

## Image Analysis for ArcGIS FAQs<sup>1</sup>



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### How Do I Create a Viewshed Image?

Use the Spatial Analyst extension in ArcMap to create a viewshed image. This document describes how to create a viewshed image from a DEM and a viewpoint layer 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
- A Coverage, Shapefile or Geodatabase of observer points (viewpoint layer)
- Load and Mosaic your DEMs if necessary

### Overview of Steps

1. Use the Surface Analysis tools of the Spatial Analysis extension in ArcMap to create a viewshed image from a DEM and a viewpoint layer.

### 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, click **Spatial Analyst | Surface Analysis | Viewshed**.
3. Specify your **Input Surface** (raster DEM) and **Output Raster** (Grid or Image) files and specify your **Observer Points** (viewpoint layer). You can accept the default values for the remaining options. Click **OK** to make your viewshed image. *Note: to preserve a visual representation of the topography from your DEM in the new viewshed layer, put a checkmark next to **Use Earth Curvature** in the **Viewshed** dialog.*
4. Inspect the results.

<sup>1</sup> 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.