

**Found Message: file\_id**

- Found Field: file\_id -> serial\_number
- Found Field: file\_id -> time\_created
- Found Field: file\_id -> manufacturer
- Found Field: file\_id -> product
- Found Field: file\_id -> type

**Found Message: sport**

- Found Field: sport -> sport
- Found Field: sport -> sub\_sport

**Found Message: file\_creator**

- Found Field: file\_creator -> software\_version

**Found Message: device\_info**

- Found Field: device\_info -> timestamp
- Found Field: device\_info -> device\_index
- Found Field: device\_info -> device\_type
- Found Field: device\_info -> manufacturer
- Found Field: device\_info -> serial\_number
- Found Field: device\_info -> product
- Found Field: device\_info -> software\_version
- Found Field: device\_info -> source\_type
- Found Field: device\_info -> battery\_voltage
- Found Field: device\_info -> hardware\_version
- Found Field: device\_info -> battery\_status
- Found Field: device\_info -> cum\_operating\_time

**Found Message: device\_settings**

- Found Field: device\_settings -> active\_time\_zone
- Found Field: device\_settings -> utc\_offset

**Found Message: user\_profile**

- Found Field: user\_profile -> weight
- Found Field: user\_profile -> gender
- Found Field: user\_profile -> height
- Found Field: user\_profile -> language
- Found Field: user\_profile -> elev\_setting
- Found Field: user\_profile -> weight\_setting
- Found Field: user\_profile -> hr\_setting
- Found Field: user\_profile -> speed\_setting
- Found Field: user\_profile -> dist\_setting
- Found Field: user\_profile -> activity\_class
- Found Field: user\_profile -> position\_setting
- Found Field: user\_profile -> temperature\_setting

**Found Message: event**

- Found Field: event -> timestamp
- Found Field: event -> event
- Found Field: event -> event\_type
- Found Field: event -> event\_group
- Found Field: event -> data

**Found Message: record**

- Found Field: record -> timestamp
- Found Field: record -> position\_lat
- Found Field: record -> position\_long

- Found Field: record -> distance
- Found Field: record -> altitude
- Found Field: record -> speed
- Found Field: record -> temperature
- Found Field: record -> heart\_rate
- Found Field: record -> cadence
- Found Field: record -> fractional\_cadence
- Found Field: record -> grade

### **Found Message: lap**

- Found Field: lap -> timestamp
- Found Field: lap -> message\_index
- Found Field: lap -> event
- Found Field: lap -> event\_type
- Found Field: lap -> start\_time
- Found Field: lap -> total\_elapsed\_time
- Found Field: lap -> total\_distance
- Found Field: lap -> total\_calories
- Found Field: lap -> avg\_speed
- Found Field: lap -> max\_speed
- Found Field: lap -> start\_position\_lat
- Found Field: lap -> start\_position\_long
- Found Field: lap -> end\_position\_lat
- Found Field: lap -> end\_position\_long
- Found Field: lap -> sport
- Found Field: lap -> lap\_trigger
- Found Field: lap -> total\_timer\_time
- Found Field: lap -> total\_cycles
- Found Field: lap -> avg\_cadence
- Found Field: lap -> max\_cadence
- Found Field: lap -> total\_ascent
- Found Field: lap -> total\_descent
- Found Field: lap -> avg\_heart\_rate
- Found Field: lap -> max\_heart\_rate

### **Found Message: session**

- Found Field: session -> timestamp
- Found Field: session -> message\_index
- Found Field: session -> event
- Found Field: session -> event\_type
- Found Field: session -> start\_time
- Found Field: session -> start\_position\_lat
- Found Field: session -> start\_position\_long
- Found Field: session -> sport
- Found Field: session -> sub\_sport
- Found Field: session -> total\_elapsed\_time
- Found Field: session -> total\_timer\_time
- Found Field: session -> total\_distance
- Found Field: session -> total\_calories
- Found Field: session -> avg\_speed
- Found Field: session -> max\_speed
- Found Field: session -> avg\_heart\_rate
- Found Field: session -> max\_heart\_rate
- Found Field: session -> total\_ascent
- Found Field: session -> total\_descent
- Found Field: session -> first\_lap\_index
- Found Field: session -> num\_laps
- Found Field: session -> total\_cycles

- Found Field: session -> avg\_cadence
- Found Field: session -> max\_cadence
- Found Field: session -> total\_training\_effect
- Found Field: session -> nec\_lat
- Found Field: session -> nec\_long
- Found Field: session -> swc\_lat
- Found Field: session -> swc\_long

### Found Message: activity

- Found Field: activity -> timestamp
- Found Field: activity -> total\_timer\_time
- Found Field: activity -> num\_sessions
- Found Field: activity -> type
- Found Field: activity -> event
- Found Field: activity -> event\_type

## Types

### key PHP unpack() format Bytes

0	Ctmp	1
1	ctmp	1
2	Ctmp	1
131	vtmp	2
132	vtmp	2
133	Vtmp	4
134	Vtmp	4
7	a*tmp	1
136	ftmp	4
137	dtmp	8
10	Ctmp	1
139	vtmp	2
140	Vtmp	4
13	Ctmp	1
142	Ptmp	8
143	Ptmp	8
144	Ptmp	8

## Messages and Fields being listened for

### file\_id (0)

ID	Name	Scale	Offset	Units
0	type	1	0	
1	manufacturer	1	0	
2	product	1	0	
3	serial_number	1	0	
4	time_created	1	0	

ID	Name	Scale	Offset	Units
5	number	1	0	

### device\_settings (2)

ID	Name	Scale	Offset	Units
0	active_time_zone	1	0	
1	utc_offset	1	0	
5	time_zone_offset	4	0	hr

### user\_profile (3)

ID	Name	Scale	Offset	Units
0	friendly_name	1	0	
1	gender	1	0	
2	age	1	0	years
3	height	100	0	m
4	weight	10	0	kg
5	language	1	0	
6	elev_setting	1	0	
7	weight_setting	1	0	
8	resting_heart_rate	1	0	bpm
10	default_max_biking_heart_rate	1	0	bpm
11	default_max_heart_rate	1	0	bpm
12	hr_setting	1	0	
13	speed_setting	1	0	
14	dist_setting	1	0	
16	power_setting	1	0	
17	activity_class	1	0	
18	position_setting	1	0	
21	temperature_setting	1	0	

### zones\_target (7)

ID	Name	Scale	Offset	Units
1	max_heart_rate	1	0	
2	threshold_heart_rate	1	0	
3	functional_threshold_power	1	0	
5	hr_calc_type	1	0	
7	pwr_calc_type	1	0	

## sport (12)

ID	Name	Scale	Offset	Units
0	sport	1	0	
1	sub_sport	1	0	
3	name	1	0	

## session (18)

ID	Name	Scale	Offset	Units
0	event	1	0	
1	event_type	1	0	
2	start_time	1	0	
3	start_position_lat	1	0	semicircles
4	start_position_long	1	0	semicircles
5	sport	1	0	semicircles
6	sub_sport	1	0	
7	total_elapsed_time	1000	0	s
8	total_timer_time	1000	0	s
9	total_distance	100	0	m
10	total_cycles	1	0	cycles
11	total_calories	1	0	kcal
13	total_fat_calories	1	0	kcal
14	avg_speed	1000	0	m/s
15	max_speed	1000	0	m/s
16	avg_heart_rate	1	0	bpm
17	max_heart_rate	1	0	bpm
18	avg_cadence	1	0	rpm
19	max_cadence	1	0	rpm
20	avg_power	1	0	watts
21	max_power	1	0	watts
22	total_ascent	1	0	m
23	total_descent	1	0	m
24	total_training_effect	10	0	
25	first_lap_index	1	0	
26	num_laps	1	0	
27	event_group	1	0	
28	trigger	1	0	
29	nec_lat	1	0	semicircles
30	nec_long	1	0	semicircles
31	swc_lat	1	0	semicircles
32	swc_long	1	0	semicircles
34	normalized_power	1	0	watts
35	training_stress_score	10	0	tss
36	intensity_factor	1000	0	if
37	left_right_balance	1	0	

ID	Name	Scale	Offset	Units
41	avg_stroke_count	10	0	strokes/lap
42	avg_stroke_distance	100	0	m
43	swim_stroke	1	0	swim_stroke
44	pool_length	100	0	m
45	threshold_power	1	0	watts
46	pool_length_unit	1	0	
47	num_active_lengths	1	0	lengths
48	total_work	1	0	J
65	time_in_hr_zone	1000	0	s
68	time_in_power_zone	1000	0	s
89	avg_vertical_oscillation	10	0	mm
90	avg_stance_time_percent	100	0	percent
91	avg_stance_time	10	0	ms
92	avg_fractional_cadence	128	0	rpm
93	max_fractional_cadence	128	0	rpm
94	total_fractional_cycles	128	0	cycles
101	avg_left_torque_effectiveness	2	0	percent
102	avg_right_torque_effectiveness	2	0	percent
103	avg_left_pedal_smoothness	2	0	percent
104	avg_right_pedal_smoothness	2	0	percent
105	avg_combined_pedal_smoothness	2	0	percent
111	sport_index	1	0	
112	time_standing	1000	0	s
113	stand_count	1	0	
114	avg_left_pco	1	0	mm
115	avg_right_pco	1	0	mm
116	avg_left_power_phase	0.7111111	0	degrees
117	avg_left_power_phase_peak	0.7111111	0	degrees
118	avg_right_power_phase	0.7111111	0	degrees
119	avg_right_power_phase_peak	0.7111111	0	degrees
120	avg_power_position	1	0	watts
121	max_power_position	1	0	watts
122	avg_cadence_position	1	0	rpm
123	max_cadence_position	1	0	rpm
253	timestamp	1	0	s
254	message_index	1	0	

### lap (19)

ID	Name	Scale	Offset	Units
0	event	1	0	
1	event_type	1	0	
2	start_time	1	0	
3	start_position_lat	1	0	semicircles
4	start_position_long	1	0	semicircles

<b>ID</b>	<b>Name</b>	<b>Scale</b>	<b>Offset</b>	<b>Units</b>
5	end_position_lat	1	0	semicircles
6	end_position_long	1	0	semicircles
7	total_elapsed_time	1000	0	s
8	total_timer_time	1000	0	s
9	total_distance	100	0	m
10	total_cycles	1	0	cycles
11	total_calories	1	0	kcal
12	total_fat_calories	1	0	kcal
13	avg_speed	1000	0	m/s
14	max_speed	1000	0	m/s
15	avg_heart_rate	1	0	bpm
16	max_heart_rate	1	0	bpm
17	avg_cadence	1	0	rpm
18	max_cadence	1	0	rpm
19	avg_power	1	0	watts
20	max_power	1	0	watts
21	total_ascent	1	0	m
22	total_descent	1	0	m
23	intensity	1	0	
24	lap_trigger	1	0	
25	sport	1	0	
26	event_group	1	0	
32	num_lengths	1	0	lengths
33	normalized_power	1	0	watts
34	left_right_balance	1	0	
35	first_length_index	1	0	
37	avg_stroke_distance	100	0	m
38	swim_stroke	1	0	
39	sub_sport	1	0	
40	num_active_lengths	1	0	lengths
41	total_work	1	0	J
57	time_in_hr_zone	1000	0	s
60	time_in_power_zone	1000	0	s
71	wkt_step_index	1	0	
77	avg_vertical_oscillation	10	0	mm
78	avg_stance_time_percent	100	0	percent
79	avg_stance_time	10	0	ms
80	avg_fractional_cadence	128	0	rpm
81	max_fractional_cadence	128	0	rpm
82	total_fractional_cycles	128	0	cycles
91	avg_left_torque_effectiveness	2	0	percent
92	avg_right_torque_effectiveness	2	0	percent
93	avg_left_pedal_smoothness	2	0	percent
94	avg_right_pedal_smoothness	2	0	percent
95	avg_combined_pedal_smoothness	2	0	percent
98	time_standing	1000	0	s

ID	Name	Scale	Offset	Units
99	stand_count	1	0	
100	avg_left_pco	1	0	mm
101	avg_right_pco	1	0	mm
102	avg_left_power_phase	0.71111111	0	degrees
103	avg_left_power_phase_peak	0.71111111	0	degrees
104	avg_right_power_phase	0.71111111	0	degrees
105	avg_right_power_phase_peak	0.71111111	0	degrees
106	avg_power_position	1	0	watts
107	max_power_position	1	0	watts
108	avg_cadence_position	1	0	rpm
109	max_cadence_position	1	0	rpm
253	timestamp	1	0	s
254	message_index	1	0	

### record (20)

ID	Name	Scale	Offset	Units
0	position_lat	1	0	semicircles
1	position_long	1	0	semicircles
2	altitude	5	500	m
3	heart_rate	1	0	bpm
4	cadence	1	0	rpm
5	distance	100	0	m
6	speed	1000	0	m/s
7	power	1	0	watts
8	compressed_speed_distance	100	0	m/s,m
9	grade	100	0	percent
10	resistance	1	0	
11	time_from_course	1000	0	s
12	cycle_length	100	0	m
13	temperature	1	0	C
17	speed_1s	16	0	m/s
18	cycles	1	0	cycles
19	total_cycles	1	0	cycles
28	compressed_accumulated_power	1	0	watts
29	accumulated_power	1	0	watts
30	left_right_balance	1	0	
31	gps_accuracy	1	0	m
32	vertical_speed	1000	0	m/s
33	calories	1	0	kcal
39	vertical_oscillation	10	0	mm
40	stance_time_percent	100	0	percent
41	stance_time	10	0	ms
42	activity_type	1	0	
43	left_torque_effectiveness	2	0	percent



ID	Name	Scale	Offset	Units
44	right_torque_effectiveness	2	0	percent
45	left_pedal_smoothness	2	0	percent
46	right_pedal_smoothness	2	0	percent
47	combined_pedal_smoothness	2	0	percent
48	time128	128	0	s
49	stroke_type	1	0	
50	zone	1	0	
51	ball_speed	100	0	m/s
52	cadence256	256	0	rpm
53	fractional_cadence	128	0	rpm
54	total_hemoglobin_conc	100	0	g/dL
55	total_hemoglobin_conc_min	100	0	g/dL
56	total_hemoglobin_conc_max	100	0	g/dL
57	saturated_hemoglobin_percent	10	0	%
58	saturated_hemoglobin_percent_min	10	0	%
59	saturated_hemoglobin_percent_max	10	0	%
62	device_index	1	0	
67	left_pco	1	0	mm
68	right_pco	1	0	mm
69	left_power_phase	0.7111111	0	degrees
70	left_power_phase_peak	0.7111111	0	degrees
71	right_power_phase	0.7111111	0	degrees
72	right_power_phase_peak	0.7111111	0	degrees
73	enhanced_speed	1000	0	m/s
78	enhanced_altitude	5	500	m
81	battery_soc	2	0	percent
82	motor_power	1	0	watts
83	vertical_ratio	100	0	percent
84	stance_time_balance	100	0	percent
85	step_length	10	0	mm
253	timestamp	1	0	s

### event (21)

ID	Name	Scale	Offset	Units
0	event	1	0	
1	event_type	1	0	
3	data	1	0	
4	event_group	1	0	
253	timestamp	1	0	s

### device\_info (23)

ID	Name	Scale	Offset	Units
0	device_index	1	0	
1	device_type	1	0	
2	manufacturer	1	0	
3	serial_number	1	0	
4	product	1	0	
5	software_version	1	0	
6	hardware_version	1	0	
7	cum_operating_time	1	0	
10	battery_voltage	1	0	
11	battery_status	1	0	
20	ant_transmission_type	1	0	
21	ant_device_number	1	0	
22	ant_network	1	0	
25	source_type	1	0	
253	timestamp	1	0	s

#### activity (34)

ID	Name	Scale	Offset	Units
0	total_timer_time	1000	0	s
1	num_sessions	1	0	
2	type	1	0	
3	event	1	0	
4	event_type	1	0	
5	local_timestamp	1	0	
6	event_group	1	0	
253	timestamp	1	0	s

#### file\_creator (49)

ID	Name	Scale	Offset	Units
0	software_version	1	0	
1	hardware_version	1	0	

#### hrv (78)

ID	Name	Scale	Offset	Units
0	time	1000	0	s

#### length (101)

ID	Name	Scale	Offset	Units
0	event	1	0	
1	event_type	1	0	
2	start_time	1	0	
3	total_elapsed_time	1000	0	s
4	total_timer_time	1000	0	s
5	total_strokes	1	0	strokes
6	avg_speed	1000	0	m/s
7	swim_stroke	1	0	swim_stroke
9	avg_swimming_cadence	1	0	strokes/min
10	event_group	1	0	
11	total_calories	1	0	kcal
12	length_type	1	0	
253	timestamp	1	0	s
254	message_index	1	0	

### hr (132)

ID	Name	Scale	Offset	Units
0	fractional_timestamp	32768	0	s
1	time256	256	0	s
6	filtered_bpm	1	0	bpm
9	event_timestamp	1	0	s
10	event_timestamp_12	1	0	s
253	timestamp	1	0	s

### segment\_lap (142)

ID	Name	Scale	Offset	Units
0	event	1	0	
1	event_type	1	0	
2	start_time	1	0	
3	start_position_lat	1	0	semicircles
4	start_position_long	1	0	semicircles
5	end_position_lat	1	0	semicircles
6	end_position_long	1	0	semicircles
7	total_elapsed_time	1000	0	s
8	total_timer_time	1000	0	s
9	total_distance	100	0	m
10	total_cycles	1	0	cycles
11	total_calories	1	0	kcal
12	total_fat_calories	1	0	kcal
13	avg_speed	1000	0	m/s
14	max_speed	1000	0	m/s

ID	Name	Scale	Offset	Units
15	avg_heart_rate	1	0	bpm
16	max_heart_rate	1	0	bpm
17	avg_cadence	1	0	rpm
18	max_cadence	1	0	rpm
19	avg_power	1	0	watts
20	max_power	1	0	watts
21	total_ascent	1	0	m
22	total_descent	1	0	m
23	sport	1	0	
24	event_group	1	0	
25	nec_lat	1	0	semicircles
26	nec_long	1	0	semicircles
27	swc_lat	1	0	semicircles
28	swc_long	1	0	semicircles
29	name	1	0	
30	normalized_power	1	0	watts
31	left_right_balance	1	0	
32	sub_sport	1	0	
33	total_work	1	0	J
58	sport_event	1	0	
59	avg_left_torque_effectiveness	2	0	percent
60	avg_right_torque_effectiveness	2	0	percent
61	avg_left_pedal_smoothness	2	0	percent
62	avg_right_pedal_smoothness	2	0	percent
63	avg_combined_pedal_smoothness	2	0	percent
64	status	1	0	
65	uuid	1	0	
66	avg_fractional_cadence	128	0	rpm
67	max_fractional_cadence	128	0	rpm
68	total_fractional_cycles	128	0	cycles
69	front_gear_shift_count	1	0	
70	rear_gear_shift_count	1	0	
71	time_standing	1000	0	s
72	stand_count	1	0	
73	avg_left_pco	1	0	mm
74	avg_right_pco	1	0	mm
75	avg_left_power_phase	0.7111111	0	degrees
76	avg_left_power_phase_peak	0.7111111	0	degrees
77	avg_right_power_phase	0.7111111	0	degrees
78	avg_right_power_phase_peak	0.7111111	0	degrees
79	avg_power_position	1	0	watts
80	max_power_position	1	0	watts
81	avg_cadence_position	1	0	rpm
82	max_cadence_position	1	0	rpm
253	timestamp	1	0	s
254	message_index	1	0	

### field\_description (206)

ID	Name	Scale	Offset	Units
0	developer_data_index	1	0	
1	field_definition_number	1	0	
2	fit_base_type_id	1	0	
3	field_name	1	0	
4	array	1	0	
5	components	1	0	
6	scale	1	0	
7	offset	1	0	
8	units	1	0	
9	bits	1	0	
10	accumulate	1	0	
13	fit_base_unit_id	1	0	
14	native_mesg_num	1	0	
15	native_field_num	1	0	

### developer\_data\_id (207)

ID	Name	Scale	Offset	Units
0	developer_id	1	0	
1	application_id	1	0	
2	manufacturer_id	1	0	
3	developer_data_index	1	0	
4	application_version	1	0	

### dive\_settings (258)

ID	Name	Scale	Offset	Units
0	name	1	0	
1	model	1	0	
2	gf_low	1	0	percent
3	gf_high	1	0	percent
4	water_type	1	0	
5	water_density	1	0	kg/m <sup>3</sup>
6	po2_warn	100	0	percent
7	po2_critical	100	0	percent
8	po2_deco	100	0	percent
9	safety_stop_enabled	1	0	
10	bottom_depth	1	0	
11	bottom_time	1	0	

ID	Name	Scale	Offset	Units
12	apnea_countdown_enabled	1	0	
13	apnea_countdown_time	1	0	
14	backlight_mode	1	0	
15	backlight_brightness	1	0	
16	backlight_timeout	1	0	
17	repeat_dive_interval	1	0	s
18	safety_stop_time	1	0	s
19	heart_rate_source_type	1	0	
20	heart_rate_source	1	0	
254	message_index	1	0	

### dive\_gas (259)

ID	Name	Scale	Offset	Units
0	helium_content	1	0	percent
1	oxygen_content	1	0	percent
2	status	1	0	
254	message_index	1	0	

### dive\_alarm (262)

ID	Name	Scale	Offset	Units
0	depth	1000	0	m
1	time	1	0	s
2	enabled	1	0	
3	alarm_type	1	0	
4	sound	1	0	
254	message_index	1	0	

### dive\_summary (268)

ID	Name	Scale	Offset	Units
0	reference_mesg	1	0	
1	reference_index	1	0	
2	avg_depth	1000	0	m
3	max_depth	1000	0	m
4	surface_interval	1	0	s
5	start_cns	1	0	percent
6	end_cns	1	0	percent
7	start_n2	1	0	percent
8	end_n2	1	0	percent
9	o2_toxicity	1	0	OTUs

ID	Name	Scale	Offset	Units
10	dive_number	1	0	
11	bottom_time	1000	0	s
253	timestamp	1	0	s

## FIT Definition Messages contained within the file

global_mesg_num	num_fields	field defns	total_size
0 (file_id)	5	defn: 3; size: 4; type: 140 (serial_number) defn: 4; size: 4; type: 134 (time_created) defn: 1; size: 2; type: 132 (manufacturer) defn: 2; size: 2; type: 132 (product) defn: 0; size: 1; type: 0 (type)	13
2 (device_settings)	3	defn: 0; size: 1; type: 2 (active_time_zone) defn: 1; size: 4; type: 134 (utc_offset) defn: 90; size: 4; type: 134 (unknown)	9
3 (user_profile)	22	defn: 4; size: 2; type: 132 (weight) defn: 31; size: 2; type: 132 (unknown) defn: 32; size: 2; type: 132 (unknown) defn: 1; size: 1; type: 0 (gender) defn: 3; size: 1; type: 2 (height) defn: 5; size: 1; type: 0 (language) defn: 6; size: 1; type: 0 (elev_setting) defn: 7; size: 1; type: 0 (weight_setting) defn: 8; size: 1; type: 2 (resting_heart_rate) defn: 12; size: 1; type: 0 (hr_setting) defn: 13; size: 1; type: 0 (speed_setting) defn: 14; size: 1; type: 0 (dist_setting) defn: 17; size: 1; type: 0 (activity_class) defn: 18; size: 1; type: 0 (position_setting) defn: 21; size: 1; type: 0 (temperature_setting) defn: 24; size: 1; type: 2 (unknown) defn: 30; size: 1; type: 0 (unknown) defn: 41; size: 4; type: 134 (unknown) defn: 28; size: 4; type: 134 (unknown) defn: 29; size: 4; type: 134 (unknown) defn: 37; size: 2; type: 132 (unknown) defn: 44; size: 1; type: 2 (unknown)	35
12 (sport)	2	defn: 0; size: 1; type: 0 (sport) defn: 1; size: 1; type: 0 (sub_sport)	2
18 (session)	60	defn: 253; size: 4; type: 134 (timestamp) defn: 254; size: 2; type: 132 (message_index) defn: 0; size: 1; type: 2 (event) defn: 1; size: 1; type: 2 (event_type) defn: 2; size: 4; type: 134 (start_time) defn: 3; size: 4; type: 133 (start_position_lat) defn: 4; size: 4; type: 133 (start_position_long) defn: 5; size: 1; type: 0 (sport) defn: 6; size: 1; type: 2 (sub_sport) defn: 7; size: 4; type: 134 (total_elapsed_time)	134

defn: 8; size: 4; type: 134 (total\_timer\_time)  
 defn: 9; size: 4; type: 134 (total\_distance)  
 defn: 11; size: 2; type: 132 (total\_calories)  
 defn: 14; size: 2; type: 132 (avg\_speed)  
 defn: 15; size: 2; type: 132 (max\_speed)  
 defn: 16; size: 1; type: 2 (avg\_heart\_rate)  
 defn: 17; size: 1; type: 2 (max\_heart\_rate)  
 defn: 22; size: 2; type: 132 (total\_ascent)  
 defn: 23; size: 2; type: 132 (total\_descent)  
 defn: 25; size: 2; type: 132 (first\_lap\_index)  
 defn: 26; size: 2; type: 132 (num\_laps)  
 defn: 20; size: 2; type: 132 (avg\_power)  
 defn: 21; size: 2; type: 132 (max\_power)  
 defn: 10; size: 4; type: 134 (total\_cycles)  
 defn: 18; size: 1; type: 2 (avg\_cadence)  
 defn: 19; size: 1; type: 2 (max\_cadence)  
 defn: 59; size: 4; type: 134 (unknown)  
 defn: 24; size: 1; type: 2 (total\_training\_effect)  
 defn: 34; size: 2; type: 132 (normalized\_power)  
 defn: 35; size: 2; type: 132 (training\_stress\_score)  
 defn: 36; size: 2; type: 132 (intensity\_factor)  
 defn: 45; size: 2; type: 132 (threshold\_power)  
 defn: 48; size: 4; type: 134 (total\_work)  
 defn: 29; size: 4; type: 133 (nec\_lat)  
 defn: 30; size: 4; type: 133 (nec\_long)  
 defn: 31; size: 4; type: 133 (swc\_lat)  
 defn: 32; size: 4; type: 133 (swc\_long)  
 defn: 78; size: 4; type: 134 (unknown)  
 defn: 37; size: 2; type: 132 (left\_right\_balance)  
 defn: 103; size: 1; type: 2  
 (avg\_left\_pedal\_smoothness)  
 defn: 104; size: 1; type: 2  
 (avg\_right\_pedal\_smoothness)  
 defn: 105; size: 1; type: 2  
 (avg\_combined\_pedal\_smoothness)  
 defn: 132; size: 2; type: 132 (unknown)  
 defn: 133; size: 2; type: 132 (unknown)  
 defn: 134; size: 2; type: 132 (unknown)  
 defn: 137; size: 1; type: 2 (unknown)  
 defn: 150; size: 1; type: 1 (unknown)  
 defn: 138; size: 2; type: 2 (unknown)  
 defn: 184; size: 1; type: 0 (unknown)  
 defn: 188; size: 1; type: 0 (unknown)  
 defn: 168; size: 4; type: 133 (unknown)  
 defn: 80; size: 2; type: 132 (unknown)  
 defn: 42; size: 2; type: 132 (avg\_stroke\_distance)  
 defn: 177; size: 2; type: 132 (unknown)  
 defn: 178; size: 2; type: 132 (unknown)  
 defn: 179; size: 2; type: 132 (unknown)  
 defn: 196; size: 2; type: 132 (unknown)  
 defn: 139; size: 2; type: 132 (unknown)  
 defn: 192; size: 1; type: 2 (unknown)  
 defn: 193; size: 1; type: 2 (unknown)  
 defn: 253; size: 4; type: 134 (timestamp)  
 defn: 254; size: 2; type: 132 (message\_index)  
 defn: 0; size: 1; type: 2 (event)



global_mesg_num	num_fields	field defs	total_size
		defn: 1; size: 1; type: 2 (event_type)	
		defn: 2; size: 4; type: 134 (start_time)	
		defn: 7; size: 4; type: 134 (total_elapsed_time)	
		defn: 9; size: 4; type: 134 (total_distance)	
		defn: 11; size: 2; type: 132 (total_calories)	
		defn: 13; size: 2; type: 132 (avg_speed)	
		defn: 14; size: 2; type: 132 (max_speed)	
		defn: 3; size: 4; type: 133 (start_position_lat)	
		defn: 4; size: 4; type: 133 (start_position_long)	
		defn: 5; size: 4; type: 133 (end_position_lat)	
		defn: 6; size: 4; type: 133 (end_position_long)	
		defn: 25; size: 1; type: 0 (sport)	
		defn: 24; size: 1; type: 2 (lap_trigger)	
		defn: 8; size: 4; type: 134 (total_timer_time)	
		defn: 10; size: 4; type: 134 (total_cycles)	
		defn: 17; size: 1; type: 2 (avg_cadence)	
		defn: 18; size: 1; type: 2 (max_cadence)	
		defn: 70; size: 4; type: 134 (unknown)	
		defn: 52; size: 4; type: 134 (unknown)	
		defn: 21; size: 2; type: 132 (total_ascent)	
		defn: 22; size: 2; type: 132 (total_descent)	
		defn: 118; size: 2; type: 132 (unknown)	
		defn: 119; size: 2; type: 132 (unknown)	
		defn: 120; size: 2; type: 132 (unknown)	
		defn: 34; size: 2; type: 132 (left_right_balance)	
		defn: 23; size: 1; type: 2 (intensity)	
		defn: 15; size: 1; type: 2 (avg_heart_rate)	
		defn: 16; size: 1; type: 2 (max_heart_rate)	
		defn: 253; size: 4; type: 134 (timestamp)	
		defn: 0; size: 4; type: 133 (position_lat)	
		defn: 1; size: 4; type: 133 (position_long)	
		defn: 31; size: 1; type: 2 (gps_accuracy)	
		defn: 5; size: 4; type: 134 (distance)	
		defn: 2; size: 2; type: 132 (altitude)	
		defn: 9; size: 2; type: 131 (grade)	
20 (record)	15	defn: 6; size: 2; type: 132 (speed)	32
		defn: 13; size: 1; type: 1 (temperature)	
		defn: 4; size: 1; type: 2 (cadence)	
		defn: 53; size: 1; type: 2 (fractional_cadence)	
		defn: 3; size: 1; type: 2 (heart_rate)	
		defn: 90; size: 1; type: 1 (unknown)	
		defn: 88; size: 2; type: 132 (unknown)	
		defn: 108; size: 2; type: 132 (unknown)	
		defn: 253; size: 4; type: 134 (timestamp)	
21 (event)	5	defn: 0; size: 1; type: 2 (event)	11
		defn: 1; size: 1; type: 2 (event_type)	
		defn: 4; size: 1; type: 2 (event_group)	
		defn: 3; size: 4; type: 134 (data)	
		defn: 253; size: 4; type: 134 (unknown)	
		defn: 0; size: 1; type: 2 (unknown)	
		defn: 1; size: 1; type: 2 (unknown)	
22 (unknown)	8	defn: 2; size: 1; type: 2 (unknown)	11
		defn: 3; size: 1; type: 2 (unknown)	
		defn: 4; size: 1; type: 2 (unknown)	
		defn: 5; size: 1; type: 2 (unknown)	
		defn: 6; size: 1; type: 2 (unknown)	

global_mesg_num	num_fields	field defs	total_size
22 (unknown)	8	defn: 253; size: 4; type: 134 (unknown) defn: 0; size: 1; type: 2 (unknown) defn: 1; size: 1; type: 2 (unknown) defn: 2; size: 1; type: 2 (unknown) defn: 3; size: 1; type: 2 (unknown) defn: 4; size: 1; type: 2 (unknown) defn: 5; size: 1; type: 2 (unknown) defn: 6; size: 1; type: 2 (unknown)	11
23 (device_info)	13	defn: 253; size: 4; type: 134 (timestamp) defn: 0; size: 1; type: 2 (device_index) defn: 1; size: 1; type: 2 (device_type) defn: 2; size: 2; type: 132 (manufacturer) defn: 3; size: 4; type: 140 (serial_number) defn: 4; size: 2; type: 132 (product) defn: 5; size: 2; type: 132 (software_version) defn: 6; size: 1; type: 2 (hardware_version) defn: 25; size: 1; type: 0 (source_type) defn: 11; size: 1; type: 2 (battery_status) defn: 21; size: 2; type: 139 (ant_device_number) defn: 10; size: 2; type: 132 (battery_voltage) defn: 7; size: 4; type: 134 (cum_operating_time)	27
34 (activity)	6	defn: 253; size: 4; type: 134 (timestamp) defn: 0; size: 4; type: 134 (total_timer_time) defn: 1; size: 2; type: 132 (num_sessions) defn: 2; size: 1; type: 2 (type) defn: 3; size: 1; type: 2 (event) defn: 4; size: 1; type: 2 (event_type)	13
49 (file_creator)	2	defn: 0; size: 2; type: 132 (software_version) defn: 1; size: 1; type: 2 (hardware_version)	3
104 (unknown)	5	defn: 253; size: 4; type: 134 (unknown) defn: 0; size: 2; type: 132 (unknown) defn: 1; size: 2; type: 131 (unknown) defn: 2; size: 1; type: 2 (unknown) defn: 3; size: 1; type: 1 (unknown)	10
140 (unknown)	7	defn: 7; size: 4; type: 133 (unknown) defn: 9; size: 2; type: 132 (unknown) defn: 4; size: 1; type: 2 (unknown) defn: 20; size: 1; type: 2 (unknown) defn: 17; size: 1; type: 1 (unknown) defn: 14; size: 2; type: 132 (unknown) defn: 15; size: 2; type: 132 (unknown)	13

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## Messages found in file

file\_id count()