United States Department of Agriculture
Natural Resources Conservation Service

Kansas
Technical Services Staff

Toolkit

Task Guide #29

DNR Garmin 5.11

February 6, 2006

Abstract

The DNR Garmin 5.11 software will be accessed through the ArcGIS8.3 interface. Uploading and Downloading Global Positioning System (GPS) data within DNR Garmin and ArcGIS8.3 functions the same as in the past. Please refer to the GPS training manual for procedural information on uploading and downloading GPS data in DNR Garmin. Creating polygon or line shape files from waypoint data has changed and is documented in this task guide.

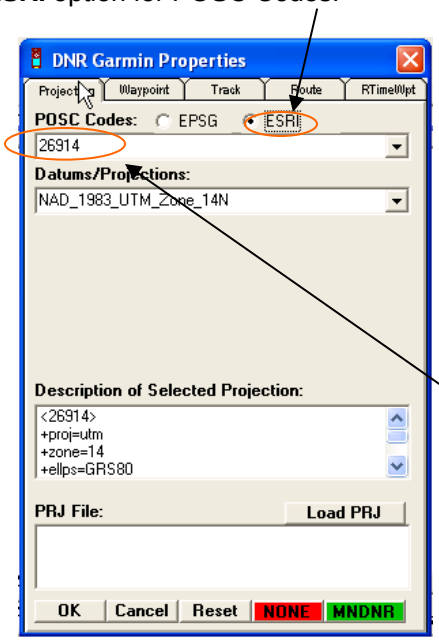
Assumptions

A customer has been created in Toolkit 2004 to store the downloaded GPS data. GPS unit is set correctly to work with the DNR Garmin software. For detailed instructions on GPS unit settings, please refer to the GPS training manual.

Instructions

Setting Projection

1. Connect your GPS unit to the computer and turn it on.
2. Click on the **DNR Garmin** button in ArcMap.
3. Click on **<File><Set Projection>** on the MN DNR Garmin/ArcMap interface.
4. Click on the **ESRI** option for POSC Codes.



5. Select 26914 if your county is in Universal Transverse Mercator (UTM) zone 14 or 26915 if your county is in UTM zone 15.
6. Click **OK**.

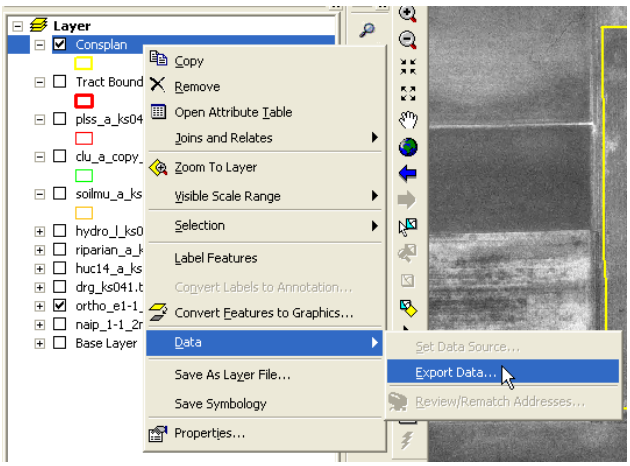
Downloading GPS data with DNR Garmin software in ArcGIS8.3

1. Connect your GPS unit to the computer and turn it on.
2. Click on the DNR Garmin button . **(Note: If you accidentally open up multiple copies of the DNR Garmin software, only the first copy opened will be connected to your GPS unit.)**
3. download Points or Tracks (same procedure as previous version of MN DNR Garmin software).
4. Save the downloaded GPS data in a shapefile (same procedure as previous version of MN DNR Garmin) under C:\Customer_Files_Toolkit\[Customer File]\Resource_Maps.

Uploading GPS data with DNR Garmin software in ArcGIS8.3

1. Connect your GPS unit to the computer and turn it on.
2. Click on the **DNR Garmin** button .
3. **If the data that is being uploaded is from the Planned Land Unit (PLU) layer or the Practices layer, follow steps 4 through 13 otherwise skip to step 14.**

Image 1



Reference image 1 for steps 4-6

4. Right click on the PLU in the table of contents
5. Click Data
6. Click Export Data…

Reference image 2 for steps 7-9
Reference image 3 for steps 10 - 12

7. Export - All features
8. **Select option to "Use the same Coordinate System as the data frame."**
9. Use the Browse button on the Export Data Dialog to navigate to C:\Customer_Files_Toolkit\<customer_folder>\Resource_Maps\
10. Change file name to GPS_export.shp.
11. Click **Save** in the Saving Data Dialog.
12. Click **OK** in the Export Data Dialog.
13. Click **Yes** when asked if you want to add data to the map as a layer. The GPS_export.shp file will be added to the Table of Contents.

Image 2

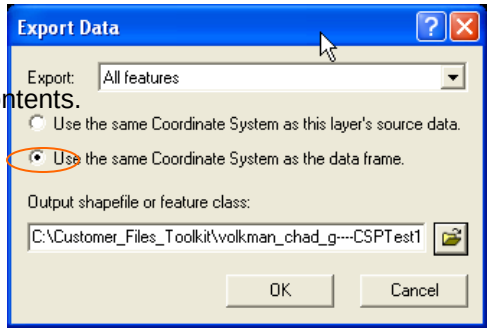
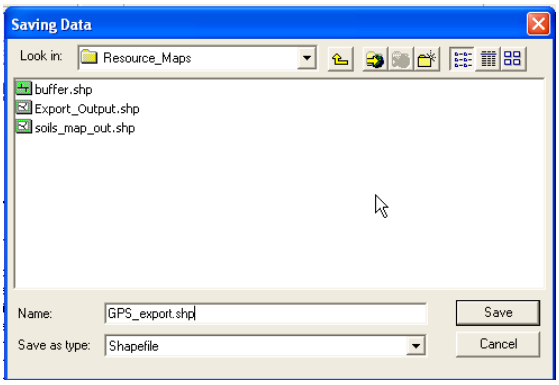
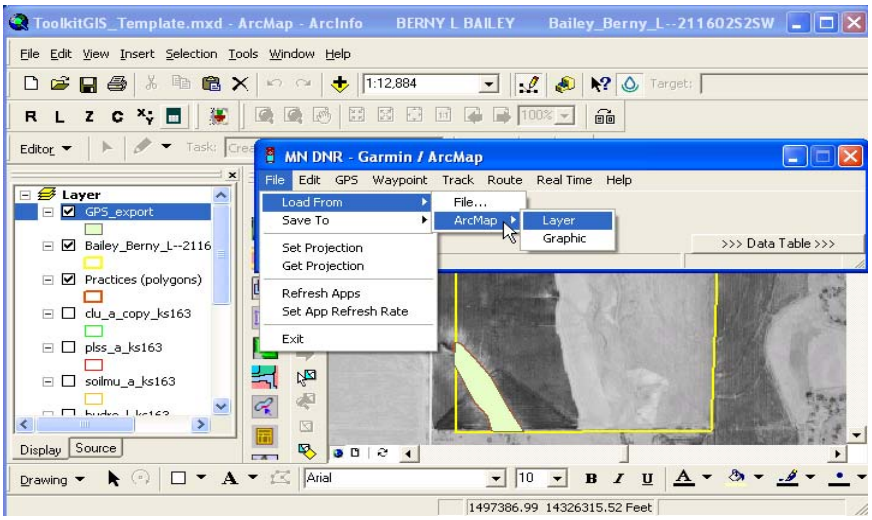


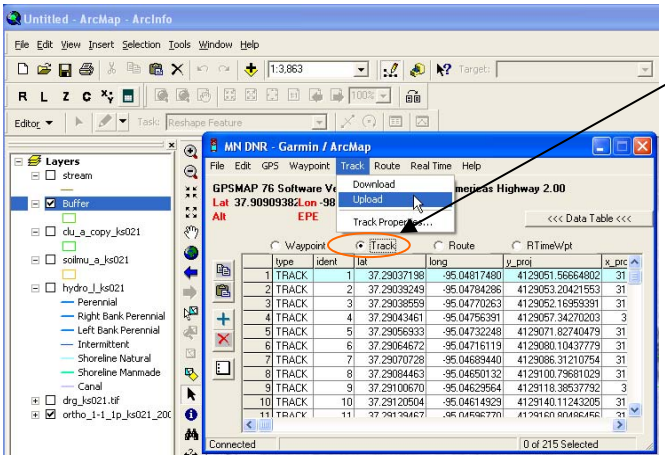
Image 3



14. Click on the layer in the table of contents to be uploaded.
15. Click on **<File><Load From><ArcMap><Layer>** on the MN DNR Garmin/ArcMap interface.

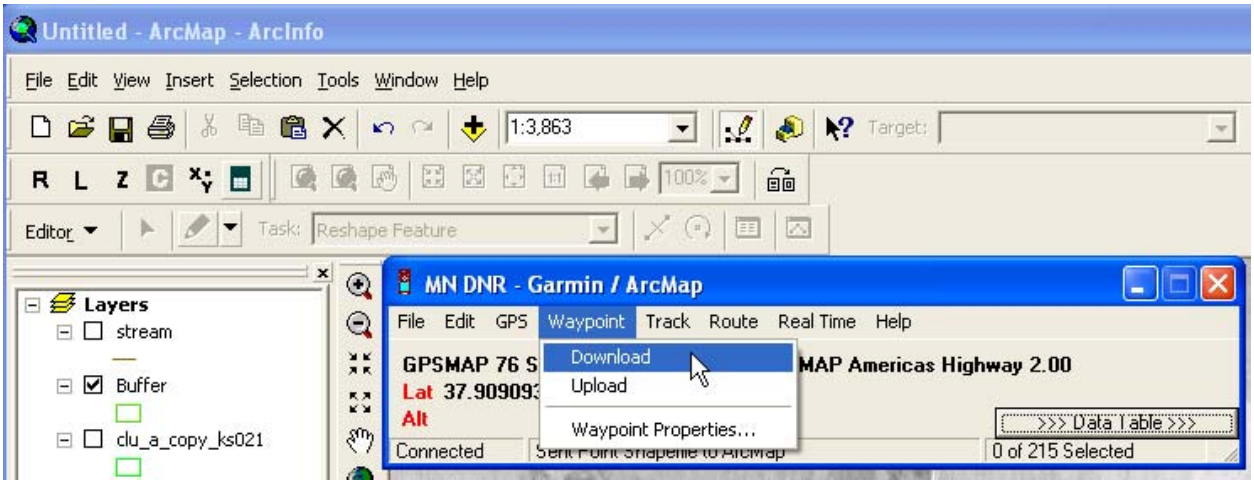


16. Click on either **Waypoint** or **Track**, depending on which type of data you want to upload into the GPS unit.
17. From the Menu bar in the MN DNR Garmin/ArcMap interface, click on **<Track><Upload>** or **<Waypoint><Upload>** for Waypoints.

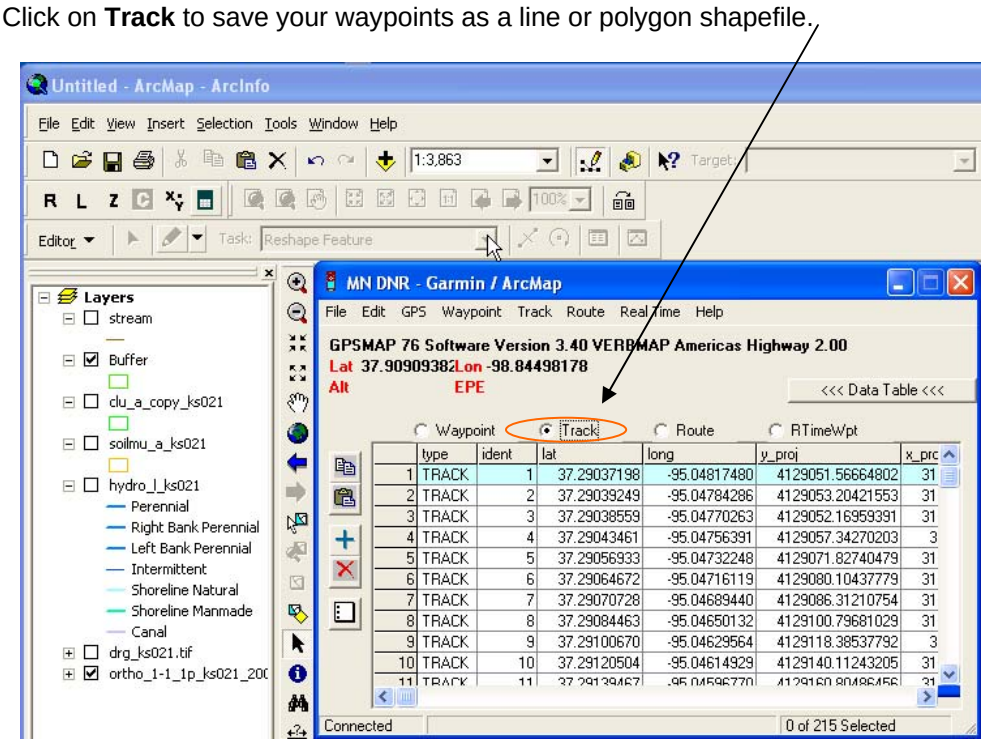


Creating Polygons or Lines from downloaded Waypoints

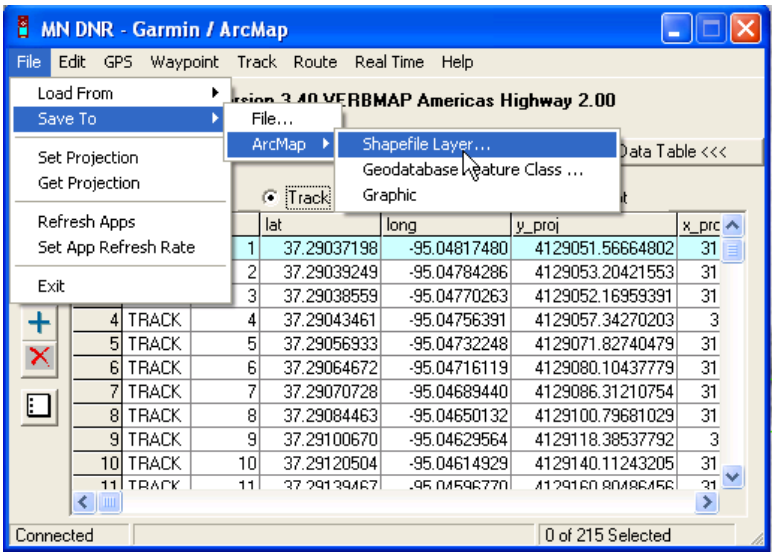
1. From the Menu bar in the MN DNR Garmin/ArcMap interface, click on **<Waypoint><Download>**.



2. Click on **Track** to save your waypoints as a line or polygon shapefile.

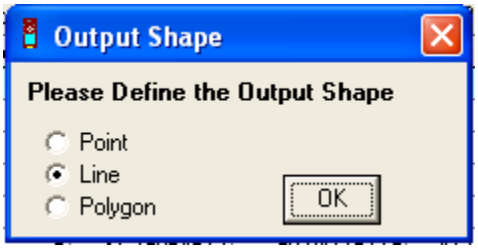
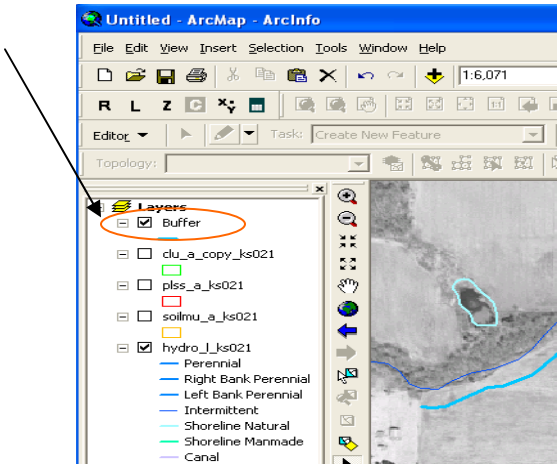


3. Click on <**File><Save To><ArcMap><Shapefile Layer>**.



4. Save the downloaded GPS data in a shapefile under C:\Customer_Files_Toolkit\[Customer File]\Resource_Maps

5. Click the type of shape file that will be created.



6. The new shapefile will be added to the table of contents.