

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



Fall 2004

Remote Sensing Applications Center  
<http://fsweb.rsac.fs.fed.us>

### How Do I Convert DEM Heights?

Use the Spatial Analyst extension in ArcMap to convert DEM heights from meters to feet or visa versa. This document describes how to convert DEM heights from meters to feet using the Raster Calculator.

### What You Will Need and Other Assumptions

- A DEM in Grid or ERDAS Imagine format

### Overview of Steps

1. Use the Raster Calculator in the Spatial Analyst extension in ArcMap to convert DEM heights.

### 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. Click the **Add Data** button, navigate to your DEM, and add it to the Table of Contents in ArcMap.
3. From the **Spatial Analyst** extension, select **Spatial Analyst | Raster Calculator**.
4. The expression used to convert DEM heights from meters to feet is: 'DEM values in meters' x 3.2808 = 'DEM values in feet'. You can use the Raster Calculator to write this expression and apply it to your DEM. Recall that there are 3.2808 feet in one meter.
5. **Double-click** on your DEM's filename in the **Layers** list to add it to the expression field.
6. Click the **Multiplication** button on the Raster Calculator keypad once to add the multiplication symbol to the expression.
7. Now add the conversion factor (3.2808) to complete the expression.
8. Click **Evaluate** to apply the conversion and generate the new DEM—with heights in feet.
9. 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.