# Using Didger to Convert the Coordinate System of a Vector File

Sometimes a customer, client, or colleague will send you a vector file, such as a SHP or DXF file, in a coordinate system that has no bearing on real world coordinates. You may need the file in real world coordinates in order to overlay the file with other map types. If you know the real world coordinates of any three points in the vector file, it is very easy in Didger to "recalibrate" or convert the coordinates of the file. Coordinate conversion adjusts the values of the existing coordinate system and maps them to new values.

Use the following steps to convert the coordinates of a vector file:

1. Start Didger 3 and go to **File | Import Vector**.
2. Choose the vector file (e.g. DXF, SHP, MIF, etc.) and click *Open*.
3. If it was a .DXF file, click OK in the **DXF Import Options** dialog.
4. If you know the file is projected, specify the projection in the **Define Import Options** dialog box. If it is not projected, or you do not know, accept the defaults and click OK. The file imports into Didger. However, it does not have the correct coordinates associated with it.
5. Go to **Tools | Coordinate Conversion** and select the *Georeference* radio button.
6. Click the *Add* button twice, so there are three rows in the *Georeference* section.
7. Enter the real world coordinates of three known points under the *World X* and *World Y* sections. If the file you imported is projected, the coordinates you enter must be in decimal degress of longitude (X) and latitude (Y). Didger will use these values to establish the new coordinate system.
8. Select one of the rows and digitize the point in the plot window that corresponds to the that row's world coordinates. Repeat for the other rows.
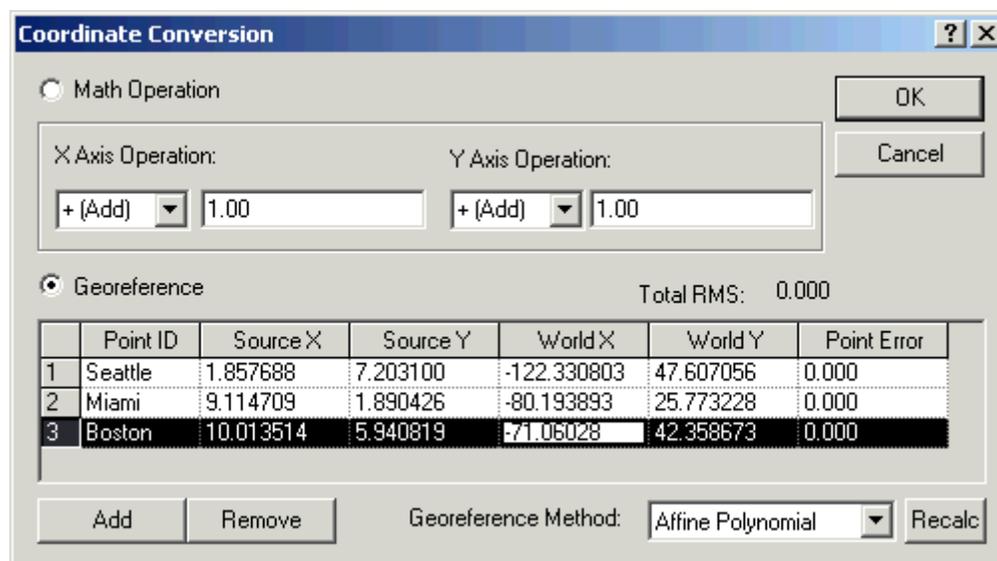
*Establish at least three calibration points and enter the coordinates for those points in the*World X *and* World Y*columns. When you digitize a point in the plot window, Didger will automatically enter coordinates in the* Source X*and* Source Y *columns.*

9. Select *Affine Polynomial* for the *Georeference Method* (or another method you believe is appropriate) and click OK.
10. You may need to go to **View | Project Limits** and reset the project limits and scaling.
11. Now the map is in the coordinate system you specified. You can digitize objects, resample lines, convert the projection (if applicable), or export to any of the supported formats.