

Image Analysis for ArcGIS FAQs¹



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How Do I Create a Matrix Image (Thematic Change Analysis)?

Use the Image Analysis extension in ArcMap to create a matrix image. This document describes how to create a matrix image from two thematic images using ArcGIS. This is a commonly used technique to perform a post-classification change detection.

What You Will Need and Other Assumptions

- Two thematic images (e.g., image classifications derived from separate dates of imagery)

Overview of Steps

1. Use the GIS Analysis tools of the Image Analysis extension in ArcMap to create a matrix image from two thematic images.

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. From the Image Analysis extension, select **Image Analysis | GIS Analysis | Thematic Change**.
3. Specify your **Before Theme** and **After Theme** thematic images. Also specify a location and filename for the **Output Image**. Click **OK** to make your matrix image (i.e., your change image).
4. Inspect the 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.