

Map Source Tutorial Cortes Aug 2012

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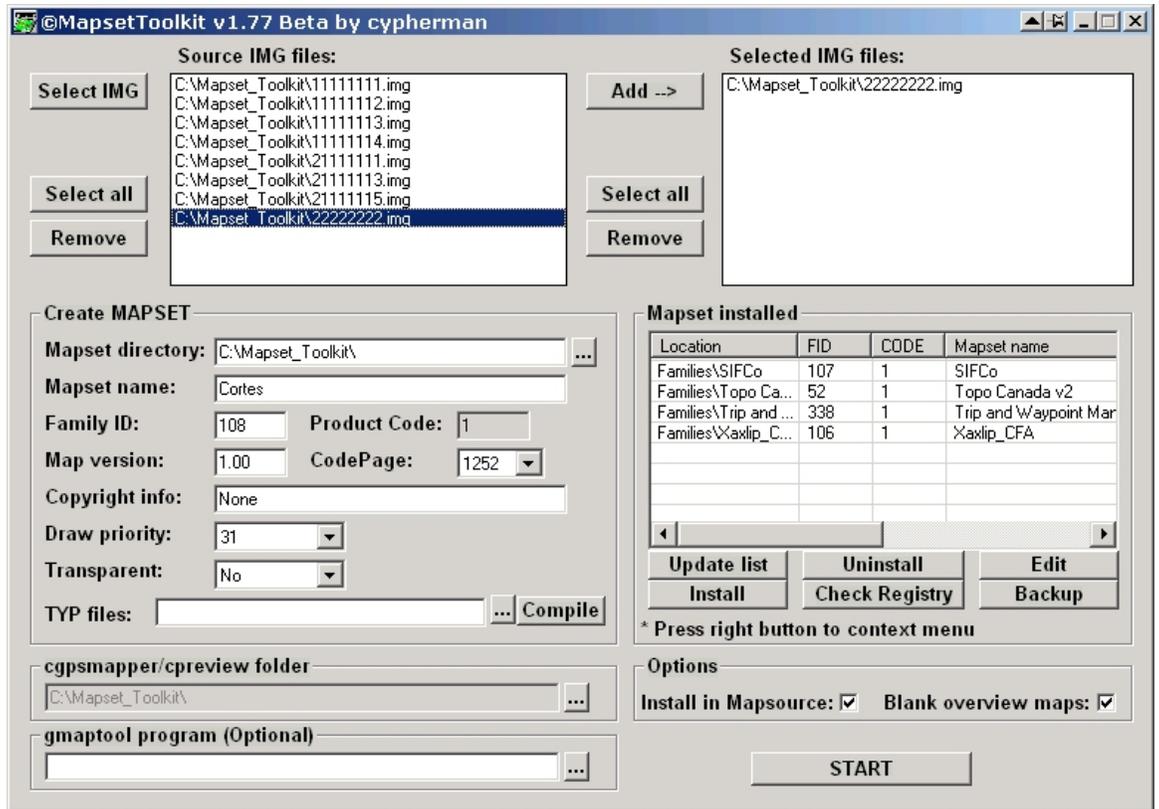
1. Putting Custom Basemap In MapSource

Latest versions of MapSource and newer Windows OS make this harder and harder.

A tool called MapSet Toolkit accomplishes the task in most situations. I doubt if it will work on Windows 7 due to the eccentric security features in that OS.

You do not "install" MapSet Toolkit. It is a simple exe file that you run from the Windows RUN command or by creating a shortcut that points to it.

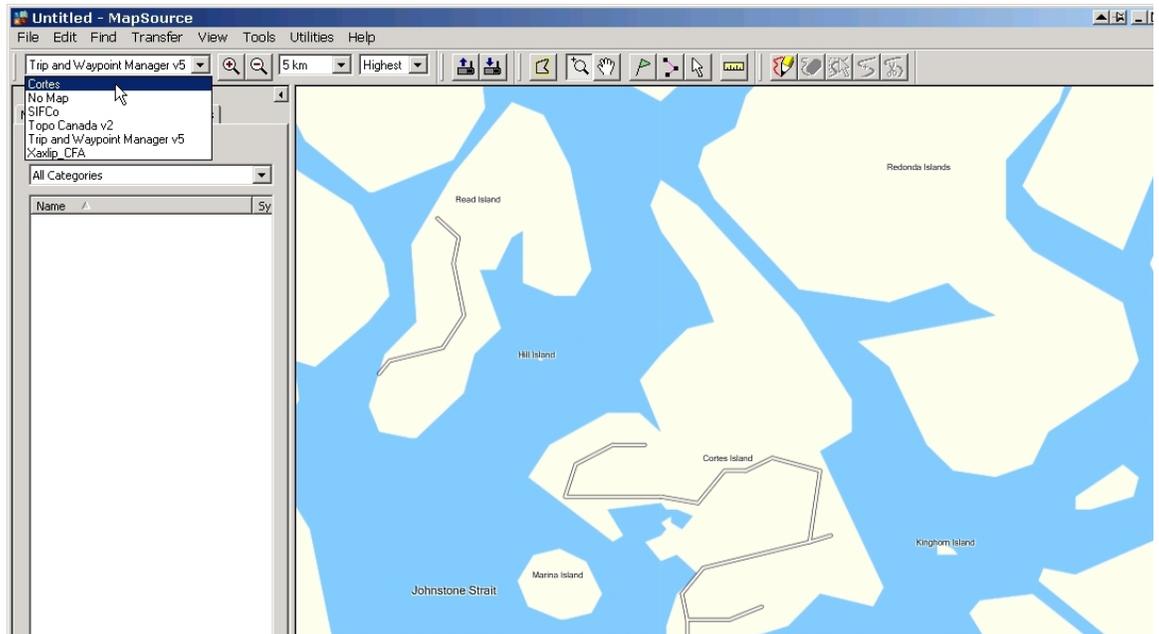
1. Install Garmin MapSource from CD that came with GPS unit and run <Help><Check for Updates>
2. Close MapSource.
3. Download the contents of http://www.woodfor.com/Cortes_GPS to a folder on your hard drive. Placing the files in a folder called C:\Mapset_Toolkit\ will make your life easier.
4. Run C:\Mapset_Toolkit\MapSetToolKit.exe Configure the inputs as per below:



You will not have a stack of options and installed maps as shown, but you will have a 22222222.img. Use it.

Family ID has to be a unique number. If 108 is used by an installed mapset on your computer, per the list of installed mapsets, use a different number.

5. Click Start. It should run.
6. Open MapSource, and hopefully there will be a Cortes option in the Maps listing.



2. Putting Custom Basemap in GPS

See steps 7 to 12 in `Move_Maps_from_Trip_n_Waypoint_Mgr_to_GPS_Unit`.

It *appears* that the 62sc has a max of 2 custom IMG maps at a time. The unit has huge storage space - it is not an out of space issue - but it would not accept a 3rd map. This is not a problem for Cortes, which is easily covered by one map, but if the "will not accept new map" issue comes up later, you will have to delete one of the Supplementary maps in the Garmin subdirectory on the unit to make space.

3. Other Notes:

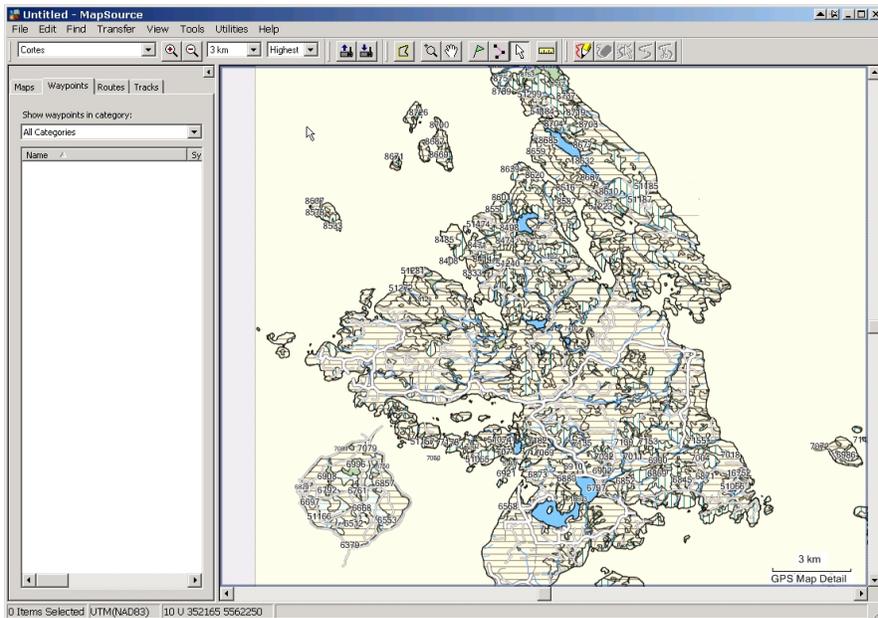
I turned off the main DEM basemap in the 62sc GPS unit because it was show in "through" the Cortes map and making it hard to read.

You can turn it back on when needed using the main Menu / Setup / Maps / Enable Maps function.

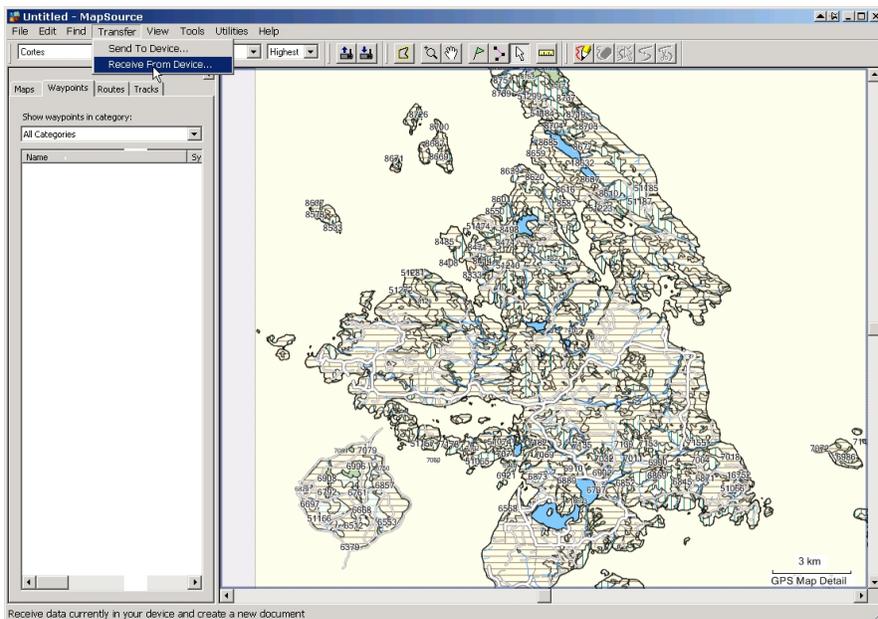
4. Basic Data Management

When you traverse a feature with GPS, it is best to use Waypoints. One waypoint for each station / corner / place where the shape of the thing changes. You seem to already be doing this.

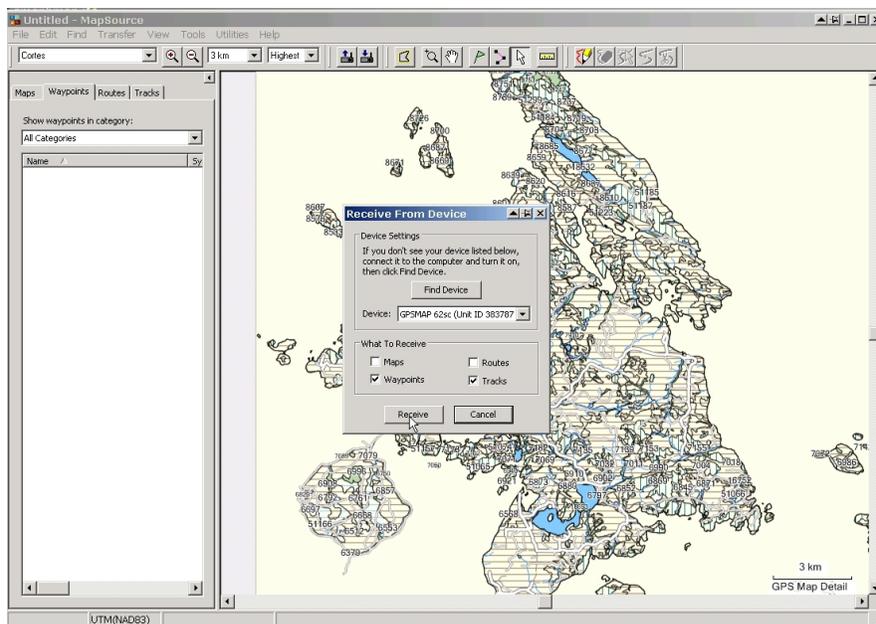
Task 1 is to get waypoints from GPS to MapSource. This used to be simple. You hooked the GPS up to the computer using the USB connection. You opened MapSource.



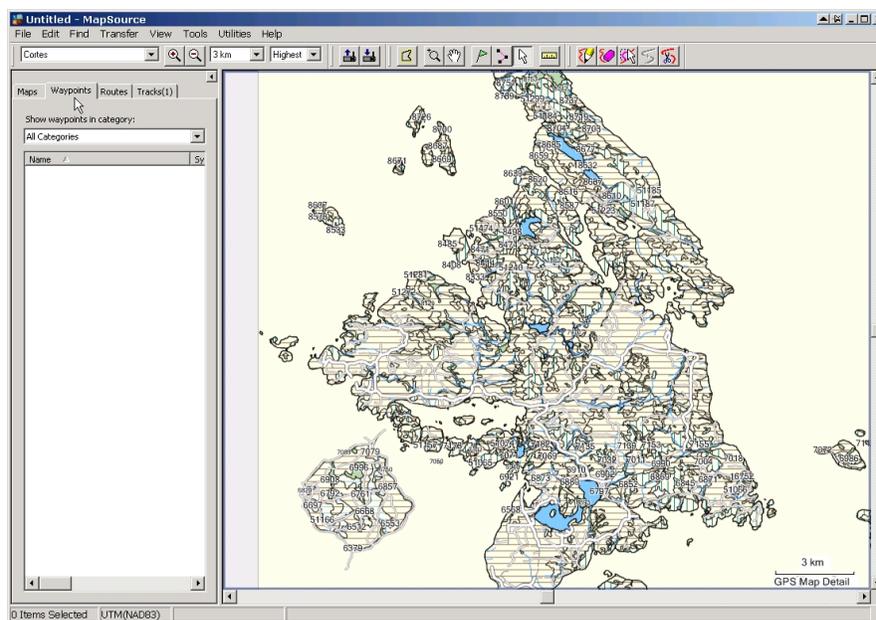
You used the <Transfer> <Receive form Device> function.



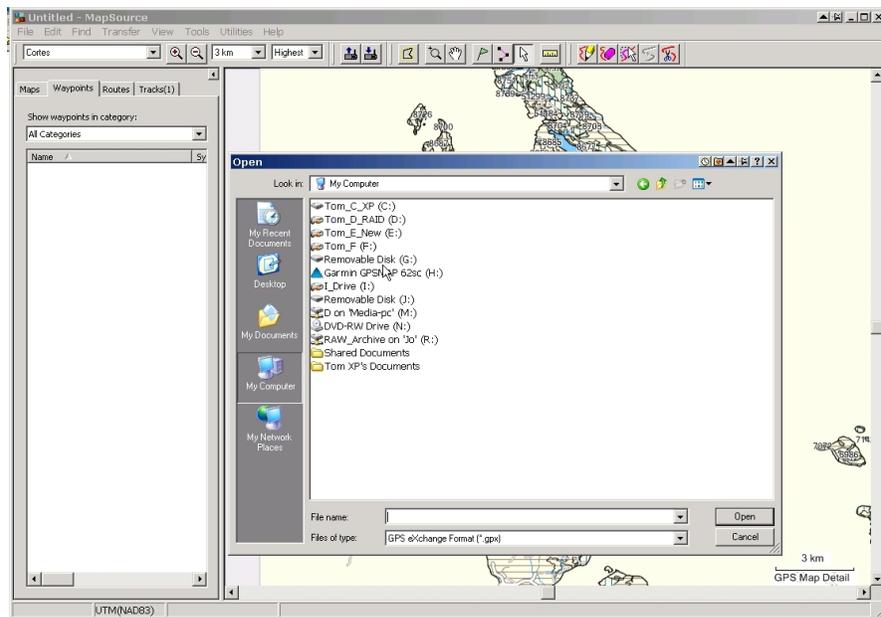
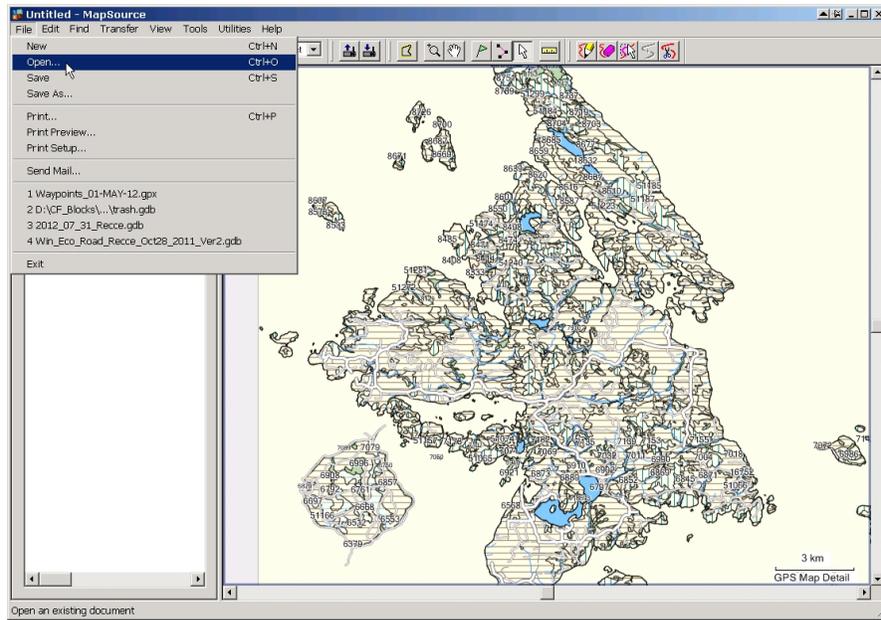
It claims to know there is a GPS 62sc out there....



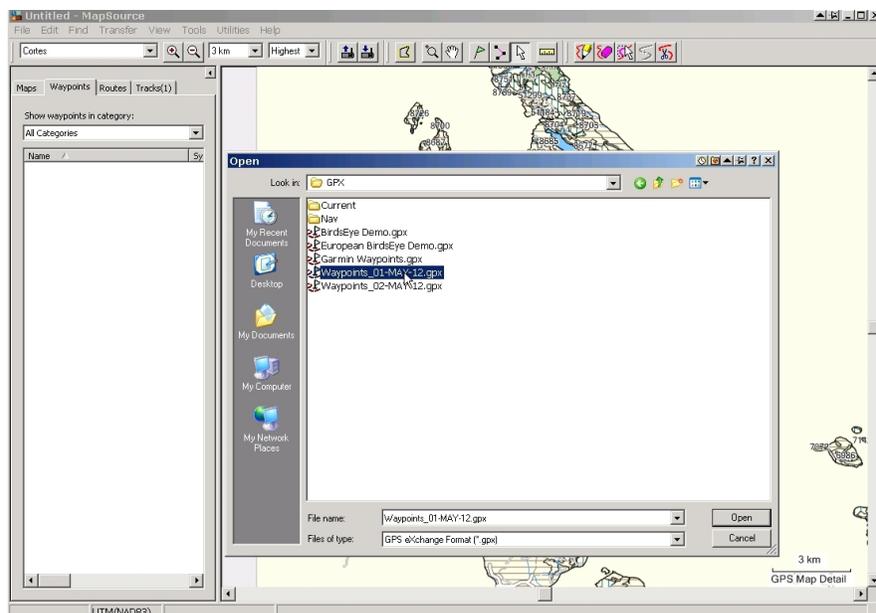
And it completely fails to work. No waypoints show up. Expletive deleted.



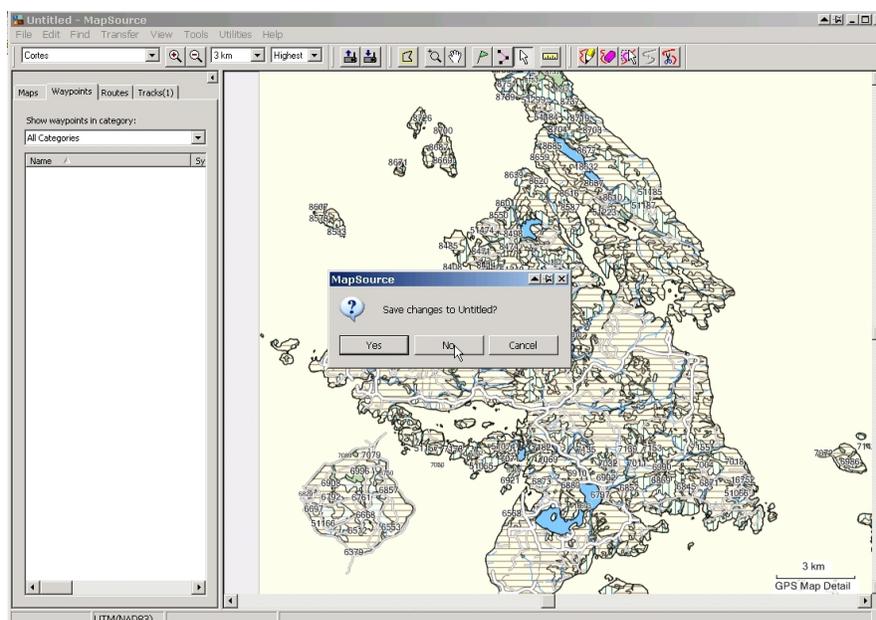
OK, digging around in the Garmin with Explorer suggests the waypoints are stored as GPX files, so we'll try opening a GPX file.



The waypoint GPX file is actually lurking in H:\Garmin\GPX\Waypoints_01-MAY-12.gpx

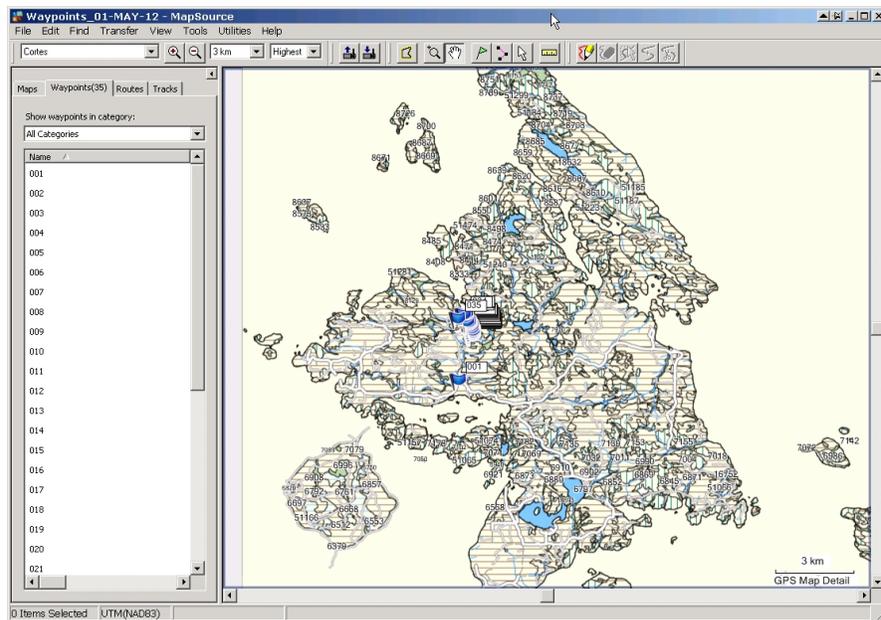


You tell it to <Open> and it immediately asks:

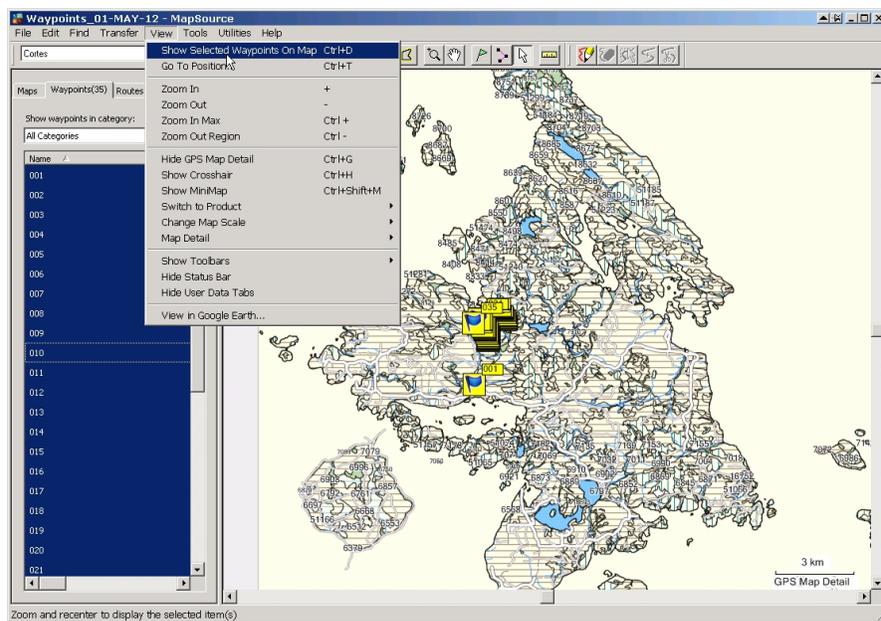


Unless you have something important in that map file that you have not saved, you can just say <No>.

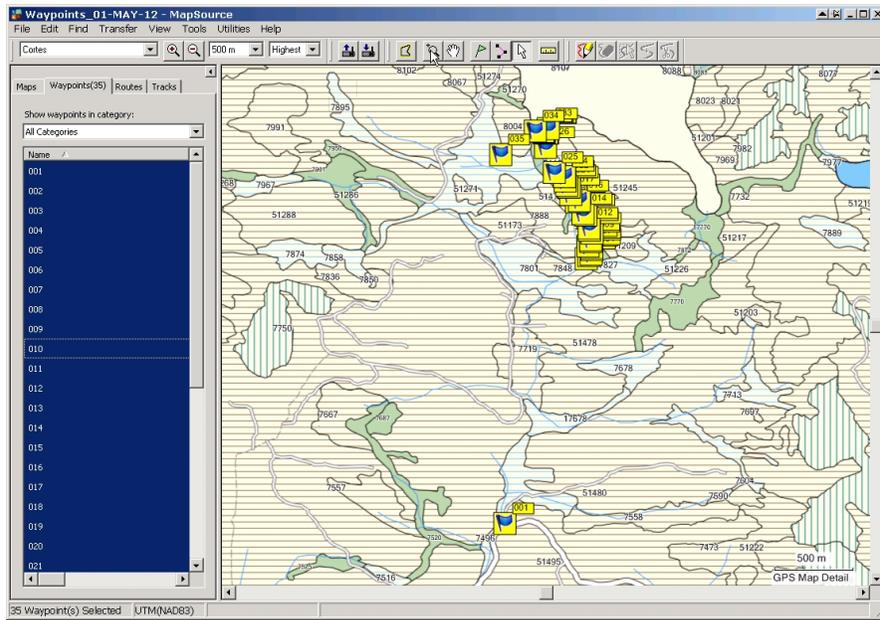
Voila! Waypoints.



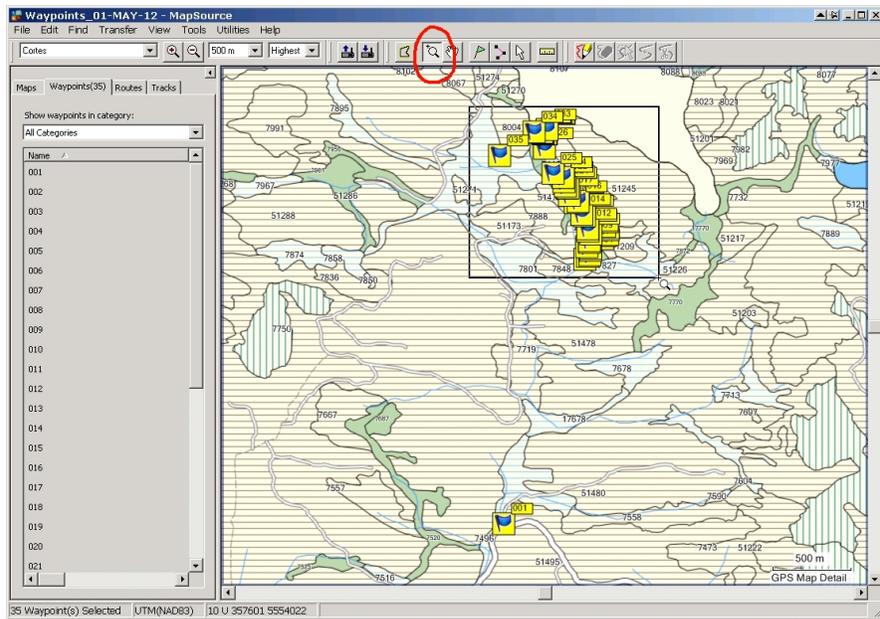
Select them all <Control A> and then zoom to selected <Control D>



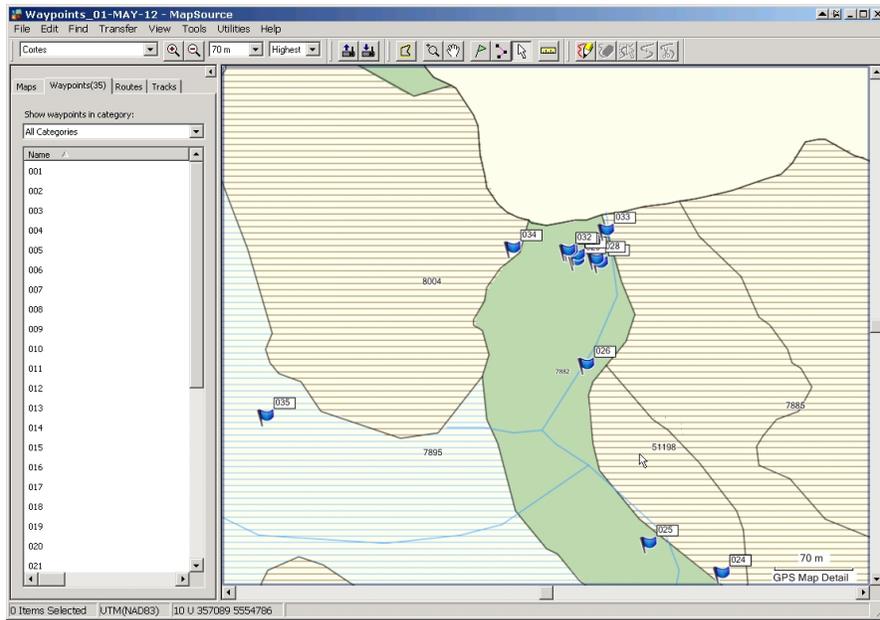
Hmm, waypoint 1 look s a bit out of place. If it is an error, it could be deleted.



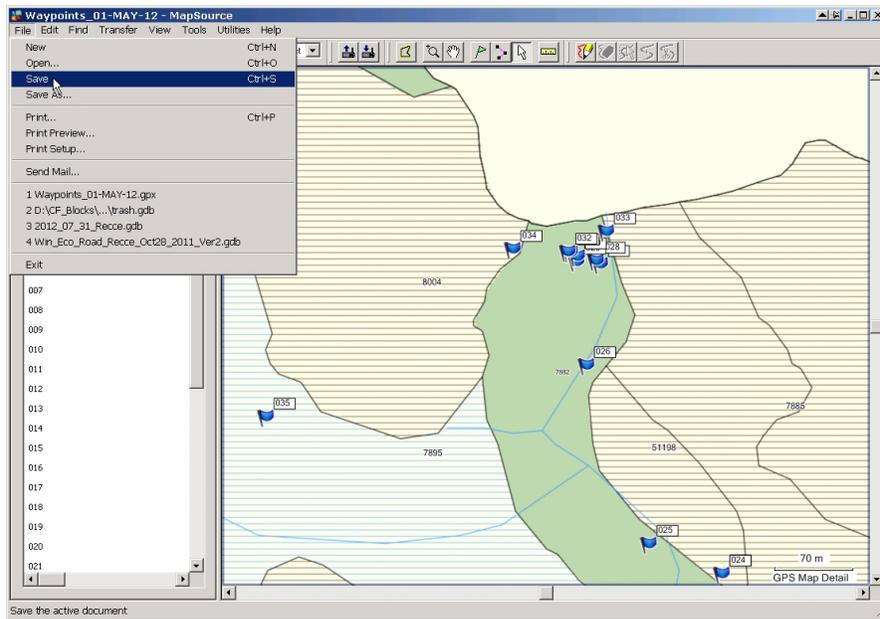
Use the Zoom tool to zoom in more.



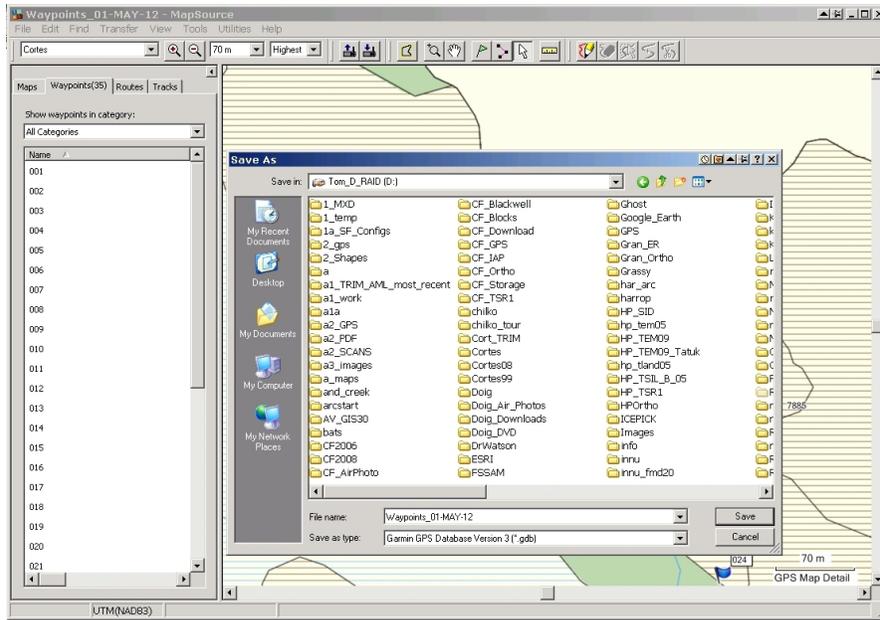
Ok, can kind of see what was afoot.



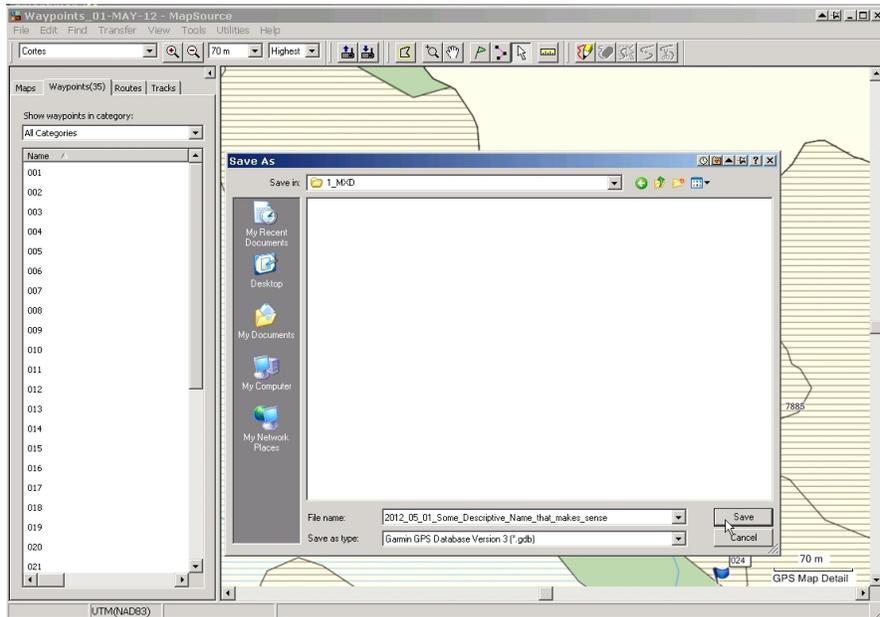
Save!!!



It volunteers a name based on the Waypoint gpx file.



Strongly recommend a Year_Month_Day suffix followed by a description of work / location. These files need to be findable at a future date.



5. Digitizing

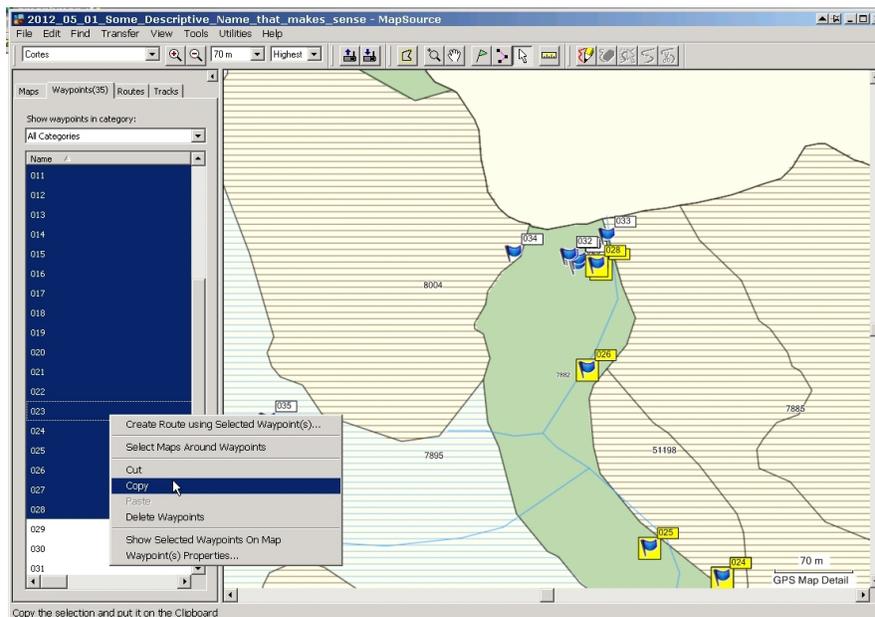
You can digitize effectively in MapSource. The digitized product flows seamlessly into ArcMap.

MapSource is free. It has some "clunky" aspects, but the price is right.

Let's pretend that waypoints 2 to 28 define a stream traverse. You want to digitize the stream line for eventual use in GIS maps and eventual improvement of the GPS basemap.

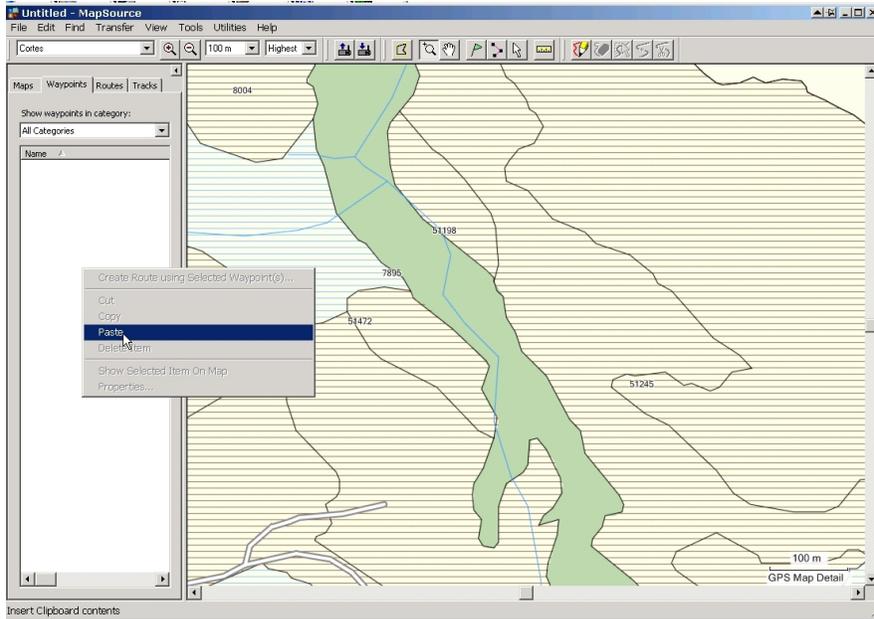
Select WP 2 to 28 using <Click><Shift><Click> in the left window, or by grabbing them on the map.

Then <Copy>.



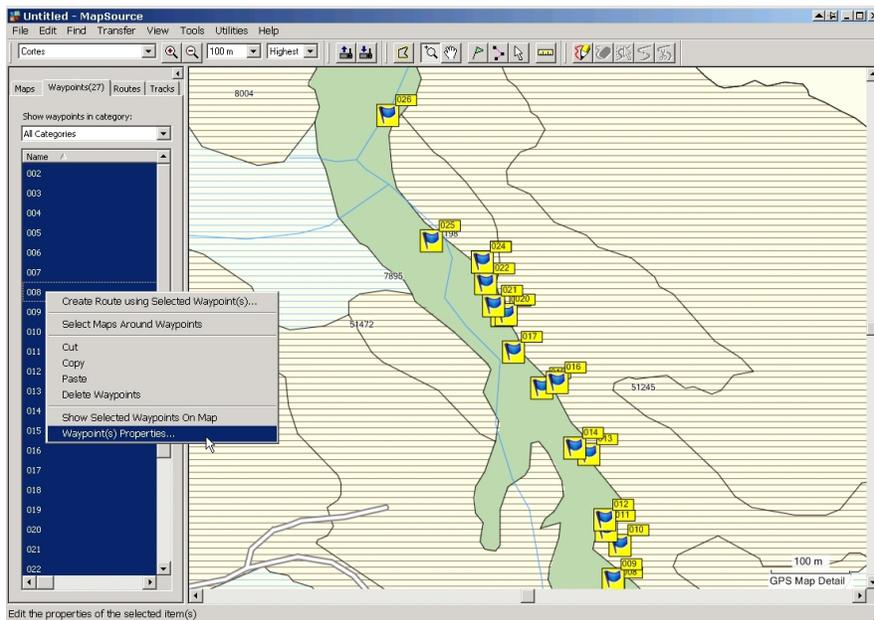
Open another instance of MapSource. It can be a second window, or you can just open a new file in the same window.

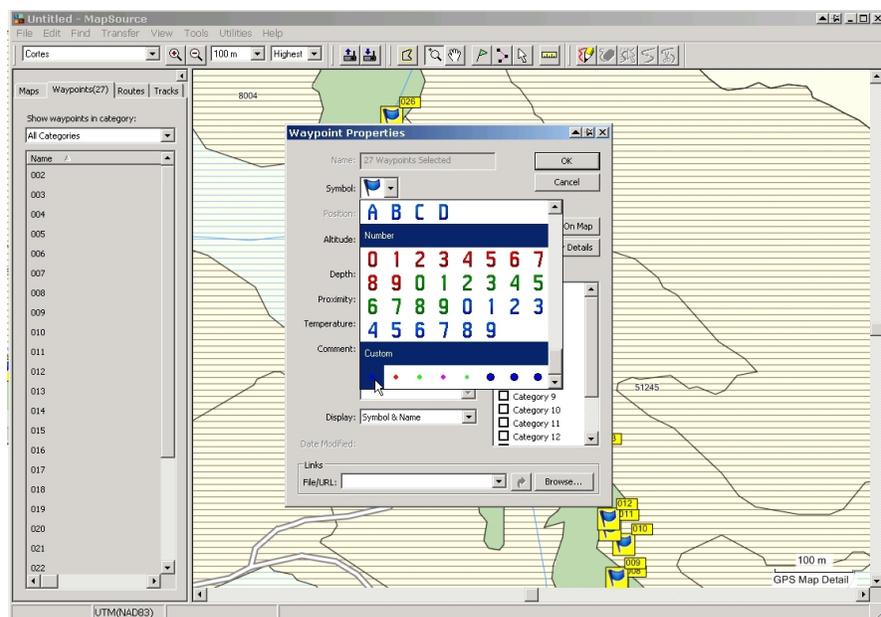
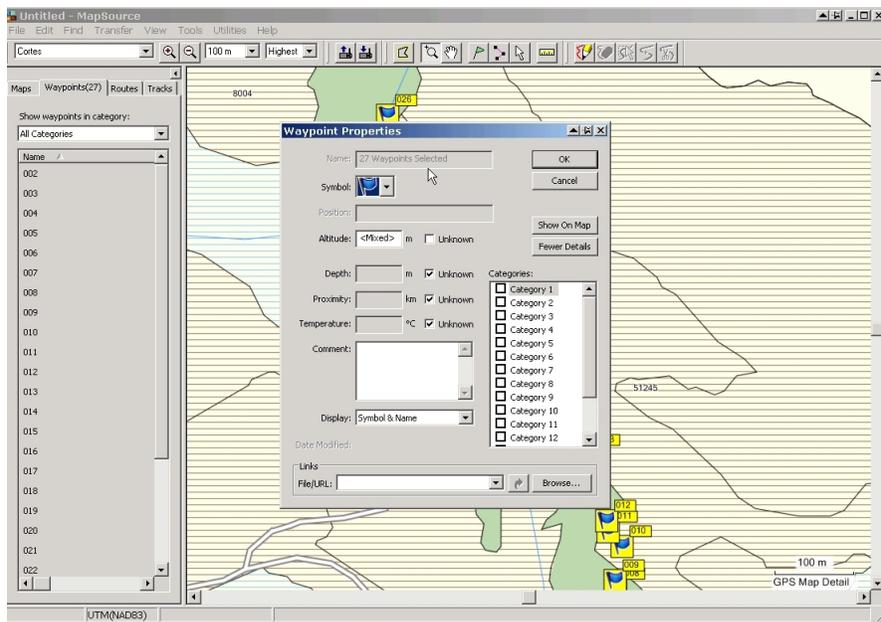
<Paste>



Or, you could save the source file (2012_05_01_Some_Descriptive_Name_that_makes_sense.gdb) with a new name, and delete spurious waypoints.

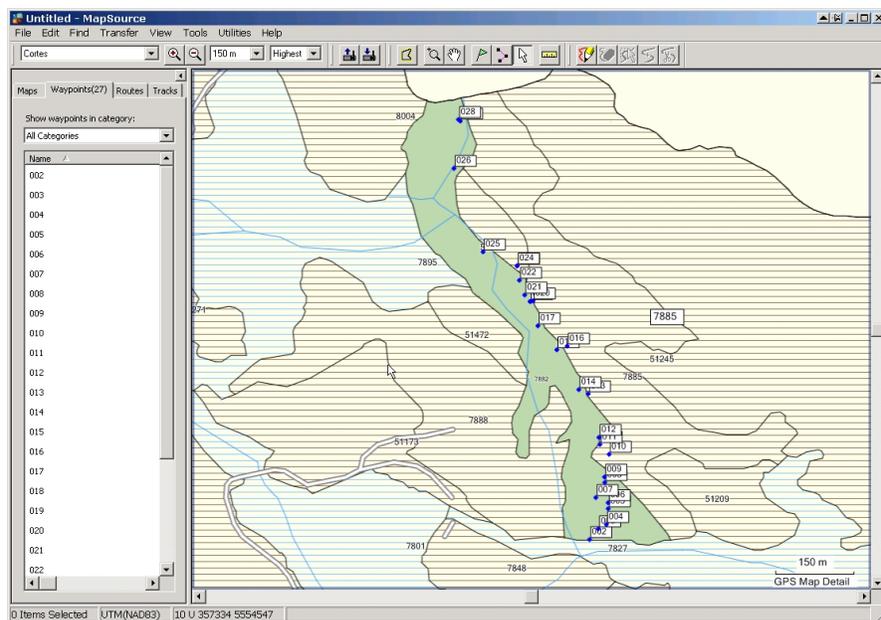
I find huge blue flags cumbersome, so I will change to small blue dots (it is a stream). Garmin hides the Custom waypoint symbol set in C:\Documents and Settings\Tom XP\My Documents\My Garmin\Custom Waypoint Symbols The custom symbols are just a bunch of BMP files, you can edit them all you like with any graphics program.



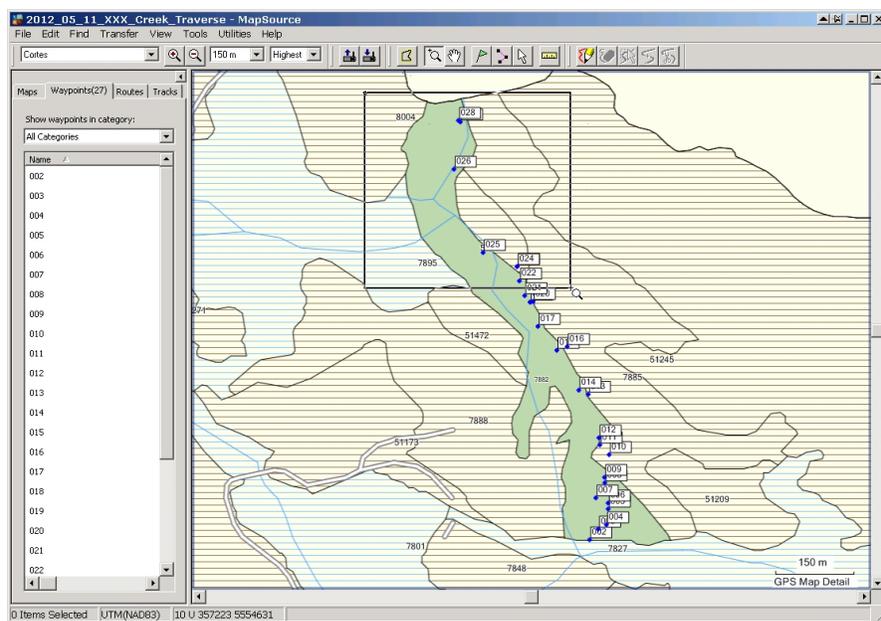


Better.

Say, we might want to save this! The usual commands. I called it 2012_05_11_XXX_Creek_Traverse.gdb

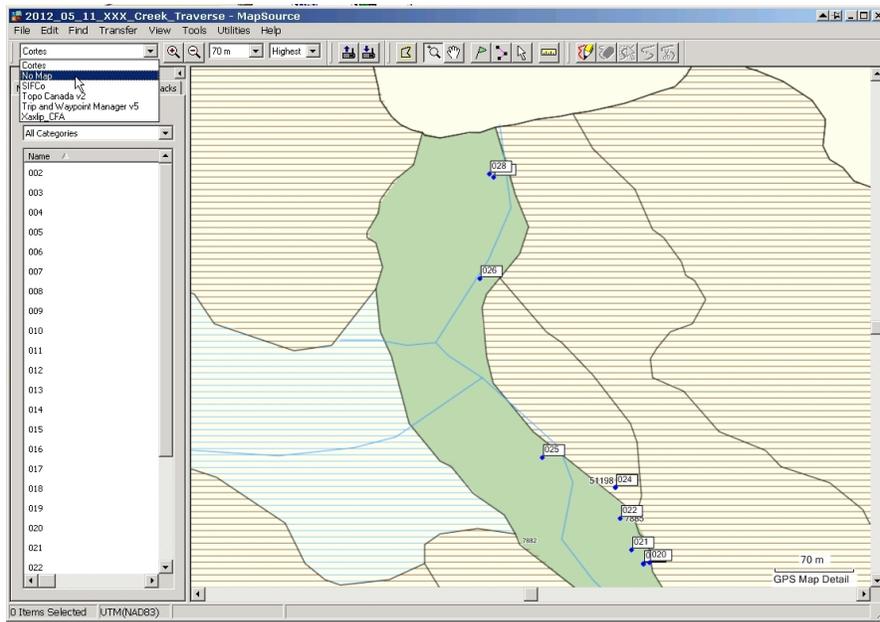


I am still too zoomed out. Zoom in.



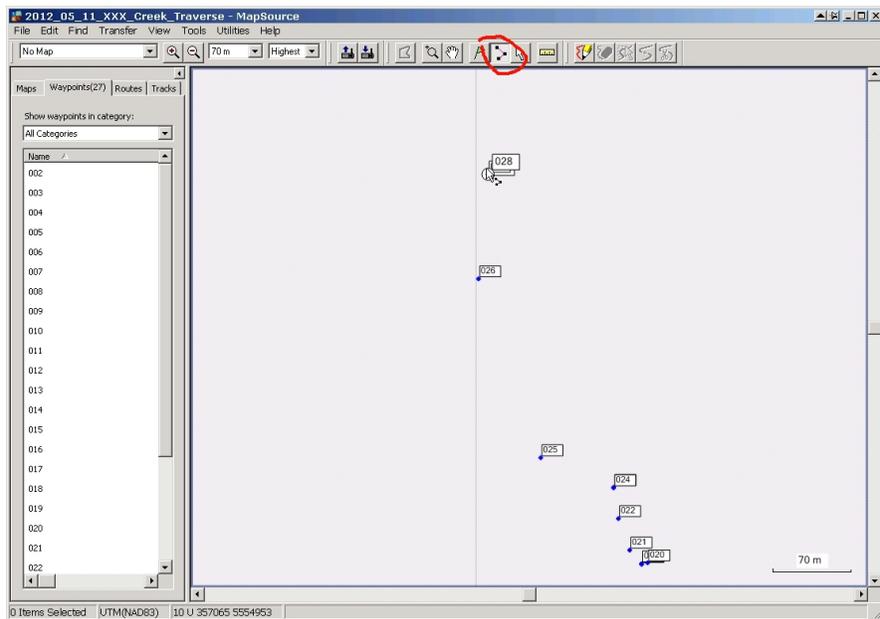
Can now see what I am doing.

Now, turn the map off! Seems counterintuitive, but the digitizer will "snap" to map objects with map on. So, No Map.

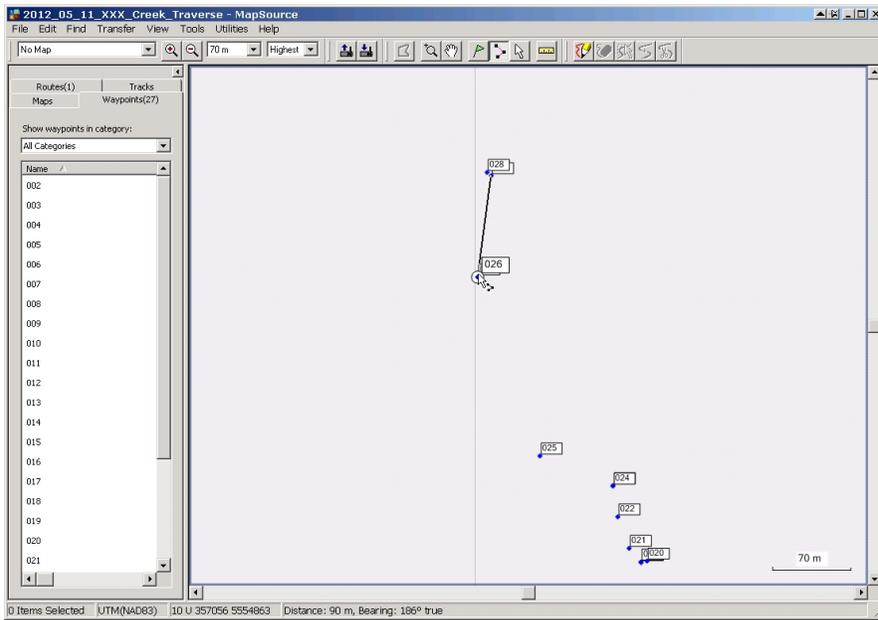


Grab the Route drawing tool.

It snaps to any waypoint it is near.

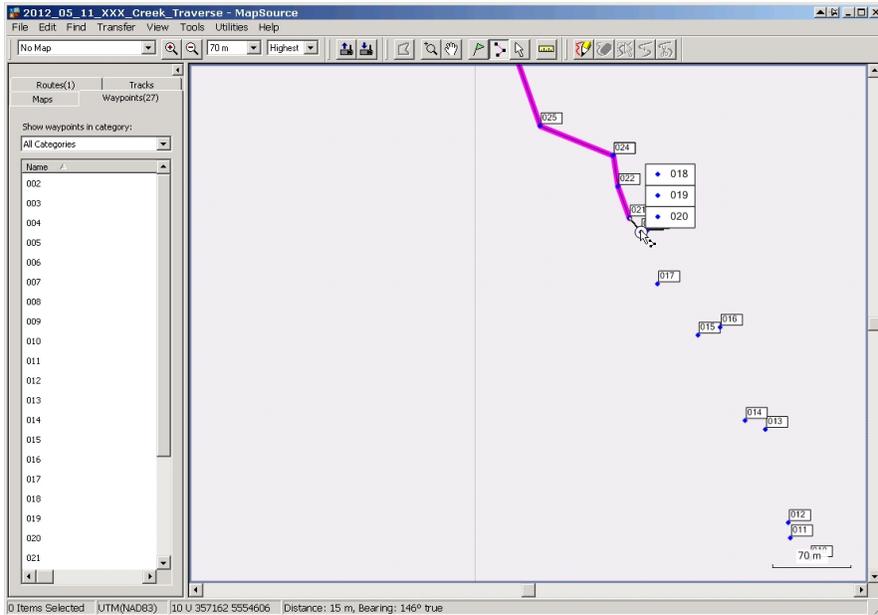


Start drawing your line, snapping to each subsequent waypoint.

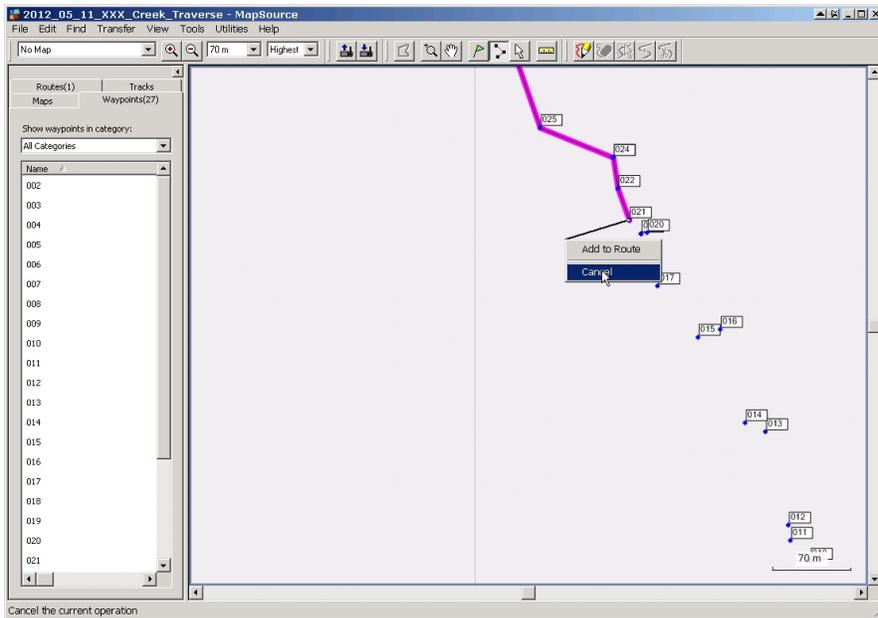


You move your "field of view" using the sliders and/or Up/Down Left/Right arrows. Clunky, but it works.

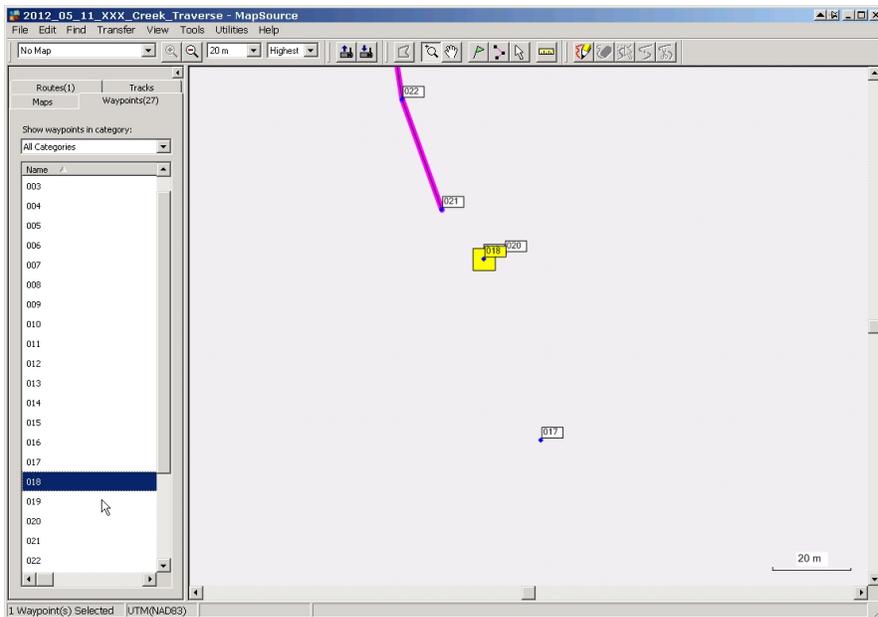
And quickly find a problem. WP 18, 19 and 20 are all right on top one another. A smarter person would have checked and edited the data before starting.



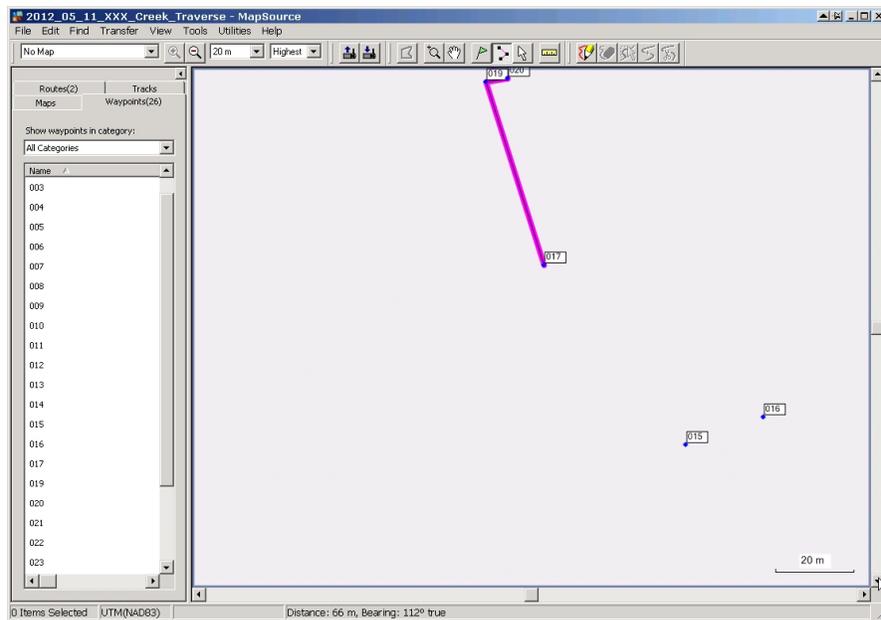
Stop digitizing. Move off last good point, <Alternate Click> and choose <Cancel>. It does not Cancel your work, it just stops. Odd naming choice.



Edit. I deem WP 18 spurious, so I select it and then Delete it.

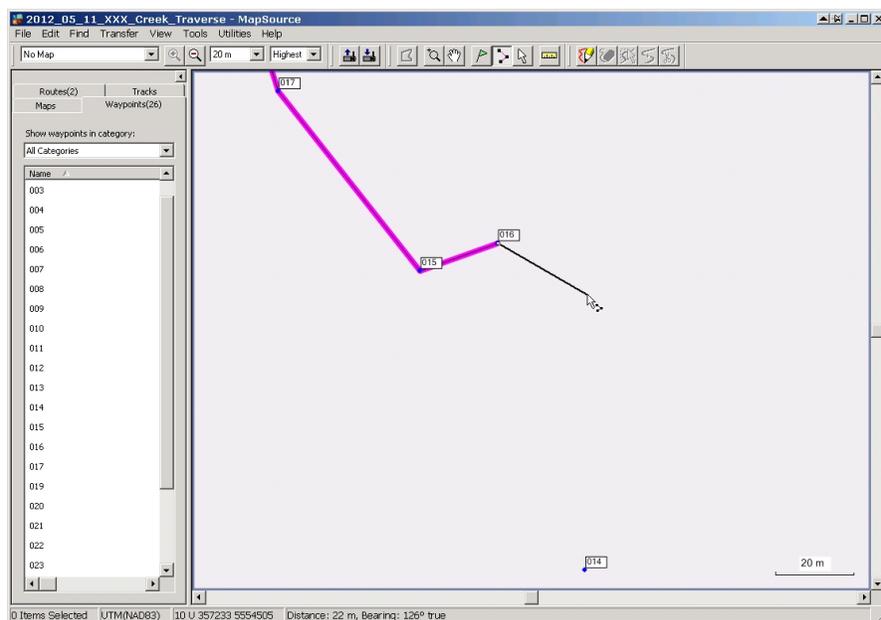


Click the Route drawing tool and get back to work. We will end up with two separate Routes drawn, but that is acceptable. We prefer one single route per feature, can live with two. Certainly do not want 4 or 6 or something - they all cost money to process, and the more complex, the more chance of error / failure in communications



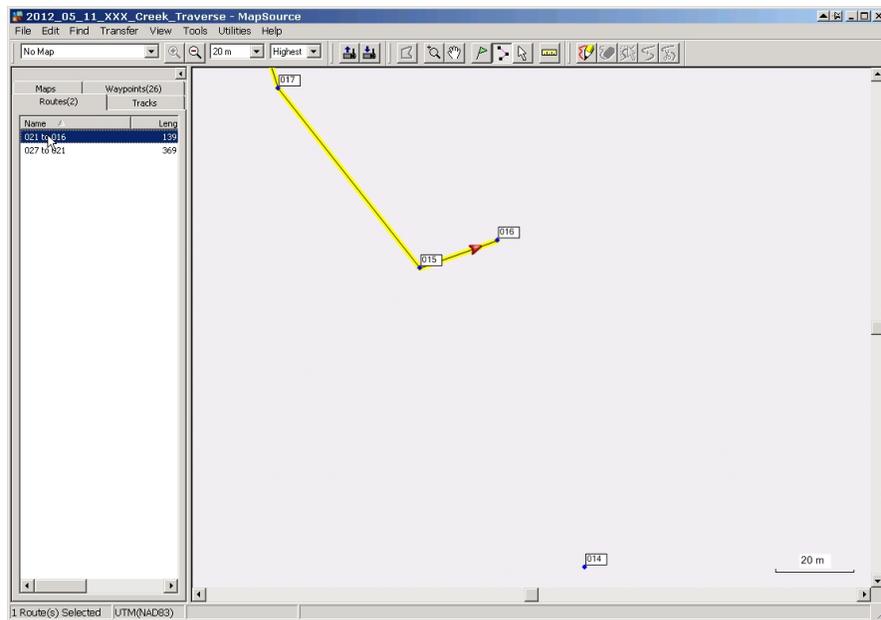
Oh, Blast!

I just digitized 17 - 15 - 16, not 17 - 16 - 15.



There is no fix. You need to delete and re-start.

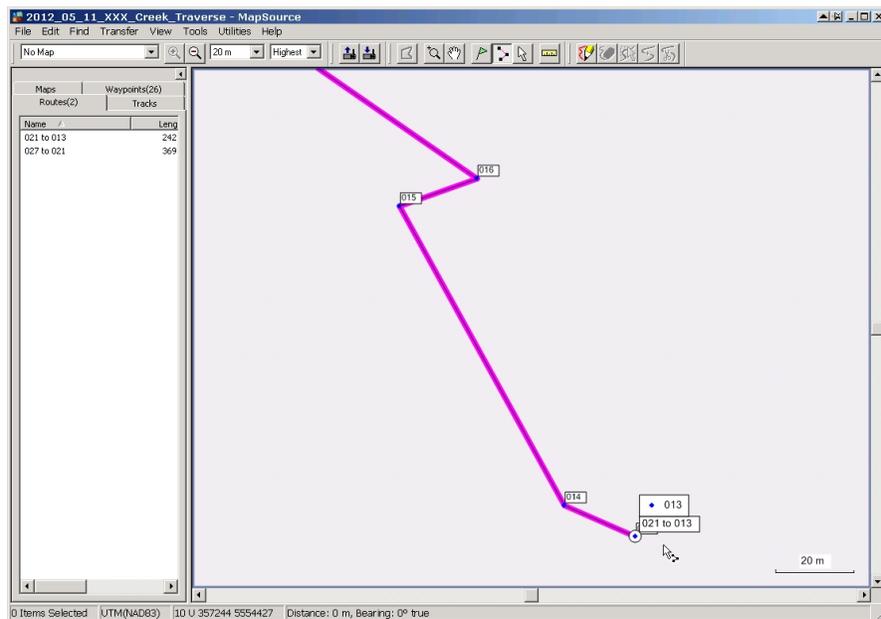
Go to Routes in the left hand window, select the gimpt route, and delete it.



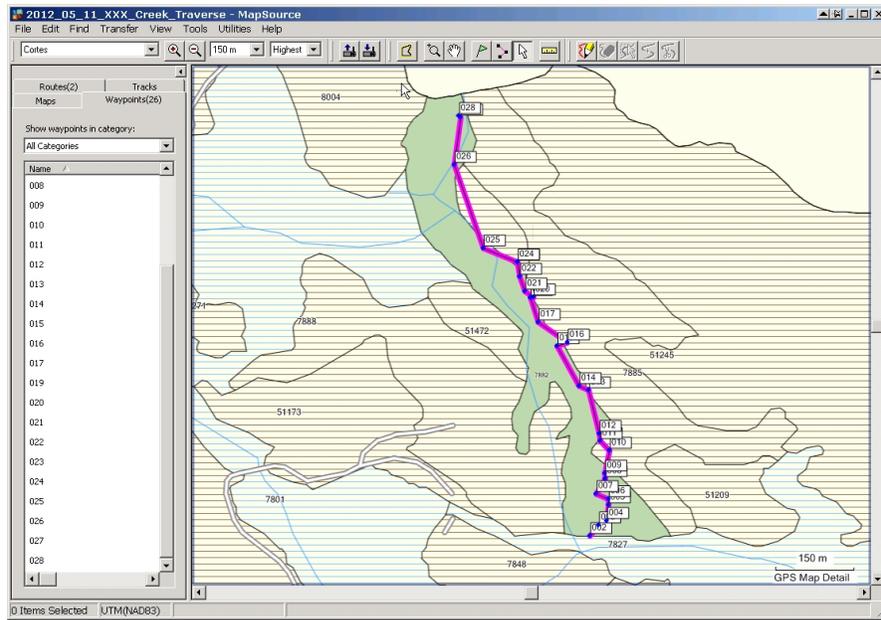
Go back to WP 21 and start again.

Obviously, attention to detail is rather important!

Do it right this time, and proceed to the end of the traverse.

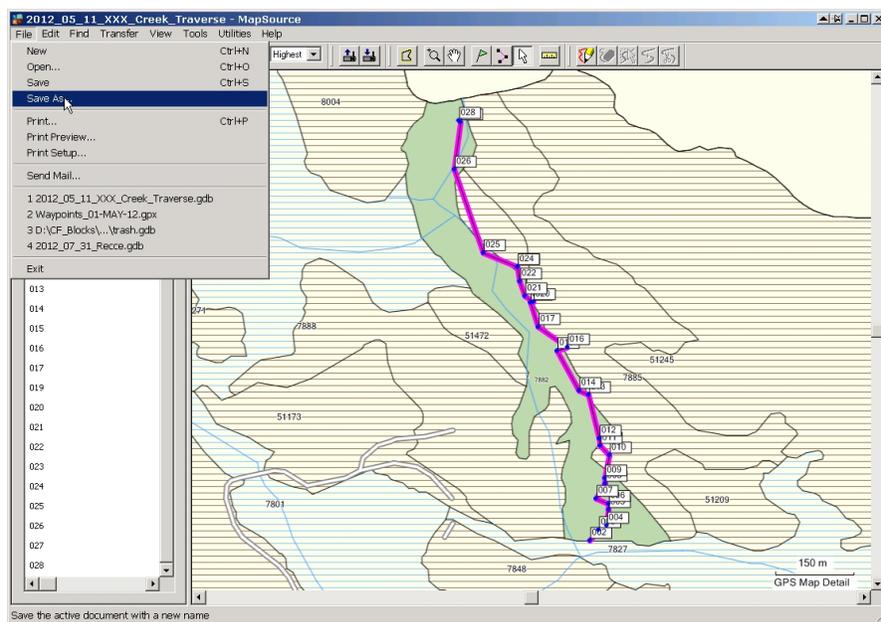


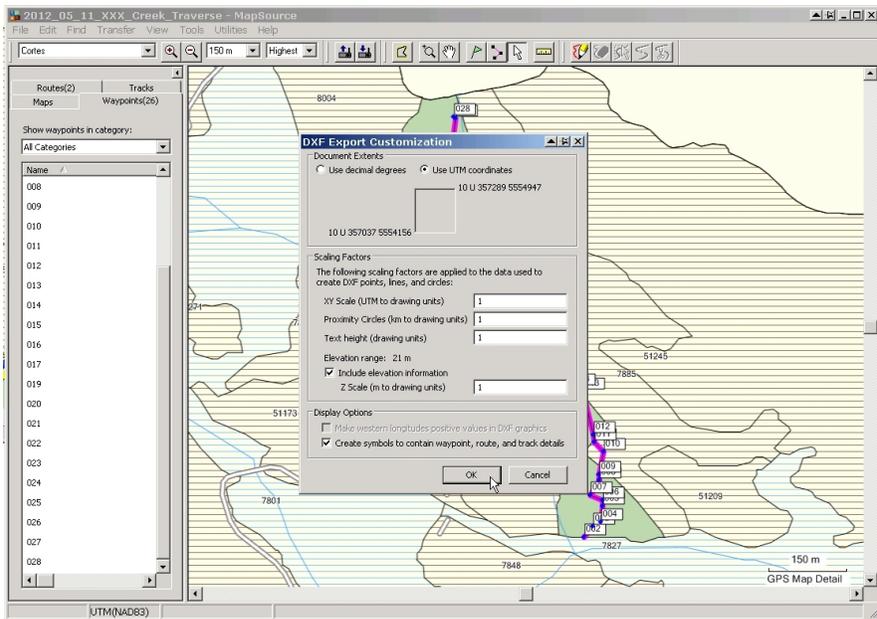
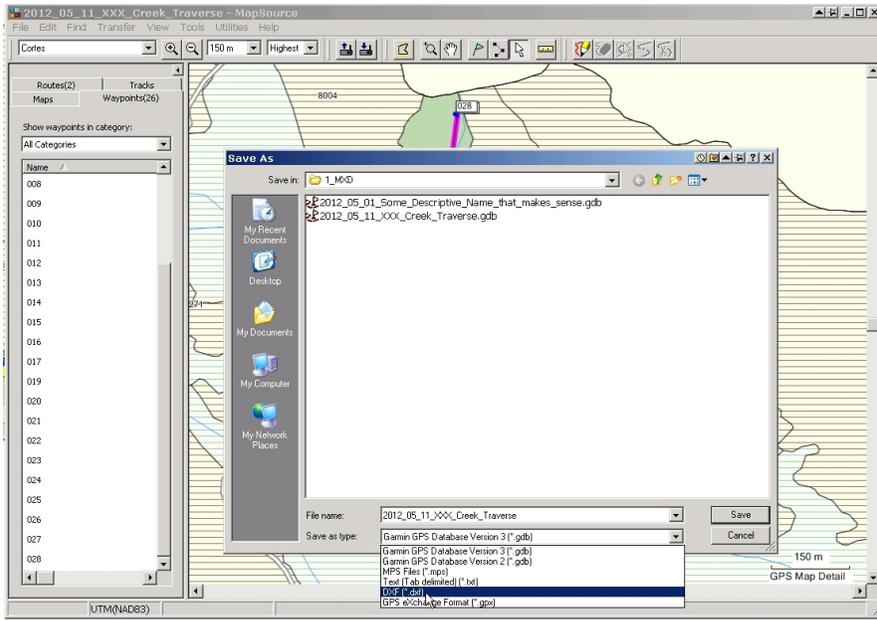
Zoom out to see whole traverse, turn the map back on, looks about right.



Save!

Now, to send to a GIS system, <Save As> a DXF or GPX file. I prefer DXF myself.





Send the DXF to the GIS person. Be sure to include instructions as to what the feature is.