

Image Analysis for ArcGIS FAQs¹



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How Do I Create a Classification Mask?

Use Spatial Analyst to create a classification mask and set it as your Analysis Mask in ArcMap. This is often necessary for improving spectral image classifications using cluster busting techniques. This document describes how to create and set a classification mask using Spatial Analyst and Image Analysis.

What You Will Need and Other Assumptions

- A classified image requiring further refinement (typically from an Unsupervised Classification approach)

Overview of Steps

1. Load the thematic image (classified image) to be used to create a classification mask into ArcMap's Data Frame.
2. Identify and recode classes to make the classification mask using Spatial Analyst's Reclassify tool.
3. Inspect your new classification mask.
4. Set your new classification mask as the Analysis Mask in ArcMap.

Step-by-Step Example

1. Start ArcMap from your Desktop, or on the Windows Taskbar click **Start | Programs | ArcGIS | ArcMap**. Ensure the Image Analysis and Spatial Analyst extensions are visible. If not, from ArcMap's main menu select: 1) **Tools | Extensions** and enable **Image Analysis** and **Spatial Analyst**; and 2) **View | Toolbars** and enable **Image Analysis** and **Spatial Analyst**.
2. Use the **Add Data** button on the main toolbar of ArcMap to add a thematic image—that will be used to create your classification mask—to the Data Frame.
3. From the Spatial Analyst toolbar, select **Spatial Analyst | Reclassify**.
4. In the Reclassify dialog, set the **Input raster** to the thematic image you wish to use to create the classification mask, and set the **Reclass field** to **Class_names** or **Value**.
5. In the **Set values to reclassify** window, set all input classes (**Old values**) that you want to exclude from the classification mask to **NoData** in the **New values** column, and set all input classes to be included in the mask to 1 or higher in the **New values** column.
6. Specify an appropriate project directory and filename for the **Output raster** (your new classification mask) and click **OK** to begin the reclassification process. When it's finished inspect the resulting mask in ArcMap.
7. Finally set your new classification mask as the Analysis Mask by clicking **Image Analysis |**

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.

Options. Under the General tab set the **Analysis Mask** to your new classification mask. All further processing will occur only within your classification mask. Click **Apply** and **OK** to set the mask.