Polar Weekly Data (PWD) and Polar Diary Data (PDD) File Format Description

Contents

1. General Information

The following documentation will describe the Polar Weekly Data (PWD) and the Polar Diary Data (PDD) file formats. The PWD files are used to save weekly information and the PDD files are used to save diary information about day, exercises, exercise plans and exercise phases. The PWD and PDD files are named by date (yyyymmdd.pwd, yyyymmdd.pdd). The PWD date is each monday and in the PDD date is each day. Each PWD file includes **[WeekInfo]** section for weekly information. Each PDD file includes **[DayInfo]** section for daily information and **[ExerciseInfoX]**, **[ExePlanInfoX]** and **[ExeXPhaseInfoN]** sections for each exercise, exercise plan and exercise phase information (X represents exercise index and N represents number of phase). Each exercise section can include the link to external file including recorded data of exercise. Polar ProTrainer SW 5 uses HRM (heart rate measurement) files to include recorded exercise data. Each exercise plan and -phase is synchronizing with same X index.

Each data section contains the following information:
- Data section name
- Data section information fields (not in PWD and [ExeXPhaseInfoN])
- Numerical data rows
- Text data rows

Data section name is in brackets, for example [DayInfo]. Numerical data is saved into rows of max 6 data / row. Each numerical data in one row has been separated by tab character. The data section information fields include information about data to be following information row. Row includes information about data file version, number of information rows, number of numerical information rows, number of numerical information columns and the number of text rows. Also the maximum length of text row is inluced into information fields. The **[ExeXPhaseInfoN]** sections information fields is defined in **[ExePlanInfoX]** section.

Some of the data fields are reserved for future usage.

2. Weekly information

The following weekly information applies for one week (from monday to sunday). Max char per text row is 256.

[WeekInfo]
0 0 0 0 0 0 // row 0
Week name // text row 0
Week note text // text row 1

Row 0		
Data	**Example**	**Format**
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	

Text rows	
Row 0	Week name
Row 1	Week note

3. Daily information

The following weekly information applies for one day.

```
[DayInfo]
100          1    4    6    1    512          // row 0
20011116     1    65   20   7500 25200        // row 1
...                                           // row 2 … n
Day note text                                 // text row
```

Row 0		
Data	**Example**	**Format**
FileVersion	100	
Nbr Of Info Rows	1	
Nbr Of Num Rows	4	
Nbr Of Num Columns	6	
Nbr Of Text Rows	1	
Max Char Per Text Row	512	

Row 1:		
Data	**Example**	**Format**
Date	20011116	yyyymmdd
Nbr of exercises	1	
Resting HR	65	bpm
Orthostatic test HR	20	bpm
Weight	7500	kg * 100
Sleeping hours	25200	Seconds (25200 s / 60 s/min = 420 min = 7 h)

Row 2:		
Data	**Example**	**Format**
Sleeping pattern	0 … 4	0 = excellent … 4 = Insomnia
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	

Row 3:		
Data	**Example**	**Format**
Day Info data	73	See “day info data fields”
- Reserved -	0	
Polar HRmax-p	195	bpm
Overtraining test result	0	state * 10000 + index * 100
User defined item 1	10	value * 10
User defined item 2	255	value * 10

Row 4:		
Data	**Example**	**Format**
User defined item 3	1230	value * 10
- Reserved -	0	
Polar OwnIndex	51	
Weather	0 … 4	See “weather symbols”
Temperature	250	°C * 10
- Reserved -	0	

Row 5:		
Data	**Example**	**Format**
- Reserved -	0	
- Reserved -	0	
Nbr of exercise plans	1	Count of planned exercises
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	

Number rows 6 – 7 are reserved, filled with zeros

Text rows	
Row 0	Day note

Day Info Fields includes misc information about day. One or multiple of the following values can be OR’ed into one Day Info Field:

1 = Travelling
2 = Sick
4 = Injured
8 = Fitness Test
16 = Massage
32 = Game / match

Weather symbols

1 = sunny  2 = partly cloudy  3 = cloudy  4 = rainy  5 = snowing 

4. Exercise information

The following exercise information applies for one exercise. If the day includes more than one exercise, the ExerciseInfo section will be multiplied at file. The one day can include at max 10 exercises.

```
 [ExerciseInfo1]
101     1       12      6       12      512             // row 0
...                                                     // row 1 … n
exercise name                                           // text row 0
exercise note text                                      // text row 1
attached hrm file (if in same folder, no folder info with file name)  // text row 2
reserved text                                           // text row 3
…                                                       // text row 4 … n
```

Row 0		
Data	**Example**	**Format**
FileVersion	101	
Nbr Of Info Rows	1	
Nbr Of Num Rows	12	
Nbr Of Num Columns	6	
Nbr Of Text Rows	12	
Max Char Per Text Row	512	

Row 1		
Data	**Example**	**Format**
- Reserved -	0	
No report	1	1=not in reports, 2=not in exercise count, 3=not in both
Not edited manually	0	1=read from product, not edited manually
Distance from product	10920	meters
Start time	36000	Seconds (from midnight 0:00:00) 36000 = 10:00:00
Total time	2700	Seconds 2700 = 0:45:00

Row 2		
Data	**Example**	**Format**
Sport	3	Personal Sport ID
Distance OLD	150	km * 10 NOT IN USE AFTER PPP version 3.02.008
Feeling	0 … 5	0 =  … 5 = 
Recovery	0 … 4	0 = Fully Recovered … 4 = Exhausted
- Reserved -	0	
Energy consumption	376	kcal

Row 3		
Data	**Example**	**Format**
Distance	15000	meters
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
Odometer	2789	km
Ascent	470	meters

Row 4		
Data	**Example**	**Format**
Total exertion	350	Exertion count
Power avg with zero values	440	Watts
Vert speed up max	0	ft/min
Vert speed down max	0	ft/min
- Reserved -	0	
Vert speed up avg	0	ft/min

Row 5		
Data	**Example**	**Format**
Zone 0 time	600	Seconds 600 = 0:10:00
Zone 1 time	1200	Seconds 1200 = 0:20:00
Zone 2 time	900	Seconds 900 = 0:15:00
Zone 3 time	0	Seconds
Zone 4 time	0	Seconds
Zone 5 time	0	Seconds

Row 6		
Data	**Example**	**Format**
Zone 6 time	0	Seconds
Zone 7 time	0	Seconds
Zone 8 time	0	Seconds
Zone 9 time	0	Seconds
Sport-specific unit	200	Sport-specific unit value * 100
- Reserved -	0	

Row 7		
Data	**Example**	**Format**
Zone 0 exertion	200	Exertion count
Zone 1 exertion	110	Exertion count
Zone 2 exertion	40	Exertion count
Zone 3 exertion	0	Exertion count
Zone 4 exertion	0	Exertion count
Zone 5 exertion	0	Exertion count

Row 8		
Data	**Example**	**Format**
Zone 6 exertion	0	Exertion count
Zone 7 exertion	0	Exertion count
Zone 8 exertion	0	Exertion count
Zone 9 exertion	0	Exertion count
Recording rate	5	1, 2, 5, 15, 60, 120, 240, 480 seconds, 238=RR
Original ascent	356	m (Original ascent got from product)

Row 9		
Data	**Example**	**Format**
HR Average	144	bpm
HR Max	167	bpm
Speed Average	275	km/h * 10 => 275 = 27.5 km/h
Speed Max	380	km/h * 10 => 380 = 38.0 km/h
Cadence Average	90	rpm
Cadence Max	127	rpm

Row 10		
Data	**Example**	**Format**
Altitude Average	430	m
Altitude Max	480	m
Power Average	320	Watts
Power Max	440	Watts
Pedalling Index Average	21	%
Pedalling Index Max	34	%

Row 11		
Data	**Example**	**Format**
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
Slope count	0	
Descent	0	

Row 12		
Data	**Example**	**Format**
Average calory rate	0	kcal/h
Vert speed down avg	0	ft/min
Beat sum	12874	Beats
L/R Balance Average	53	Left
L/R Balance Max	76	Left
Original energy cons.	376	kcal

Row 13		
Data	**Example**	**Format**
Power zone 0 time	0	seconds
Power zone 1 time	0	seconds
Power zone 2 time	0	seconds
Power zone 3 time	0	seconds
Power zone 4 time	0	seconds
Power zone 5 time	0	seconds

Row 14		
Data	**Example**	**Format**
Power zone 6 time	0	seconds
Power zone 7 time	0	seconds
Power zone 8 time	0	seconds
Power zone 9 time	0	seconds
- Reserved -	0	
- Reserved -	0	

Row 15		
Data	**Example**	**Format**
Ascent/hour (V.A.M.)	0	m/h
Exercise ranking	0	0 = no ranking, 1 … 5 stars
MemFull	0	1 = mem full during exercise, no all data available
Running Index	0	
- Reserved -	0	
Incline max	0	% * 10

Row 16		
Data	**Example**	**Format**
Stride length average	0	mm
Decline max	0	% * 10
Cycling efficiency	0	
Footpod calibr. factor	1010	origival value * 1000
Wheel size	2105	mm
- Reserved -	0	

Row 17		
Data	**Example**	**Format**
Exercise type	0	0 = Free, 1 = Zoned, 2 = Timer zoned, 3 = OwnZone, 5 = Phased
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	

Number rows 18 – 24 are reserved, filled with zeros

Text rows	
Row 0	exercise name
Row 1	exercise note text
Row 2	attached hrm file (if in same folder, no folder info with file name)
Row 3	hyperlink
Row 4	hyperlink info text
Row 5	attached location file
Row 6	attached RR file
Row 7	previous multisport file
Row 8	next multisport file
Row n	- Reserved -

5. Exercise plan information

The following exercise plan information applies for one exercise plan and one exercise phase. If the day includes more than one exercise plan, the ExercisePlanInfo section will be multiplied at file. The one day can include at max 10 exercise plans. Data to one exercise phase can automatically generated from general part.

```
[ExercisePlanInfo1]
101     1       12      6       12      512             // row 0
...                                                     // row 1 … n
exercise plan name                                      // text row 0
exercise plan note text                                 // text row 1
reserved text   …                                       // text row 2 … n
```

Row 0		
Data	**Example**	**Format**
FileVersion	101	
Nbr Of Info Rows	1	
Nbr Of Num Rows	12	
Nbr Of Num Columns	6	
Nbr Of Text Rows	12	
Max Char Per Text Row	512	

Row 1		
Data	**Example**	**Format**
- Reserved -	0	
No report	1	
Not edited manually	0	
- Reserved -	0	
Start time	36000	Seconds (from midnight 0:00:00) 36000 = 10:00:00
Total time	2700	Seconds 2700 = 0:45:00, 0 – 99 h 59 min, for one phase 10 s – 99 min 59 s

Row 2		
Data	**Example**	**Format**
Sport	3	Personal Sport ID
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
Energy consumption	376	kcal, 0 – 65535 kcal

Row 3		
Data	**Example**	**Format**
Distance	15000	m, RS 0 - 655.35 km, CS 0 - 6553.50 km, for one phase 0.10 - 99.90 km
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	

Number rows 4 are reserved, filled with zeros

Row 5		
Data	**Example**	**Format**
Zone 0 time	600	Seconds 600 = 0:10:00, 0 – 99 min 59 s
Zone 1 time	1200	Seconds 1200 = 0:20:00
Zone 2 time	900	Seconds 900 = 0:15:00
Zone 3 time	0	Seconds
Zone 4 time	0	Seconds
Zone 5 time	0	Seconds

Row 6		
Data	**Example**	**Format**
Zone 6 time	0	Seconds
Zone 7 time	0	Seconds
Zone 8 time	0	Seconds
Zone 9 time	0	Seconds
Sport-specific unit	200	Sport-specific unit value * 100
- Reserved -	0	

Number row 7 are reserved, filled with zeros

Row 8		
Data	**Example**	**Format**
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
HRM Sampling rate (1	5	1, 2, 5, 15, 60, 238 (RR)
- Reserved -	0	

Number rows 9 – 15 are reserved, filled with zeros

Row 16		
Data	**Example**	**Format**
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
Footpod factor (RS800) (1	1010	500 - 1500
- Reserved -	0	
RR Recording (RS800, CS600) (1	1	0 = Off, 1 = On

Row 17		
Data	**Example**	**Format**
Exercise type	5	5 = Phased
Bike number (CS) (1	2	0 = Off, 1 = Bike1, 2 = Bike2, 3 = Bike3 (for CS600)
Shoe number (RS) (1	0	0 = Off, 1 = Shoe1, 2 = Shoe2
Sport Profile type (1	1	0 = Use Product Settings, 1 = My Settings for x sport, read data from sport profile file, 2 = Reserved, 3 = Exercise-Specific Settings
HR view type (1	0	0 = bpm, 1 = HR%, 2 = HRR% (RS800, CS600)
Heart Touch (RS400, CS400) (1	2	1 = Show limits + light, 2 = Take lap + light, 3 = Change display + light, 4 = Light, 5 = Off

Row 18		
Data	**Example**	**Format**
HR alarm (1	0	0 = Off, 1 = On
Automatic lap (1	1	0 = Off, 1 = On
Speed view type (1	0	0 = Pace/Horse, 1 = Speed
Automatic lap distance (1	1000	meters, 0.4 - 10.0 km (RS), 0.1 - 99.9 km (CS)
Speed (1	1	0 = Off, 1 = On
Footpod position (RS800) (1	0	0 = shoe laces, 1 = integrated

Row 19		
Data	**Example**	**Format**
Altitude sensor (1	1	0 = Off, 1 = On
Altitude calibration value (1	1500	feet, -1800 - +29500 ft (actual altitudes) 0 = use default home value on the product
Cadence sensor (CS) (1	0	0 = Off, 1 = On
Power sensor (CS600) (1	1	0 = Off, 1 = On
- Reserved -	0	
Automatic altitude calibration (1	1	0 = Off, 1 = On

Row 20		
Data	**Example**	**Format**
Phases amount	5	0 - 12
- Reserved -	0	
- Reserved -	0	
Phase start (2	0	0 = auto, 1 = manual
Number of repeats (2	4	0 - 30
Number of next phase to go to (2	2	0 - 12

Row 21		
Data	**Example**	**Format**
Duration type (2	2	1 = manual, 2 = timer, 3 = distance, 4 = incr. HR, 5 = decr. HR
- Reserved -	0	
Intensity type (2	2	1 = free, 2 = sport zone, 3 = HR, 4 = HR%, 5 = HRR% (RS800, CS600), 6 = pace (RS, Horse), 7 = speed (RS, Horse), 8 = cadence (CS), 9 = power (CS600)
Sport Zone limit (2	3	0 – 9, 0 = lowest zone, 9 = highest zone
- Reserved -	0	
HR lo limit (2	1300	bpm * 10 (bpm in file version 100), 30 – 240 bpm

Row 22		
Data	**Example**	**Format**
HR hi limit (2	1500	bpm * 10 (bpm in file version 100)
HR% lo limit (2	500	% * 10, 20 – 100 %
HR% hi limit (2	700	% * 10
HRR% lo limit (2	600	% * 10, 0 – 100 %
HRR% hi limit (2	800	% * 10
Speed lo limit (RS, Horse) (2	120000	m/h * 10, 1 – 30 km/h (RS800), 1.8 – 29.5 km/h (RS400), 1 – 60 km/h (Horse)

Row 23		
Data	**Example**	**Format**
Speed hi limit (RS, Horse) (2	140000	m/h * 10
Cadence lo limit (CS) (2	90	rpm, 0 – 199 rpm
Cadence hi limit (CS) (2	100	rpm
Power lo limit (CS600) (2	300	W, 0 – 2000 W
Power hi limit (CS600) (2	350	W
- Reserved -	0	

Row 24		
Data	**Example**	**Format**
Duration enabled (2	0	0 = Off, 1 = Enabled
Intensity enabled (2	0	0 = Off, 1 = Enabled
GPS sensor (1	0	0 = Off, 1 = On (RS800CX, CS600X)
s3 sensor (1	0	0 = Off, 1 = On (RS800, RS800CX)
- Reserved -	0	
- Reserved -	0	

Text rows	
Row 0	exercise plan name
Row 1	exercise plan note text
Row 2	- Reserved -
Row 3	hyperlink
Row 4	hyperlink info text
Row n	- Reserved -

1) SportProfile data. Only for phased exercise type.
2) Phase data

5.1 Exercise phase information

The following exercise phase information applies for one exercise phase. If the exercise plan includes more than one phase, the ExePhaseInfo section will be multiplied at file. The exercise plan can include at max 12 exercise phases. Each exercise plan and -phase is synchronizing with same index ([ExercisePlanInfo*1*] vs [Exe*1*PhaseInfoN]).

```
[Exe1PhaseInfo1]
0   0   0   0   0   2700          // row 0
...                               // row 1 … n
exercise phase name               // text row 0
reserved text                     // text row 1
…                                 // text row 2 … n
```

Row 0		
Data	**Example**	**Format**
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
Total time	2700	Seconds 2700 = 0:45:00, 10 s – 99 min 59 s

Number row 1 are reserved, filled with zeros

Row 2		
Data	**Example**	**Format**
Distance	15000	m, 0.10 - 99.90 km
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	

Number rows 3 – 19 are reserved, filled with zeros

Row 20		
Data	**Example**	**Format**
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
Phase start	0	0 = auto, 1 = manual
Number of repeats	2	0 - 30
Number of next phase to go to	3	0 - 12

Row 21		
Data	**Example**	**Format**
Duration type	4	1 = manual, 2 = timer, 3 = distance, 4 = incr. HR, 5 = decr. HR
- Reserved -	0	
Intensity type	3	1 = free, 2 = sport zone, 3 = HR, 4 = HR%, 5 = HRR% (RS800, CS600), 6 = pace (RS, Horse), 7 = speed (RS, Horse), 8 = cadence (CS), 9 = power (CS600)
Sport Zone limit	6	0 – 9, 0 = lowest zone, 9 = highest zone
- Reserved -	0	
HR lo limit	1500	bpm * 10 (bpm in file version 100) , 30 – 240 bpm

Row 22		
Data	**Example**	**Format**
HR hi limit	1600	bpm * 10 (bpm in file version 100)
HR% lo limit	800	% * 10, 20 – 100 %
HR% hi limit	900	% * 10
HRR% lo limit	500	% * 10, 0 – 100 %
HRR% hi limit	700	% * 10
Speed lo limit (RS, Horse)	150000	m/h * 10, 1 – 30 km/h (RS800), 1.8 – 29.5 km/h (RS400), 1 – 60 km/h (Horse)

Row 23		
Data	**Example**	**Format**
Speed hi limit (RS, Horse)	160000	m/h * 10
Cadence lo limit (CS)	80	rpm, 0 – 199 rpm
Cadence hi limit (CS)	90	rpm
Power lo limit (CS600)	250	W, 0 – 2000 W
Power hi limit (CS600)	300	W
- Reserved -	0	

Row 24		
Data	**Example**	**Format**
Duration enabled	0	0 = Off, 1 = Enabled
Intensity enabled	0	0 = Off, 1 = Enabled
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	
- Reserved -	0	

Text rows	
Row 0	exercise phase name
Row 1	- Reserved -
Row 2	- Reserved -
Row 3	- Reserved -
…	…
Row n	- Reserved -