



Saving Polygons or Lines from DNR Garmin

Abstract

This guide outlines steps to save Polygon or Line shapefiles from DNR Garmin.

Steps: Load a Track to DNR Garmin from a GPS Unit or set DNR Garmin to Track for a series of points – Confirm the order of points in the table – Save as normal – When prompted, select “Polygon” or “Line” and click OK – Save the data again, choosing “Point” (optional)

Details

Saving data from DNR Garmin to create a Polygon or Line shapefile requires that the points in the DNR Garmin data table be in order and that “Track” be selected from the data type choices located above the table.

1. Load Track data to DNR Garmin from a GPS unit (see the respective guides).
2. After loading data, confirm that the data type selection in DNR Garmin is set to Track. You can do this even if you loaded Waypoints from the unit.

	type	ident	lat	long	y_proj	x_proj	new_seg
1	TRACK	1	39.875375647097826	-86.267383536323905	4414181.25133161	562650.204311588	true
2	TRACK	2	39.875471368432045	-86.267388314008713	4414191.87203953	562649.708646177	false
3	TRACK	3	39.875546470284462	-86.267381892305207	4414200.2121946	562650.206570177	false
4	TRACK	4	39.87564311362803	-86.267381859943271	4414210.9384681	562650.104297154	false
5	TRACK	5	39.875655518844724	-86.266933511942625	4414212.62973868	562688.433745426	false
6	TRACK	6	39.875544542446733	-86.266933511942625	4414200.31252966	562688.534786454	false
7	TRACK	7	39.875478325411677	-86.266934182494879	4414192.96266729	562688.537732364	false
8	TRACK	8	39.875378077849746	-86.266929488629103	4414181.83953896	562689.030404903	false
9	TRACK	810	39.875228041782975	-86.267102994024754	4414165.06541881	562674.329503135	true
10	TRACK	811		0	4414265	562774	false
11	TRACK	812		0	4414365	562874	false

Illustration 1: In this example, two tracks have been loaded into DNR Garmin. Each track consists of points listed in a sequence that will create a line or polygon feature (without crossover of the feature itself). The two tracks are distinguished by the blue lines, which are also indicated by the “true” flag under the *new_seg* (new segment) column.

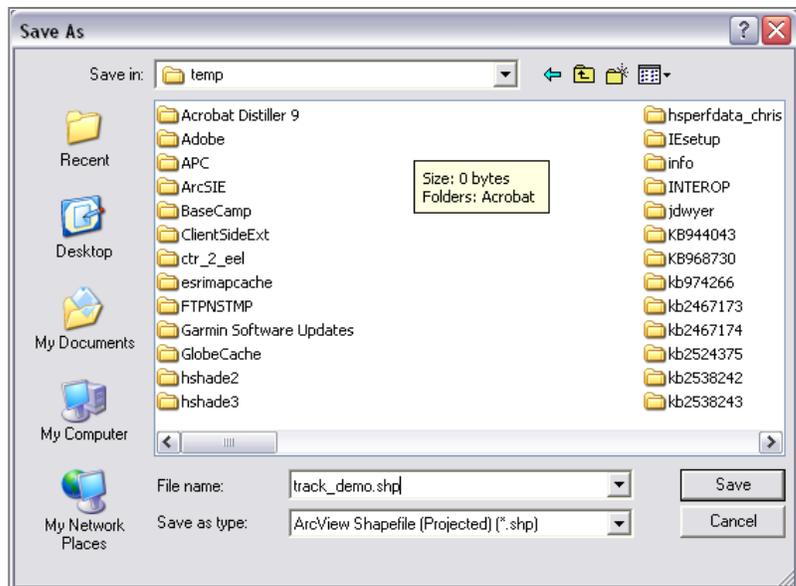


- Verify the order of the points and modify it if necessary, deleting any extraneous or erroneous points. Other than deletion of extraneous points, this would not be necessary for a track. If working with Waypoint inputs that have been changed to a Track, this can most easily be done by renumbering the points in the *ident* column to be in your desired order and then sorting the *ident* column. This can be difficult if you do not know the position of each point and the sequence for the points. For that reason it is easiest to collect the points in order in the field and load that data into DNR Garmin.

Lat Alt	Lon EPE								
		Waypoint	Track	Route	RTime/Wpt				
		type	ident	lat	long	y_proj	x_proj	new_seg	dis
		1 TRACK	1	39.875375647097826	-86.267383536323905	4414181.25133161	562650.204311588	true	
		2 TRACK	2	39.875471368432045	-86.267388314008713	4414191.87203953	562649.708646177	false	
		3 TRACK	3	39.875546470284462	-86.267381692305207	4414200.2121946	562650.206570177	false	
		4 TRACK	4	39.87564311362803	-86.267381859943271	4414210.9384681	562650.104297154	false	
		5 TRACK	5	39.875655518844724	-86.266933511942625	4414212.62973868	562688.433745426	false	
		6 TRACK	6	39.875544542446733	-86.266933511942625	4414200.31252966	562688.534786454	false	
		7 TRACK	7	39.875478325411677	-86.266934182494879	4414192.96266729	562688.537732364	false	
		8 TRACK	8	39.875378077849746	-86.266929488629103	4414181.83953896	562689.030404903	false	

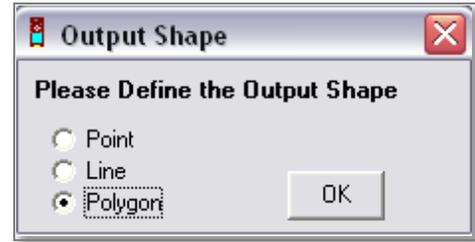
Illustration 2: In this example, only the first track is needed so the line items containing points for the 2nd track were deleted.

- Save the file as you normally would for saving shapefiles (see the guides for saving data from DNR Garmin).





5. A prompt for *Output Shape* geometry type will appear. From the prompt, choose line or polygon geometry, as needed.



6. (Optional) You can also save the data a second time (steps #4 and #5 above) while changing the output file name and output shape geometry to Point. This second file can be overlaid with the Track(s) file in ArcMap to see the points making up the Track(s).
7. Add the data to ArcMap (if not already transferred directly into ArcMap). If a polygon or line crosses over itself you will need to return to DNR Garmin and try to modify the data table for the Track to rearrange misplaced points or eliminate extraneous points before saving again. This can be easier to do if you did the optional step 6 because you'll be able to see the names of the points composing the shape of the track feature.
8. (Optional) If you created a line shapefile that needs to close on itself (return to the line's point of origin) but you did not walk back to the point of origin in the field as is the recommended process, you can close the line by editing the shapefile in ArcMap. Use the *Create New Feature* edit task to draw a new segment using snap settings to make sure the added line is flush with the existing line's elements. Then Merge the two segments.