

Demonstration Video

Didger 3 – Part 4

Vector Projects

PART 4

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1. Welcome to Golden Software's demonstration video for Didger 3 – Part 4. In this demonstration I'll be covering the topic of vector projects.

Vector projects are a type of Didger project that allow you to import and overlay data and vector files, mosaic georeferenced images, convert the projection of data and vector files, and change the project limits and project size. You can also digitize information from a digitizing tablet or add additional information to your data or vector files. Digitizing objects will be covered in a Part 5 of this demonstration, as the process is the same for all project types.

You can import many different types of files into vector projects, such as data from Excel spreadsheets or ASCII data files, vector files such as ESRI SHP and E00 files, Autocad DXF files, and MapInfo MIF files, and georeferenced image files such as GeoTIFFs or TIF files with an ESRI World (or TFW) files.

2. To import a previously georeferenced bitmap into Didger, all you have to do is follow a few steps. Didger supports obtaining the georeference information from embedded GeoTIFF parameters, a Golden Software Reference (or GSR) file, a Blue Marble RSF file, or an ESRI World File.
 - a. To import a georeferenced bitmap, go to File | Import Bitmap | Into Vector Project.
 - b. I'll select a georeferenced image file and click Open.
 - c. In the Bitmap Import Options, you need to make sure the Spatial Reference source is set to one of the four supported georeference methods. Click OK and the bitmap is imported.
 - d. From now on, I will not be able to change the projection of this project. If I go to the View menu, there is a Projection Settings command. This command allows me to simply view the projection settings. This is also where I can change the Display Units, which are shown at the bottom of the screen in the status bar.
 - e. If there is a second georeferenced image file that you want to mosaic with the first, just go back to File | Import Bitmap | Into Vector Project, select the second bitmap and click Open. Specify the spatial reference source and click OK. It is important that all bitmaps you want to import into a single project be in the exact same projection. If they are not in the same projection, you will get an error message and you'll need to import one of them first into a raster project and convert the projection of that bitmap to match that of the other.

- f. If there is a portion of one bitmap that is obscuring the other bitmap, you can utilize the Select Transparent Colors command. Select the bitmap that is on top and go to Image | Select Transparent Colors. When you move the cursor over the image, it will change to a little “+” shape. Click on the color that you want to make transparent. In this case, I’ll click on the white area and then click OK in the Select Transparent Color dialog box. The white area around the Nevada bitmap becomes transparent and so it no longer obscures the California bitmap.
3. Importing data into a Digger project is easy. To import a data file into this existing project, simply go to File | Import Data File.
 - a. Select the data file you want to import and click Open.
 - b. Specify which fields contain the X and Y data, and any other fields you’d like to use as an ID field and click Import.
 - c. The next dialog is where you specify the import options for the data file. If the data does not have a projection, choose Cartesian Coordinates. If the data does have a projection, choose Projected Coordinates and specify the Category, System, and Datum for the projection. It’s also important to specify the Input Data units. I know this data is in units of latitude and longitude, so I’ll choose Lat/Long (dec. deg) as the Input Data Units. I can also set the Symbol Properties for the point locations if I choose.
 - d. Once all the options are set, click OK and the data points are imported.
4. To import a vector file into this existing project, go to File | Import Vector.
 - a. Select the vector file you want to import, which in this case is an AutoCAD DXF file, and click Open.
 - b. Click OK in the DXF Import Options dialog box.
 - c. In the Define Import Options dialog, make sure the projection is set for the current projection of the vector file (or set to Cartesian Coordinates if there is no projection). You can also set the Symbol, Line, Fill, and Text properties.
 - d. Click OK and the vector file is imported.
5. I’ll begin a new project to demonstrate how to change the projection of vector and data files.
 - a. I’ll go to File | New, select Import Vector and click OK.
 - b. I’ll click No so I won’t save the file I created.
 - c. I select an AutoCAD DXF file and click Open.
 - d. In the DXF Import Options dialog box, I accept the defaults and just click OK.
 - e. In the Define Import Options dialog box, make sure it shows the current projection of the file, which happens to be Unprojected Lat/Long, and click OK.
 - f. Now let’s say I want to change the projection from Unprojected Lat/Long to Albers Equal Area Conic. Since only vector data is present, the View | Project Settings command changes to View | Change Projection. Select this option and specify the projection you want to change the project to. Click the Settings button and change any of the settings to

be specific for your area. In this case, I'll change the Latitude Origin to 38 and the Longitude Origin to -118 and click OK. If you are changing datum parameters, make sure you also check the Apply Datum Conversion check box and click OK. The map in the new projection is displayed.

6. To put the finishing touches on your project, you can set the limits and scale of the project.
 - a. Go to View | Project Limits. Here you can set the X and Y Min/Max values, which determine the extents of the project space. Since I set the projection of this project, these values are in units of Meters.
 - b. I can also choose to set the limits automatically based on the Project Extents. That will get rid of any extra white space around my objects.
 - c. In this dialog box, you can also set the X and Y Scaling or Length values. These values determine the physical size of the project space.
 - d. Choosing to Set Proportional XY Scaling forces the X and Y dimensions to be scaled equally. These scaling options will come into play when you go to export or print the project.