

# Fit File Repair Tool

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## *FAQ (Frequently Asked Questions)*

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*Remark:* English is not my mother language. If you find linguistic errors or imperfections please feel free to inform me about them or – even better – please send me a corrected text. Thank you!

## 1. How can I quickly correct obviously false data, for instance a cadence value of 230 which appears in 20 records?

### Answer:

The Tool provides a feature to edit multiple records at the same time. You have to correct the false value only once and let the tool copy the corrected value into the other records.

Step by step solution:

- (1) Order the records by the field which contains the false data, for instance “cadence”, descending.
- (2) Click with the mouse into the last record that you want to select for the edit operation
- (3) Click unto the bottom “up to here” in the region “quick select”
- (4) Change the false value into the desired value in ONE of the selected records
- (5) Answer the following question (Would you like to copy the new value to the other ... records which are currently selected?) with Yes

Timestamp	Time (Rel.)	Position Lat.	Position Long	Altitude	Distance	Dist. GPS	Heart Rate	Cadence	Speed	Power (mWatt)	Temp. (C)	Lap	Error	Select
23.06.2012 15:48:48	00:19:35	22,4876°S	41,9314°W	2,4	0,00	0,01	114	230	0,00	49488	26	1	<input checked="" type="checkbox"/>	
23.06.2012 15:48:51	00:19:38	22,4876°S	41,9314°W	2,4	0,00	0,01	114	230	0,00	49488	26	1	<input checked="" type="checkbox"/>	
23.06.2012 15:48:49	00:19:36	22,4876°S	41,9314°W	2,4	0,00	0,01	114	230	0,00	49488	26	1	<input checked="" type="checkbox"/>	
23.06.2012 15:48:50	00:19:37	22,4876°S	41,9314°W	2,4	0,00	0,01	113	230	0,00	49488	26	1	<input checked="" type="checkbox"/>	
23.06.2012 15:48:40	00:19:27	22,4876°S	41,9314°W	2,4	0,00	0,01	114	150	0,00	49488	26	1	<input checked="" type="checkbox"/>	
23.06.2012 15:48:30	00:19:17	22,4876°S	41,9314°W	2,4	0,00	0,01	123	130	0,00	49488	26	1	<input checked="" type="checkbox"/>	
23.06.2012 15:48:33	00:19:20	22,4876°S	41,9314°W	2,4	0,00	0,01	124	130	0,00	49488	26	1	<input type="checkbox"/>	
23.06.2012 15:48:34	00:19:21	22,4876°S	41,9314°W	2,4	0,00	0,01	124	130	0,00	49488	26	1	<input type="checkbox"/>	
23.06.2012 15:48:35	00:19:22	22,4876°S	41,9314°W	2,4	0,00	0,01	124	130	0,00	49488	26	1	<input type="checkbox"/>	
23.06.2012 15:48:36	00:19:23	22,4876°S	41,9314°W	2,4	0,00	0,01	123	130	0,00	49488	26	1	<input type="checkbox"/>	
23.06.2012 15:48:37	00:19:24	22,4876°S	41,9314°W	2,4	0,00	0,01	120	130	0,00	49488	26	1	<input type="checkbox"/>	
23.06.2012 15:48:38	00:19:25	22,4876°S	41,9314°W	2,4	0,00	0,01	117	130	0,00	49488	26	1	<input type="checkbox"/>	
23.06.2012 15:48:31	00:19:18	22,4876°S	41,9314°W	2,4	0,00	0,01	123	130	0,00	49488	26	1	<input type="checkbox"/>	

Timestamp	Position Lat.	Position Long	Altitude	Distance	Distance (GPS)	Heart Rate	Cadence	Speed	Power	Temp.	Lap	Error	Select
23.06.2012 15:29:13	22,4869°S	41,9314°W	-77,6	0,00	0,00	87	7	0,00	12	24	1	<input checked="" type="checkbox"/>	
23.06.2012 16:57:22	22,4877°S	41,9314°W	4,4	0,09	0,11	190	230	11,60	49488	28	1	<input checked="" type="checkbox"/>	
(Avg. without breaks)						159	76	0,05	545	26		<input type="checkbox"/>	
						138	25	7,52	32	27		<input type="checkbox"/>	

## 2. I have accidentally turned on my device again after the end of the activity – now some unwanted records appear at the end and GPS/distance values are wrong. How can I delete these records?

### Answer:

Very easily:

- (1) Select these records by clicking into the field “select”
- (2) Click unto the bottom “Delete”

Timestamp	Time (Rel.)	Position Lat.	Position Long	Alt. (m)	Dist. (km)	Dist. GPS (km)	Heart Rate	Cadence	Speed	Power	Temp. (C)	Lap	Go to Error (1)	Add Merge	Delete selected record(s)	Selected
23.06.2012 16:57:11	01:27:58	22,4869°S	41,9314°W	-69,8	0,09	0,11	153	20	0,00	19	26	3			<input type="checkbox"/>	<input type="checkbox"/>
23.06.2012 16:57:12	01:27:59	22,4869°S	41,9314°W	-69,8	0,09	0,11	154	20	0,00	19	26	3			<input type="checkbox"/>	<input type="checkbox"/>
23.06.2012 16:57:13	01:28:00	22,4869°S	41,9314°W	-69,8	0,09	0,11	153	20	0,00	19	26	3			<input type="checkbox"/>	<input type="checkbox"/>
23.06.2012 16:57:14	01:28:01	22,4869°S	41,9314°W	-69,8	0,09	0,11	153	20	0,00	19	26	3			<input type="checkbox"/>	<input type="checkbox"/>
23.06.2012 16:57:15	01:28:02	22,4869°S	41,9314°W	-69,8	0,09	0,11	153	20	0,00	19	26	3			<input type="checkbox"/>	<input type="checkbox"/>
23.06.2012 16:57:16	01:28:03	22,4869°S	41,9314°W	-69,8	0,09	0,11	153	20	0,00	19	26	3			<input type="checkbox"/>	<input type="checkbox"/>
23.06.2012 16:57:17	01:28:04	22,4869°S	41,9314°W	-69,8	0,09	0,11	153	20	0,00	19	26	3			<input type="checkbox"/>	<input type="checkbox"/>
23.06.2012 16:57:18	01:28:05	22,4869°S	41,9314°W	-69,8	0,09	0,11	152	20	0,00	19	26	3			<input type="checkbox"/>	<input type="checkbox"/>
23.06.2012 16:57:19	01:28:06	22,4869°S	41,9314°W	-69,8	0,09	0,11	151	20	0,00	19	26	3			<input type="checkbox"/>	<input type="checkbox"/>
23.06.2012 16:57:20	01:28:07	22,4869°S	41,9314°W	-69,8	0,09	0,11	151	20	0,00	19	26	3			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
23.06.2012 16:57:21	01:28:08	22,4869°S	41,9314°W	-69,8	0,09	0,11	151	20	0,00	19	26	3			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
23.06.2012 16:57:22	01:28:09	22,4869°S	41,9314°W	-69,8	0,09	0,11	151	20	0,00	19	26	3			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

All min/max/average values will be recalculated after the deletion automatically.

### 3. Can I split a fit file into multiple files?

Answer:

Yes.

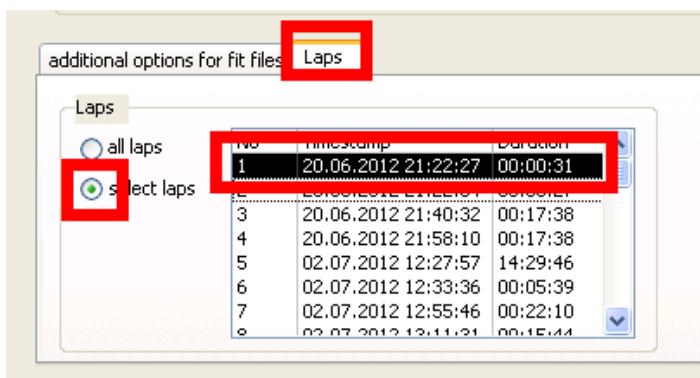
Step by step solution:

- (1) Import the fit file into the Repair Tool
- (2) Find the record where you want to split the file on the page “Records”
- (3) Click into the field “select” and after that click the button “Add” in the frame “Lap” to start a new lap at this point of your activity. Keep the number of the new lap in mind!

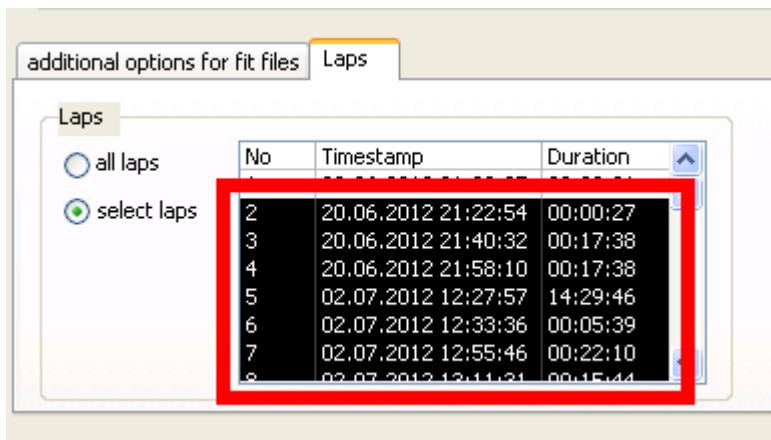
Speed (km/h)	Power (Watt)	Temp. (C)	Lap	Error	Select
25,53	644	25	1		<input type="checkbox"/>
25,53	380	25	1		<input type="checkbox"/>
27,87	268	25	1		<input type="checkbox"/>
29,67	287	25	1		<input type="checkbox"/>
30,32	268	25	1		<input type="checkbox"/>
30,99	268	25	1		<input type="checkbox"/>
30,99	270	25	1		<input type="checkbox"/>
32,03	237	25	1		<input type="checkbox"/>
32,71	231	25	1		<input checked="" type="checkbox"/>
33,27	231	25	1		<input type="checkbox"/>
33,27	205	25	1		<input type="checkbox"/>
33,79	205	25	1		<input type="checkbox"/>

18	133	81	25,53	380	25	1	
19	134	91	27,87	268	25	1	
20	134	105	29,67	287	25	1	
21	134	98	30,32	268	25	1	
22	134	99	30,99	268	25	1	
23					25	1	
24					25	1	
25					25	2	
26					25	2	
27					25	2	
28					25	2	
29					25	2	
30	134	97	34,24	233	25	2	
31	134	86	34,24	228	25	2	

- (4) Start an Export by clicking the bottom “Export file”, select a proper file name (for instance “2012-06-07-part1.fit”) and select the page “Laps”. There you can select the laps that you want to export into the new fit file.



- (5) Repeat step 4, choose a proper filename (“...-part2.fit”) and select the remaining laps for the export.



In this example 2 new fit files have been generated – one file with the records of lap 1, the other one with the records of lap 2 – 8.

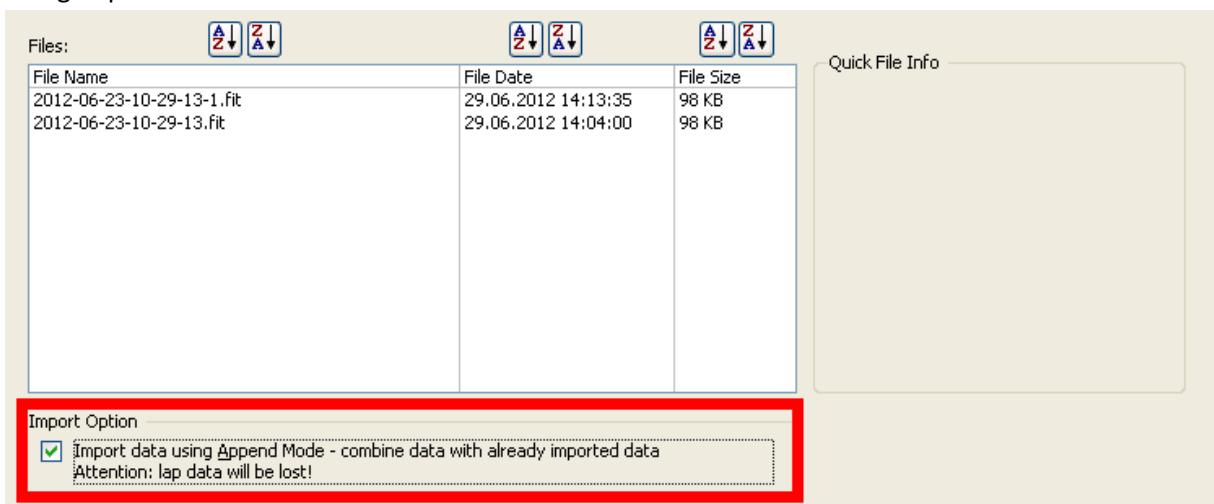
## 4. Can I merge multiple Fit Files?

### Answer:

Yes, that's possible.

Step by step solution:

- (1) Import the first fit file into the Repair Tool in the normal way – make sure that this file is the first file in the chronological order of the files you want to combine
- (2) Import the second fit file – please select the option “Import data using Append Mode” and make sure you import in the correct chronological order. Repeat this step until all files are being imported



- (3) Export the imported data into a new fit file. All sum and average values are being recalculated automatically.

## 5. Why are Calories/Sport Type etc. missing in some cases?

### Answer:

If data corruption happens at the end of the fit file some values which can be found on the page “Device Info ...” might be missing and need to be filled in manually in order to export a correct file. These values are part of the message types that appear at the end of fit files.

A possible reason for this kind of data corruption is an empty battery.

The screenshot shows the Fit File Repair Tool's main window. At the top, there are tabs: Records, Laps, Event Log, Device Info, Diagrams and Misc., Message Type Info, and Data corruption in imported file. The 'Records' tab is selected.

The main area displays a table with columns: Index, Type, Serial No., Product, and Version No. Software and Hardware. The data is as follows:

Index	Type	Serial No.	Product	Version No. Software	Version No. Hardware
0	ANTPS	3734460520	Edge 500	300	
1	ENVIRONMENT_SENSOR				230
2	ENVIRONMENT_SENSOR				
3	HEART_RATE	24655594			
4	BIKE_POWER	84609469			
5	BIKE_SPEED_CADENCE	24766666			

Below the table, a specific file entry is expanded, showing its details. A red box highlights the 'Sport Type' field, which contains a dropdown menu. The other fields show the following values:

- Filename: \\tsclient\c\$\Users\mk\Downloads\2012-06-23-10-29-13-1.fit
- Ttime (UTC, local): 23.06.2012 13:29:14
- Calories:
- Manufacturer: 1 SARMIN
- Product: 1169 Edge 800
- Serial Number:
- Software Version: 300
- Sport Type: (highlighted by red box)

## 6. What are possible reasons for corrupted fit files? How can data corruption be avoided?

### Answer:

I know that I have only a very limited knowledge about reasons for data corruption. In some cases files get corrupted because the battery became empty during the recording process.

In other cases it seems that a file reorganization went wrong and some records don't appear in their chronological order and cause corrupted data therefore.

Some hints to minimize the risk of data corruption:

- Regularly check for firmware updates
- Keep the number of files in your activity folder on the device's file system down. If you delete the files in your activity folder with a Mac computer then empty the trash folder before you unplug your device from the computer.

## 7. Why do I have to pay for a license of the Repair Tool? Shouldn't it be free of charge or be financed by Garmin?

### Answer:

Programming and updating this Repair Tool requires a lot of time. Between July 2011 and May 2012 I have invested more than 400 hours in this tool. At the moment still about one hour per day of my time is invested into the project. Because new firmware versions are published updates of the Repair

Tool will be needed in the future. In addition to programming the tool I try to help people who send me corrupted files that cannot be automatically be repaired by the Tool. Normally they get help within 2-3 days.

I don't live by this project but I think a reasonable price for the tool is a fair way of acknowledgement. Most of the money that I get for the licenses is being spent for social projects – I keep less than 50% of the money for my personal use.

Shouldn't Garmin pay for such a Repair Tool? I'm not against it but there are no signs for Garmin's wish to sponsor or finance such a project at the moment.