

Image Analysis for ArcGIS FAQs¹



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How Do I Apply a Brightness Inversion to an Image?

Use the Image Analysis extension in ArcMap to apply a Brightness Inversion to your image. This document describes how to perform this operation using ArcGIS. Brightness Inversion is used to create images with opposite contrast from the original image. This is often useful for emphasizing detail in pixels with low DN values, which would not be visible otherwise. The inversion process can also be used to invert a negative image that has been scanned to create a positive image.

What You Will Need and Other Assumptions

- An image to be inverted (ERDAS Imagine format)

Overview of Steps

1. Use the Radiometric Enhancement tools of the Image Analysis extension in ArcMap to apply a Brightness Inversion to your image.

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. Use the **Add Data** button on the main toolbar of ArcMap to add your image to the Data Frame.
3. From the Image Analysis extension, select **Image Analysis | Radiometric Enhancement | Brightness Inversion**.
4. In the Brightness Inversion dialog, specify your **Input Image** (the image to be inverted) and specify a location and filename for your new **Output Image** (the newly inverted image). Click **OK** to create the inverted image.
5. 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.