

## Downloading GPS Data into ArcGIS 9.x Using DNR Garmin

Downloading Global Positioning System (GPS) data to ArcGIS allows users to collect and work with their own real world data to address a wide variety of curriculum outcomes related to the use of geomatics technologies. For example, waypoints and tracks recorded and saved on a GPS unit can be downloaded and represented as shapefiles on an existing map in ArcGIS. This provides opportunity for students to collect their own locational data for community, land use and urban studies.

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**DNR Garmin is a free download extension for ArcGIS from the Minnesota Department of Natural Resources website.**

1. The DNR Garmin extension must be downloaded for this function. Visit:  
<http://www.dnr.state.mn.us/mis/gis/tools/arcview/extensions/DNRGarmin/DNRGarmin.html>

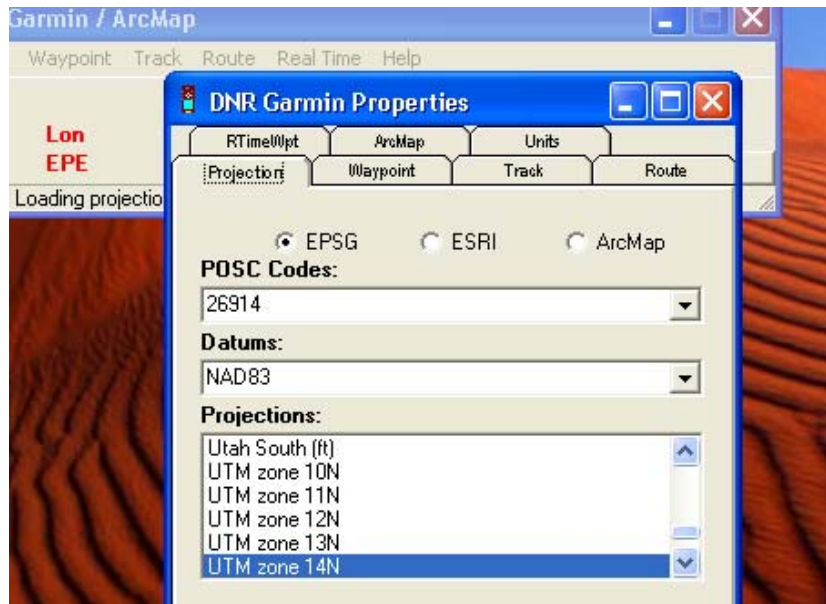
- Double click on the DNRGarmin 5.4.1 link.

### Download Program

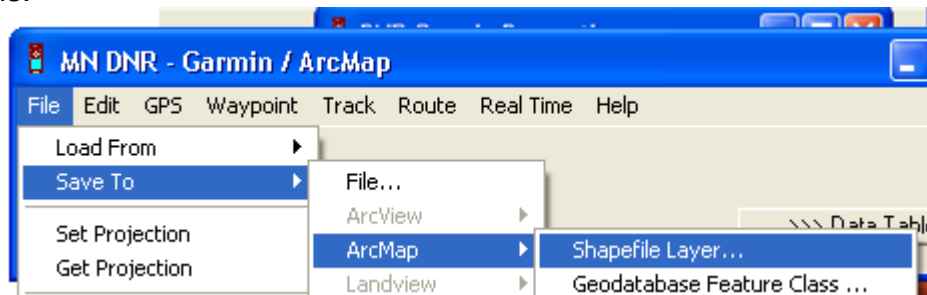
- **DNRGarmin 5.4.1** (11.5 MB)
  - Last modified 9/22/08
  - Known compatibility with NT/2000/XP
  - Compatible with ArcGIS 9.x (not 8.x), Arcview 3.x, ArcExplorer 2.0 (non-Java), Landview 4.3, Google Earth. **Note: Compatible with Colorado, Oregon, and Nuvi units.**

- Save the download to the **EXT32 folder** in ArcView (this is the folder where ArcView looks for extensions). To do this, go to **My Computer** and navigate to the location of your ArcView software program and go **ESRI → AV\_GIS30 → Arcview → EXT32**.
  - Follow any other download instructions carefully.
2. Collect the desired data with a GPS unit.
  3. Connect the GPS to the computer to download the data.
  4. Open your ArcMap project file where you want to download the GPS data to, then open **DNR Garmin** when prompted.

5. Go **Waypoint** → **Waypoint Properties** → **Projection** and make sure that the proper UTM zone is selected. Most of Manitoba is in Zone 14N, the eastern portion is in Zone 15N – if uncertain check a local topographic map or on line at [http://maps.nrcan.gc.ca/topo101/utm2\\_e.php](http://maps.nrcan.gc.ca/topo101/utm2_e.php).



6. Go **Waypoint** → **Download** to download all data from your GPS.
7. If you have waypoints that are not needed, highlight these and delete them (red X, left hand side).
8. With the required waypoints remaining, go **File** → **Save to ArcMap** → **New Layer** and save them in the desired location with an appropriate name. The new layer should now appear in the Table of Contents in your Data Frame (map). You can change the size, colour and shape of the symbol by double clicking on its name and using the **Symbol Selector** options.



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