

Demonstration Video

Didger 3 - Part 2

Tablet Calibration

PART 2

1. Introduction
2. Tablet Drivers
3. Tablet Calibration

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1. Welcome to Golden Software's demonstration video for Didger 3 – Part 2. In this demonstration I will go over calibrating a digitizing tablet.

Calibrating a tablet is the process of assigning real world coordinates to particular points on the tablet. This allows you to digitize information from the tablet in the coordinate system you choose.

2. Didger is compatible with any Wintab32 tablet. If your digitizing tablet has a Wintab32 driver, then it should work with Didger. You can test your tablet by moving the puck around on the tablet. If moving the puck on the tablet moves the cursor on the screen, then the driver is installed correctly. If moving the puck does not move the cursor, then this usually means that either the tablet driver is not installed correctly or the tablet was not turned on when you started your computer. I have a Summagraphics SummaSketch III digitizing tablet and I downloaded the TabletWorks tablet driver from the GTCO website at www.gtco.com. When I move the puck on the tablet, the cursor on the screen moves around, so I know the tablet driver is installed correctly.
3. When you first open Didger, a blank project file is opened.
 - a. You can calibrate a map, a graph, a log, or just about any printed information. For this demonstration, I will be calibrating a map. The map I am using can be found by going to Help | Help Topics, going to the Index tab, and going to "tutorial map 1". I printed that map by clicking the Print button. After the map was printed, I secured the map to my tablet so that it doesn't move throughout the calibrating and digitizing process.
 - b. Once the map is on the tablet, you can begin the tablet calibration wizard. You can start the wizard by going to File | New, selecting the Tablet Digitizing option, and clicking OK. Or, you can simply go to Digitize | Tablet Calibration.
 - c. In the Initial Calibration Settings dialog, I'm going to choose Cartesian Coordinates. If the map had a projection to it, you would choose Projected Coordinates and then specify the Category, System, Datum, and the projection settings by clicking on the button to the right. Since I am using Cartesian Coordinates, I can set the X and Y Axis Types. I'll leave both set to Linear and I'll leave the Calibration Units set to <unspecified>. I click Next.
 - d. This is where I enter in the coordinates for at least three known points and assign those coordinates to locations on the map. I am going to use the four points marked on the map. I click Add Point three times so I have four blank rows.
 - e. I will type in a Point ID for my four points.
 - f. Then I'll type in the coordinates of those four points in the World X and World Y columns.

- g. I select the first row, and then click on that location on the map on the tablet. When I do that, the Tablet X and Y fields get filled in. The selected row automatically advances to the next row. I click on that location on my map, I click on the third, and fourth locations. If I make a mistake, I just have to select that row and click on the location again. When all my points have been entered, I click Next.
- h. This shows me the RMS error. This is a measure of the error in calibrating the points. The RMS error is only displayed when you calibrate using 4 or more points and because I'm using Cartesian Coordinates, the RMS error is reported in the same units as my calibration points. This value is acceptable with respect to the range of my data.
- i. This dialog also contains the Georeference Method. This is the mathematical transformation for converting coordinates in your project. I'll accept Affine Polynomial as the georeferencing method, which is the most common method and acceptable for most data sets, and click Next.
- j. Step Four contains some final calibration settings. In most cases, the defaults are fine so I just click Next.
- k. Step Five contains the project limits and scale. I can change the project limits or scale here, or I can change it after I finish the calibration. For now, I'll simply accept the defaults and click Finish.
- l. My calibration points are shown on the screen in the plot window. They won't be printed or exported, but are only shown on the screen as reference points.
- m. Now that the tablet is calibrated I can begin digitizing my map. Digitizing objects will be covered in a Part 5 of this demonstration, as the process is the same for all project types.