Work Planning and Custom Map Management in Garmin MapSource

Ver 2.0

1. Installation

See Appendix 1

2. Using Custom Maps in MapSource

Open MapSource.

A dropdown list menu in top left screen controls the map data used in MapSource. Click the dropdown arrow and select Xaxlip from the list of choices.



And, by the way, you need to have the User Data Tabs displayed on the left of your screen. Nothing there? View / Show User Data Tabs.



What you see next depends on where MapSource was left when it last closed and what scale it was at. The example below shows what you see when you are zoomed out in the general area. You could be zoomed in tight in a different location and see nothing. Use the screen controls to zoom and move until you can see the new map previews.

© Untitled - MapSource							
He Ealt Find Transfer View Tools Utilides Help Xawlp ▼ Q, Q, 15km ▼ Highest ▼ 1, 1, 1, 17, 10, 87, P 丶, D, cool 19, 20, 25 < √							
Maps Waypoints Routes Tracks					<u> </u>		
Name / Area							
Indude route calculation data. (Recommended If your GPS supports Map Set Name:	. ortotus				15 km		

Use the magnifying glass/box tool to zoom in on a work area:

🛿 Untitled - MapSource	<u>- 🗆 ×</u>					
File Edit Find Transfer View Tools Utilities Help						
Maps Waypoints Routes Tracks						
Nome Area						
/ / /						

More detail appears:



Zoom in more / pan as required to your work area of interest:



A recognizable map!

3. Marking Potential Sample Points / Sample Lines

Using a combination of Google Earth, ortho photos, and air photos, figure out where you want to put sample points / reconnaissance walks, whatever.

To make points to visit, create waypoints as per below.

To mark areas or features to check, or to create a "traverse line" to follow in the field, you would create routes instead of waypoints.

Go to MapSource and grab the Waypoint Tool or the Route Tool from the top menu bar, depending on what you are trying to create. This example uses waypoints.



Click the approximate position you want to put a sample point. It puts a waypoint on the map and opens a dialogue box:

Waypoint Pr	operties	
Name:	310	ОК
Symbol:		Cancel
Position:	11 U 466765 5444117	
Altitude:	m 🔽 Unknown	Show On Map Fewer Details
Depth:	m 🔽 Unknown	Categories:
Proximity:	km 🔽 Unknown	Category 1 Category 2
Temperature:	°C 🔽 Unknown	Category 3
Comment:	310	Category 5 Category 6 Category 7 Category 8 Category 9 Category 9
Display:	Symbol & Name 💌	Category 10
Date Modified:	5/4/2011 10:59:57 PM	Category 12
Links File/URL:		Browse

My version always tries to Name the waypoint after the polygon and also puts the polygon number in Comment. I do not want either. I like waypoint names like P1, and I don't want a Comment. So I edit the input to:

Waypoint Pr	operties				▲ ¥ X
Name:	P1				ок
Symbol:					Cancel
Position:	11 U 466765	54441	17	_	
Altitude:	n	n 🔽	Unknown		Show On Map Fewer Details
Depth:	n	n 🔽	Unknown	Categories	
Proximity:	k	m 🔽	Unknown	Categ	jory 1 🔺
Temperature:	•	⊂ 🔽	Unknown	Categ	jory 3 jory 4
Comment:	1		A 	Categ	jory 5 jory 6 jory 7 jory 8 jory 9
Display:	Symbol & Nan	ne	•	Categ	jory 10 jory 11
Date Modified:	5/4/2011 10:5	59:57 P	M	Categ	jory 12 🔻
Links File/URL:				• 🕐	Browse

Once I click OK I see:



Repeat to add other plots you wan to do:



Routes are very similar. Start with a map of the area you want to work in on the screen, and grab the Route Tool.



The Route Tool will snap to whatever is handy, which can be helpful. Here, it is snapping to a property line.



Dray your line location. This is a single straight line for a mapping traverse.



At end of line, click one to end line then alternate click to bring up the context menu. <Cancel> to turn off the Route Tool.



Save!

Save As					00	N ? X
Save in:	🔁 Ranch		•	G 😰 🖻	ຯ▼	
My Recent Documents						
Desktop						
My Documents						
My Computer						
My Network Places						
	File name:	CL_01_Route.gdb		•	· _	Save
	Save as type:	Garmin GPS Database Version 3 (*.gdb)			•	Cancel

And then Send to GPS.

Se	end To Device 📃 🛋 🕷 🗙						
Γ	Device Settings						
	If you don't see your device listed below, connect it to the computer and turn it on, then click Find Device.						
	Find Device						
	Device: GPSMap76C (Unit ID 3031860						
Γ	What To Send						
	Maps Routes						
	🗖 Waypoints 📄 Tracks						
	Send Cancel						

4. Print

Unsurprisingly, <File> <Print Preview> and <File> <Print> are effective for this task.



Whether or not you create waypoints, the Print function is useful for making a map to take to work for the day. It is much simpler than using ArcMap, and the product is quite useful.

5. Send Waypoints to GPS

The usual click - shift - click to select all the waypoints you just created.



Then, <Transfer> <Send to Device> to send to GPS:



6. Saving

If you have created a specific view that you value, you can save it for later re-use.





7. Send Base Map to GPS

The Xáxli'p CFA and Xáxli'p Survival Territory are covered by 4 map sheets in MapSource. Each sheet has all the detail that you can see on the screen.



For field work, the plan is to put the appropriate base map sheet in the GPS prior to work. The sheets overlap so that there will hopefully not be "we walked off the map" issues on most days.

To send a map sheet to the GPS,

- 1. Hook up the GPS unit to the computer and turn it on.
- 2. Start MapSource and select the Xaxlip map set if it is not already selected.
- 3. Zoom out so you have an overall view.



Grab the weird looking Map Selector Tool from the top tool bar:



The map sheets get outlined with a yellow line when you hover over them with the Map Selector tool.



Choose your sheet for the day and click on it. The sheet will change color and appear in the Maps tab on the left of the screen.

Untitled - MapSource		
File Edit Find Transfer View Tools Utili	es Help	
Xaxlip • Q Q 5 km		
Mape(1) Waypoints Routes Tracks	Promision and the second	

You click the listing on the left hand tab window to Select it.



Now, Transfer / Send to Device



The usual transfer screen opens up, and you agree to Send the selected map to the GPS.



To get rid of the irritating red highlight, click on the map in the left tab again to select it:



and press <Delete>.



The GPS unit now contains the same map you can see on the screen and can print out. This can be very useful.

8. Google Earth

Want to see a specific area you are looking at in MapSource in GE?

One way is to sketch a quick "extent" using the Route tool, and then click View / View in Google Earth :



Assuming GE is installed, it will open and zoom to your sketched feature:



This copy of GE has a lot of Xáxli'p features enabled, including the ecotypes shown in the Garmin map. You can reposition your view to see things better, of course:



Another way is to use an existing Garmin data file, like IR-8_Feb_2012_Plot.gdb. Load it into MapSource, and then click View / View in Google Earth:



The result..... is unusable:



Turn off the waypoints!



OK, that is better. Again, reposition the camera to see what you are interested in:



Appendix 1 - Installation

File Locations

These custom MapSource files must be stored in 2 directories called:

C:\gps_data C:\gps_data\img

The directory names / file locations are not open for discussion.

If you put the files in the wrong place, you will disable Garmin MapSource and will not even be able to reinstall it without editing the Windows registry.

Put them in the right place and it all works fine.

Creating directories (aka folders) and putting stuff in them is not difficult. But if you are completely new to the concept of creating directories on your hard drive and you normally let Windows store stuff wherever it wants, you might wish to seek technical assistance to ensure that this works properly.

The technical reason for this:

The Windows registry needs to be revised to tell it these Garmin MapSource friendly maps exist, and that they are located in a certain place. The file Xax_CFA.REG accomplishes this. You double click the file, it changes the registry.

Xax_CFA.REG says:

REGEDIT4

[HKEY_LOCAL_MACHINE\SOFTWARE\Garmin\MapSource\Products\Xax_CFA] "LOC"="C:\\gps_data\\imgs\\" "BMAP"="C:\\gps_data\\Xax_CFA.img" "TDB"="C:\\gps_data\\Xax_CFA.tdb"

If you are thinking "Hey, I could edit that and put the files somewhere else!" you are absolutely correct. You could. But one typo and Garmin MapSource stops working. Not "Can't find the new maps". <u>Stops working</u>. It took me 2.5 hours to find and kill enough Garmin MapSource registry entries to re-install map source the last time someone did not follow these directions. I recommend you go with C:\gps_data.

Six files:

XAX_CFA_MDR.IMG Xax_CFA.MDX Xax_CFA.TDB Xax_CFA.reg Xax_cfa.img Xax_cfa.img.idx

go in C:\gps_data, as shown below:

🕶 🖸 📾 E 📾 F 📾 E 🧝 M 🕹 N 🎯 R 🍕 I 🌐 2							
C:\gps_data							
🖃 🥯 Tom_C_XP (C:)	Name 🕈	Size	Modified	Туре			
🗄 🛅 a	i 🔁		02/03/2012 10:35:28 AM	File Folder			
🕀 🛅 ArcGIS	Cimgs		02/03/2012 10:35:38 AM	File Folder			
🛅 BFL	🔍 Xax_cfa.img	777 kB	01/03/2012 12:39:47 PM	GPS Image			
Config.Msi	🗖 🔤 Xax_cfa.img.idx	1 kB	01/03/2012 12:39:46 PM	IDX File			
	🗖 Xax_CFA.MDX	1 kB	01/03/2012 12:39:30 PM	MDX File			
⊕	▲Xax_CFA.reg	1 kB	01/03/2012 12:58:36 PM	Registration Entries			
THE EXIFTOOL	🚱 Xax_CFA.TDB	1 kB	01/03/2012 12:39:30 PM	Garmin map index			
⊡ ⊕ Garmin	XAX_CFA_MDR.IMG	5 kB	01/03/2012 12:39:30 PM	GPS Image			
🖻 🗁 qps_data							
imgs							

```
Eight files:
```

```
11111111.img
11111111.img.idx
1111112.img
1111112.img.idx
11111113.img
11111113.img.idx
11111114.img
1111114.img
```

go in the imgs subdirectory beneath C:\gps_data, as shown below:

₩C) 🚧 C 🚧 E 🚧 E 🎉 M 🖉 N 🎉 R 😼 1 🌚 2							
C:\gps_data\imgs							
🖃 🥯 Tom_C_XP (C:)	Name 🕈	Size	Modified	Туре			
🗄 🛅 a	🗁		02/03/2012 10:35:38 AM	File Folder			
🗄 🛅 ArcGIS	🍳 11111111.img	335 kB	01/03/2012 4:32:28 PM	GPS Image			
BFL	🔤 111111111.img.idx	1 kB	01/03/2012 4:32:28 PM	IDX File			
	🍳 11111112.img	369 kB	01/03/2012 12:39:15 PM	GPS Image			
	🔟 11111112.img.idx	1 kB	01/03/2012 12:39:15 PM	IDX File			
🕂 🦳 Documents and Settings	🍳 11111113.img	386 kB	01/03/2012 12:39:22 PM	GPS Image			
EXIEtool	🔟 11111113.img.idx	1 kB	01/03/2012 12:39:22 PM	IDX File			
E Garmin	🍳 11111114.img	278 kB	01/03/2012 12:39:27 PM	GPS Image			
e-Carata	🔤 11111114.img.idx	1 kB	01/03/2012 12:39:27 PM	IDX File			

After you put all the files where they are to go, double click the C:\gps_data\Xax_CFA.reg file.

The file will modify the Registry so Windows and Garmin MapSource know that this stuff exists.