



## Solid Terrain Modeling, Inc. Data Requirements

### General data requirements:

Image data must be orthorectified and precisely registered to the DEM (Digital Elevation Model.) The importance of registration between the image and the DEM can not be stressed enough. In addition, the limits and projection of the image and the DEM *must* be the same for proper alignment.

### DEM Requirements:

The DEM should be supplied in either Erdas Imagine (.IMG), Surfer Grid (.GRD), GeoTIFF (.TIF or .TIF/.TFW), or Band Sequential (.BSQ) format. The projection information for your DEM is also required. In addition, if data is provided in BSQ format, you will need to also supply a text file that, at a minimum, details the following:

- Number of rows and columns in the dataset
- Data size: 8, 16, or 32 bits
- Signed or unsigned
- Floating point or integer
- Byte order
- Units for X, Y and Z
- X and Y posting distances
- Distances, in real world units, covered by the data, ie; 10km x 20km x 1200feet elev.
- Min and Max for X, Y and Z

The DEM data should be of sufficient density to support at least 12 postings per inch (ppi) for the model. We can up-sample or down-sample your data if necessary. For example a 48" x 96" model should have at least 576 x 1152 input data points at 12 ppi. STM can assist with the data issues as required.

### Vertical Exaggeration:

While it is common to expect that vertical scale exaggeration is necessary when modeling terrain, STM's rendering process brings out the most subtle of details in terrain data, therefore making vertical exaggeration unnecessary. In fact, modifying the vertical scale can often become counterproductive if portraying "what it really looks like" is important for public illustration or legal presentations. There are, however, times when vertical exaggeration is appropriate and STM can provide guidance in this area.

### Image Requirements:

The image that is to be applied to the model surface can be of any type: satellite, aerial, illustrations, graphs or any combination of these, thus allowing for the display of a wide range of information. When supplying image files that consist of a combination of different types of data, for example a TIFF satellite image and Vector overlays, please provide these as separate registered layers or files.

The preferable image file format is an uncompressed TIFF in CMYK color space. We can, however, accept a wide variety of formats, including: BMP, JPEG, PSD, EPS, Illustrator, SHP, and ArcMap MXD. Images may be supplied in RGB color space, but will be converted to CMYK. The image resolution should be between 200 ppi and 300 ppi with respect to the finished model size.

### Match-print:

A Match-print of the image should be provided if exact color reproduction is critical. While STM makes every effort to faithfully reproduce colors, our process does not provide the wide color gamut that some of today's desktop systems offer. When requested, STM can provide flat image proofs for approval prior to final imaging.

S O L I D T E R R A I N M O D E L I N G I N C .

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