

Fit File Repair Tool

Merging a Bike Computer and Zwift activity file

Initial situation:

I have two files – one recorded with my bike computer (paired with my smart trainer), the other file recorded with Zwift (or any other trainer software!) running on my PC.

Merging the two files is a challenge because timestamps are similar but not equal.

Why are timestamps in both files not equal?

- The bike computer's internal watch might be wrong because it didn't have a GPS link before you started the recording of your indoor trainer session
- The watch built in the (smart) trainer might be wrong because it has to be set manually
- The computer (running Zwift etc) might have a wrong time

I use a Garmin Edge 830 as bike computer and Zwift (running on a PC) as training platform. Even if my Edge 830 had a GPS link some hours before I started my trainer session and my PC is connected to the internet, I normally have a shift of 5 to 10 seconds between the two files that my devices record.

Motivation and Approach

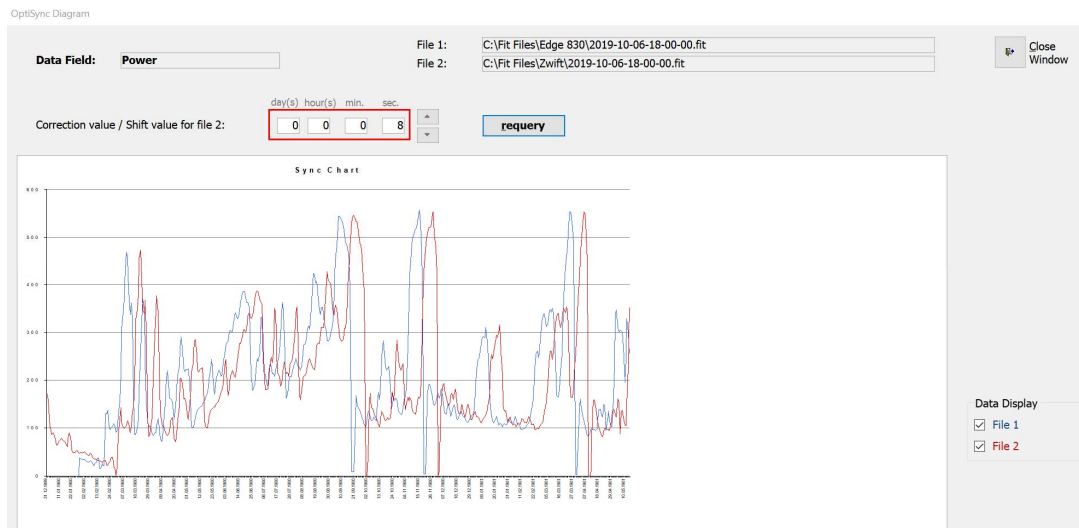
Why do I want to merge data of both files?

Because my Edge 830 calculates and stores Training Effect, Training Load etc which helps me to calculate my weekly training load. But my Edge 830's fit file contains no GPS position data, elevation and not the distance values which Zwift calculates etc.

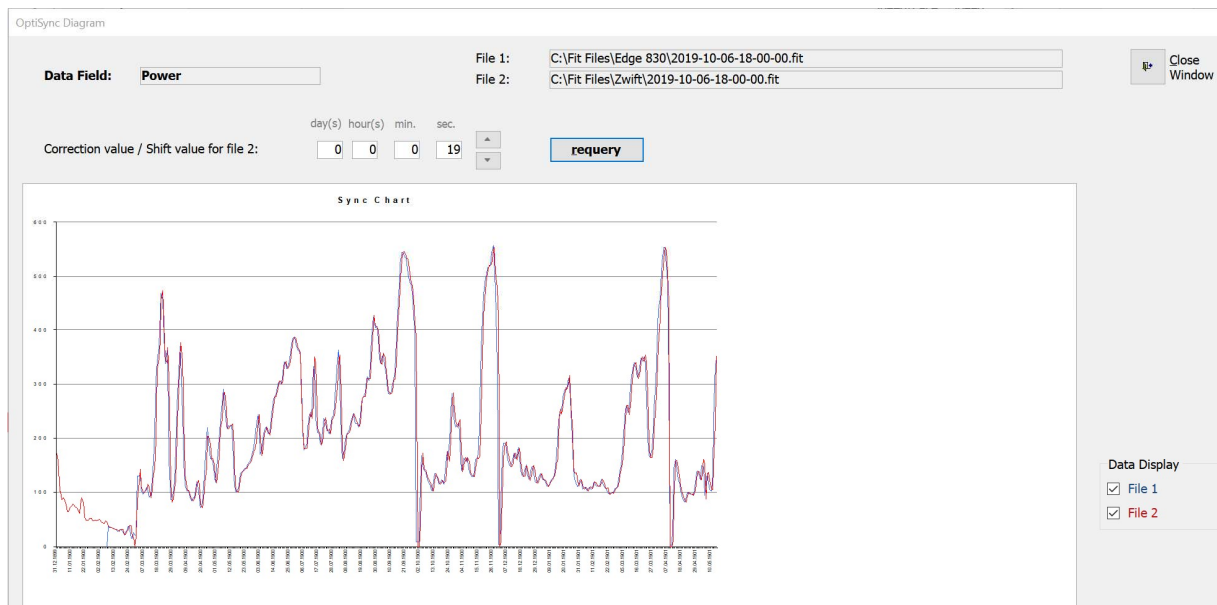
Having the Fit File Repair Tool I thought it would be easy to combine the "best of both worlds" by merging the bike computer's fit file and the Zwift fit file. But I noticed how hard it is to synchronise the merge because the timestamps are not equal.

Therefore I invested a lot of time during the last weeks to develop a technique to synchronize two activity files using a data field which both files contain and which has the same contents. Heart Rate, Cadence and Power are the data fields I chose because these are the values a bike computer (connected to a smart trainer via ANT+ or bluetooth) can record and which are contained in Zwift files as well. In these cases my algorithm compares the graphs and moves the second graph over the first one until it matches perfectly.

Original situation without time shift:



My algorithm shifts the second graph until a good match is reached:



In this case the calculated time shift value is 19 seconds.

I named my algorithm “OptiSync” and implemented it in Fit File Repair Tool.

File 1: Bike computer file

In this documentation the bike computer recording consists of a **fit** file. But the file can be in **tcx/hrm/xml** format as well.

The bike computer file contains Heart Rate, Cadence, Power (which I want to keep) but:

- no GPS position data and
- “real world” distance values (0-25 km) which I want to replace by values calculated by Zwift
- “real word” speed values which I also want to replace by values calculated by Zwift

Fit File Repair Tool

Import and repair file

Export file

Upload file

C:\Fit Files\Edge 830\2019-10-06-18-00-00.fit

Speed/Pace: Speed

Settings/Information

Quit Application

Records Sessions and Laps

Event Log

Developer Data

Battery

Cycling Dynamics

Power

Others

Devices, File Info

Advanced Repair

Features

Indoor Activities

Data Analysis

Message Type Info

Data corruption

Setting

Filter

Sort records by

Timestamp

Position Lat.

Position Long.

Altitude

Distance

Dist. GPS

Heart Rate

Cadence

Speed

Power

Temp.

Laps

Delete

Show

Timestamp	Duration	Position Lat.	Position Long.	Altitude (m)	Distance (km)	Dist. GPS (km)	Heart Rate	Cadence	Speed (km/h)	Power (Watts)	Temp. (°C)	LAP	Error	Select	
▶ 06.10.2019 17:49:23	00:00:00				0,00		62				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:24	00:00:01				0,00		62				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:26	00:00:03				0,00		63				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:27	00:00:04				0,00		64				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:29	00:00:06				0,00		65				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:30	00:00:07				0,00		66				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:31	00:00:08				0,00		67				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:32	00:00:09				0,00		68				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:33	00:00:10				0,00		69				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:35	00:00:12				0,00		70				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:39	00:00:16				0,00		69				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:42	00:00:19				0,00		70				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:45	00:00:22				0,00		71				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:47	00:00:24				0,00		72				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:50	00:00:27				0,00		73				18,0	1		<input type="checkbox"/>	
06.10.2019 17:49:53	00:00:30				0,00		74				18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:06	00:00:43				0,06		74	68	18,57		18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:07	00:00:44				0,07		74	68	18,86	0	18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:08	00:00:45				0,07		74	68	18,96	37	18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:09	00:00:46				0,08		74	68	19,25	35	18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:10	00:00:47				0,08		74	70	19,44	35	18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:11	00:00:48				0,09		74	70	19,80	34	18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:12	00:00:49				0,10		74	71	20,07	34	18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:13	00:00:50				0,10		74	73	20,56	31	18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:14	00:00:51				0,11		74	77	21,08	30	18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:15	00:00:52				0,11		73	77	21,56	28	18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:16	00:00:53				0,12		74	80	22,15	29	18,0	1		<input type="checkbox"/>	
06.10.2019 17:50:17	00:00:54				0,13		73	80	22,51	32	18,0	1		<input type="checkbox"/>	

Datensatz: 14 von 376

Suchen

Min./Max./Avg. values

Timestamp

Position Lat.

Position Long.

Altitude

Distance

Dist

My device used the “smart recording” mode, there are some gaps at the beginning of the file which is not a problem to the syncing process:

Timestamp	Duration
06.10.2019 17:49:23	00:00:00
06.10.2019 17:49:24	00:00:01
06.10.2019 17:49:26	00:00:03
06.10.2019 17:49:27	00:00:04
06.10.2019 17:49:29	00:00:06
06.10.2019 17:49:30	00:00:07
06.10.2019 17:49:31	00:00:08
06.10.2019 17:49:32	00:00:09
06.10.2019 17:49:33	00:00:10
06.10.2019 17:49:35	00:00:12
06.10.2019 17:49:39	00:00:16
06.10.2019 17:49:42	00:00:19
06.10.2019 17:49:45	00:00:22
06.10.2019 17:49:47	00:00:24
06.10.2019 17:49:50	00:00:27

My bike computer file contains “Training Effect” data (which I want to keep) as shown on register tab “Session Details”:

Fit File Repair Tool × Session Details ×

Select Session:

Session	Timestamp	Sport
1	06.10.2019 18:52:19	cycling

Close

Session No. Sport Subsport

Time, Distance Speed, Heartrate, Power Swim Power Analysis Cycling Dynamics Running Dynamics Time in Zones Developer Data Hemoglobin **Training Effect**

Training Effect

Primary Benefit

Training Effect

Anaerobic Training Effect

Training Load

File 2: Zwift file

File contains Heart Rate, Cadence, Power, GPS position data (Watopia) and “virtual reality” distance values (0-31 km).

Fit File Repair Tool

Import and repair file

Export file

Upload file

C:\Fit Files\Zwift\2019-10-06-18-00-00.fit

Speed/Pace: Speed

Settings/Information

Quit Application

Records Sessions and Laps Event Log Developer Data Power Devices, File Info Advanced Repair Features Indoor Activities Data Analysis Message Type Info Data corruption Data Privacy

Filter

Sort records by

Timestamp

Position Lat.

Position Long.

Altitude

Distance

Dist. GPS

Heart Rate

Cadence

Speed

Power

Temp.

Laps

Delete

Show

Timestamp

Duration

Position Lat.

Position Long.

Altitude (m)

Distance (km)

Dist. GPS (km)

Heart Rate

Cadence

Speed (km/h)

Power (Watts)

Temp. (°C)

LAP

Error

Select

06.10.2019 17:48:59

00:00:00

40,778742°N

73,966028°W

33,8

0,00

0,00

64

0

7,40

171

1

06.10.2019 17:49:00

00:00:01

40,778721°N

73,966044°W

33,8

0,00

0,00

65

55

9,92

159

1

06.10.2019 17:49:01

00:00:02

40,778699°N

73,966060°W

33,8

0,01

0,01

66

55

11,64

101

1

06.10.2019 17:49:02

00:00:03

40,778672°N

73,966076°W

33,8

0,01

0,01

66

61

12,61

101

1

06.10.2019 17:49:03

00:00:04

40,778646°N

73,966098°W

33,8

0,01

0,01

68

62

13,36

86

1

06.10.2019 17:49:04

00:00:05

40,778616°N

73,966125°W

33,8

0,02

0,02

69

65

14,07

90

1

06.10.2019 17:49:05

00:00:06

40,778589°N

73,966151°W

33,8

0,02

0,02

69

65

14,67

84

1

06.10.2019 17:49:06

00:00:07

40,778557°N

73,966178°W

33,8

0,03

0,02

70

66

15,18

78

1

06.10.2019 17:49:07

00:00:08

40,778528°N

73,966210°W

33,8

0,03

0,03

70

65

15,57

65

1

06.10.2019 17:49:08

00:00:09

40,778493°N

73,966243°W

33,8

0,04

0,03

70

66

15,88

65

1

06.10.2019 17:49:09

00:00:10

40,778463°N

73,966275°W

33,8

0,04

0,04

70

67

16,21

71

1

06.10.2019 17:49:10

00:00:11

40,778428°N

73,966312°W

33,8

0,04

0,04

69

67

16,59

75

1

06.10.2019 17:49:11

00:00:12

40,778393°N

73,966339°W

33,8

0,05

0,05

69

67

16,96

79

1

06.10.2019 17:49:12

00:00:13

40,778359°N

73,966371°W

33,8

0,05

0,05

69

67

17,33

78

1

06.10.2019 17:49:13

00:00:14

40,778326°N

73,966409°W

33,8

0,06

0,06

70

68

17,68

73

1

06.10.2019 17:49:14

00:00:15

40,778286°N

73,966441°W

33,8

0,06

0,06

70

68

17,99

71

1

06.10.2019 17:49:15

00:00:16

40,778249°N

73,966479°W

33,6

0,07

0,07

70

68

18,29

68

1

06.10.2019 17:49:16

00:00:17

40,778214°N

73,966511°W

33,6

0,07

0,07

71

68

18,59

62

1

06.10.2019 17:49:17

00:00:18

40,778174°N

73,966548°W

33,6

0,08

0,08

71

68

19,02

76

1

06.10.2019 17:49:18

00:00:19

40,778133°N

73,966586°W

33,6

0,08

0,08

72

69

19,40

90

1

06.10.2019 17:49:19

00:00:20

40,778096°N

73,966618°W

33,6

0,09

0,09

72

69

19,75

81

1

06.10.2019 17:49:20

00:00:21

40,778050°N

73,966645°W

33,6

0,10

0,09

72

68

19,93

54

1

06.10.2019 17:49:21

00:00:22

40,778007°N

73,966683°W

33,6

0,10

0,10

73

68

20,10

48

1

06.10.2019 17:49:22

00:00:23

40,777962°N

73,966715°W

33,6

0,11

0,10

73

68

20,30

49

1

06.10.2019 17:49:23

00:00:24

40,777921°N

73,966747°W

33,6

0,11

0,11

73

67

20,52

48

1

06.10.2019 17:49:24

00:00:25

40,777876°N

73,966774°W

33,6

0,12

0,12

74

67

20,74

52

1

06.10.2019 17:49:25

00:00:26

40,777825°N

73,966806°W

33,4

0,12

0,12

74

67

21,15

52

1

06.10.2019 17:49:26

00:00:27

40,777777°N

73,966838°W

33,4

0,13

0,13

74

66

21,38

47

1

Datensatz: 14 von 379

Min./Max./Avg. values

Timestamp

Position Lat.

Position Long.

Altitude

Distance

Dist.(GPS)

Heart Rate

Cadence

Speed

Power

Temp.

Lap

Min. 06.10.2019 17:48:59

40,763539°N

73,953304°W

4,4

0,00

0,00

64

0

0,00

0

1

Max. 06.10.2019 18:52:09

40,799631°N

73,982089°W

132,8

31,72

31,71

155

128

76,10

688

1

Avg.

122

83

30,10

207

Avg.+ (Avg. without breaks)

122

83

30,12

207

quick select

all

nothing

between

invert selection

up to here

from here

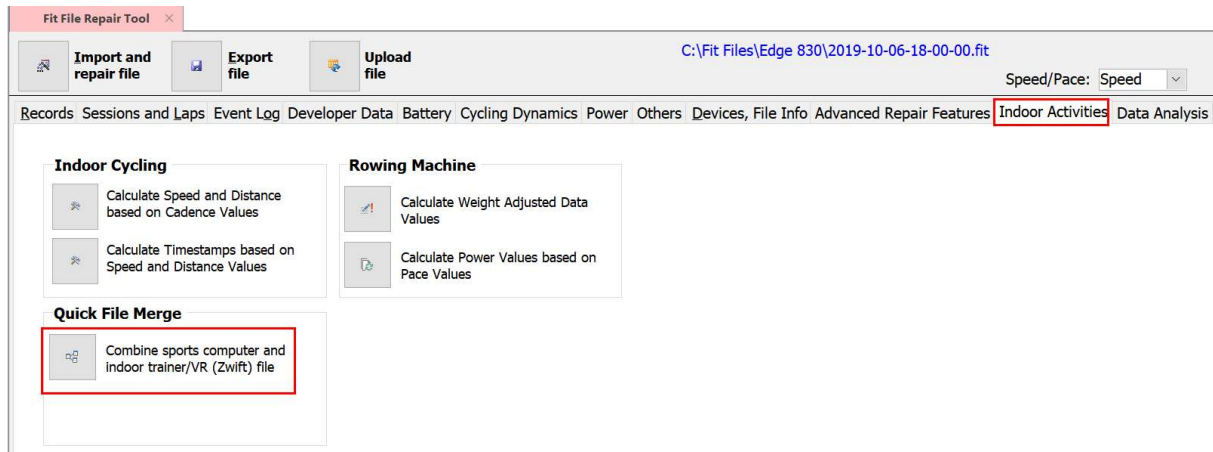
every [n] record

The Zwift file doesn't contain Training Effect data.

Merging both files

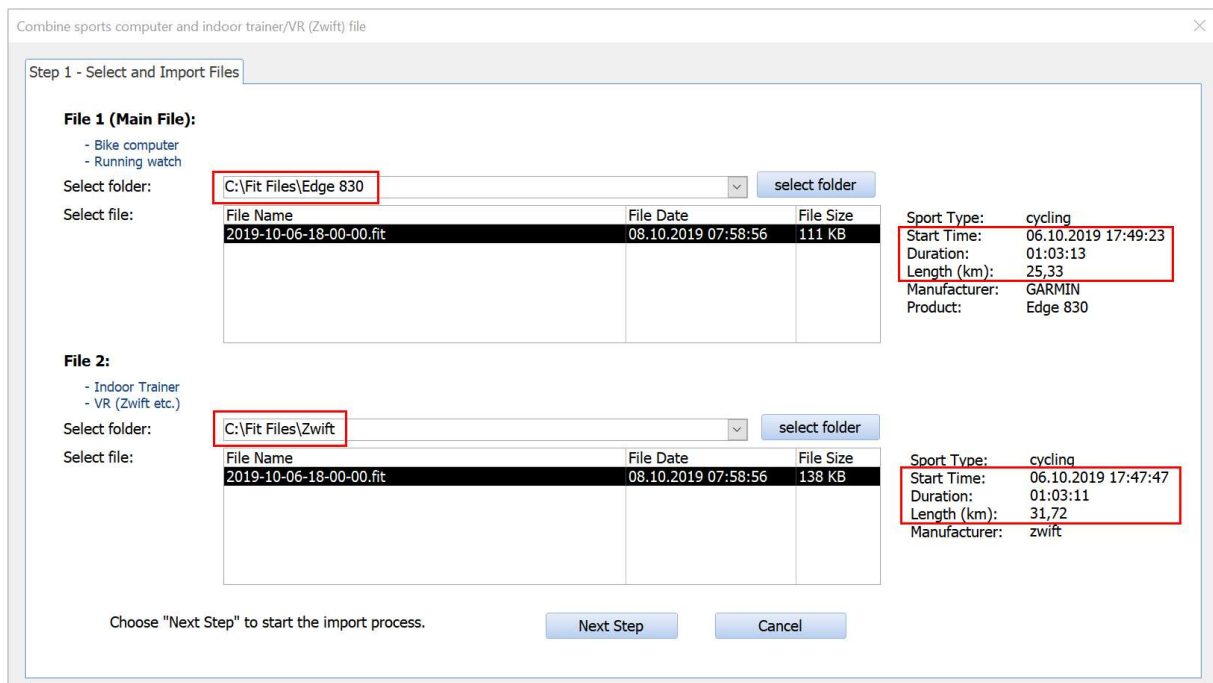
Step 1:

Call the new function “Combine sports computer and indoor trainer file”



Step 2

Select the file folder(s) which contain your two files and select the proper files:



Please verify you selected the correct files by verifying the file information that is displayed after you selected the files.

Please click on the button “Next Step” – now the two files will be imported which will take a while.

Step 3

Note the result and the initial correction / time shift value for file 2 – and the suggested data field for performing a sync with “OptiSync”. The tool analyses the contents of the data fields heart rate, cadence and power and suggests the best choice.

Combine sports computer and indoor trainer/VR (Zwift) file

Step 2 - Select Sync Options

File 1:	C:\Fit Files\Edge 830\2019-10-06-18-00-00.fit	Start Time	06.10.2019 17:49:23	Duration	01:03:14
File 2:	C:\Fit Files\Zwift\2019-10-06-18-00-00.fit		06.10.2019 17:48:59		01:03:10

Synchronization of recorded data is done via timestamps.

Correction value / Shift value for file 2:

day(s)

hour(s)

min.

sec.

0

0

0

0

Finding the correct shift value for file 2 using "OptiSync"

Suggested Field for Data Sync:

Power

Selected Field for Data Sync:

Power

Go!

Choose "Next Step" to define the Merge Options.

Previous Step

Next Step

Cancel

Step 4

Either use the suggested data field or choose another data field for performing the syncing process, then click on the button “Go!”.

“OptiSync” will calculate some seconds, then the found correction / shift value will be displayed:

Combine sports computer and indoor trainer/VR (Zwift) file

Step 2 - Select Sync Options

File 1:	C:\Fit Files\Edge 830\2019-10-06-18-00-00.fit	Start Time	06.10.2019 17:49:23	Duration	01:03:14
File 2:	C:\Fit Files\Zwift\2019-10-06-18-00-00.fit		06.10.2019 17:48:59		01:03:10

Synchronization of recorded data is done via timestamps.

Correction value / Shift value for file 2:

day(s)

hour(s)

min.

sec.

0

0

0

19

Finding the correct shift value for file 2 using "OptiSync"

Suggested Field for Data Sync:

Power

Selected Field for Data Sync:

Power

Go!

Choose "Next Step" to define the Merge Options.

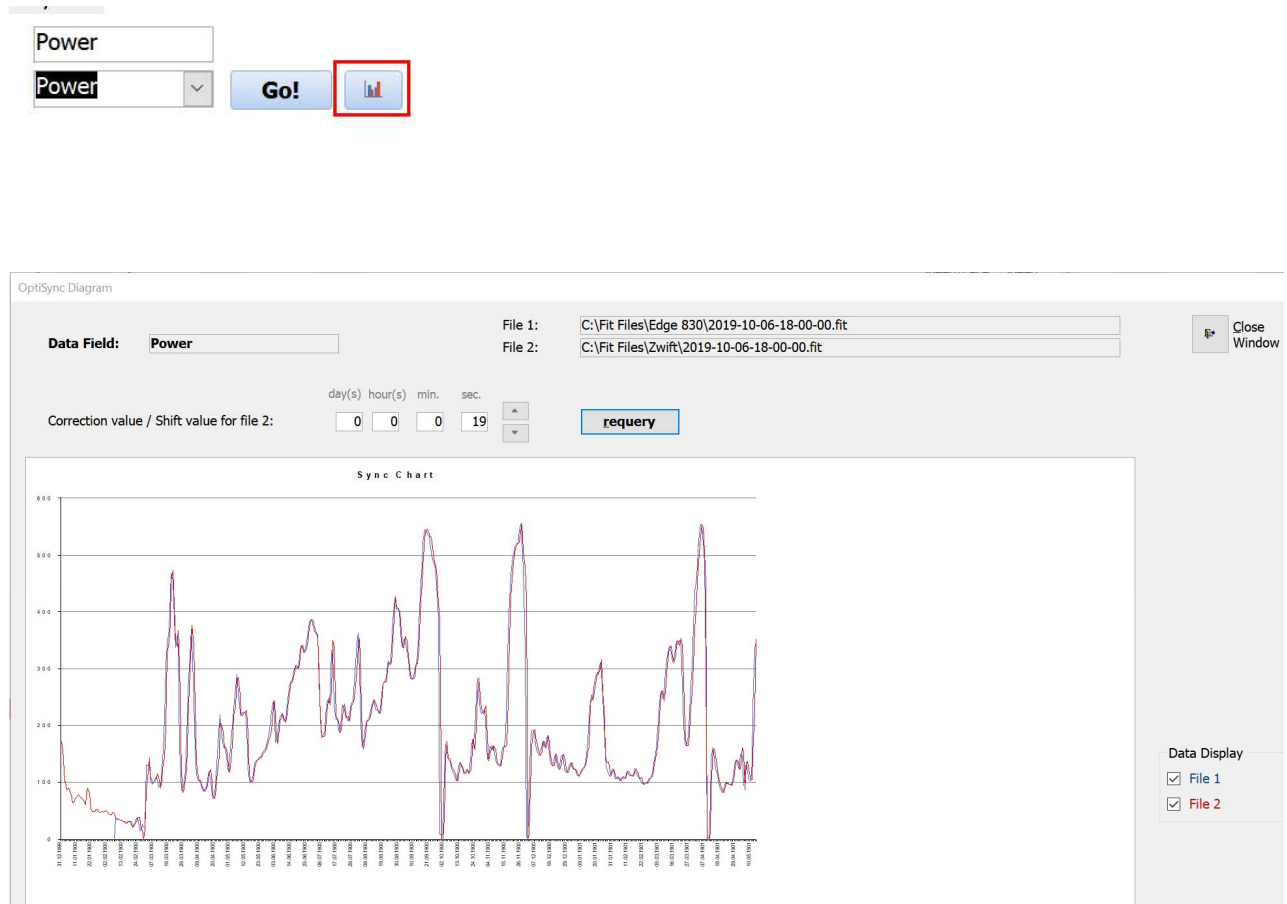
Previous Step

Next Step

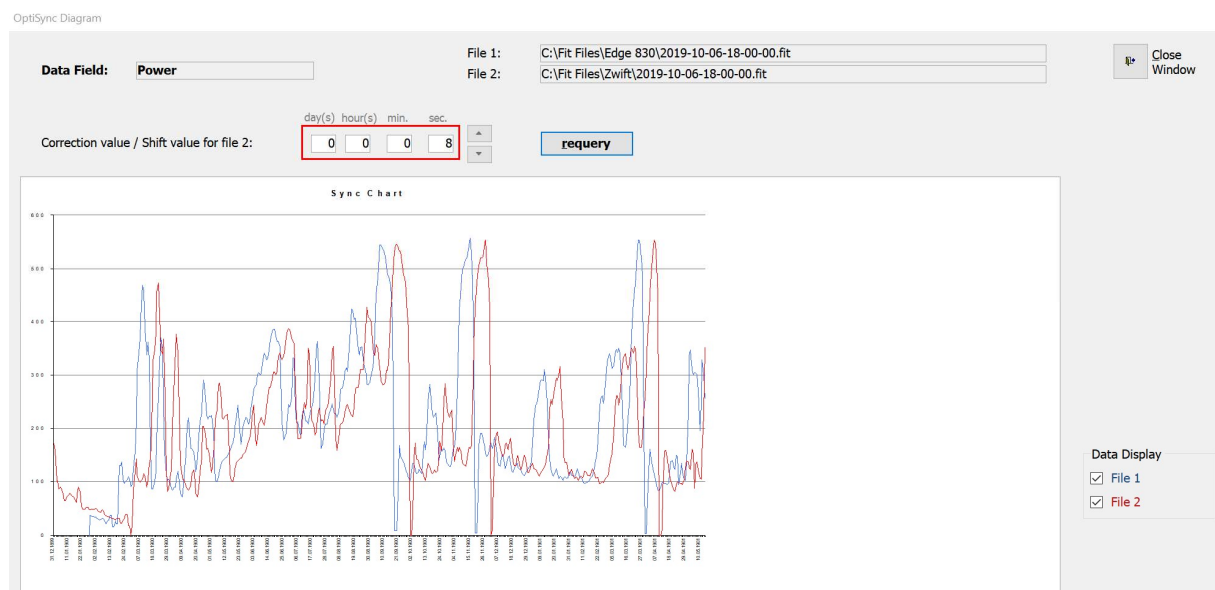
Cancel

Step 5

OptiSync diagram: After a successful execution of “OptiSync” you can display a diagram which shows data of the selected field and applies the calculated correction value for file 2:



You can manually change the correction / shift value and will see the difference when you requery the graph:



Step 6

Please close the diagram window and click on “Next Step”.

Combine sports computer and indoor trainer/VR (Zwift) file

Step 2 - Select Sync Options

		Start Time	Duration
File 1:	C:\Fit Files\Edge 830\2019-10-06-18-00-00.fit	06.10.2019 17:49:23	01:03:14
File 2:	C:\Fit Files\Zwift\2019-10-06-18-00-00.fit	06.10.2019 17:48:59	01:03:10

Synchronization of recorded data is done via timestamps.

Correction value / Shift value for file 2: day(s) hour(s) min. sec.

Finding the correct shift value for file 2 using "OptiSync"

Suggested Field for Data Sync:

Selected Field for Data Sync:

Choose "Next Step" to define the Merge Options.

Now you can choose which data fields you want to merge from file 2 into file 1.

I would like to import GPS position data, distance, altitude and speed data from Zwift.

Step 3 - Select Merge Options

File 1:

File 2:

Which data would you like to import from file 2?

<input checked="" type="checkbox"/> GPS data	<input type="checkbox"/> Cadence
<input checked="" type="checkbox"/> Distance	<input type="checkbox"/> Temperature
<input checked="" type="checkbox"/> Altitude	<input type="checkbox"/> R-R values
<input checked="" type="checkbox"/> Speed	<input type="checkbox"/> Performance condition
<input type="checkbox"/> Heart Rate	<input type="checkbox"/> Hemoglobin
<input type="checkbox"/> Power	<input type="checkbox"/> Laps
<input type="checkbox"/> Cycling Dynamics	<input type="checkbox"/> Developer Data Fields
<input type="checkbox"/> Running Dynamics	<input type="checkbox"/> Training Effect

☐ Avoid empty data cells in resulting file by interpolation

Which "sport" and "subsport" would you like to have?

Sport: Subsport:

☐ from file 1:

☒ from file 2:

Choose "OK" to start the merge process.

I recommend to use “sport” and “subsport” from Zwift rather than from your sports computer.

Why? Because of the way Training platforms like Strava, Garmin Connect etc. handle timestamps.

All timestamps in fit files are stored in UTC time (London time), not as local timestamps.

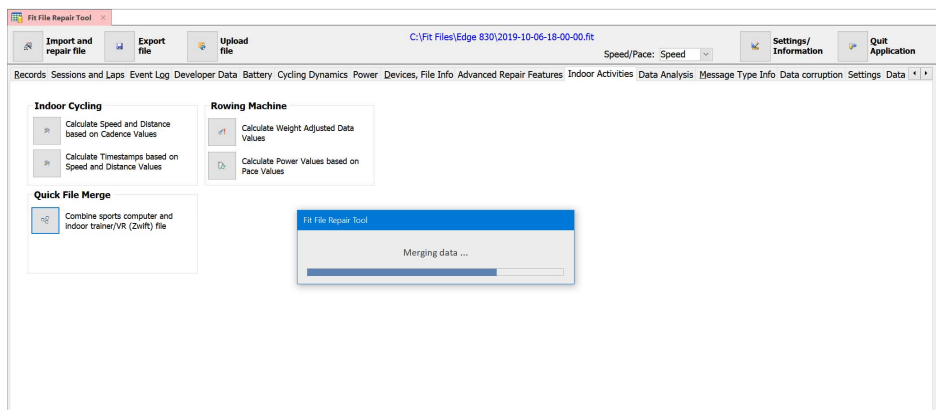
When you upload a fit file to Training platforms like Strava, Garmin Connect etc. the platform normally converts the UTC timestamps of your fit file into local timestamps during the import / upload process. Local timestamps are determined by GPS data in the fit file.

If your activity does not contain “virtual activity” as subsport GPS data in your fit file will be used to calculate local timestamps. Imagine you live in the USA and have local time of UTC – 6. If you do a Zwift workout based on the London map and upload the activity file to Strava then based on GPS data timestamps will be translated into London times. Result: start time in Strava will be wrong by 6 hours!

If your activity file contains “virtual activity” as subsport Strava, Garmin Connect etc. do not use GPS data in the file to calculate local timestamps. Instead of GPS data in the activity file they will use your customer profile to determine in which time zone you are located and calculate start time etc based on your home location.

Step 7

Click on “OK” and the Data Merge will happen:



Step 8

Analyse the result: The result contains of file 1 plus the merged data from file 2.

Fit File Repair Tool

Import and repair file Export file Upload file C:\Fit Files\Edge 830\2019-10-06-18-00-00.ft

Speed/Pace: Speed Settings/Information Quit Application

Records Sessions and Laps Event Log Developer Data Battery Cycling Dynamics Power Others Devices, File Info Advanced Repair Features Indoor Activities Data Analysis Message Type Info Data corruption Setting

Filter Sort records by

Timestamp Position Lat. Position Long. Altitude Distance Dist. GPS Heart Rate Cadence Speed Power Temp. Laps

Delete Show

Warnings Sources Events

Timestamp	Duration	Position Lat.	Position Long.	Altitude (m)	Distance (km)	Dist. GPS (km)	Heart Rate	Cadence	Speed (km/h)	Power (Watts)	Temp. (°C)	LAP	Error	Select
06.10.2019 17:49:23	00:00:00	40,778616°N	73,966125°W	33,8	0,02	0,00	62		14,03		18,0	1		
06.10.2019 17:49:24	00:00:01	40,778557°N	73,966178°W	33,8	0,03	0,01	62		15,14		18,0	1		
06.10.2019 17:49:26	00:00:03	40,778528°N	73,966210°W	33,8	0,03	0,01	63		15,52		18,0	1		
06.10.2019 17:49:27	00:00:04	40,778463°N	73,966275°W	33,8	0,04	0,02	64		16,16		18,0	1		
06.10.2019 17:49:29	00:00:06	40,778428°N	73,966312°W	33,8	0,04	0,03	65		16,54		18,0	1		
06.10.2019 17:49:30	00:00:07	40,778393°N	73,966339°W	33,8	0,05	0,03	66		16,91		18,0	1		
06.10.2019 17:49:31	00:00:08	40,778359°N	73,966371°W	33,8	0,05	0,04	67		17,28		18,0	1		
06.10.2019 17:49:32	00:00:09	40,778326°N	73,966409°W	33,8	0,06	0,04	68		17,63		18,0	1		
06.10.2019 17:49:33	00:00:10	40,778249°N	73,966479°W	33,6	0,07	0,05	69		18,23		18,0	1		
06.10.2019 17:49:35	00:00:12	40,778133°N	73,966586°W	33,6	0,08	0,07	70		19,34		18,0	1		
06.10.2019 17:49:39	00:00:16	40,778007°N	73,966683°W	33,6	0,10	0,08	69		20,04		18,0	1		
06.10.2019 17:49:42	00:00:19	40,777876°N	73,966774°W	33,6	0,12	0,10	70		20,68		18,0	1		
06.10.2019 17:49:45	00:00:22	40,777726°N	73,966860°W	33,4	0,14	0,12	71		21,53		18,0	1		
06.10.2019 17:49:47	00:00:24	40,777626°N	73,966913°W	33,2	0,15	0,13	72		22,08		18,0	1		
06.10.2019 17:49:50	00:00:27	40,777463°N	73,966967°W	33,0	0,17	0,15	73		23,06		18,0	1		
06.10.2019 17:49:53	00:00:30	40,777111°N	73,967096°W	32,4	0,21	0,19	74		25,42		18,0	1		
06.10.2019 17:50:06	00:00:43	40,776470°N	73,967289°W	29,2	0,28	0,26	74	68	34,11		18,0	1		
06.10.2019 17:50:07	00:00:44	40,776384°N	73,967310°W	28,8	0,29	0,27	74	68	35,57	0	18,0	1		
06.10.2019 17:50:08	00:00:45	40,776296°N	73,967326°W	28,2	0,30	0,28	74	68	37,04	37	18,0	1		
06.10.2019 17:50:09	00:00:46	40,776199°N	73,967326°W	27,4	0,31	0,29	74	68	38,82	35	18,0	1		
06.10.2019 17:50:10	00:00:47	40,776100°N	73,967310°W	26,4	0,32	0,30	74	70	40,90	35	18,0	1		
06.10.2019 17:50:11	00:00:48	40,775998°N	73,967294°W	25,4	0,33	0,31	74	70	43,11	34	18,0	1		
06.10.2019 17:50:12	00:00:49	40,775888°N	73,967278°W	24,4	0,35	0,33	74	71	45,28	34	18,0	1		
06.10.2019 17:50:13	00:00:50	40,775773°N	73,967273°W	23,4	0,36	0,34	74	73	47,28	31	18,0	1		
06.10.2019 17:50:14	00:00:51	40,775652°N	73,967305°W	22,4	0,37	0,35	74	77	48,99	30	18,0	1		
06.10.2019 17:50:15	00:00:52	40,775540°N	73,967369°W	21,8	0,39	0,37	73	77	49,57	28	18,0	1		
06.10.2019 17:50:16	00:00:53	40,775448°N	73,967476°W	21,4	0,40	0,38	74	80	49,60	29	18,0	1		
06.10.2019 17:50:17	00:00:54	40,775373°N	73,967605°W	20,8	0,41	0,39	73	80	49,74	32	18,0	1		

Min./Max./Avg. values

Timestamp	Position Lat.	Position Long.	Altitude	Distance	Dist. GPS	Heart Rate	Cadence	Speed	Power	Temp.	Lap
Min. 06.10.2019 17:49:23	40,763539°N	73,953304°W	4,4	0,02	0,00	62	0	0,00	0	18	1
Max. 06.10.2019 18:52:37	40,799631°N	73,982089°W	132,8	31,72	31,70	154	128	75,89	686	19	1
Avg. 06.10.2019 18:52:37			36,5			122	83	30,06	208	18	
Avg.+ (Avg. without breaks)						122	83	30,09	208	18	

quick select

all nothing between invert selection

up to here from here every [n] record

Training Effect data are still there:

Fit File Repair Tool Session Details

Select Session: Session Timestamp Sport

1	06.10.2019 18:52:37	cycling
---	---------------------	---------

Close

Session No. 1 Sport cycling Subsport indoor_cycling

Time, Distance Speed, Heartrate, Power Swim Power Analysis Cycling Dynamics Running Dynamics Time in Zones Developer Data Hemoglobin Training Effect

Training Effect

Primary Benefit 2 Base

Training Effect 2,6

Anaerobic Training Effect 0,7

Training Load 64,3

Step 9

The export file that you create when you select “Export File” contains merged data of both files and can be uploaded to Garmin Connect, Strava and any other platform of your choice.

Export file

Upload file

C:\Fit Files\Edge 830\2019-10-06-18-00-00.fit

Speed/Pace: Speed

and Laps Event Log Developer Data Battery Cycling Dynamics Power Others Devices, File Info Advanced Repair Features Indoor Activities Data Analysis Mes

Split & Merge

Σ Merge selected sessions

Σ Enter fixed Ascent/Descent Values

Timestamp

Export file

6.10.2019 18:52:3

Export File Format

FIT

TCX

HRM

CSV

GPX

KML

SDF

ZWO

SLF

ACCDB

XLSX

Filename: C:\Fit Files\Edge 830\2019-10-06-18-00-00 Edge & Zwift combined.fit

Browse

Distance Values

☒ original values (as recorded by device)

total length: 31,72 km

☐ recalculated values (recalculation on base of recorded GPS positions)

31,70 km

Power Analysis Values

☐ original values (as recorded by device)

☒ recalculated values

FTP: 300

Filename

FIT

Sessions/Laps

Exclude

Course

Power Analysis

Data Privacy

FIT file format selection

☒ dynamic

If Developer Data Fields exist and are not excluded from export then FIT file format 2.0 will be used, otherwise FIT file format 1.0.

☐ always use version 1.0

If your data includes Developer Data Fields they will be excluded from the export. Select this option if you use software that is not compatible with FIT file format 2.0.

Developer Data Fields exist:

No

OK

Cancel

Timestamp

06.10.2019 18:52:3