

**Garmin Forerunner 201/Forerunner 301 Undocumented Features**  
**FR 201 Software Version 3.50/ FR 301 Version 2.63 Beta**  
**Collected By DiverHank**  
**Updated 5/27/05**



*Note: 8/15/04 –I created this document to help myself and hopefully you to have ready access to references to the Forerunner 201. Info presented herein is collected through various sources. Some are my own. The accuracy of the features is not guaranteed. Use them at your own risks.*

*Check back often as I will update this document very regularly. I expect it to grow very quickly in the next couple of weeks.*

*Note: 8/21/04 –Bug Alert: There seems to be a bug with the “Delete Data Older Than 1 month”. If your data were collected prior to your updating a firmware, using this delete function will delete the first lap of all data in the Forerunner. Garmin recommended a RESET (see below), but this wipes out all of your data.*

*Note 12/31/04 – Added a few things but mostly just gave the website a slight facelift.*

*Note 1/5/05 – Garmin released information on a new product, the Forerunner 301*

*Note 2/14/05 – Garmin released version 3.50 two days ago. Supposedly it fixed a problem with total time now counting rest time. What a useless update. Nobody is complaining about that. There are tons of other problems they could have fixed, like the log book.*

*Note 3/12/05 I am expanding this to include the FR301*

*Right Click to [download a PDF version](#) of this web page (~800KB).*

*Send your comments and suggestions to [diverhank@yahoo.com](mailto:diverhank@yahoo.com)*

*Note: If you want to have this website translated to another language, consider using Google Language Tools.*

*Note: Si vous voulez avoir ce website traduit au Français, considérez à l'aide des outils de langue de Google..*

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*[http://www.google.com/language\\_tools?hl=en](http://www.google.com/language_tools?hl=en)*

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## 1. Manual:

The latest Garmin manual is a very good source of information. The latest version FR201 is Rev. C, published 7/2004. The latest FR301 is Rev. C, 1/05. They can be downloaded from:

[Forerunner201\\_OwnersManual.pdf](#)

[Forerunner 301 Manuals and Quick Guide](#)

## 2. Software Updates:

The latest Garmin FR201 software version is 3.50 and latest FR301 version is 2.63 Beta.

[FR201 Updates and Downloads](#)

[FR301 Updates and Downloads](#) (firmware, USB drivers and Training Center)

## 3. Internet Resources

There are many excellent forums and websites where you can find information on the Garmin Forerunner 201 and 301. Among these are the following:

<http://www.groups.yahoo.com/group/GarminF>

<http://groups.yahoo.com/group/etrexforerunner>

<http://gpsrunner.net/cgi-bin/yabb/YaBB.pl>

Very good forums where you can ask anything about the Forerunner.

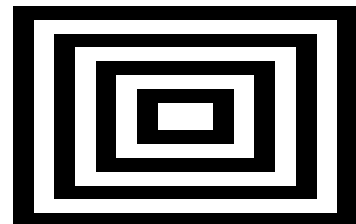
## 4. Undocumented Features.

*Note: As far as I know, the following equally applies to both the FR201 and FR301 but they have only been confirmed for the FR201. The MASTER RESET procedure has been confirmed for both.*

**DIAGNOSTICS:** Hold down **ENTER** then turn on the unit it will boot to a diagnostic screen. This screen tells you such information as software version, unit temperature, battery voltage, etc. When on the diagnostic screen you can press **MODE** repeatedly to see a bunch of different testing screens.

```
BRAVO VER      -1
Software       3.40
08:03:25pm
Temp           23°C
Bat            4.10V
Ext            -----V
Freq           16367681
Drift          -----
```

```
ADPT          -----
Sqr           1683
SNR           -0.5308
BRU           Pass
Ram           Pass
Rom           Pass
              40
```



**HARD RESET:** To clear out all users settings and to revive the unit, you can perform a hard reset. Hold down **RESET** then press and hold **POWER** on.

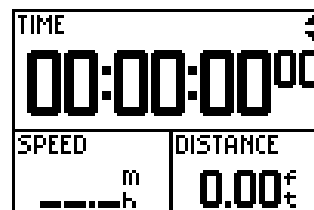
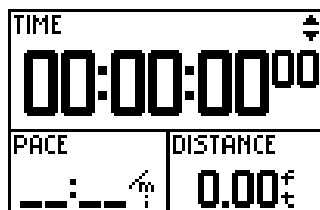
**Warning: All of your data in the Forerunner 201 will be erased!**

**MASTER RESET:** To reset the FR201 or FR301, turn the unit off. Press and hold the **MODE** and **ENTER** button simultaneously and press and release the power button. The screen should turn light gray- continue holding the mode and enter button until the Forerunner startup screen appears.

**Warning: All of your data in the Forerunner will be erased!**

**AUTOLOCATE:** With the unit off, while pressing the **Down** key, hit the **Power** button. The splash screen will appear and the existing satellite data (not YOUR log data) from the former location will be erased and new satellite data from the new location will be acquired faster (*tips from Jimmyruns4fun*)

**SWITCH BETWEEN PACE AND SPEED:** To quickly switch between PACE and SPEED, **press and hold the MODE** button.



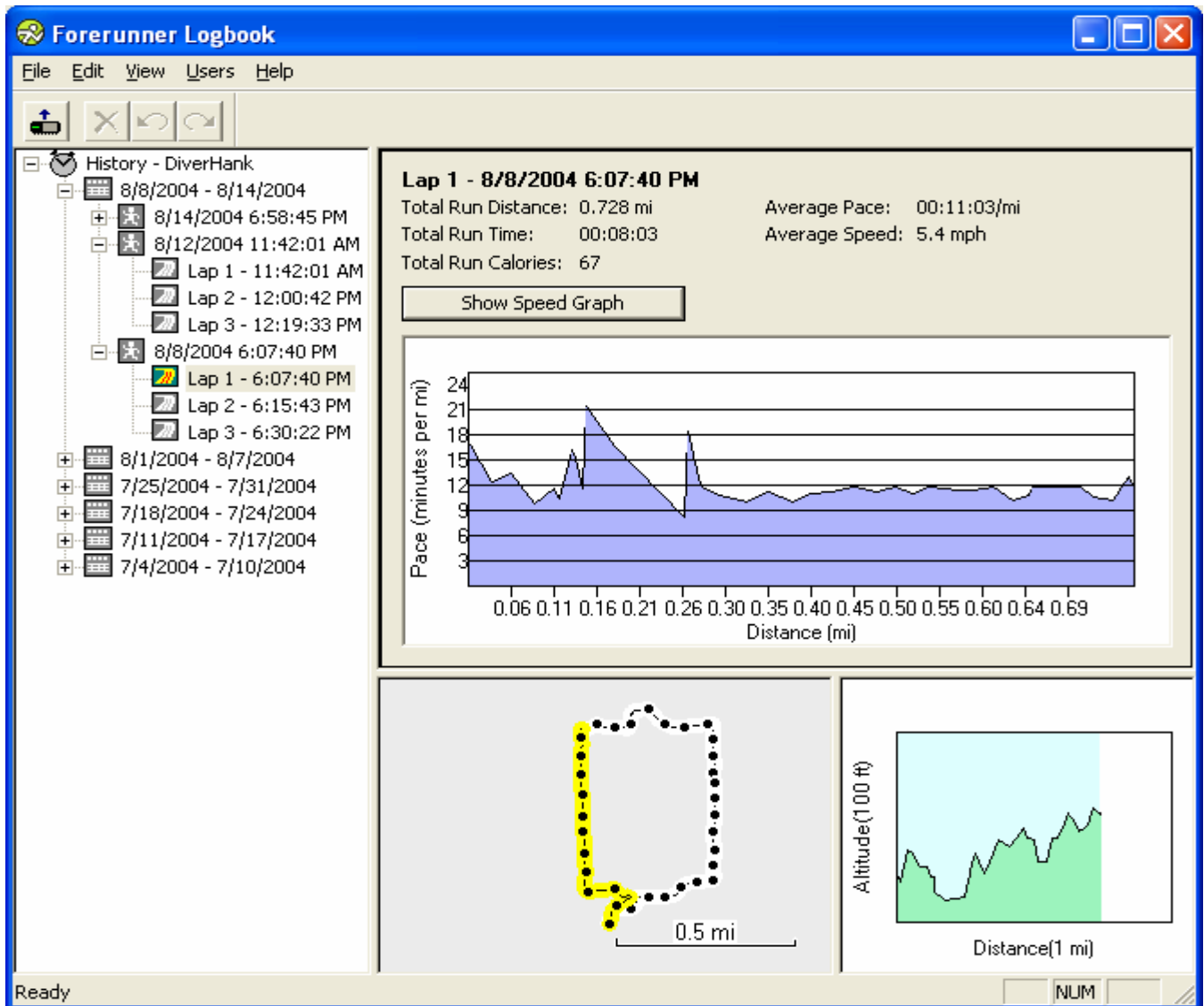
**Caution:** *The calorie-burned result may be altered since the calorie calculation for pace assumes running while calorie calculation for speed assumes bicycling.*

## 5. Forerunner 201 Logbook.

The Forerunner Logbook latest version is 2.5. It can be downloaded for free from:

[http://www.garmin.com/support/download\\_details.jsp?id=451](http://www.garmin.com/support/download_details.jsp?id=451)

Below is a sample page from the Logbook. Now don't laugh at my performance☺. I just started running in July 2004 after many years of inactivity. All thanks to the Forerunner 201...what incentive...



## 6. Backing Up Your Forerunner 201 Log Data

As you know, the data (track points) you keep on the Forerunner will be only good for only the latest 10 runs...Beyond that all you get are just the summaries. That's why it's very important to back up your Forerunner Data. This is not hard to do, as long as you can find your data file. There are two data files you need to save:

1. "YourUsername".bin
2. ForerunnerLogbook.bin

"YourUsername" is the name you gave Log book when you first started.

If you have Windows XP, and you are one of multiple users, your data files are stored at :

*C:\Documents and Settings\All Users\Application Data\GARMIN\Forerunner Logbook*

However, it is not a simple matter to find, since it is hidden very well. The easiest way to locate these files is to perform a search (START, SEARCH) for all files and folder,

looking for “Forerunner”. Make sure you click the advanced features and check systems folder and hidden folders.

Copy the two files and save them in a safe place.

[Restoring Files](#) -- Assuming that your hard drive had crashed and you had to start from scratch, I found that it wasn’t as simple as copying these two backup files back to the correct folder since the Forerunner Log Book won’t automatically recognize them.

What I had to do was to download data from the Forerunner 201...The Log Book software will ask you to enter a name. Enter the same exact user name as your “YourUsername”.bin. It will create the two new “YourUsername”.bin and ForerunnerLogbook.bin files. Replace these two files with the ones you saved.

[ALTERNATE METHOD \(More Automated\)](#) – Thanks to Sam Felis (Matt)

The easiest way of doing this is to create a .BAT file that copies the files from your local directory onto your removable media. (In the example below, the U:\ drive is my removable USB-thumb drive that I have mapped on both my work and home computers.)

For the non-techies in the audience, a .BAT file is a simple way of bundling a bunch of DOS commands and executing them. In the example below, I use MD, XCOPY, ECHO and PAUSE to get the job done. MD makes the target directory [if it's not there]; XCOPY copies all files from the source to the target; ECHO displays the messages in the Command Prompt window; and PAUSE stops the program so you can see the results.

Open a command prompt (type CMD in the Start|Run text box) and type "help <command>" (without the quotes) in the command prompt. That will show you additional information about the commands, as well as the switches used.

Make sure you install the Logbook software and create a user with the same name as on PC2 as you have on PC1.

NOTE: The comments in the chevrons <> are not to be included in the batch file.

```
<START BATCH FILE>
```

```
@ECHO ON  
@ECHO Making backup directories...  
@ECHO OFF
```

```
md u:\Running\ForeRunner\Backup
```

```
@ECHO ON  
@ECHO Backing up Forerunner files...  
@ECHO OFF
```

```
REM Copy the Forerunner files to the ThumbDrive
```

```
xcopy "C:\Documents and Settings\All Users\Application
```

```
Data\GARMIN\Forerunner Logbook" u:\Running\ForeRunner\Backup /E /D /Y /H
```

```
@ECHO ForeRunner backup complete.  
PAUSE Press any key to continue...
```

```
<END BATCH FILE>
```

Once the files are on your removable media, simply use this batch file to copy them to the correct location on your target computer. (The MD command in the following batch file would be unnecessary if you installed the Logbook software and created a user profile.)

```
<START BATCH FILE>
```

```
@ECHO ON  
@ECHO Making backup directories...  
@ECHO OFF
```

```
md "C:\Documents and Settings\All Users\Application  
Data\GARMIN\Forerunner Logbook"
```

```
@ECHO ON  
@ECHO Backing up Forerunner files...  
@ECHO OFF
```

```
REM Copy the Forerunner files to the ThumbDrive
```

```
xcopy u:\Running\ForeRunner\Backup "C:\Documents and Settings\All  
Users\Application Data\GARMIN\Forerunner Logbook" /E /D /Y /H
```

```
@ECHO ForeRunner backup complete.  
PAUSE Press any key to continue...
```

```
<END BATCH FILE>
```

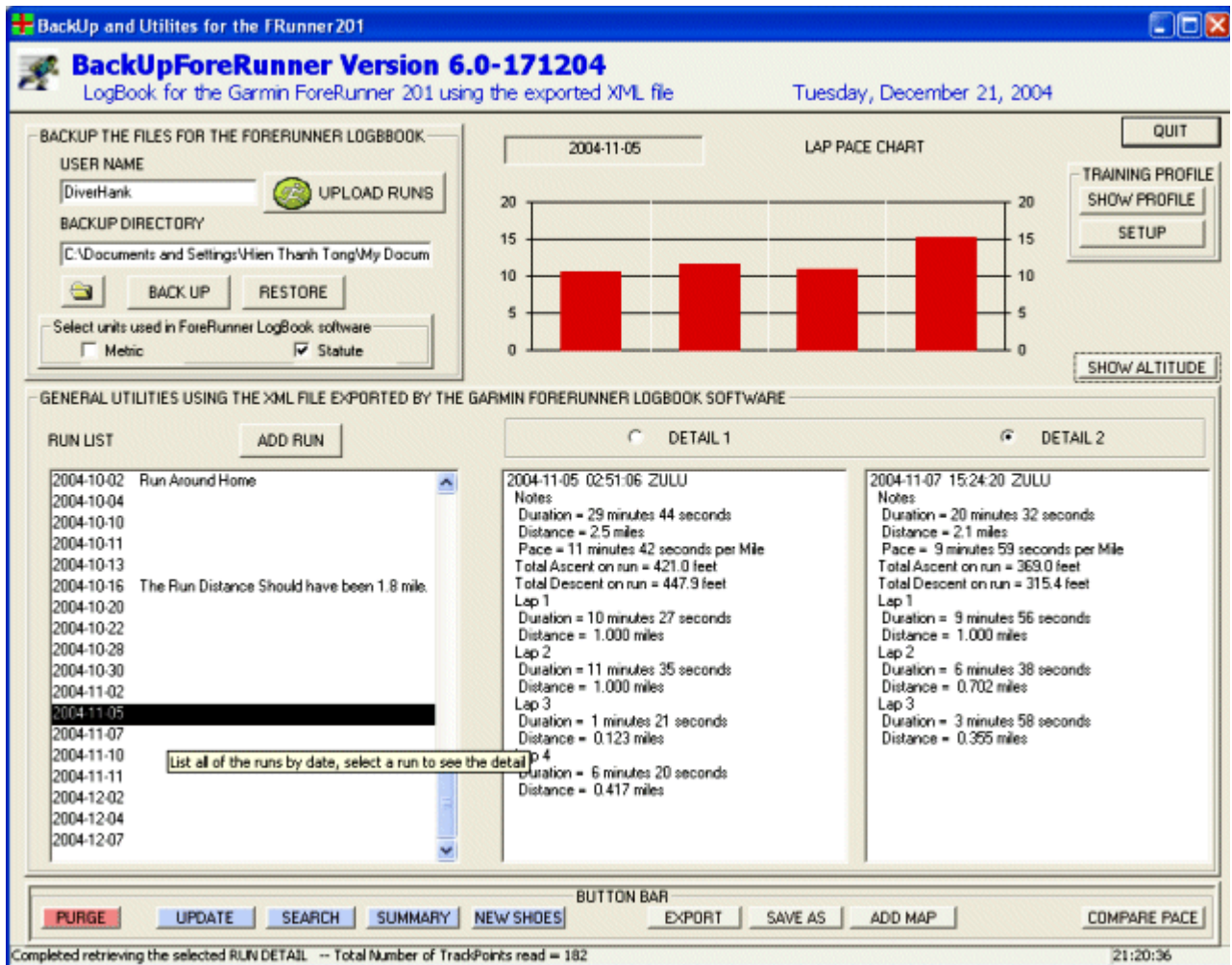
This works great for me. I download my runs at work during the day and then take them home with me at night for backup purposes (and in case I want to review them at home).

-matt

**BACKUPFRUNNER** Utility – Mick Chawner had created a nice Forerunner Utility that, at a press of a button, automatically performs the backing up or restoring data files. It is also very good alternative log book that offers more capability than the Garmin logbook. You can download it for free from:

<http://sports.groups.yahoo.com/group/GarminF/files/>

Note: you might need to join the group to get access.



## 7. Display Forerunner Tracks on Maps.

The Forerunner Log Book is very limited in its capability. Most limited is the display of tracks in relation to maps or satellite images. There are a number of shareware programs that enable you to display your runs on maps and satellite images. Follow the instructions for each of the applications.

MEMORY-MAP: [http://www.memory-map.co.uk/maps\\_uk\\_onland.htm](http://www.memory-map.co.uk/maps_uk_onland.htm)

Seamless OS Landranger 1:50,000 maps available for the whole of Britain. Use these detailed OS maps to plan walks, mountain bike trails, print your own maps and program routes and waypoints into a GPS.

GPSVISUALIZER -- <http://www.gpsvisualizer.com/>

An on-line tool that creates SVG (Scalable Vector Graphics) maps and profiles from GPS waypoints and tracks.

TOPOFUSION -- <http://www.topofusion.com/>

TopoFusion is GPS Mapping software for Windows. It downloads maps (Topo and Aerial Photo) automatically from Microsoft's [TerraServer](http://www.microsoft.com/terra-server/) and stores them on the hard drive.

OziExplorer -- <http://www.ozieplorer.com/>

OziExplorer allows you to work with maps on the computer screen that you create from scanned or digital maps. Ideal for planning trips for boating, 4 wheel driving, flying, hiking etc and as a real

time navigation aid.

Expert GPS -- <http://www.expertgps.com/>

ExpertGPS displays your waypoints, routes, and tracks on USGS topo maps and aerial photos.

TrackLog -- <http://www.tracklogs.co.uk>

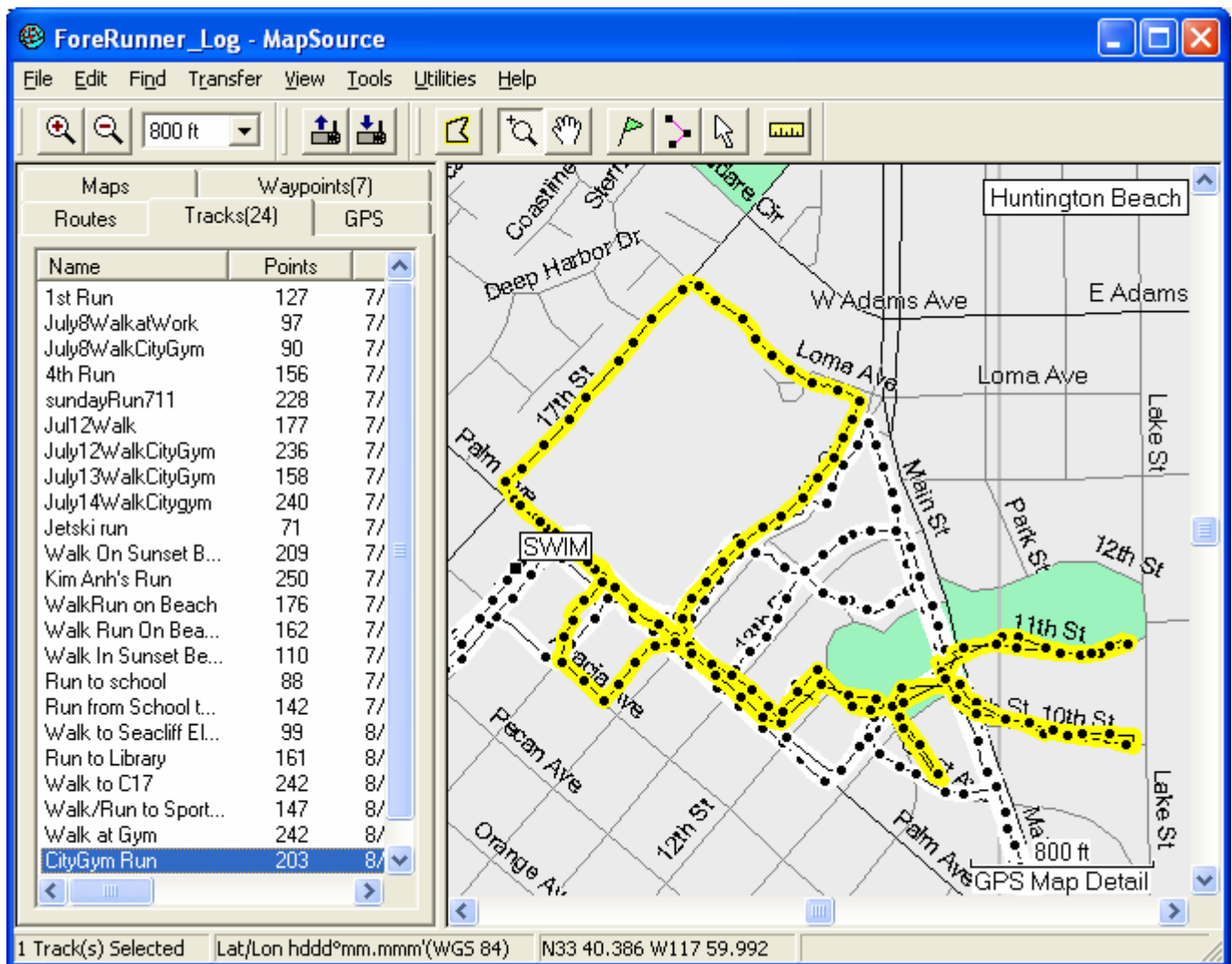
When combined with TrackLogs Digital Mapping the GPS transforms into a valuable navigation tool.

▶ Transfer routes to and from your GPS

A quick and easy way to navigate a predefined route is to transfer it into a GPS unit. The GPS will be able to compare your current position against the route and point you in the right direction...

Garmin Map Source – If you already have a Garmin GPS with some sorts of maps such as City Navigator or City Select, you can download your Forerunner tracks and display these on maps. You can download the latest Garmin Mapsource software from:

[http://www.garmin.com/support/download\\_details.jsp?id=209](http://www.garmin.com/support/download_details.jsp?id=209)



[Microsoft Streets & Trips](#) – If you have MS Streets and Trips, you can download the Forerunner's track to superimpose on street maps. Since MS Streets and Trips can only import text file, you need to convert the Forerunner xml file to text file.

Steps to take:

1. Use the Forerunner Log Book to export your data to an xml file. This file will contain all of your runs.
2. Use Day Breaker [http://www.barkingdogs.com/DayBreaker/day\\_breaker.htm](http://www.barkingdogs.com/DayBreaker/day_breaker.htm) to break the runs into each day and convert it to text file.
3. Import the text file into MS Streets and Trips.

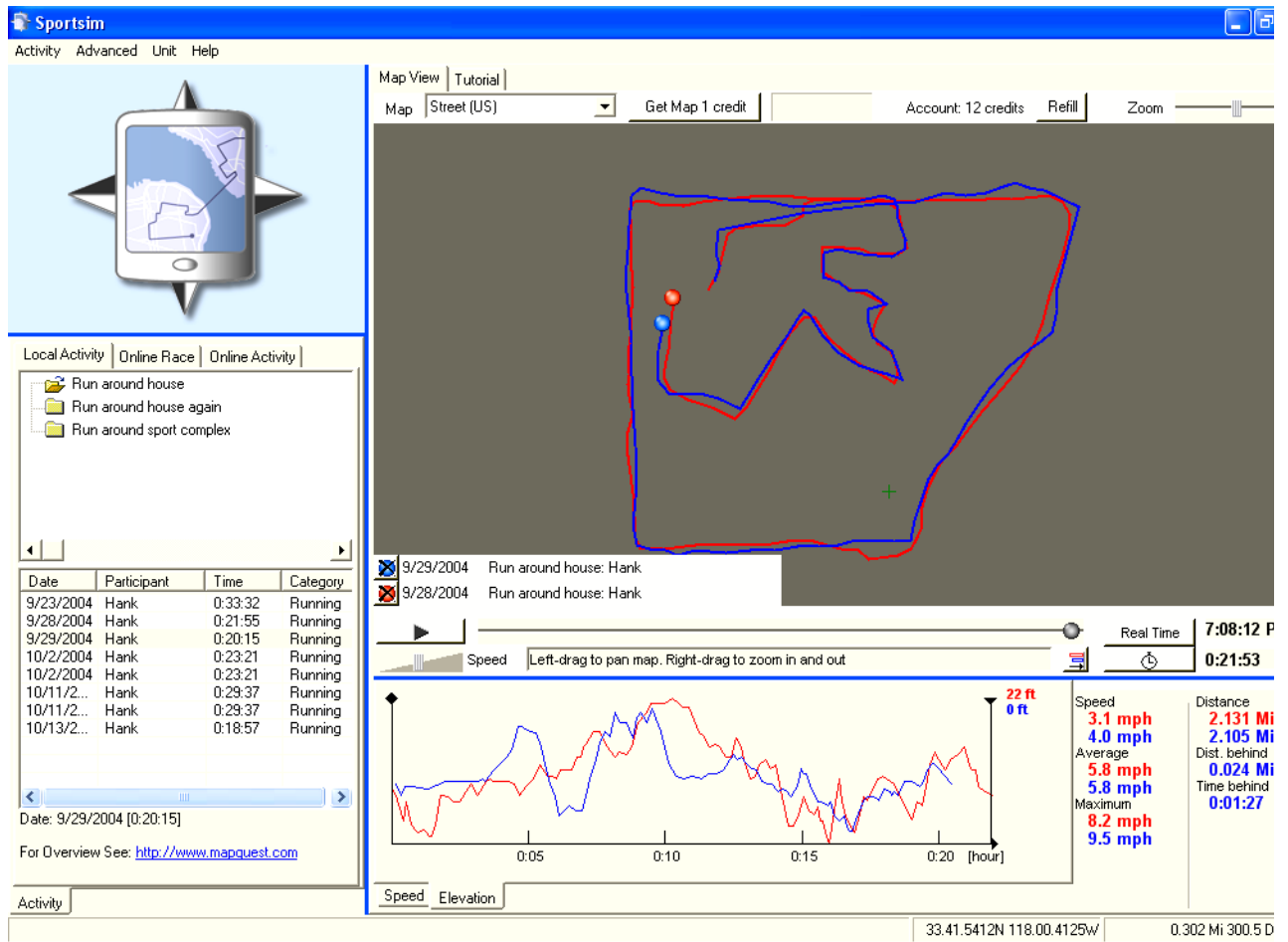
Sportsim – Sportsim is a program that installs and runs locally on your PC. It requires the .NET Framework from Microsoft to be installed. You will be asked to download .NET if required during the installation process.

<http://www.sportsim.com>

- View your outdoor activities on great maps
- Join online GPS racing
- Publish your favorite activity
- Replay and compare
- Analyze your achievements
- Share easily your data with friends
- Compete online anywhere at any time
- Explore and discover new places
- Save your GPS tracks\*

To download and superimpose your tracks on maps or images you need to pay. Otherwise, it is free. The nice feature of this program is the graphical moving comparison of your two or more runs. It's a blast to watch the two balls racing each other.

This program reads the tracks directly from the Forerunner 201. You only get 10 tracks because the Forerunner will only send the latest 10 tracks.



<http://jdmcox.com>

USAPhotoMaps downloads aerial photo and topo map data from Microsoft's free TerraServer Web site, saves it on your hard drive, and creates seamless maps from it. You can:

- Scroll and zoom
- See the latitude/longitude
- Add waypoints, routes, and text
- Jump to any waypoint or latitude/longitude in the U.S.A.
- Transfer waypoints, tracks, and routes to and from most GPS receivers
- See your GPS location
- And much more.

You should check out usa-photomaps from <http://jdmcox.com>. One of the cool features is that you can drive around with your laptop and the forerunner 201 connected to it and every second it updates your position on the screen (map or aerial photo) and auto saves it to a file.

Once installed,

menu GPS->comm port (the one you have the forerunner hooked to)

menu GPS->baud 9600 (worked for me)

menu GPS->protocol GARMIN

menu GPS->location->show location

Looks better if you download maps or photos of the region you will be traveling in first.

If you scroll the screen the dots will disappear but they are still saved in a file. Load it with

menu GPS->location->Display...

## 8. **Accessories.**

Garmin sells a number of accessories for the Forerunner 201 and 301. They can be found from:

[Forerunner 201 Accessories](#)

[Forerunner 301 Accessories](#)

New is the quick release kit. Check it out.

[http://clarque.typepad.com/mblog/2005/05/quick\\_release\\_m.html](http://clarque.typepad.com/mblog/2005/05/quick_release_m.html)

## 9. **Battery Maintenance.**

The Forerunner 201/301 comes with rechargeable Lithium Ion batteries. Lithium Ion batteries, unlike NiCad or other types, prefer to be topped off. Battery life will be lengthened by not subjecting them to deep discharge cycles.

The batteries themselves do not form a memory like NiCad. However, the "battery remaining" circuitry might, as a result will report erroneous time remaining. To solve this problem, let the batteries run completely down before recharging once every 3 months.

Check these links for more information about Lithium-Ion batteries:

<http://www.batteryuniversity.com/parttwo-34.htm>

<http://www.centralhobbies.com/instructional/lithium.html>

<http://www.high-techproductions.com/battery.htm>

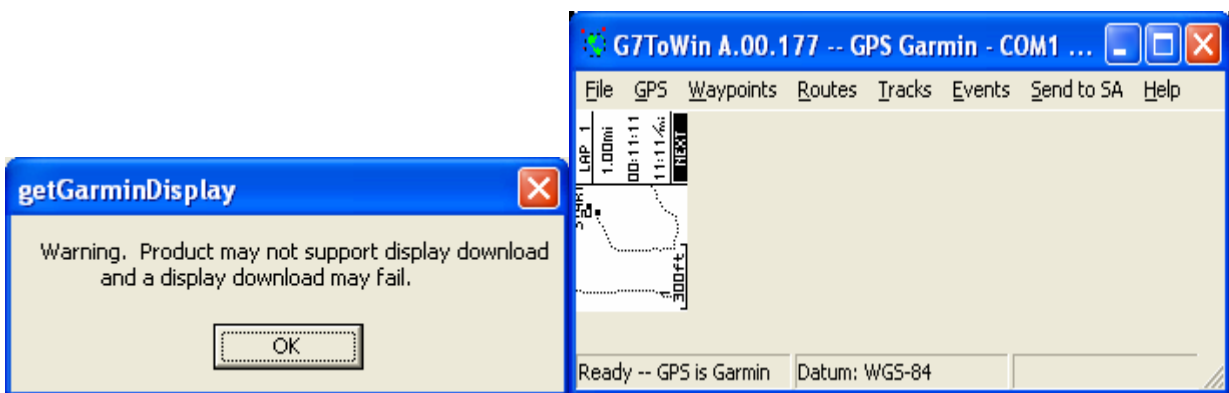
## 10. Interested in Making Screenshots as you see used herein?

### A. Use the G7toWin freeware program:

[G7toWin Link](#)

To get the screenshots using G7toWin,

1. Run the G7toWin program with the Forerunner cable hooked up and unit turned on.
2. On the G7toWin, under FILE, choose CONFIGURATION, under COM PORT; make sure you have it set to COM1 (or whatever your serial port is).
3. Press CTRL + D. This is a command that will download the screenshot. The program will warn you that it may not work, **ignore it** by pressing Enter. You should see the screenshot on the G7toWin. Note that the screenshot is tiny and needs to be rotated 90 degrees.
4. Press CTRL + C. This will copy it to the scratch pad.
5. Paste the image into a photo editor program like MS Photo Editor and save it in the format you want (I find gif to be smallest in size).



### B. Use Garmin's xImage:

I've just learned of this gem of software. What is xImage? XImage allows you to retrieve and update images on your GPS. For example, xImage makes it possible to get a screenshot from most GPS models. In addition, with certain newer models, xImage allows you to update some images (splash screen, waypoint symbols, etc.) with your own creations.

Download it from:

[http://www.garmin.com/support/download\\_details.jsp?id=546](http://www.garmin.com/support/download_details.jsp?id=546)

## 11. USB to Serial Adaptor

The Forerunner 201 comes with a RS232 serial port data connector for interfacing with the PC. Many of the new laptop computers have done away with serial data port and are therefore cannot interface with the Forerunner. You can purchase a USB to Serial data cable. One of the cables can be found in the following link:

<http://www.amazon.com/exec/obidos/tg/detail/-/B000067RVJ/ref%3Dpd%5Fsbs%5Fe%5F3/102-0874516-1757702>

If you are having problems with the PC recognizing the Forerunner, change your com port to COM4, then change the baud rate to 4800.

## 12. Questions and Answers -- FAQs



The following is a compilation of most frequently asked questions concerning the Forerunner 201

Q1. What happens to my data if the Forerunner runs out of battery in the middle of a run?

A1. You will have the data up to the time of battery runs out. The Forerunner will save all of the data just prior to losing power.

Q2. The PC will not recognize my Forerunner 201.

A2. Check to make sure the serial plug is **firmly** pushed all the in the Forerunner cradle. The fit is very snug and requires a little force. Sometimes you can hear a faint click. This is the cause of 95% of all failures to connect.

Q3. Will my Forerunner work under trees and tall buildings?

A3. This depends on how much obstructions created by trees and buildings. If you look up and do not see at least a quarter of the sky, it is very highly likely that the Forerunner will lose satellite signals. In severe cases, the Forerunner will display "Weak GPS Signal", but it is possible to lose signals without announcing.

Q4. So what happens to my data when the Forerunner loses signals?

A4. When the Forerunner loses satellite signals, it will assume that you continue on using the same heading and will fill in the blanks using this straight line method. It uses the distance you covered divided by time to calculate your pace. In cases you turn or running in a semicircle, the distance will be wrong and so will be you pace.

Q5. So what can I do to improve Forerunner satellite reception under trees and or tall buildings?

A5. Runners have reported that reception can be improved significantly by wearing the Forerunner on your upper arm. Even better if you wear it on your hat. The downside is that you can't easily view the display.

In severe cases, you can buy a "re-radiating" antenna. You can mount the antenna on your hat and it would re-radiate the satellite signals for the Forerunner to pick up. One of these antennas can be found at: <http://pc-mobile.net/gpsant.htm>

Q6. Why Is It When I Stop, My Map Starts Spinning Around?

A6. This is because when you stop; the GPS no longer knows your heading since heading is computed using two positions (where you were and where you are). In some GPS (like the Garmin 2610), when you stop, the last known heading is kept thus preventing the map to go crazy. Garmin chose not to do this in the Forerunner.

Q7. How Long Will the Forerunner Record My Tracks?

A7. Firmware 3.40 contains a fix that lengthened the amount of time from about 4 hours to at least 10 hours or so; depending on how straight your track will be (straight track uses fewer points and thus lengthens the time).

Q8\_1. What Will Come After the Forerunner 201 – The Forerunner 301

A8\_1. The answer is the Forerunner 301. Garmin posted the new information on their website on Jan. 5, 2005.



<http://www.garmin.com/products/forerunner301/>

Read the manuals and see for yourself:

<http://www.garmin.com/products/manual.jsp?product=010-00375-00>

Q8\_2. What Are The Major Differences Between the FR201 and FR301?

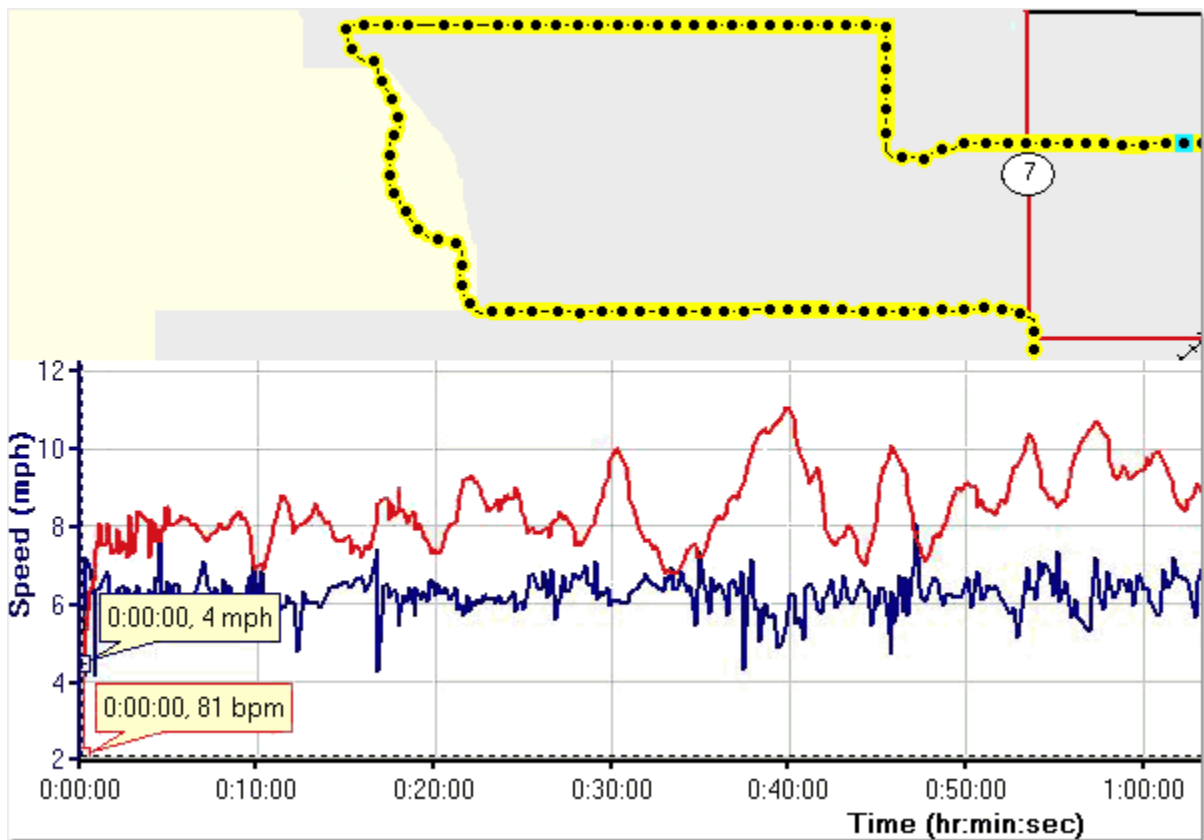
A8\_2. Following is a list of major improvements the FR301 has

- Integrated Heart Rate Monitor and associated displays
- USB Interface instead of Serial Interface. Batteries can be charged via USB connection besides using the charger.
- Exercise Activities (user-definable in addition to running and bicycling)
- Satellite Status Page
- Navigating with Routes (multiple waypoints)
- Workout Profiles – can be programmed and download via PC
- Better Log Book software – On the Training Center CD, it comes with the data for Trip and Waypoint Manager.

<http://www.garmin.com/cartography/mapSource/tripandwaypoint.jsp>

It's not very detailed at all, but it does display a map without buying additional software.

You can also download Mapsource 6.5 for free from the Garmin site, and get tools for managing routes, waypoints, etc. It just works with the trip and waypoint manager data that came. (Thanks to Mike Olund)



Forerunner 301 Training Center (Logbook).

Q9. How Accurate Is the Forerunner 201/301?

A9. This is one that is hard to answer satisfactorily because it depends on many variables. Some of these variables have to do with the way GPS in general works; some have to do with the operating conditions like being under trees and obstructions.

Based on reports from users, for a typical 5K run, expect distance error anywhere from 0.0 mile to 0.5 mile. For longer runs, errors may be worse.

Mick Chawner posted his findings in the GarminF forum

GarminF Forum <http://www.groups.yahoo.com/group/GarminF>

```
ForeRunner A
NUMBER OF RUNS FOUND = 16
AVG DISTANCE = 7.968 Km
SHORTEST DISTANCE = 7.890 Km ( -1.0 % )
LONGEST DISTANCE = 8.412 Km ( 5.6 % )
```

```
ForeRunner B
NUMBER OF RUNS FOUND = 2
AVG DISTANCE = 7.968 Km
SHORTEST DISTANCE = 7.928 Km ( -0.5 % )
LONGEST DISTANCE = 8.009 Km ( 0.5 % )
```

The above data shows you that instead of getting one number, you get a range of numbers that are different every time.

For GPS or any systems that uses triangulation, the accuracy greatly depends on the

geometry of the ranging devices (satellites in GPS case). The scientists came up with a term called HDOP and VDOP – horizontal (vertical) Dilution of Precision to represent the accuracy factor. It also depends on atmospheric conditions that distort the (pseudo)ranges and other factors like system errors. The HDOP is multiplied by the GPS errors to get the final estimated GPS error.

When we run, even on the same course, we rarely have the same satellite geometry or the same atmospheric conditions and that explains the spread of the results.

I do not intend to delve very deeply into the scientific mumbo jumbos involving a navigation system, many of which I myself do not understand. Rather, I want to point out the importance of perspective in judging accuracy. No matter how good a navigation system is, once in a while, it will produce a result so far off average that it will astound anyone. One simply should not use this number to judge the accuracy of the system by. Vice-versa, one should not take one data point that's dead-nut on and declare perfection. For navigation systems, the common method of referring to accuracy is the so-called 95% (2 times the standard deviation) probability. To simply explain it, after running the same course 100 times, you throw out the 5 worst numbers, and then declare the worst of the remaining numbers the accuracy of the system. However, keep in mind that the accuracy you will most commonly get (about 70% of the time) will be the averaged number, not this 95% number.

To make result interpretation even more confusing and hard to qualify and quantify when it comes to distance measured is that the FR201, as designed, integrates the distance you travel. So the distance error is an accumulation of errors, not just a single one. Let's assume that the FR201 computes a position every second. Imagine it is in the middle of a circle. Because of inherent errors, it thinks that it's 50 ft to the left of the circle. The next second, it thinks that it's 50 ft to the right of the circle. Now that's 100 ft error in 2 seconds without going anywhere. Luckily, if you let it sit around a while, most of the errors cancel themselves out but expect some errors. Of course when we run, we are constantly on the move...while we know we are moving in a straight line, due to errors, the GPS think we are zigzagging around and depending on the direction of the zigzag, the FR201 might end up reporting short or long...it's almost random...

Many of us use distances for actual races to measure the Forerunner accuracy. This is a fine practice as long as you keep in mind the following factors:

1. Unless you are an elite racer, you do not start at the start line, rather about 0.2mi or so down so subtract this from your Forerunner.
2. The official distance – how is it measured? You need to know this. I do not know how this is commonly accomplished. In one race, I actually saw race organizers actually walked the distance with a wheel-based distance measuring device. Because of traffic, it was done near the curb on one side of the road. When we run, we may not follow this thus varying the actual distance.
3. One data point is statistically insignificant when judging accuracy.

Having said all that mumbo jumbo about statistics, I had my Forerunner turned on next to my Garmin 2610 (a WAAS capable car navigation system that costs 5 times more than the Forerunner) in my car to and from work for a few days. Both measured exactly the same distance every time. That's good enough for me, statistics be darned! ☺ DiverHank.

Q10. Forerunner 201 Compatibility With Heart Rate Monitor

A10. Most Forerunner users report good compatibility with Heart Rate Monitors with a few exceptions. The following have been confirmed to work with the Forerunner 201 without problems:

Polar S410, S710, S810i, A5, Beat  
Suunto HRM

One user reported an interference with the **Timex Bodylink**, preventing the FR201 from working correctly. One user reported a problem with the FR201 actually interfering with the HRM, a **Polar S210**, making the S210 displaying higher than normal heart rate. This makes no sense to most of us since the FR201 is not transmitting anything.

Q11. I want to make my own cable for the FR201. Cable Connection (Pin-Out)

A11. This was from member **Stanljr** of the GarminF forum (I have not verified accuracy)

1) Connector into the Garmin cradle is a 0.097" (2.5mm) 3 conductor (stereo) plug. Note that this is not the typical 1/8" (3.5mm) stereo mini-plug, but smaller.

2) Other connector is a 9 pin female Dsub (PC serial style).

3) Wiring is

Tip of plug to pin 2 of Dsub  
Ring (middle contact) to pin 3 of Dsub  
Sleeve (last contact on plug) to pin 5 of Dsub

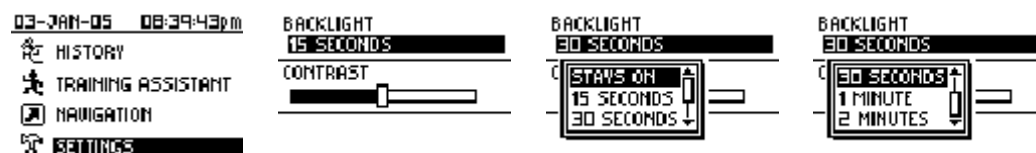
Suggest using shielded cable with shield attached to metal shell of Dsub.

Q12. I run mostly at night – How do I turn the backlight on?

A12. After the Forerunner 201 is turned on, momentarily press and release the power button to turn the backlight on. Do not press and hold as it will shut the FR201 off. Momentarily press and release the power button again to turn backlight mode off.

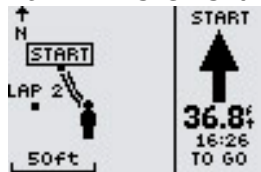
After that, you can press any button to activate the backlight (without affecting function). You can set the time the backlight stays on. The choices are 15 Seconds, 30 Seconds, 1 Minute, 2 Minute, or Stay On

To set the backlight time, choose SETTINGS, scroll down to SET DISPLAY, press enter to choose the correct time using up/down buttons then press enter.



Q13. Can I use the Forerunner 201/301 for Geo-Caching?

A13. Most definitely!!! The Forerunner 201 and FR301 has a decent navigation function that can help you navigate right to a geo-caching waypoint and it is just as accurate as any non-WAAS GPS' that are being used for geo-caching.



I have discovered that you can combine your easy runs with geo-caching that makes it really fun. <http://www.geocaching.com/>

What I'd do is to search for the geo-caches around my house. You'd be surprised to find how many there are within a 5-mile radius. I'd store these waypoints in the FR201 and I'd run to the geo-caches, find them then run back home. Thanks to the FR201 multiplexing capability – performing multiple tasks at the same time - you can start the timer to track your run as normal, and tell the unit to find the waypoint and it will provide you guidance while keeping track of everything else.

I found my first cache a last night (1/25/05) on an easy 3 mile run. I planned it to run near the cache about half way. Stopped and looked for the treasure – a nice rest. My FR201 incredibly guided me to within 3 feet of the cache. After I found it, I ran home...very happy.

This way I can spend my easy long runs running to and from the caches whose locations will get longer and longer as I would have found all the closer ones...What a great addition to training...this geo-caching activity.

Q14. Who Makes the Heart Rate Monitor For the FR301?

Thanks, Frank Kanneman

A14. The HRM component is "compatible" with (may have been designed by) Cardiosport Digital System 122.

Here are 2 links:

<http://www.heartratemonitor.co.uk/cardiosport.html>

<http://bodytronics.com/shop/index.cgi?code=3&cat=4>

Q15. FR301 - I am having intermittent USB communication problems.

Thanks, Frank Kanneman

A15. Check to insure rubber cover is in place during use and verify the connection is not wet. If it is wait until dry before charging or synch'ing

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