may want to preview the output.

26. Select the **Mosaic Preview** icon from the toolbar.

27. Draw a box over a small area where the images overlap.

28. Select **Process > Preview Mosaic for Window.**

29. Accept the default values and click **OK.**

30. If you're unhappy with the results of the preview, make changes to the project and re-preview. You can save time by confirming the preview results before running the full mosaic project.

Now define the output options.

4:48

31. Activate the IMAGINE workspace and from the IMAGINE Ribbon, open the **Drawing** tab.

32. Click the **Create Polygon** button.

33. Create an AOI polygon around the housing development.

34. Now return to the MosaicPro workspace.

5:20

35. From the Mosaic Pro toolbar, click the **Set Output Options** icon.

36. In the Output Image Options dialog, change the Method to **User-defined AOI**.

37. Click **Set Output AOI**.

38. Select Viewer as the AOI Source and then click **OK**.

39. Press **OK** in the Output Image Options dialog.

5:46

40. From the toolbar, click on the **Display Output Area Boundaries** button. You can now see the outline that defines the extent of the output image.

41. In the Mosaic Tool menu, select **Run Mosaic**.

42. Give your file a name.

43. Click the **Output Options** tab and enable the **Stats Ignore Value** checkbox.

44. Click **OK**.

6:19

45. When the Mosaic Job State reads done, click **Close** to complete the process.

46. To view your mosaic open a new viewer.

47. Under the ERDAS IMAGINE ribbon select **Home.**

48. Click **Add Views > Create new 2D View**.

49. Right click and select **Open Raster Layer**.

50. Navigate to where you saved the mosaic and select **Open** to view the mosaic image.

7:03

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