

Revised GPS Trail Data Export and Prep for Submission.

This revised process was developed for use in a situation where the local sponsor does not do any further processing of GPS based trail data and that data is for trails located West of I-90 Exit 47 (I-490), UTM zone 17T

This revised process replaces the Delorme export of *.txt files and is both applicable and easier to use for trails anywhere in NY. This takes advantage of software features that were not available when the original document was written.

In a nutshell:

Trail track data is exported from DeLorme Topo as a *.gpx type file.

No further editing is required of *.gpx type data and the *.gpx file is much easier to load into DNRGarmin

The DNRGarmin projection must be set for **NAD_1983_UTM_Zone_18N** prior to loading the data.

The following provides more detail on each step but is simple enough that it will not need to be referenced often after using a few times.

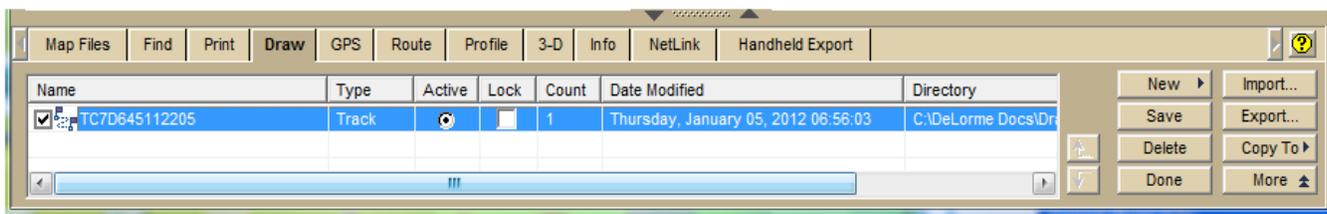
Exporting Trail Data

In Delorme Topo Click the Draw tab and then the File... button

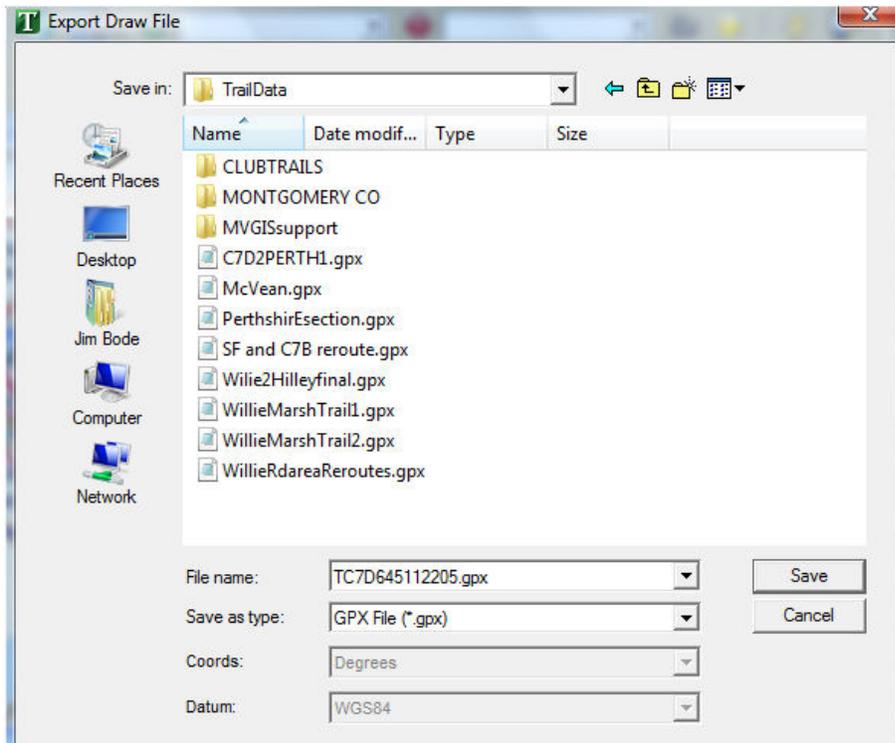
- Highlight the trail file, in this example TC7D645112205, or as appropriately named for your data.

The **Type** must be **Track**. If it is **Draw** then use the **Copy To >** button to copy to a track type and rename the track the same as the Draw.

It is important to have the **Count** at **1**. That confirms that there is only one object in this file. If **Count** is greater than 1 correct the problem before proceeding. Using the **More** button may help in identifying and eliminating unwanted objects or in joining trail parts to become one object.



- Click **Export...** button.



- Select TrailData as the **Save in:** or folder where you will save data to prepare for Phase I grant submission.
- Enter **File name** TC7D645112205 or as appropriate.
 Following the naming convention:
 First character **T** for a trail
 Next **C** or **S** or **L** for **Corridor**, **Secondary**, or **Local** trail type here **C**
 Next the trail number here **7D**
 Next the club ID or club abbreviation.
 here **645**
 Last 6 digits are the date this file was prepared mmddyy here **112205** (for 11/22/05)
- Check other fields are correct. Note the file type is **.gpx**
- Click **Save**

There is no need to edit this file as was done in the process for a text (**.txt**) file. It is ready for import to DNRGarmin.

Preparing ArcView Shapefile Data

Download DNR Garmin **(free software)**

Follow this link:

[DNRGarmin](#)

or paste the following into your browser:

<http://www.dnr.state.mn.us/mis/gis/tools/arcview/extensions/DNRGarmin/DNRGarmin.html>

- Page down to the download of DNRGarmin 5.4.1 (9/22/08)

It is nearly a 11 MB file so will could be be a long download on a slow connection.

- Go to the folder where DNRGarmin was down loaded. Click on the zipped file **dnrgarmin44setup** to expand the filed and run the program **dnrgarminsetup**.
- Accept defaults.

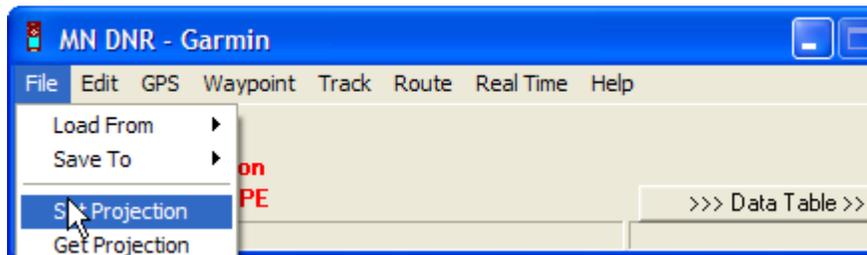


The icon  should be now be on the desktop.

Using DNRGarmin, Shapefile creation.

Shapefile data format is in fact a set of three files that are the input to the ArcView GIS software. ArcView is used by most government agencies to manage map and related information. DNRGarmin will do the conversion of the *.gpx file to shapefile.

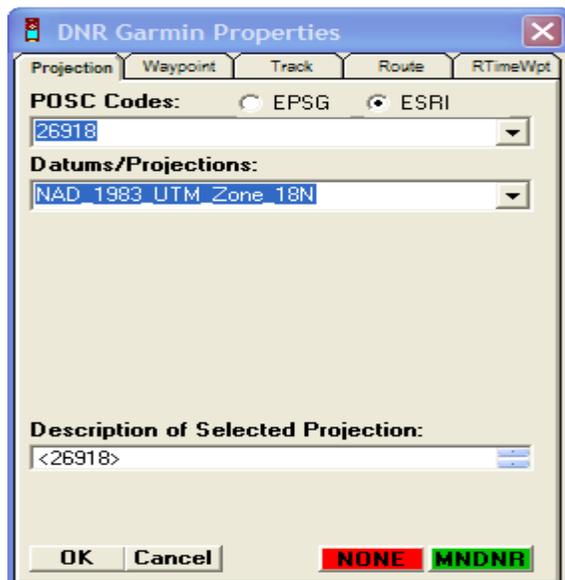
- Start DNR Garmin. Click OK to messages such as the “port 1 does not exist” or “device is not open”.
- Click the **File** tab and **Set Projection**



- Click the Projection tab
- Click the ESRI radio button
- From the **Datums / Projections** pull down, select **NAD_1983_UTM_Zone_18N** as shown below. Ignore POSC Codes.
- Note, Trails west of a line about 2 mi. W. of Thruway exit 47 are in **Zone_17N**

Select the above NAD_1983_UTM_Zone_18N unless your local sponsor or coordinator specifically requires you to use 17N. Doing this creates an **18N- extended zone** automatically for trail data that is in UTM zone 17N and maintains compatibility with OPRHP’s ArcView conventions. If trail data is located partly in Zone 18N and partly in 17N it is fine and there is no longer a need to separate them.

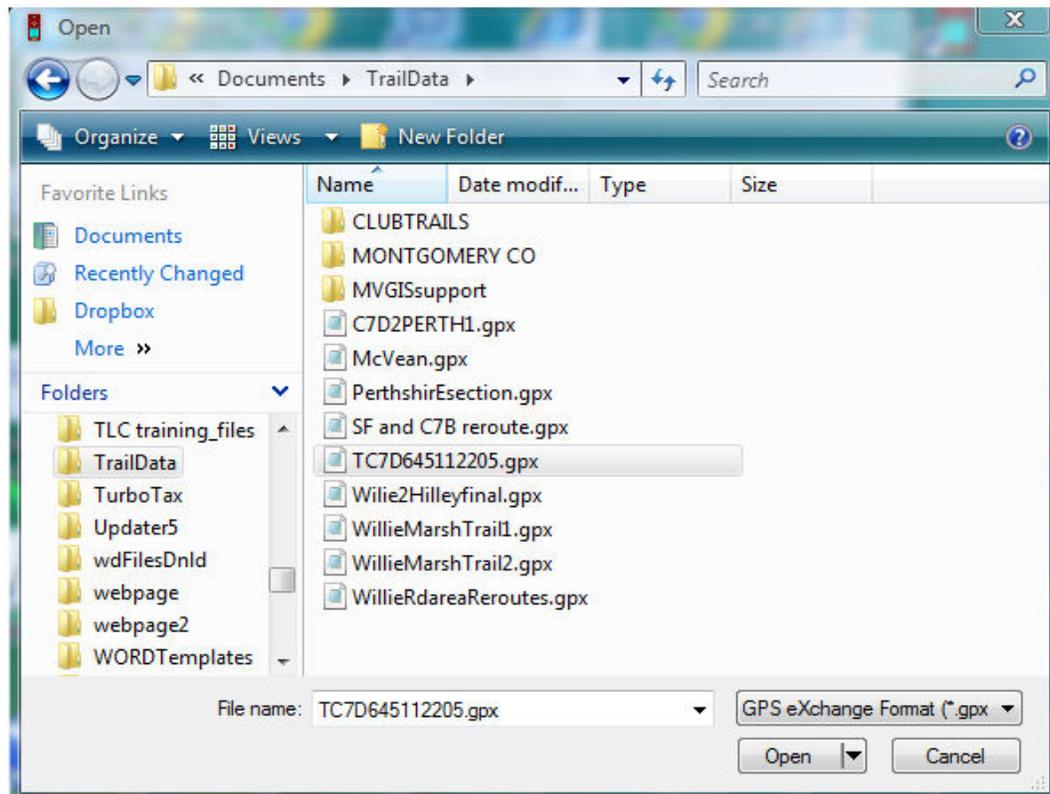
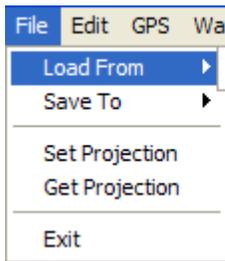
As a further note- Zone labels **18T** and **18N** are in effect the same , the N being more general use. DeLorme used T and DNRGarmin uses N



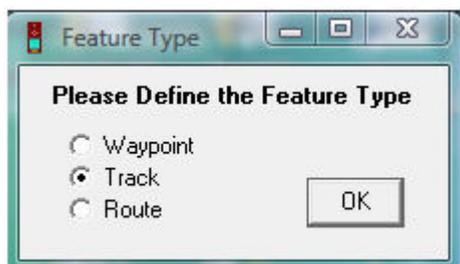
Click OK

Load in the Trail Data

- Click **File** and **Load from** and **File....**
- Select the file to process. That is the file that has prepped as described previously.



- Select the file type as **GPS eXchange Format *.gpx**
- **Open** the file
- **Select Track** and hit **OK**



- Click OK, You should see a “file was successfully loaded “ message.
- Drag the corner of the window to expand if needed.
- Click on Track Radio Button if not already selected.

MN DNR - Garmin

File Edit GPS Waypoint Track Route RealTime Help

Lat Lon
Alt EPE

<<< Data Table >>>

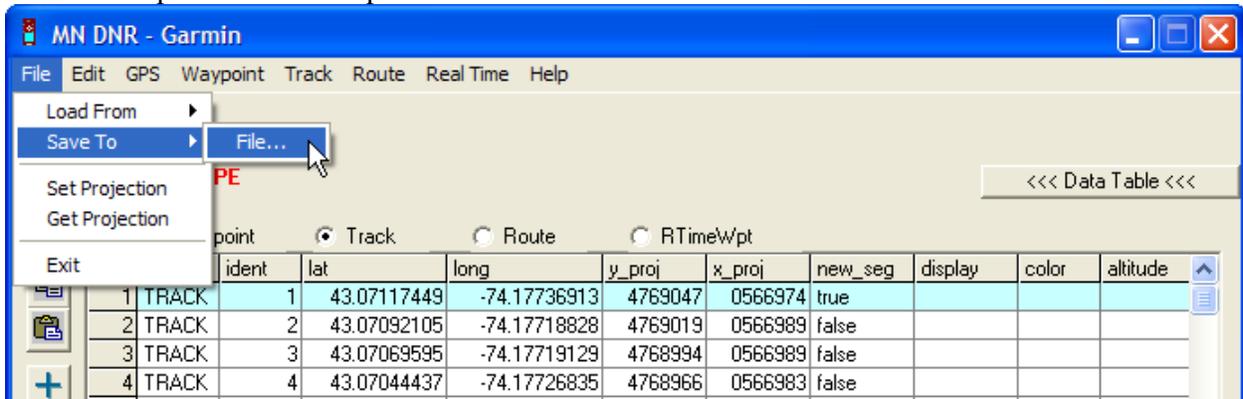
Waypoint
 Track
 Route
 RTimeWpt

	type	ident	lat	long	y_proj	x_proj	new_seg	display
1	TRACK	1	43.07117449	-74.17736913	4769047	0566974	true	
2	TRACK	2	43.07092105	-74.17718828	4769019	0566989	false	
3	TRACK	3	43.07069595	-74.17719129	4768994	0566989	false	
4	TRACK	4	43.07044437	-74.17726835	4768966	0566983	false	
5	TRACK	5	43.07021088	-74.17735745	4768940	0566976	false	
6	TRACK	6	43.06996000	-74.17753276	4768912	0566962	false	
7	TRACK	7	43.06966349	-74.17762271	4768879	0566955	false	
8	TRACK	8	43.06943900	-74.17771169	4768854	0566948	false	
9	TRACK	9	43.06918848	-74.17793612	4768826	0566930	false	
10	TRACK	10	43.06889284	-74.17814887	4768793	0566913	false	
11	TRACK	11	43.06866968	-74.17842206	4768768	0566891	false	
12	TRACK	12	43.06854548	-74.17868165	4768754	0566870	false	
13	TRACK	13	43.06841236	-74.17895363	4768739	0566848	false	
14	TRACK	14	43.06831578	-74.17929882	4768728	0566820	false	
15	TRACK	15	43.06802498	-74.18018702	4768695	0566748	false	
16	TRACK	16	43.06818512	-74.17991468	4768713	0566770	false	
17	TRACK	17	43.06802498	-74.18018702	4768695	0566748	false	
18	TRACK	18	43.06786502	-74.18048392	4768677	0566724	false	
19	TRACK	19	43.06764212	-74.18079394	4768652	0566699	false	
20	TRACK	20	43.06741895	-74.18106712	4768627	0566677	false	
21	TRACK	21	43.06718634	-74.18127901	4768601	0566660	false	
22	TRACK	22	43.06696247	-74.18145394	4768576	0566646	false	
23	TRACK	23	43.06667653	-74.18176479	4768544	0566621	false	
24	TRACK	24	43.06641726	-74.18202616	4768515	0566600	false	
25	TRACK	25	43.06622136	-74.18233581	4768493	0566575	false	
26	TRACK	26	43.06609723	-74.18260765	4768479	0566553	false	
27	TRACK	27	43.06596463	-74.18295330	4768464	0566525	false	

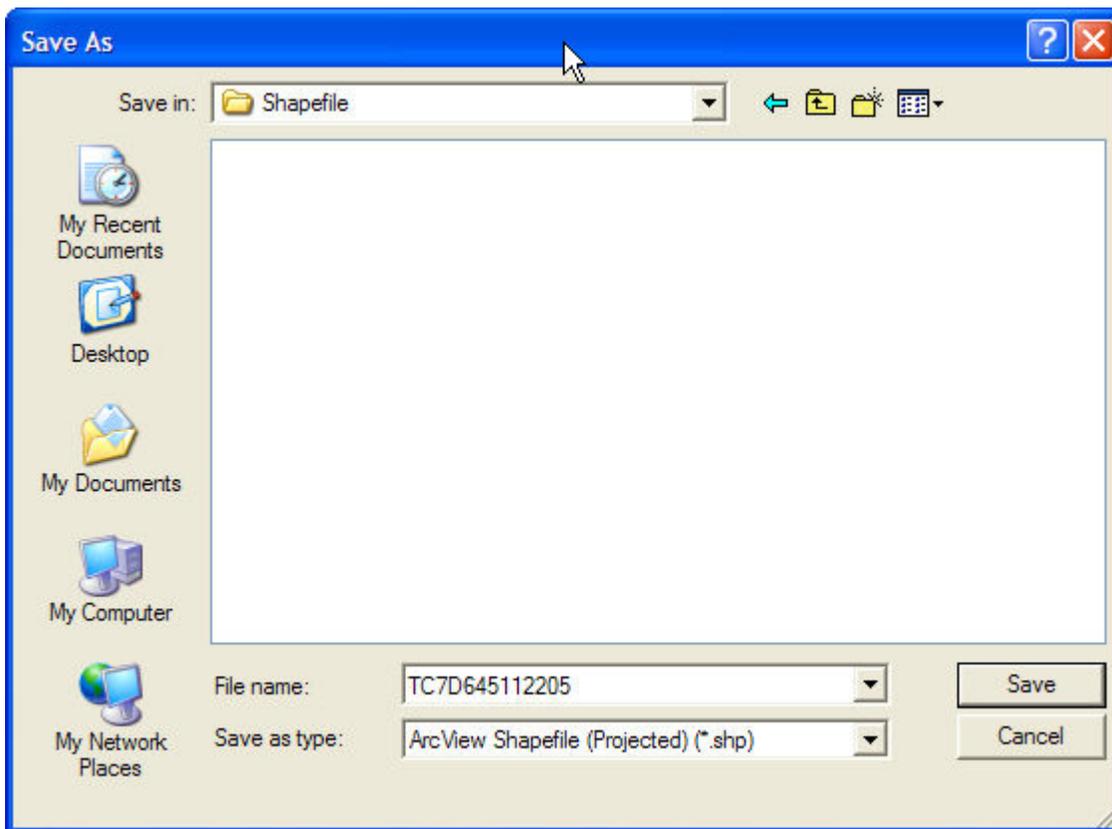
Not Connected 0 of 52 Selected

- Scroll to the bottom checking the data for abnormalities. There should be only one **true** in the new_seg column.

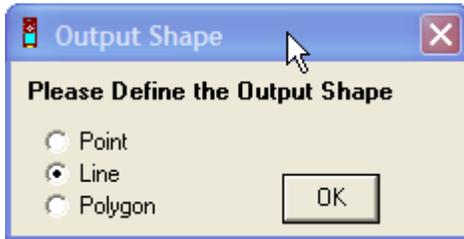
The next step creates the shapefile data



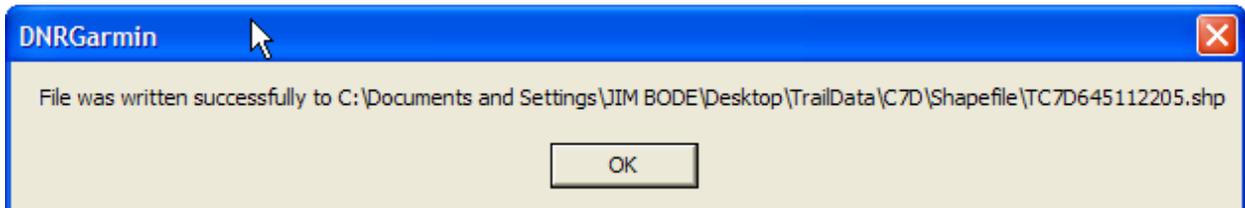
- Select File / Save To / File... as above.



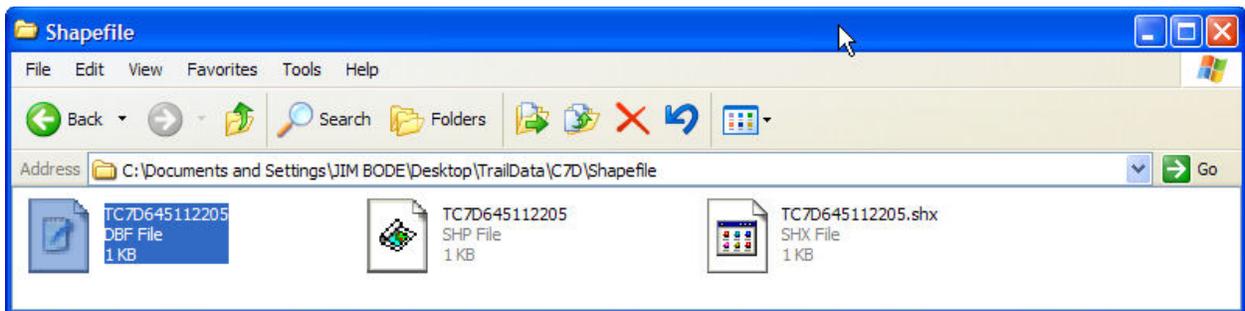
- Save in the folder for Shapefile data if you are following the suggestion of **appendix e./**
- Save as type: **ArcView Shapefile (Projected)(*.shp)**



- **Important!** Click the **Line** button if not selected and OK



If you look in the Shapefile folder you will see the three files of the shapefile dataset as below.



With the addition of the descriptive information (metadata) in the Excel cover file, and required Phase I forms, this completes the data to submit.

Data submission Guidelines

You may wish to supply a cover file with descriptive data about the trail GPS data. This additional information about data is often referred to as metadata. For this purpose, Excel forms have been prepared to provide a standard form.

- Download the Excel cover file forms from the NYSSA site.
<http://www.nysnowmobiler.com> Log in, Follow the links to Trail Programs /, GPS Program / and / Document Area.
The file is **TrailCover.xls**
- After opening the file in Excel, do a “Save As”, naming the file the same as the trail data file and append a M to the name.

Example for trail data file TC7D645112205 the cover or metadata file would be named TC7D645112205M. The same for the waypoint Excel cover file... just append an M to the waypoint data filename.

Completing these cover files should be self explanatory. Instructions are provided within the file.

Please note that there are additional forms in the Phase I documentation to complete and include with data submitted. These forms may require additional information and should be reviewed to be sure that information is available at time of submission to OPRHP.

Printing Maps

Printed maps may be required as a reference with submitted data.

The HELP / User Guide that DeLorme provides is a useful reference and worth a read through. The methods used will depend on the desired print. Street names appear at Data Zoom levels greater than or equal to 13-0. At this zoom it may be difficult to get all the trail area within the map. The **Print/Photo Zoom** may help as well as choosing 2x2 or 3x3 printing.