



Using Garmin® BaseCamp™ with a TomTom GPS

by Wayne Geiser, 2020

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By: Wayne Geiser
2020-February-9

Introduction

While I have used Garmin® products for many years, my wife likes her TomTom. I can move a route directly from BaseCamp™ to my Garmin® GPS, but I cannot send the route directly to my wife's TomTom from there. This document will detail the steps (and a few tips and tricks) that I use to attempt to get her TomTom to follow the same route for which my Garmin® GPS will give me directions.

Be aware that this process is part science and part art. The more routes I make, the better I am able to anticipate differences in the routing algorithms of the various manufacturers. In the end, the routes will be quite similar, but rarely identical.

Disclaimer #1: All the TomTom GPS units we have owned have accepted routes. Not all TomTom's do. Check to make sure yours does.

Disclaimer #2: There may be other ways to accomplish any (or all) of this. This description is how I do it. I hope it helps with your workflow.

Disclaimer #3: All descriptions will be for Microsoft Windows versions of software. If you are using software on a different OS, you'll have to find the instructions for how to perform the same operation on that platform.

Route Building

Route Naming

After I have my route close to what I think it will finally be, I append the length of the route in parentheses to the name of the route. I don't get hung up on fractional miles (I round to the nearest mile). For example, I might name a route "Northern 1000 Islands Loop (150)". This convention serves a couple of purposes.

1. Later, when I am trying to decide if the route I am ready to send to the TomTom is close enough, it serves as a reminder of what BaseCamp™ thought its length was. This isn't a big deal until you are sending a number of routes, say, for an NER weekend trip.
2. I can create similar routes that differ only in the length. This allows us to decide, at kickstands up, the proper ride based on the time we want to be gone, etc.

Crafting the Route

As always, you need to add enough shaping points or via points to get BaseCamp™ to make your route precisely follow the collection of roads you intend to ride. However, when you are only using this route

on a Garmin® device, you have a reasonable expectation that the maps and routing algorithm used by the software on your computer and the software in the GPS are similar.

As you will see, transferring a route to TomTom will involve other maps and routing algorithms that are not as similar. This means that you should add more shaping and via points than necessary to make BaseCamp™ follow your route. If you don't do it now, you'll be doing it later!

On my wife's TomTom, any waypoint on the route that is not a shaping point is thought to be a place that you will stop. TomTom's interface requires her tell the GPS that we have visited a stopping point to get it to continue routing to the next point. This means that you need to mark ALL points at which you do not intend to stop as shaping points. Open the list of waypoints for the route, click the right mouse button on a waypoint and select "Don't Alert on Arrival (Shaping Point)" from the menu that appears. That point should now be grayed (rather than black).

Exporting the Route

When you have finished shaping your route and marking all non-stopping points as shaping points, it is time to export the route. Export each route as a .gpx file. Select the route you want to transfer and then use the File>Export>Export Selection... menu operation in BaseCamp™.

Tyre to Transfer the Route to TomTom

About Tyre

TomTom does not have an in-house application to develop and manage routes. They have partnered with the developers of Tyre (Trace Your Route Everywhere) to handle this task. Tyre uses Google maps for its database and routing algorithm.

You can download a PC version of Tyre at: <https://www.janboersma.nl/gett/download.php> As far as I know, there is not a Mac version of Tyre available.

Note: Because Tyre uses Google Maps, you will need to have an Internet connection before you can accomplish this part of the process.

Opening Your .gpx File

Use the File>Open... menu option in Tyre to bring up the "Open TomTom File" dialog. At the lower right corner, above the "Open" and "Cancel" buttons is a list box. You will have to select "Garmin GP eXchange files (*.gpx)" to see the route (.gpx file) you exported from BaseCamp™.

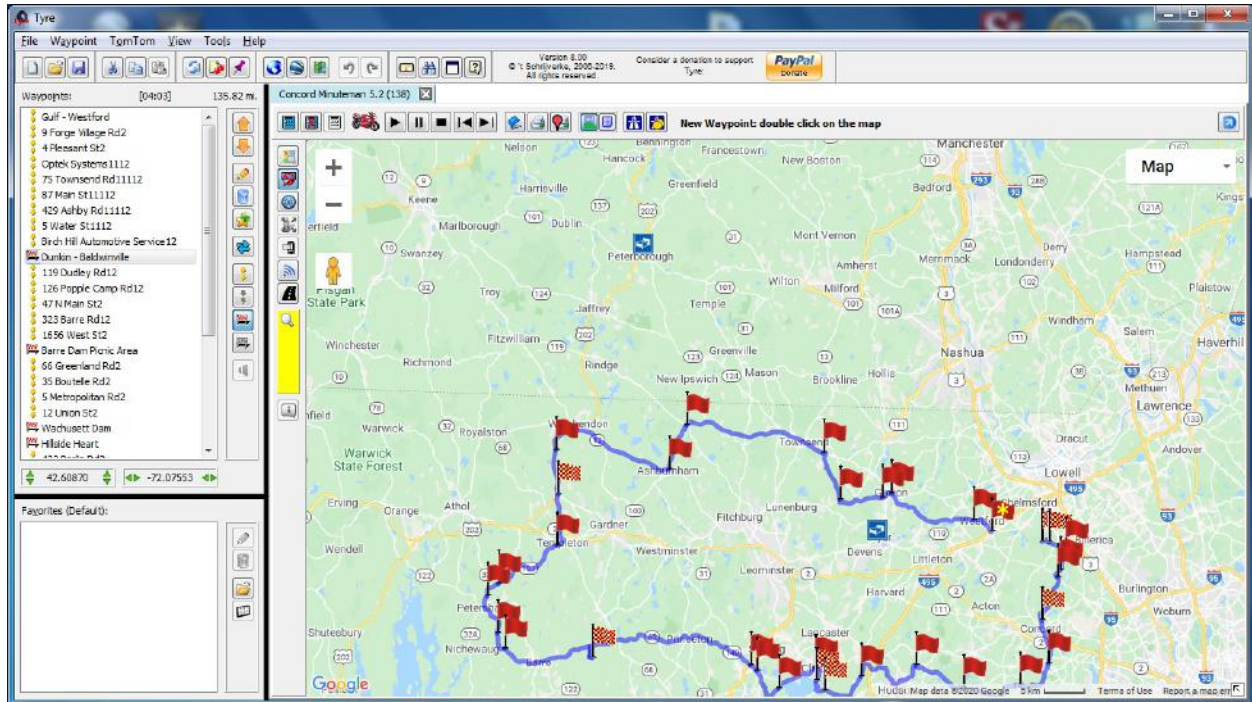
Select the .gpx file you wish to transfer and click the "Open" button.

A dialog will appear asking what you wish to import. "Route points" should already be selected. Click the "OK" button.

A route should appear on the map.

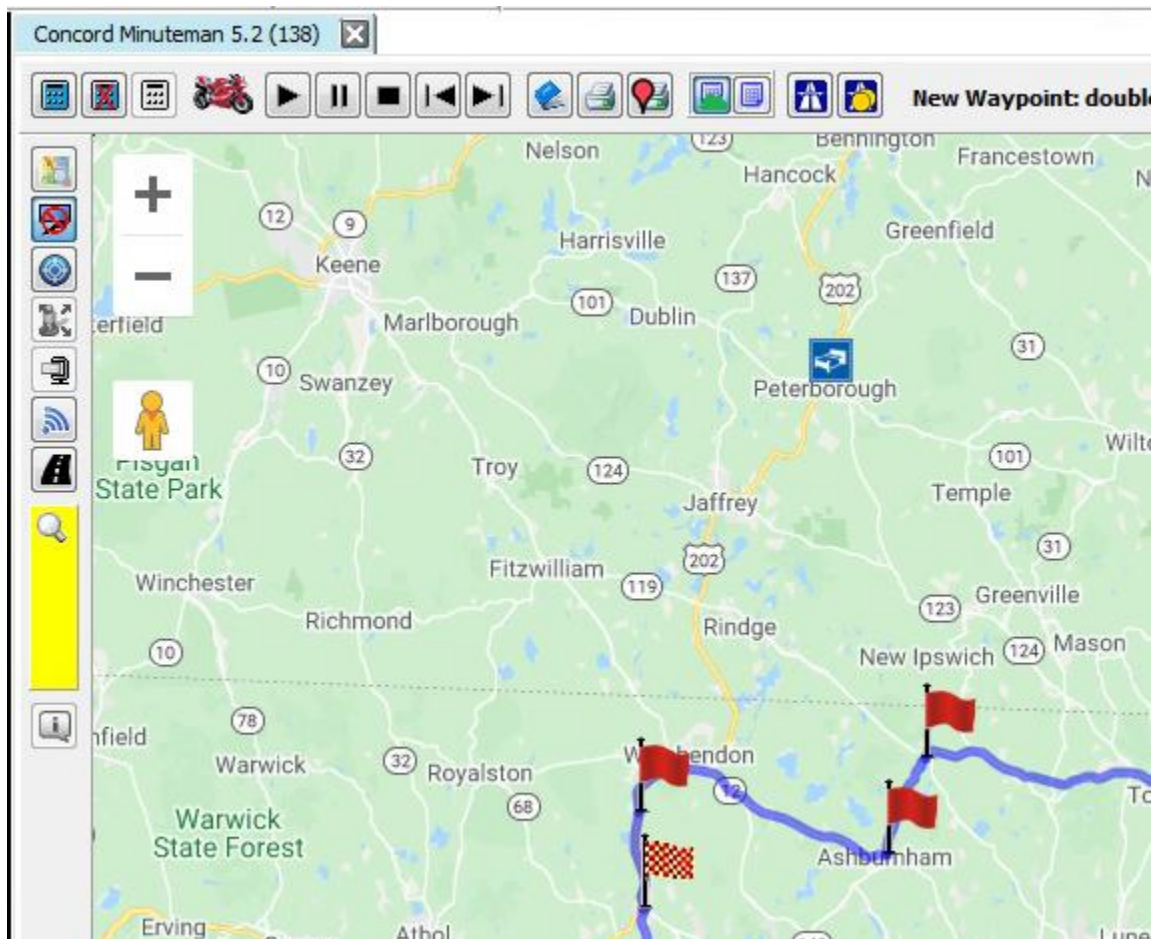
The Tyre Interface

I've included this section to give you a short overview of what you should be seeing in Tyre. I won't go into great detail about most of the interface. I use very little of the interface. Instead, I prefer to make my changes in BaseCamp™ and re-export the route rather than alter it in Tyre.



The above is a screen capture of a route (named "Concord Minuteman 5.2 (138)") I created in BaseCamp™, exported it as a .gpx file and opened it in Tyre. Notice that there are many shaping points and several stopping points along the route. BaseCamp™ has calculated it as 138 miles long and Tyre (really Google Maps) has calculated it to be 135.82 miles long. Likely, there are some differences in the route. Maybe a couple of miles difference is close enough.

The Map



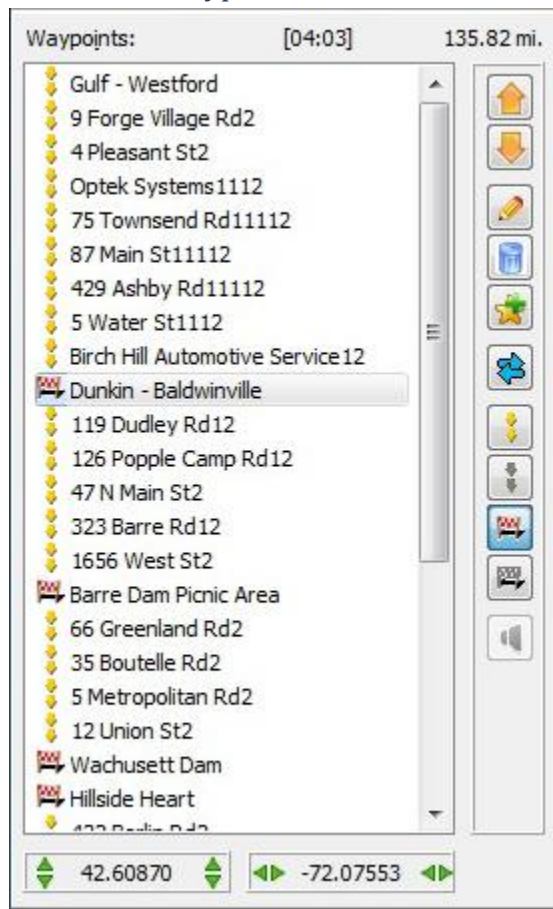
Zooming in to the upper left corner of the map shows the route name ("Concord Minuteman 5.2 (138)"). The number in parentheses is the length of the route that BaseCamp™ calculated and I added to the route name by hand.

Your route is drawn as a blue line. It should look something like what you created in BaseCamp™. We'll get into what to do if it doesn't shortly.

Your route will start with a red flag with a "*" on it. There will be some number of plain red flags along the route showing you where all your shaping points have been placed. The route will end with a red and yellow checked flag. There may be other red and yellow checked flags in the middle of your route. If so, they were not marked as shaping points and TomTom will expect you to stop at those points. That may or may not be what you intend. If you do intend to stop at these points, you are all set. If you don't want to stop at each of these points, they need to be corrected before you transfer the route to TomTom. You can correct it in BaseCamp™ and re-export the route or correct it in Tyre (more on that in the next section).

Use the '+' and '-' buttons or the scroll wheel on your mouse to zoom in or out on your map. Click on the map and, while holding the left mouse button down drag the map to reposition it.

The List of Waypoints



On the left-hand side of the screen is a list of waypoints. Those that were marked as shaping points will have a pair of yellow arrows (one facing up and one facing down) next to the name. Those that were not marked as shaping points will have a little red and yellow checkered flag next to them. “4 Pleasant St2” is an example of a shaping point and “Dunkin – Baldwinville” is an example of a stopping point in the above graphic.

If you forgot to mark some of the points as shaping and want to do that here, click on the name of the waypoint and then on the button to the right of the list with the two yellow arrows. The symbol to the left of the waypoint name should change to show it is now a shaping point (i.e., from the red/yellow flag to the yellow arrows).

The other important thing in the list of waypoints is Goggle Maps’ estimate of the mileage for your route. It will be in the upper right-hand corner of that part of the display. In the display, above, the route is calculated to be 135.82 miles long.

Is Your Route Good Enough?

This is where adding the length of your route to the route name becomes helpful. If the length of the route from BaseCamp™ is different than the length of the route from Google Maps (it almost always is), you may want to make changes to bring the lengths closer together.

Depending on the length of the route, I usually try to get the two numbers within a mile of each other. This is where it can get tedious. You will need to look at the route in Tyre and BaseCamp™ and try to determine where they are different.

Once you have found a difference, you have three choices:

- a) Ignore it and send the route to the TomTom.

In my case, this will mean that my wife will think there is a turn that I don't (or vice versa). Since I prefer to avoid this, I rarely make this choice.

- b) Correct it in Tyre.

To do this, right click on the route in Tyre (a little circle will appear). Drag the route to the correct road and release the mouse button. You should see the blue route line change and, hopefully, the route length in Tyre will get closer to your goal length.

I only use this option if I'm in a hurry or it's a throwaway route that I don't care if the changes are stored in my BaseCamp™ route.

- c) Correct it in BaseCamp™

You will need to add another shaping point in your route to force Tyre to use the correct roads, re-export the .gpx file and open the corrected route in Tyre.

Yes, this is tedious. For routes that you may intend to ride multiple times, I feel it is worth the extra effort. Over time, I have found that I get a feel for where I need to add shaping points when developing my route and this process has fewer iterations.

Be aware: Even if you get BaseCamp™ and Tyre to agree on the length of a route, that doesn't mean that they have an identical route and even if they do, the GPS itself may calculate a different route as its maps and routing algorithm are different from Tyre's.

Transferring to TomTom

When you are satisfied with your route, send it to the TomTom GPS. Connect the GPS and the computer using the USB cable. Use the TomTom>Copy to TomTom menu item to do the transfer.

Where is it on the GPS?

TomTom uses the term "Itineraries" for routes. On my wife's TomTom Rider, tap the screen and select "Manage itineraries". Select "Open" (there may be a screen asking if you want to get rid of the current itinerary). Select the name of the itinerary from the list that appears.

Wrap Up

Except for examining the route in Tyre to identify any differences from the BaseCamp™ version, this process takes far longer to describe than to actually accomplish. After you do it once or twice, the mechanics become reasonably quick and effortless.

In my case, I am attempting to get the two routes to closely agree because we are nearly always riding the same route at the same time. Even when they diverge, the rule is that the rider in the lead is in charge (unless we come to another conclusion over our communication link). You may not need to work as hard to get the routes to agree if your situation differs from mine.