

Image Analysis for ArcGIS FAQs¹



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How Do I Create a Layer Stack?

Use the Image Analysis extension in ArcMap to create a layer-stacked image. A layer stack is often used to combine separate image bands into a single multispectral image file. Layer stacking is also commonly used to combine image derivatives with spectral bands for further analysis (i.e., layer stack an NDVI image with spectral bands for input to an image classification). This document describes how to create a layer stack from two or more images using ArcGIS.

What You Will Need and Other Assumptions

- Two or more images to be stacked (ERDAS Imagine format)

Overview of Steps

1. Use the Utilities of the Image Analysis extension in ArcMap to create a layer stack.

Step-by-Step Example

1. Start ArcMap from your Desktop, or on the Windows Taskbar click **Start | Programs | ArcGIS | ArcMap**. Ensure the Image Analysis extension is visible. If not, from ArcMap's main menu select: 1) **Tools | Extensions** and enable **Image Analysis**; and 2) **View | Toolbars** and enable **Image Analysis**.
2. Use the **Add Data** button on the main toolbar of ArcMap to add the images to be stacked to the Data Frame.
3. From the Image Analysis extension, select **Image Analysis | Utilities | Layer Stack**.
4. Add image layers to your layer stack by selecting them from the **Layers currently Open** column and clicking the **Add** button, or click the **Open Folder** button in the Layer Stack dialog to select and add image layers to your layer stack. When finished adding layers to the **Layers from File** column, specify a location and filename for the **Output Image** and click **OK**. *Note: be sure to add image layers in the order you want them to appear in your new layer-stacked image.*
5. Inspect your results.

¹ Produced by the USDA Forest Service RSAC (<http://fsweb.rsac.fs.fed.us>). A Forest Service version of Image Analysis for ArcGIS was used to develop this reference document. No warranty is made as to completeness or accuracy.