

# Map Mashup Mania

## Dynamic Landscapes Conference

### 2-Hour Hands-On Workshop

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This outline and powerpoints used will be posted here:  
[http://www.vcgi.org/commres/?page=../training/dynland\\_2010.cfm](http://www.vcgi.org/commres/?page=../training/dynland_2010.cfm)



## Google Maps Mashups

- Using My Maps – [maps.google.com](http://maps.google.com)
  - Set up Account with google, login
  - Click on **My Maps**
- Search for, Burlington, VT
  - Notice **Explore this Area** (in frame on left) and links to existing user created maps
- Zoom or search to area of interest (Champlain College, Burlington)
  - Change map (switch between **Map, Satellite, and Terrain** in upper right of map)
- Notice that you may get weird error if you explore and then try to create a new map.
  - Perhaps logout and log back in
- Click on **My Maps** again
- Click on **Create New Map**
  - Give it a **Title** and **Description**
- Add markers, lines, polygons (upper left of map)
  - Edit marker symbol by clicking on it and choosing something else (notice **Add Icon** option)
- Edit balloon – switch to **Rich Text**
- Open another browser window in order to get link to photos
  - Need to be stored in an online photo manager (Picassa, Flickr, etc.) so you can embed URL
  - Navigate to where your photos are stored, then choose a photo and click on **link to this photo**
  - Choose **embed image URL** then the **photo only (no link)** option, copy that URL
- Click on the icon to add photos - *Temporarily allow scripts to run*, then paste photo URL in box
- Add text, format text
- Add links – highlight text, then type or copy URL into box
- Save** – notice **Privacy and Sharing Settings**: public or not.
- Collaborate** – just above map title
- Link** to your map – Far right corner just above map
- Embed** – link to, choose embed, choose preview and customize
  - Check out VCGI directions: [http://www.vcgi.org/about\\_vcgi/directions/](http://www.vcgi.org/about_vcgi/directions/)

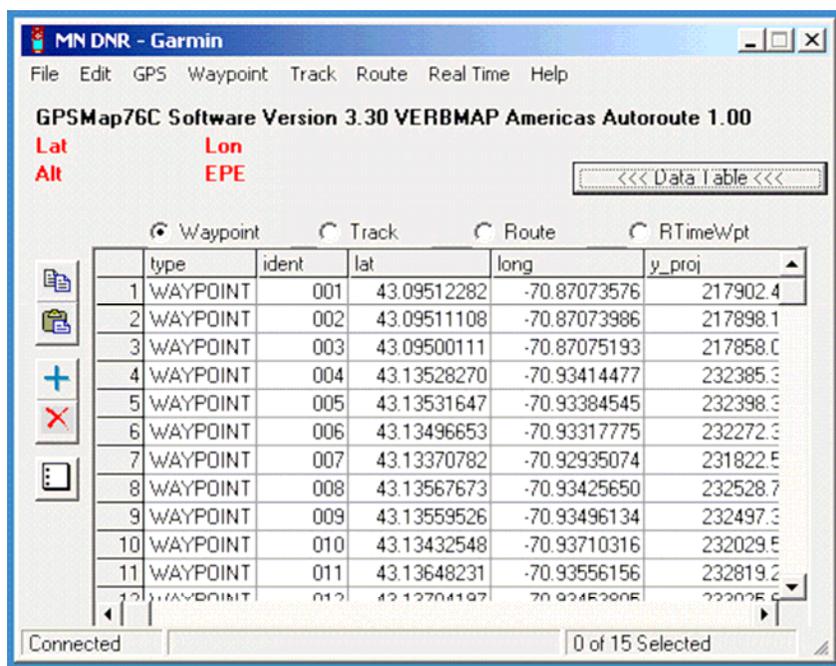
## Importing Your Geographic Data

- Options:**
  - From GPS - need to download and transform data into KML format
  - From Spreadsheet – need to include Latitude/Longitude coordinates
  - From GIS data – need to transform data into KML

## 2. From GPS

2.1. Download data from GPS Receiver using Free software called DNR Garmin:

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



The screenshot shows the 'MN DNR - Garmin' software window. The title bar reads 'MN DNR - Garmin'. The menu bar includes 'File', 'Edit', 'GPS', 'Waypoint', 'Track', 'Route', 'Real Time', and 'Help'. Below the menu bar, the text reads 'GPSMap76C Software Version 3.30 VERBMAP Americas Autoroute 1.00'. There are labels for 'Lat', 'Lon', 'Alt', and 'EPE'. A button labeled '<<< Data Table >>>' is visible. Below this, there are radio buttons for 'Waypoint', 'Track', 'Route', and 'RTIMEWpt'. The main area contains a table with the following data:

	type	ident	lat	long	y_proj
1	WAYPOINT	001	43.09512282	-70.87073576	217902.4
2	WAYPOINT	002	43.09511108	-70.87073986	217898.1
3	WAYPOINT	003	43.09500111	-70.87075193	217858.0
4	WAYPOINT	004	43.13528270	-70.93414477	232385.3
5	WAYPOINT	005	43.13531647	-70.93384545	232398.3
6	WAYPOINT	006	43.13496653	-70.93317775	232272.3
7	WAYPOINT	007	43.13370782	-70.92935074	231822.5
8	WAYPOINT	008	43.13567673	-70.93425650	232528.7
9	WAYPOINT	009	43.13559526	-70.93496134	232497.3
10	WAYPOINT	010	43.13432548	-70.93710316	232029.5
11	WAYPOINT	011	43.13648231	-70.93556156	232819.2
12	WAYPOINT	012	43.13704197	-70.93452095	232795.6

At the bottom of the window, it says 'Connected' and '0 of 15 Selected'.

2.2. You can save the data to your computer as KML.

## 3. From Spreadsheet

3.1. Using DNR Garmin

3.1.1. Rather than downloading data from a GPS, simply open a file that is either an excel spreadsheet or a comma-delimited text file, then save it as KML. This is very easy, but also limited in terms of the final product. If you check out the Excel to KML tool below you might be able to edit your spreadsheet first to fit the KML format and thereby customize your result more.

3.2. Using Excel to KML online tool: <http://www.earthpoint.us/ExcelToKml.aspx#PositionColumn>

3.2.1. This is fairly easy to use and explains the components of a KML file in detail so you can take advantage of them if you want to. Or you can keep it simple and simply turn your lat/lon points into markers with labels.

3.3. Using Google Spreadsheets:

3.3.1. [http://earth.google.com/outreach/tutorial\\_spreadsheet.html](http://earth.google.com/outreach/tutorial_spreadsheet.html)

3.3.2. Strikes me as pretty involved...you should only tackle this if you are motivated and savvy

4. From GIS Data (available from town, Regional Planning Commission, VCGI...)

4.1. Using GIS software – ArcGIS can do this

4.2. Using DNR Garmin – open file, save as KML, make sure coordinate system and projection are set properly before pulling in GIS data.

4.3. Using Shp2KML – free software - <http://www.zonums.com/shp2kml.html>

**Questions?** Please contact Leslie Pelch at 802-882-3002 or [lesliep@vcgi.org](mailto:lesliep@vcgi.org)