

Image Analysis for ArcGIS FAQs¹



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How Do I Create a Shaded Relief Image?

Use the Spatial Analyst extension in ArcMap to create a shaded relief image. This document describes how to create a shaded relief image from a DEM using ArcGIS. *Note: you can also use the same tools in the 3D Analyst extension for ArcMap.*

What You Will Need and Other Assumptions

- A DEM in Grid or ERDAS Imagine format
- Load and Mosaic your DEMs if necessary

Overview of Steps

1. Use the Surface Analysis tools of the Spatial Analyst extension in ArcMap to create a shaded relief image from a DEM.

Step-by-Step Example

1. Start ArcMap from your Desktop, or on the Windows Taskbar click **Start | Programs | ArcGIS | ArcMap**. Ensure the Spatial Analyst extension is visible. If not, from ArcMap's main menu select: 1) **Tools | Extensions** and enable **Spatial Analyst**; and 2) **View | Toolbars** and enable **Spatial Analyst**.
2. From the **Spatial Analyst** extension, select **Spatial Analyst | Surface Analysis | Hillshade**.
3. Specify your **Input Surface** (raster DEM) and **Output Raster** (Grid or Image) files and specify your **Azimuth** and **Altitude**. You can accept the default values for the remaining options. Click **OK** to make your shaded relief 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.