Mapping with GPS

Use of waypoints (Activity 9) and track logging (Activity 12) allows creating lists of geographic coordinates that correspond to a given geographic object (tree, well, path, field, city, house, etc.). Successful transferring of waypoints and/or tracks to a GIS environment allows overlaying these data with other layers of data for the given area.

Helper's Guide

How to Prepare

Go through *Just do it section* before class. Familiarize yourself downloading GPS data to ArcGIS and Google Earth software. Each GPS receiver should be properly setup before class (remove all previously stored waypoints and tracks). Set up GARMIN communication protocol for downloading data. For this go to Main Menu > Set Up > Interface > Garmin in the serial data format (default baud rate is 9600).

Group the students into teams and allocate an area for each group. The area should be easily accessible and safe. Depending on the settings of ArcGIS/DNRGarmin software the may be an issue with projections. It is recommended to run ArcMap when downloading the data or even make DNRGarmin run from ArcMap. To do so, go to Tools > Customize, click on Add From File button and select the file at: *c:\program files\dnrgarmin\dnrgarmin_arcgis.dll*

Need to Emphasize

- With GPS technology, mapping different geographic objects is mach easy than using conventional surveying tools.
- Mapping your daily activities may be a lot of fun.

Related Links

- http://www8.garmin.com/manuals/Rino130_OwnersManual.pdf
- http://www.dnr.state.mn.us/mis/gis/tools/arcview/extensions/DNRGarmin/DNRGarmin.html
- http://library.duke.edu/research/subject/guides/gis/arcgis.html

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