

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



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### How Do I Create a Raster Contour Image?

Use the Spatial Analyst extension in ArcMap to create a Shapefile of contours. Then use ArcToolbox to convert your Shapefile to a Coverage and finally convert your Coverage to a Grid. This document describes how to make a raster contour 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 Image format
- Load and mosaic your DEMs if necessary

### Overview of Steps

1. Create contour Shapefile using ArcMap.
2. Convert Shapefile to a line Coverage using ArcToolbox.
3. Convert line Coverage to a Grid using ArcToolbox.

### 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 | Contour**.
3. Specify your **Input Surface** (raster DEM) and **Output Features** (Shapefile) files and specify your **Contour Interval**. Click **OK** to make your Shapefile of contours.
4. Start ArcToolbox from your Desktop, or on the Windows Taskbar click **Start | Programs | ArcGIS | ArcToolbox**.
5. In ArcToolbox, double click **Conversion Tools | Export from Shapefile | Shapefile to Coverage**.
6. Navigate to and select your **Input Shapefile** and specify an **Output Coverage**. Click **OK** to run the process.
7. In ArcToolbox, double click **Conversion Tools | Import to Raster | Line Coverage to Grid**.
8. Navigate to and select your **Input Coverage** and specify an **Output Grid**. Specify a **Value Item** and **Cell Size** if you choose, or accept the default settings. Click **OK** to run the process.

<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.