HDL Data Documentation:

Accel:

diffSecs: time difference (in seconds) from last recording point

N.Samples: number of samples captured during that recording interval

<u>x.mean</u>: The mean acceleration of all the samples captured during that interval for the x axis recordings

<u>x.absolute.deviation</u>: The absolute deviation of the samples from the mean for samples captured during the interval for the x axis

<u>x.standard.deviation</u>: The standard deviation of the samples from the mean for samples captured during the interval for the x axis

x.max.deviation: The maximum deviation of the samples from the mean for samples captured during the interval for the x axis

x.PSD.1: Low frequency motion energy

<u>x.PSD.3:</u> Low-mid frequency motion energy

<u>x.PSD.6:</u> Mid-high frequency motion energy

<u>x.PSD.10</u>: High frequency motion energy

<u>y.mean:</u> The mean acceleration of all the samples captured during that interval for the y axis recordings

<u>y.absolute.deviation:</u> The absolute deviation of the samples from the mean for samples captured during the interval for the y axis

<u>y.standard.deviation</u>: The standard deviation of the samples from the mean for samples captured during the interval for the y axis

y.max.deviation: The maximum deviation of the samples from the mean for samples captured during the interval for the y axis

y.PSD.1: Low frequency motion energy

<u>y.PSD.3:</u> Low-mid frequency motion energy

v.PSD.6: Mid-high frequency motion energy

y.PSD.10: High frequency motion energy

<u>z.mean:</u> The mean acceleration of all the samples captured during that interval for the z axis recordings

<u>z.absolute.deviation</u>: The absolute deviation of the samples from the mean for samples captured during the interval for the z axis

z.standard.deviation: The standard deviation of the samples from the mean for samples captured during the interval for the z axis

 $z.\mbox{max.deviation}$. The maximum deviation of the samples from the mean for samples captured during the interval for the z axis

z.PSD.1: Low frequency motion energy

z.PSD.3: Low-mid frequency motion energy

z.PSD.6: Mid-high frequency motion energy

z.PSD.10: High frequency motion energy

<u>time:</u> The time stamp of when the sample was collected in the format MM/DD/YYYY HH:MM:SS AM/PM

Audio:

diffSecs: time difference (in seconds) from last recording point

L1.norm: Absolute energy of audio captured

L2.norm: RMS energy of audio captured

Linf.norm: Peak energy of audio captured

PSD.250: Low frequency energy of audio captured

PSD.500: Low-mid frequency energy of audio captured

PSD:1000: Mid-high frequency energy of audio captured

PSD.2000: High frequency energy of audio captured

MFCC.1: Log-energy 0th mel-frequency cepstral coefficient of audio captured

MFCC.2: 1st mel-frequency cepstral coefficient

MFCC.3: 2nd mel-frequency cepstral coefficient

MFCC.4:

MFCC.5:

MFCC.6:

MFCC.7:

MFCC.8:

MFCC.9:

MFCC.10:

MFCC.11:

MFCC.12: 11th mel-frequency cepstral coefficient

time: The time stamp of when the sample was collected in the format MM/DD/YYYY HH:MM:SS AM/PM

Batt:

diffSecs: time difference (in seconds) from last recording point

<u>level</u>: The level of battery power remaining shown in terms of a percentage of total power

<u>time:</u> The time stamp of when the sample was collected in the format MM/DD/YYYY HH:MM:SS AM/PM

Cmpss:

diffSecs: time difference (in seconds) from last recording point

N.Samples: number of samples captured during that recording interval

azimuth.mean: The mean compass bearing east of magnetic north.

<u>azimuth.absolute.deviation:</u> The absolute deviation compass bearing east of magnetic north.

<u>azimuth.standard.deviation:</u> The standard deviation compass bearing east of magnetic north.

<u>azimuth.max.deviation:</u> The maximum deviation compass bearing east of magnetic north.

<u>pitch.mean:</u> The mean compass bearing for rotation around x-axis (is the phone leaning forward or back)

<u>pitch.absolute.deviation:</u> The absolute deviation of compass bearing for rotation around x-axis (is the phone leaning forward or back)

<u>pitch.standard.deviation</u>: The standard deviation of compass bearing for rotation around x-axis (is the phone leaning forward or back)

pitch.max.deviation: The maximum deviation of compass bearing for rotation around x-axis (is the phone leaning forward or back)
roll.mean: The mean compass bearing for rotation around y-axis (is the phone leaning over on its left or right side)
roll.absolute.deviation: The absolute deviation of compass bearing for rotation around y-axis (is the phone leaning over on its left or right side)
roll.standard.deviation: The standard deviation compass bearing for rotation around y-axis (is the phone leaning over on its left or right side)
roll.max.deviation: The maximum deviation of compass bearing for rotation around y-axis (is the phone leaning over on its left or right side)
time: The time stamp of when the sample was collected in the format MM/DD/YYYY HH:MM:SS AM/PM

GPS:

diffSecs: time difference (in seconds) from last recording point
Latitude: The latitude coordinate collected at the specified time interval
Longitude: The longitude coordinate collected at the specified time interval
Altitude: The altitude above sea level collected at the specified time interval
Time: The time stamp of when the sample was collected in the format
MM/DD/YYYY HH:MM:SS AM/PM