

Editing ERMapper Header Information

ERMapper datasets consist of two separate files. First there is a large binary file containing one or more layers of raster data in binary format. It typically has a base filename with no file extension, such as TM_980712. The second part of the dataset is a small text file containing information ERMapper uses to open and process the binary data. The naming format typically is the base name with the file extension “.ers” appended to it, such as TM_980712.ers.

You can easily view header file information for a file in ERMapper. From the main menu select: File | Open or click on the “Load Dataset” icon on the Common Functions toolbar to open the “Open” or “Raster Dataset” windows respectively. Single click a file and click on the “Info” button. This opens the “Dataset Information” window.

If you need to change header file information you can click on the “Edit” button to open the “Dataset Header Editor” window. Edit flow is depicted in Appendix A at the end of this document.

Note: Changing the header file will *not* change the data! If your dataset is unprojected, adding coordinate information to a header file only produces bad information, *not* a projected image. You still need to georeference the image. If you wish to *change* the projection, altering header data will not work, you need to change projection using the Map to Map projection function. The same applies to changing cell size or data type.

Occasionally you may find it necessary to edit an ERMapper header file. For example, setting a *null* value for a projected Landsat scene will eliminate all of the triangular margins from image statistics and processing. You may need to enter coordinate information for images that have been properly projected using another software program, then exported to ERMapper format. Sometimes valid coordinate information is not automatically placed in these header files. Examples of this can be found in the MODIS product import and DEM import procedures described in other documents on this web site.

To completely define coordinate information in an ERMapper header file you need to include the following data: datum, projection, coordinate type, units, X and Y dimensions for cell size, registration cell X and Y values, registration cell coordinates, and possibly null cell value.

Coordinate information is frequently, but not always, given for the upper left corner of an image. This would be registration cell X and Y values of 0.0 and 0.0. For most projections registration coordinates are entered as eastings and northings, the coordinate type will be “EN”, and units will be meters (or occasionally feet). If you are using latitude and longitude the projection is Geodetic, coordinate type will be “LL”, and the X and Y dimensions for the cell size will be in decimal degrees.

Appendix A – ERMapper Header File Edit Flow

Click on the “Info” then “Edit” buttons from the **Load Raster Dataset** or **File | Open** window to open the Dataset Header Editor window (below).

The Dataset Header Editor window contains the following fields and controls:

- Version: 1.0
- Name: U:\temp\353_test.bil
- Description:
- Source Dataset: U:\temp\353_test.bil
- Last Updated:
- Data File: U:\temp\353_test.bil
- Sensor Name:
- Sense Date:
- Header Offset:
- Data Type: Raster
- Byte Order: LSBFirst
- Buttons: OK, Apply, Cancel, Save, Help
- Sub-dialogue buttons: Raster Info..., Coord Space..., Comments..., Vector Info..., FFT Info..., Radar Info...

The Raster Information dialog contains the following fields and controls:

- Cell Type: Signed16BitInteger
- Null Cell Value: None
- Nr Of Lines: 1694
- Buttons: OK, Cancel, Help
- Sub-dialogue buttons: Band ID..., Region Info..., Warp Control..., Registration Point..., Cell Size...

The Coordinates dialog contains the following fields and controls:

- Datum: WGS84
- Projection: GEODETIC
- Coordinate Type: LL
- Units: Natural
- Rotation: 0
- Buttons: OK, Cancel, Help

The Registration Cell dialog contains the following fields and controls:

- Registration Cell
- Cell X: 0.000000
- Cell Y: 0.000000
- Registration Coordinates
- Latitude: -4:4:17.76
- Longitude: -78:17:6.0
- Buttons: OK, Cancel, Help

The Cell Size Information dialog contains the following fields and controls:

- Xdimension: 0.0008333
- Ydimension: 0.0008333
- Zdimension: 0
- Xoverlap: 0
- Yoverlap: 0
- Buttons: OK, Cancel, Help