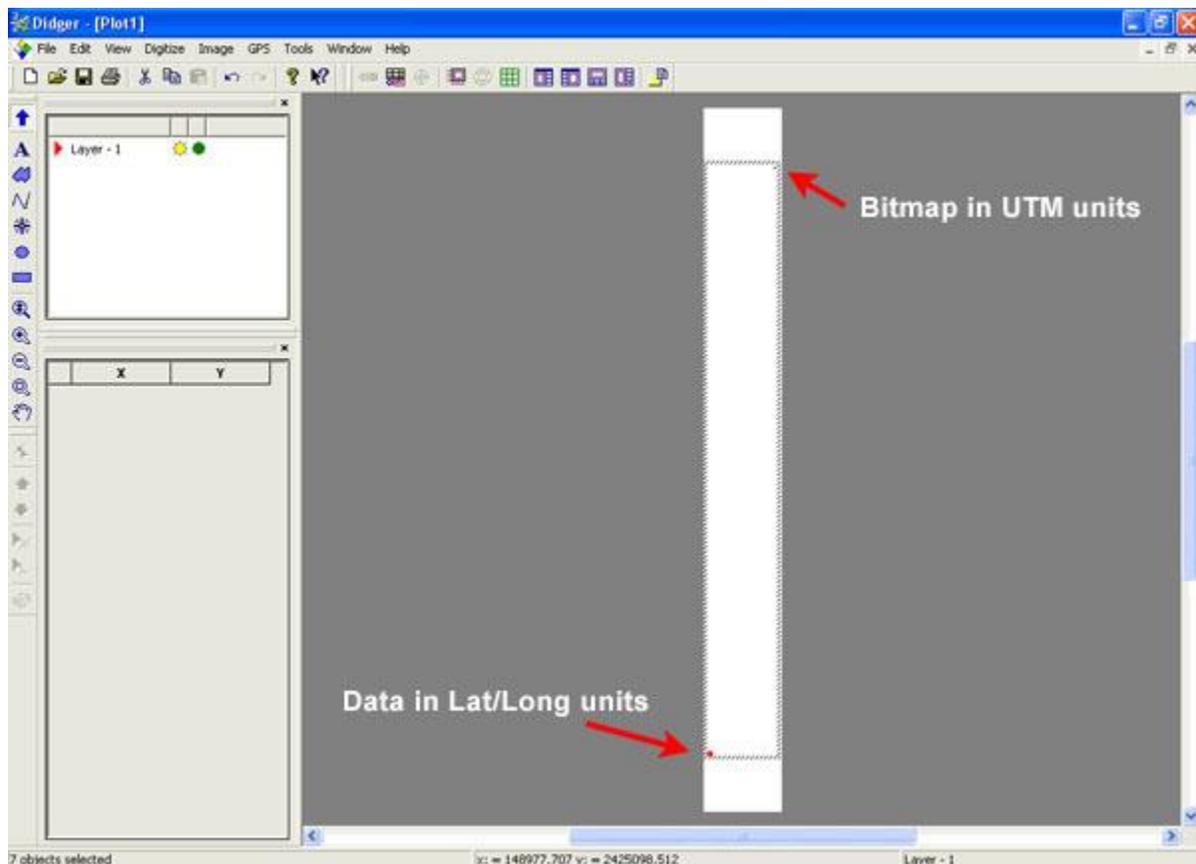


Changing the Projection of an Image with an ESRI World File

Introduction

Georeferenced TIF files commonly save the spatial reference information in an ESRI World File (*.tfw). You may want to import the georeferenced TIF file using the coordinates in the ESRI World file into Digger for a number of reasons such as warping the image, mosaicking the image with other GeoTIFF files, digitizing the image, automatically creating a Surfer base map, or overlaying other data or vector files on top of the image.

However, sometimes it is necessary to change the projection of an image georeferenced with a TFW file in order for the coordinates to match up with other vector, data, or georeferenced image files. For example, the image may be calibrated in UTM units and you want to overlay the image with other data that is in Latitude/Longitude units and you want the resulting map to show Latitude/Longitude coordinates.



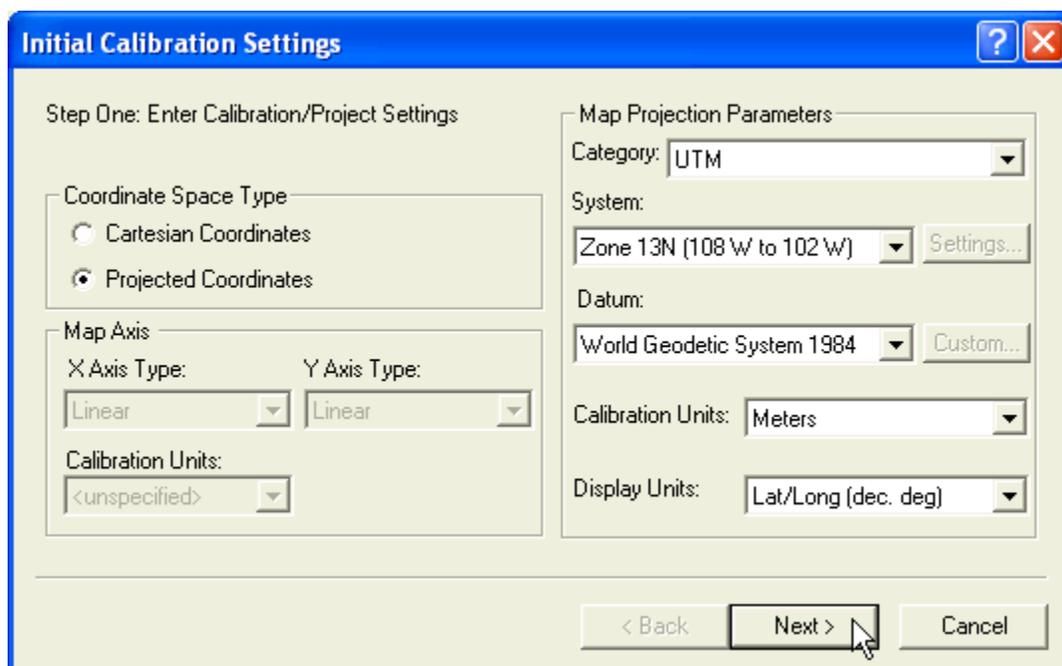
A bitmap georeferenced in UTM units will not overlay correctly with data that is georeferenced in Latitude/Longitude units.

Changing the Image's Projection

You cannot directly convert the projection of the image from UTM to Latitude/Longitude because the TFW file does not contain any projection information. TFW files only contain coordinate information.

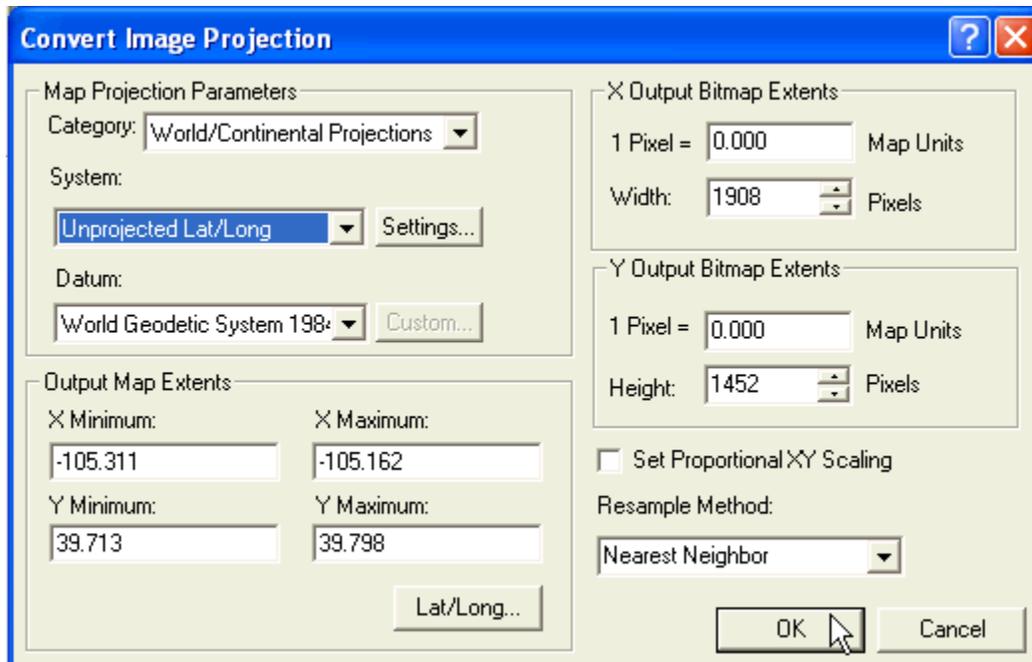
Here are the steps you can use to assign a projection to the georeferenced image file, convert the projection, and overlay it with other data files:

1. Start Didger.
2. Go to **File | Import Bitmap | Into Raster Project**.
3. Select the TIF file and click *Open*.
4. In the **Bitmap Import Options** dialog box, select the spatial reference source to be ESRI World File and click *OK*.
5. Click *OK* in the second **Bitmap Import Options** dialog box.
6. Once the image is imported, go to **Image | Calibrate Image**. In the **Initial Calibration Settings** dialog, set the Coordinate Space Type to Projected Coordinates, then choose the appropriate projection parameters for the image.



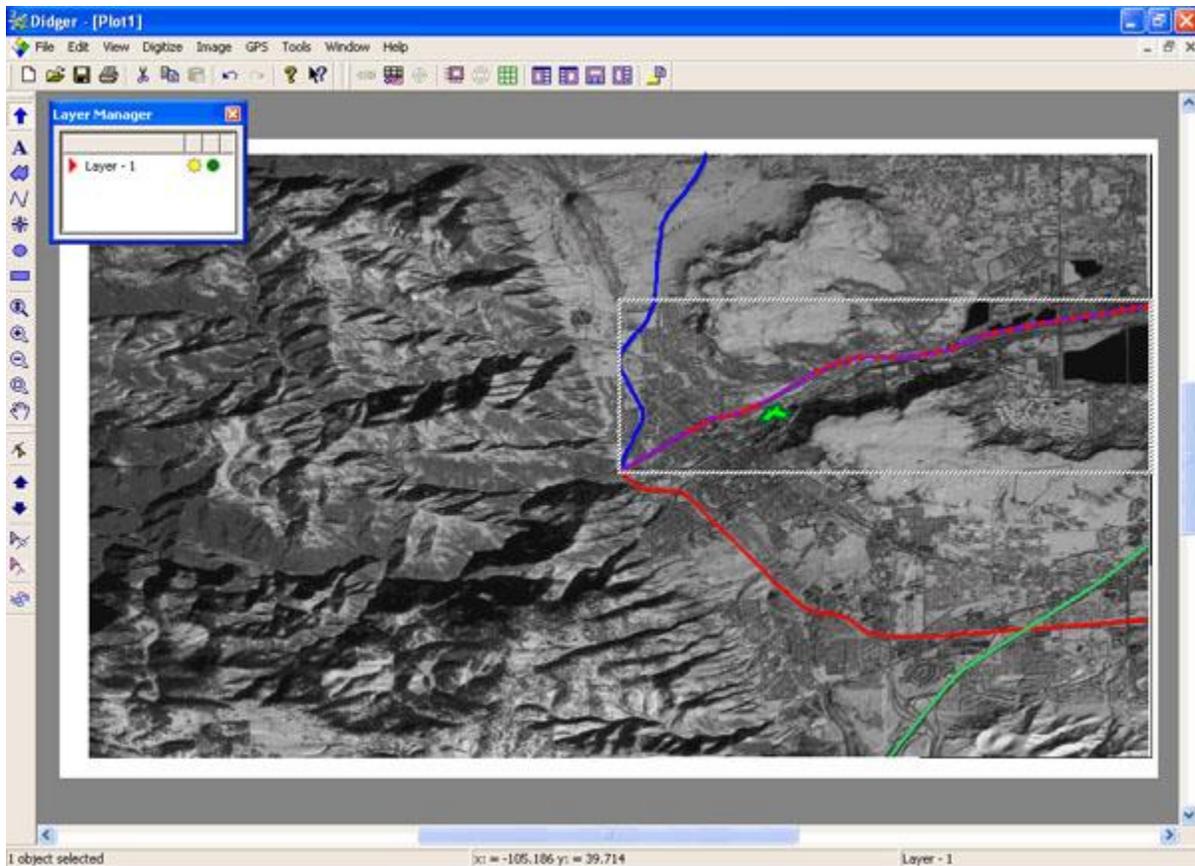
Assign the appropriate projection for the bitmap in Step One under **Image | Calibrate Image**.

7. Click *Next* to go to Step Two of the calibration process, the **Raster Calibration** dialog. The coordinates shown here were imported from the TFW file. Do not change anything and just click *Next*, *Next*, and *Finish*.
8. The image is now calibrated and projected. Before the projection of the image is converted, it is recommended that it is warped first. Go to **Image | Warp Image** and click *OK*.
9. Go to **Image | Convert Image Projection** to convert the image to any other supported projection. After setting the desired projection parameters, click *OK* to change the image's projection.



*Use the **Image | Convert Image Projection** command to convert the projection of the bitmap from UTM to Latitude/Longitude.*

10. Go to **File | Export** and choose to export the image as a Tagged Image (TIFF) (*.tif) file. Give the file a name and click *Save*.
11. In the **Tagged Image Export** options dialog box, choose to save the spatial reference information in Embedded GeoTIFF format.
12. Go to **File | New | Blank Project**.
13. Go to **File | Import Bitmap | Into Vector Project**.
14. Select the GeoTIFF you just exported in Step 10 above and click *Open*.
15. Select Embedded GeoTIFF Parameters as the Spatial Reference source and click *OK*.
16. Now you can go to **File | Import Vector**, **File | Import Data File**, or **File | Import Bitmap** to import other Latitude/Longitude data on top of this image. Alternatively, you can go to **File | Create Surfer Base Map** and Didger will open Surfer and load the georeferenced image automatically into Surfer as a base map.



*Once the bitmap is georeferenced in Latitude/Longitude coordinates,
it will overlay correctly with other Latitude/Longitude data.*

If you have any questions about Didger or this article, please contact us at didgersupport@goldensoftware.com.