

## **Introduction**

If you have coordinate data that you would like to transfer to Terrain Navigator for display as markers, you can create Marker Text Files (.MXF) using Windows Notepad, Wordpad, or another word-processing program.

Terrain Navigator handles internal data conversions in WGS84 datum. When you export data from Terrain Navigator, the coordinate data in the resulting MXF file is given in WGS84 datum. Therefore, when importing marker data into Terrain Navigator, be sure to use WGS84 datum when creating your MXF text file. Using a datum other than WGS84 will affect the accuracy of the coordinate locations in Terrain Navigator.

## **Format**

In the .MXF mark text file, each mark is described on a separate line. Each line contains several fields of information about that mark. These fields are separated by commas, and presented in the following order:

Latitude, Longitude, Full Name, GPS Name, Comments, Color (#), Symbol (#)

## **Sample**

```
43.7601389, -071.2791299, "Cottonwood", "Cttnwd", "A very large tree", 800080, 137
43.7617236, -071.2917695, "Fencepost", "Fncpst", "", 808080, 14
43.7576237, -071.2888850, "Aspen", "Aspen", "", ffff, 137
43.7562457, -071.2777147, "Cache", "Cache", "", ff, 138
43.7576583, -071.2701399, "Tent site", "Tntst", "", ff, 111
```

## **Converting Latitude and Longitude to Decimal Degrees**

This sample file contains data for five markers. The first marker is named "Cottonwood" and is located at latitude 43.7601389 N, longitude 071.2791299 W. The coordinates are given in decimal degrees. For latitude, North is a positive value and South is a negative; for longitude East is positive and West is negative. You can convert from degrees/minutes/seconds with the following formula:

### **Conversion Formula**

Degrees + (Minutes divided by 60) + (Seconds divided by 3600) = Decimal Degrees  
Express this as a formula, and you get:

$$D + (M/60) + (S/3600) = \text{decimal degrees}$$

**Example**

For example, a latitude of 43 degrees 30 minutes 50 seconds would translate to:

$$43 + (30/60) + (50/3600) = 43.5138888 \text{ decimal degrees}$$

Here's the math:

$$30/60 = 0.5$$

$$50/3600 = 0.0138889$$

$$\begin{array}{r} 00.0138889 \\ 00.5000000 \\ + 43.0000000 \\ \hline 43.5138888 \end{array}$$

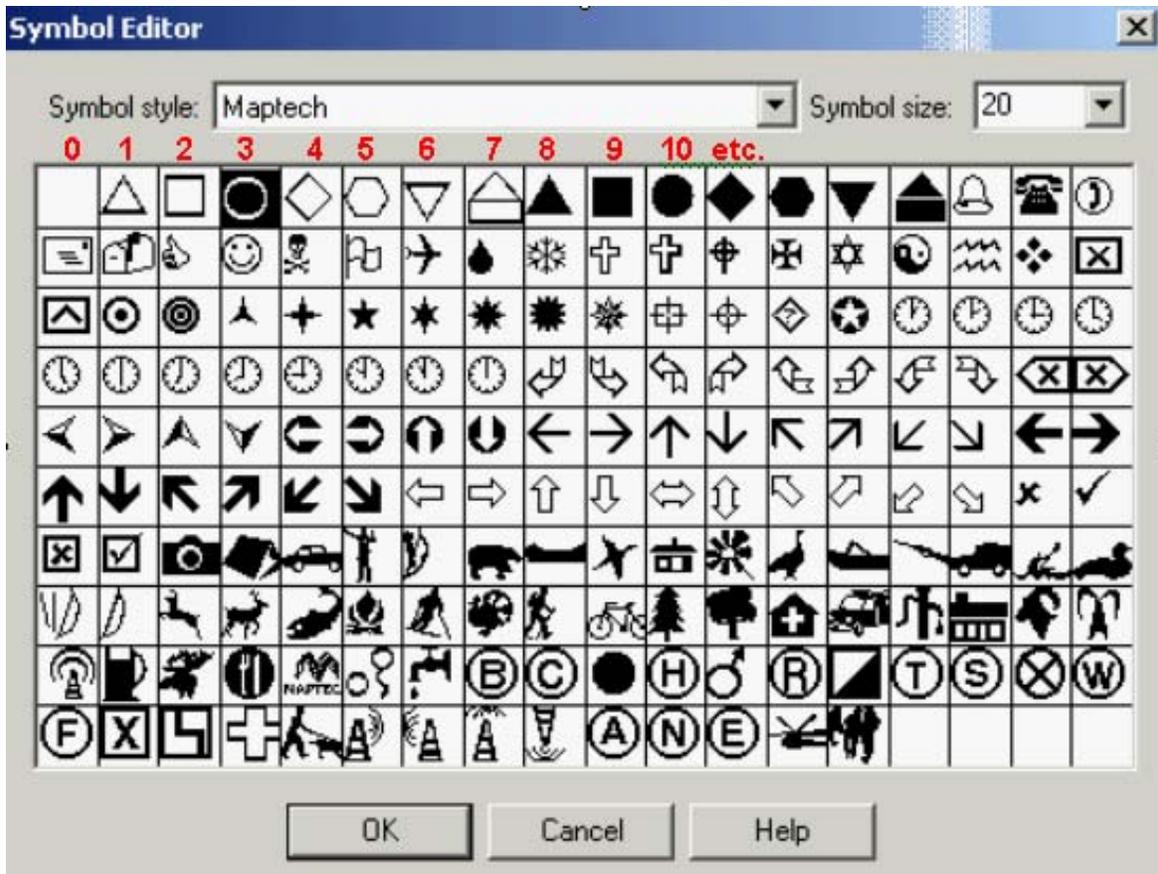
The next two values in the line are the full name and the GPS Name of this marker. Following is a space for the marker comment, if any (in this case, "A very large tree").

The field after the comment contains a number specifying the color of this marker. The next number refers to the symbol selected for this waypoint within Terrain Navigator. The symbols are numbered in the same order they appear under Symbols in Edit Markers window, starting with 0 for "none," the first option in the list. The numeric codes for the available colors are listed below:

light green	ff00	forest green	808000
yellow	ffff	light gray	c0c0c0
royal blue	ff0000	purple	800080
light purple	ff00ff	navy blue	800000
aqua	ffff00	light olive	8080
white	ffffff	green	8000
dark gray	808080	brown	80
black	0	red	ff

**Important Notes**

- Be certain to press Return after the final line of your MXF file.
- You must supply all latitude and longitude data in **decimal degrees**, and **WGS84** datum.
- Remember to save your text file with the file extension .MXF.



- The symbols are numbered in the same order they appear under Symbols in Edit Markers window, starting with 0 for "none," the first option in the list.
- Several symbols are available for your markers and waypoints. Select a symbol, and specify a symbol size (larger number = larger size).