

How to create transparent vertical sub-bottom images:

We will start with a processed sub-bottom image (fig 1.). To have this image appear correctly in the Fledermaus 3D environment, you will need to establish the x and y coordinates of the side edges of the image. You will also need to know the z coordinates for the top and bottom of the image. With this information, you should be able to load the image into fledermaus.

If the sub-bottom data was not collected along a linear path (seismic curtain), you will need to have x and y coordinates evenly spaced along the line. This can usually be achieved by using the fix coordinates (Table 1). The coordinates need to be arranged in a .txt file. This file will be discussed later.

Creating transparency:

This procedure will be described using Adobe Photoshop 6.0, but any graphics package that supports transparency layers should be adequate.

- 1) Load the image file into Photoshop.
- 2) Make sure advanced tiff saving options are enabled.
- 3) Use the rectangular marquee tool to select the entire image.
- 4) Create a new image and when the new image dialogue comes up, make sure that you select transparency under the contents area at the bottom of the window.
- 5) Past copy of the old image into the new image.
- 6) Use one of the selection tools to select then delete all non-data areas of the image. See result in figure 2.
- 7) Save the image. Select save transparency button at bottom of save dialogue box.
- 8) Start fledermaus.
- 9) Under the data menu select add vertical image. This will create an empty vertical image TDR file.
- 10) Select the vertical image object in the dataset control window.
- 11) Enter the min and max x y and z bounds of the image into the end points fields to the lower right side of the fledermaus window.
- 12) Georeference the data if necessary.
- 13) Activate the Mask Out Areas button at the bottom of the Fledermaus window (fig. 3).

Seismic Curtain:

- 1) Using the mkvcurtain applet (need to run this from a command prompt, the usage will be:

```
mkvcurtain -in imagefile (fig 1.) -out output_sd_file -xy points.xyz -zrange (z bounds of image.)
```

- points.xyz will be a file of evenly spaced points along the line (table 1).

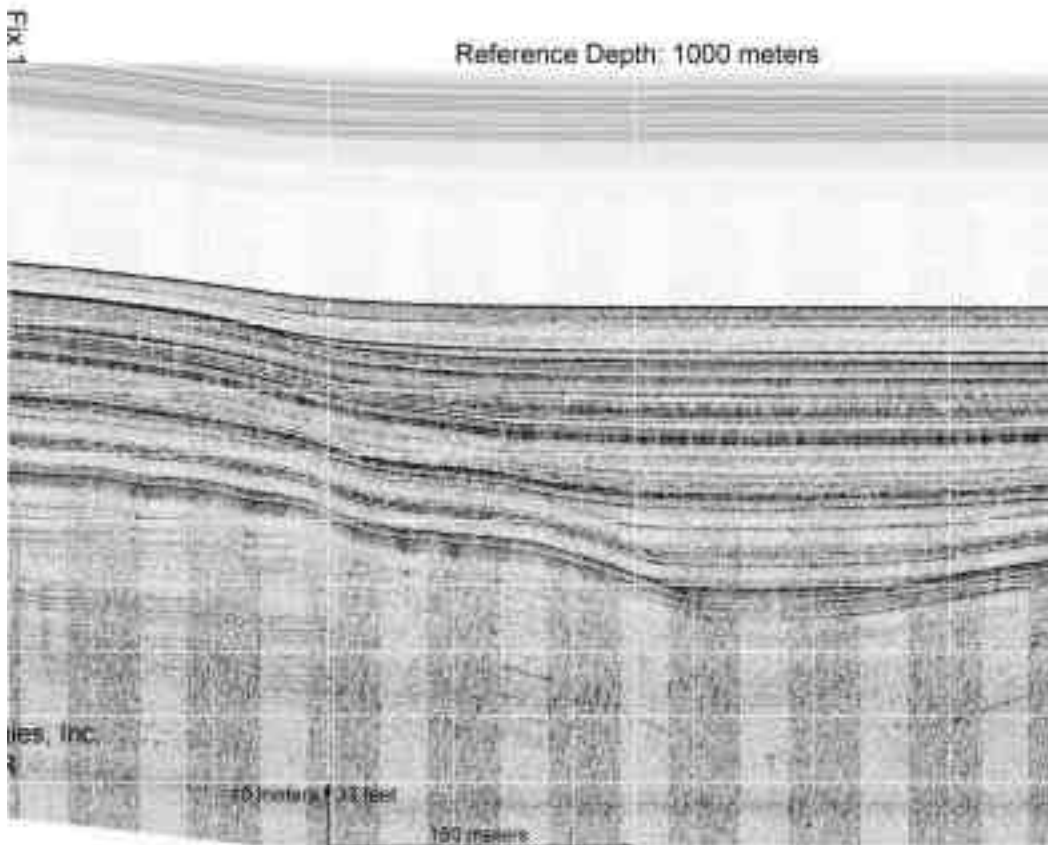


Figure 1. Section of a processed sub-bottom image with fix marks and vertical scale.

1841832.513	9965912.762
1841833.202	9966402.034
1841831.529	9966898.392
1841832.94	9967391.339
1841833.366	9967879.429
1841835.499	9968372.08
1841835.564	9968867.028
1841834.908	9969359.449
1841834.58	9969851.673
1841834.121	9970340.256
1841835.072	9970833.202
1841835.4	9971325.82
1841833.399	9971816.01
1841834.711	9972310.466
1841833.76	9972805.413
1841836.024	9973291.798
1841836.417	9973784.941
1841834.055	9974276.247
1841833.366	9974773.392
1841832.808	9975262.303
1841833.694	9975753.609
1841833.005	9976245.636
1841833.629	9976736.45
1841833.497	9977228.871
1841834.088	9977723.95
1841834.252	9978214.14
1841834.482	9978704.954
1841834.35	9979197.507
1841834.678	9979689.633
1841834.186	9980183.563
1841834.318	9980675.492
1841834.547	9981170.833
1841834.449	9981658.629
1841833.76	9982152.067
1841833.465	9982642.979
1841834.514	9983134.81
1841834.022	9983629.56
1841835.072	9984120.472
1841834.58	9984614.206
1841833.661	9985105.118
1841834.777	9985595.44
1841833.727	9986091.995

Table 1. list of x and y fix coordinates.

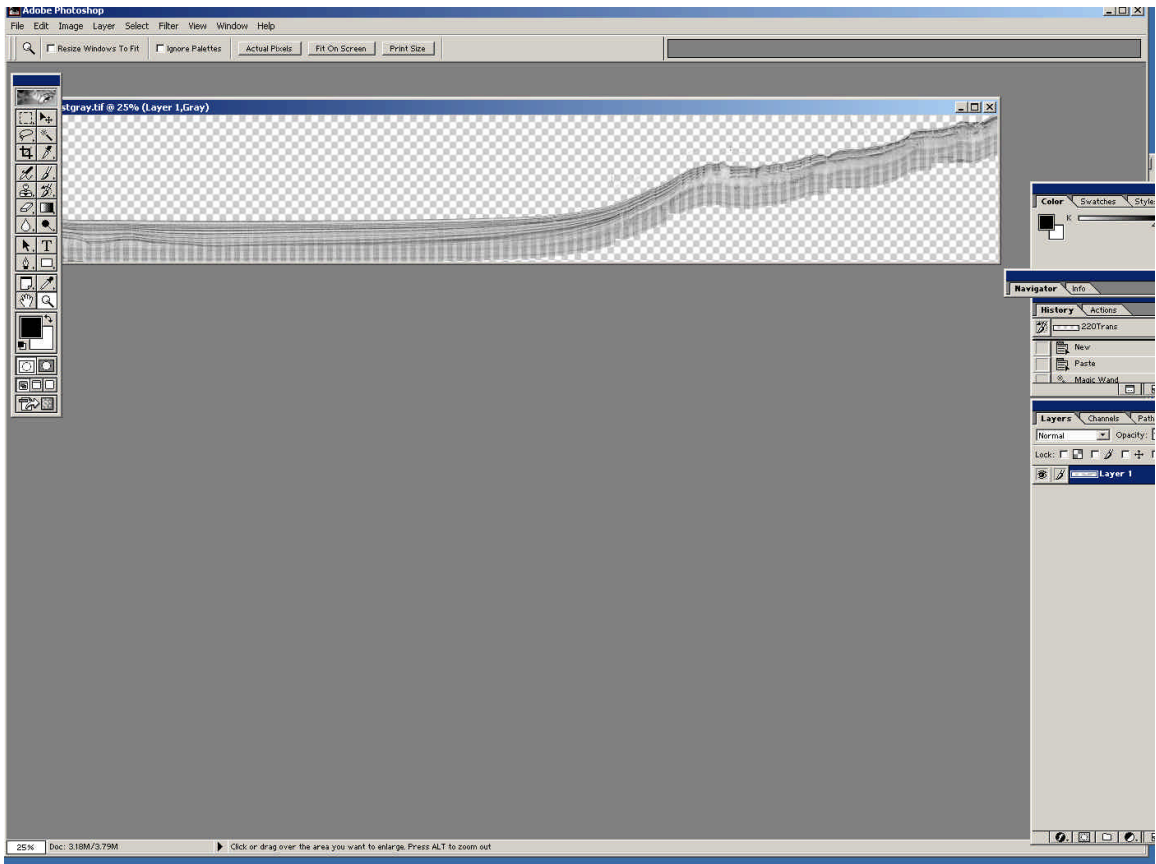


Figure 2. How a masked image appears in Photoshop.

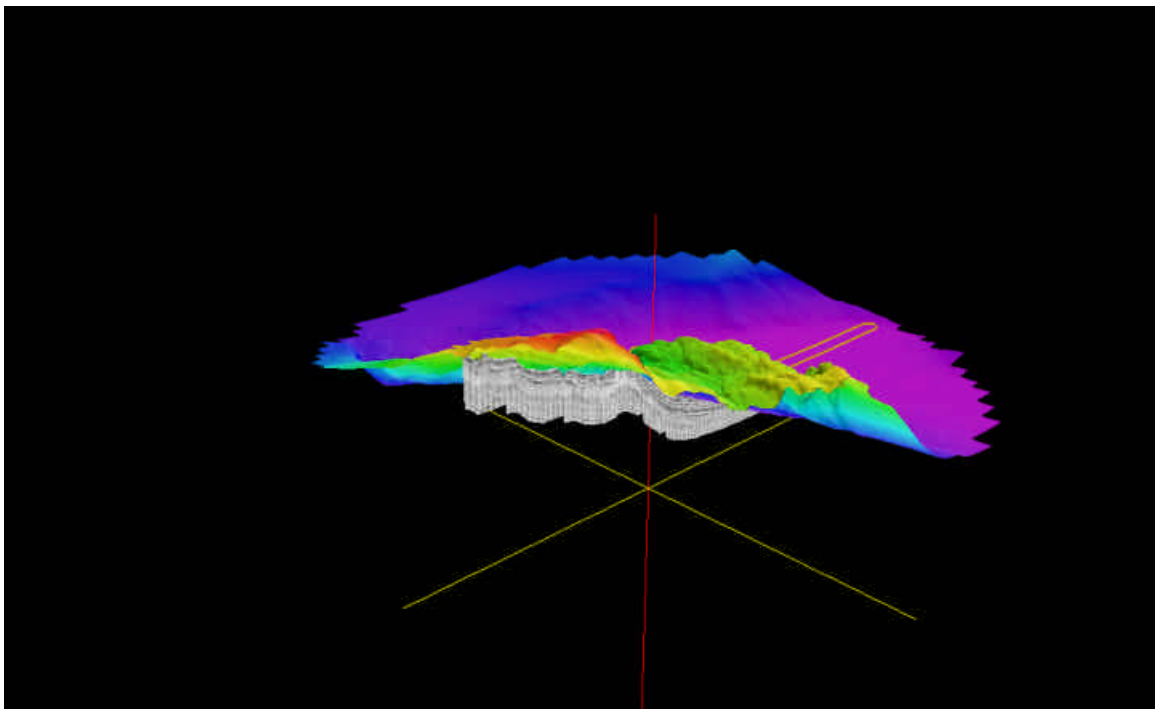


Figure 3. image with transparent sub-bottom data.