

Image Analysis for ArcGIS FAQs¹



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How do I Create and Set an Analysis Mask?

Use Image Analysis to create and set an Analysis Mask in ArcMap. Many times it is preferable to analyze only portions of an image. This can be done by creating and setting a polygon layer as the Analysis Mask—or the analysis extent. This document describes how to create and set your AOI as an Analysis Mask.

What You Will Need and Other Assumptions

- Any raster image

Overview of Steps

1. Create a polygon Shapefile in ArcCatalog.
2. Digitize a polygon delineating the analysis extent in ArcMap.
3. Set the polygon layer as your Analysis Mask.

Step-by-Step Example

1. Start ArcMap and ArcCatalog from your Desktop, or on the Windows Taskbar click **Start | Programs | ArcGIS | ArcMap** or **ArcCatalog**. Ensure the Image Analysis extension and Editor toolbar are visible in ArcMap. If not, from ArcMap's main menu select: 1) **Tools | Extensions** and enable **Image Analysis**; 2) **Tools | Customize** and enable **Editor**; and 3) **View | Toolbars** and enable **Image Analysis** and **Editor**.
2. In ArcCatalog, create a new polygon Shapefile by navigating to an appropriate folder, and selecting **File | New | Shapefile** from the main menu. Ensure you specify the **Name**, select **Polygon** as the **Feature Type**, and select the **Edit** button to specify the projection information. Click **OK**. *Note: you can set the projection information from an existing data layer by selecting the **Import** button, or manually by clicking the **Select** button.*
3. In ArcMap, select the **Add Data** button to load a reference image to the Data Frame. Identify an area in the reference image to use as your analysis area.
4. In ArcMap, select the **Add Data** button to load the Shapefile in the Data Frame.
5. From the Editor toolbar, select **Editor | Start Editing**. Ensure that the **Task** is set to Create New Feature, and that the **Target** is set to your new Shapefile. Select the **Sketch Tool** button and digitize a polygon over the analysis area on your reference image that you have identified. Once you are done, select **Editor | Stop Editing**, and click **Yes** to save the edits.
6. From the Image Analysis toolbar, select **Image Analysis | Options** and click the **General** tab.
7. Set the polygon Shapefile you just digitized as the **Analysis Mask**.

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.

8. Click **Apply**, and then **OK**.
9. Now you are ready to perform further analyses only within your analysis area, as defined by your Analysis Mask.