

Demonstration Video

Didger 3 - Part 5

Digitizing and Output

PART 5

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1. Welcome to Golden Software's demonstration video for Didger 3 – Part 5. In this demonstration I'll be covering the topics of digitizing and output.
 2. After the tablet or the raster project is calibrated, or you imported a georeferenced bitmap, a data or vector file into a vector project, you can begin digitizing. Digitizing is the process of transferring paper document information, bitmap information, or other data to your computer by creating points, lines, and areas that are spatially related and have real world coordinates. In this example, I imported a georeferenced bitmap into Layer-1 of a vector project and I'll do all my digitizing in Layer-2.
 - a. Points are used to represent spot locations, like a well location, a sample location, or if you just need to find out the specific coordinates for a particular point on a map or graph. To digitize a point location, go to Digitize | Point, or click on the Digitize Point icon on the toolbar. In the Digitize Points dialog, you are asked to specify some properties for the points you will digitize.
 - i. On the Data Attributes tab, you can enter up to four IDs for your point. This can be something like Well Name, Field location, etc. You can also choose to enter the ID information after you digitized the point by checking the "Enter Data After Creating Object" check box. If you have many points you are going to digitize one right after another, check the "Create Several Objects" check box. Or, if you want the ID information to be automatically incremented (like if you will create 7 objects and they will have a Primary ID of 1 to 7 respectively), you can check the "Auto Increment Primary ID" check box and fill in the information below. I'll start with a value of 1 and end with a value of 7. I'll enter an ID Prefix of "MW-" and clear the ID Suffix field.
 - ii. The Symbol Properties tab will show you the shape, color, and size of the symbol you will create. I'll choose a diamond shape, a pink color, and increase the size to 0.25 inches.
 - iii. The Label Layout tab will allow you to label the point with one of the four IDs. Since we created a Primary ID, I'll select the Primary ID label and click Add. I'll choose to position the label to the left of the symbol by clicking on the little arrow to the left of center. You can see the preview of the label position to the right.

When you have set the properties you want, simply click OK. Your cursor will turn into a bulls eye shape. Click on the screen or on the tablet where you want the symbol to be located. In this case, I'm digitizing all 7 of the monitoring wells so I'll click on each one. After the symbols are created, you can change any of the properties of that symbol by

double clicking on it, resetting the properties, and clicking OK. I'll change the label layout for this point to show the label to the right of the point and click OK.

- b. Polylines are used to represent lines, such as roads, contours, rivers, or political boundaries. Polylines are made up of multiple vertices connected by straight line segments. To digitize a polyline, go to Digitize | Polyline, or click on the Digitize Polyline icon on the toolbar. In the Digitize Polyline dialog box, you are asked to specify the properties for the polyline you are going to digitize.
 - i. The Data Attributes tab is the same as if you are digitizing points. I'll clear the Primary ID field and then check Create Several Objects so I can digitize multiple polylines one right after another.
 - ii. The Line Properties tab is where you specify the line style, color, width, and any end styles such as arrows.
 - iii. The Label Layout tab will allow you to label the polyline with one of the four IDs. I didn't enter any ID information, so I'll leave this section blank.

When you have set the properties you want, simply click OK. Your cursor will turn into a bulls eye shape. You can digitize a polyline in two ways: 1) You can click on each point that makes up the polyline, or 2) You can hold the mouse button down and trace the polyline with the button being held down. This is called stream mode digitizing. Double click to end digitizing a polyline. Digitize the other polylines until they are all digitized. For the sake of speed, I won't be digitizing the polylines very accurately. Once all the polylines are digitized, I hit the Esc key to end the digitizing mode. If after the polyline is created, you want to change any of its properties, all you have to do is double click on it, reset the properties, and click OK. I'll enter the contour value of 88.12 as the Primary ID for this polyline, then go to the Label Layout tab and choose to label the polyline with that ID below the polyline. When I click OK, the label shows up.

- c. Polygons are used to represent a closed area, like a lake or a building. A polygon is similar to a polyline in Didger, except the first and last vertices occupy the same XY position. To digitize a polygon, go to Digitize | Polygon, or click on the Digitize Polygon icon on the toolbar. In the Digitize Polygons dialog box, you are asked to specify the properties for the polygon you are going to digitize.
 - i. The Data Attributes tab is the same as when you are digitizing points or polylines. Since I'll only be digitizing one polygon, I'm going to uncheck the Create Several Objects check box.
 - ii. The Line Properties tab is where you specify the line style, color, and width.
 - iii. The Fill Properties tab is where you will specify the fill pattern for the area inside the polygon. You can choose many different types of fill patterns, and foreground and background colors. I'll choose a blue foreground color and I'll make the background transparent by unchecking the Background check box.
 - iv. The Label Layout tab will allow you to label the polygon with one of the four IDs. Since I didn't enter any ID information, I'm going to leave this section blank.

When you have set the properties you want, simply click OK. Your cursor will turn into a bulls eye shape. You can digitize a polygon in the same two ways as digitizing a polyline, either by clicking on the individual points or digitizing in stream mode. Double click to end the digitizing and Didger will automatically snap the ends together to create a closed object. If after the polygon is created, you want to change any of its properties, all you have to do is double click on it, reset the properties, and click OK.

In this example, the polygon covers the point and polyline objects behind it. I'll move the polygon behind the point and polyline objects by selecting it and going to Edit | Arrange |

Move to Back. This will move the polygon to the bottom of Layer-2 so that the points and polylines are drawn on top of it.

3. Once objects have been digitized, overlaid, or imported, you can export the data to many different file formats. You can go to File | Export and export an ASCII data format, you can export to vector files (such as AutoCAD DXF, ESRI SHP, or MapInfo MIF), and you can export to raster formats (such as TIF, BMP, or JPG). You can also export to georeferenced image formats, such as a GeoTIFF.
 - a. To export to a GeoTIFF, choose to save the file in Tagged Image (TIFF) (*.tif) format. Type in a file name and click Save. The Tagged Image (TIFF) Export dialog will pop up. In the bottom section, choose the radio button next to "Save spatial reference information in" and then check the check box next to one (or more) of the four supported georeferencing formats. For example if I check the check box next to GeoTIFF format and click OK, the TIF file will be exported in GeoTIFF format. If I also check the check box next to ESRI World File, then a GeoTIFF file will be created in addition to an ESRI TFW file. Choose as many formats as you like and click OK to export the image.
 - b. Didger also has the option to automatically export your Didger project directly into Surfer as a base map. This option is only available if you have Surfer versions 7 or higher installed on your computer and can be found by going to File | Create Surfer Base Map. If your project is a vector project and has a bitmap imported into it, then you are prompted for the bitmap export options. Make any changes you like and click OK. I'm going to speed up the video during this process. All the Didger objects, including the bitmap, will be imported into Surfer as a base map and georeferenced correctly. This makes it really easy to import georeferenced images directly into Surfer from Didger. However, make sure you have the bitmap imported into a vector project, because this command will not carry the bitmap into Surfer if used from a raster project.
4. You can also go to File | Print and print your map to any Windows compatible printer. The scale it will be printed at full size can be seen by going to View | Project Limits. In the Print dialog box, you can also choose to scale the project to a percentage of the full size, to fit to a page, or to print the project tiled on many pages if it doesn't fit on one page.
5. Technical support has always been a high priority at Golden Software. If you ever have any problems using Didger or any questions, please give us a call at 303-279-1021. Or, you can go to Help | Feedback | Problem Report to email us a problem report, Suggestions to email us any suggestions you have to improve Didger, or Information Request if you would like some additional information. Our contact information can also be found by going to Help | About Didger.
6. That concludes my demonstration of Didger 3. You can get more experience using Didger by walking through the Tutorial, accessed by going to Help | Tutorial. Thanks for watching.