

Tidydataaverages includes following variables for 30 different subjects and 6 different activity names (walking, walking upstairs, walking downstairs, sitting, standing and laying).

- subject - subject id
- activity - activity label
- tBodyAcc-mean-X
- tBodyAcc-mean-Y
- tBodyAcc-mean-Z
- tBodyAcc-std-X
- tBodyAcc-std-Y
- tBodyAcc-std-Z
- tGravityAcc-mean-X
- tGravityAcc-mean-Y
- tGravityAcc-mean-Z
- tGravityAcc-std-X
- tGravityAcc-std-Y
- tGravityAcc-std-Z
- tBodyAccJerk-mean-X
- tBodyAccJerk-mean-Y
- tBodyAccJerk-mean-Z
- tBodyAccJerk-std-X
- tBodyAccJerk-std-Y
- tBodyAccJerk-std-Z
- tBodyGyro-mean-X
- tBodyGyro-mean-Y
- tBodyGyro-mean-Z
- tBodyGyro-std-X

- tBodyGyro-std-Y
- tBodyGyro-std-Z
- tBodyGyroJerk-mean-X
- tBodyGyroJerk-mean-Y
- tBodyGyroJerk-mean-Z
- tBodyGyroJerk-std-X
- tBodyGyroJerk-std-Y
- tBodyGyroJerk-std-Z
- tBodyAccMag-mean
- tBodyAccMag-std
- tGravityAccMag-mean
- tGravityAccMag-std
- tBodyAccJerkMag-mean
- tBodyAccJerkMag-std
- tBodyGyroMag-mean
- tBodyGyroMag-std
- tBodyGyroJerkMag-mean
- tBodyGyroJerkMag-std
- fBodyAcc-mean-X
- fBodyAcc-mean-Y
- fBodyAcc-mean-Z
- fBodyAcc-std-X
- fBodyAcc-std-Y
- fBodyAcc-std-Z
- fBodyAccJerk-mean-X
- fBodyAccJerk-mean-Y

- fBodyAccJerk-mean-Z
- fBodyAccJerk-std-X
- fBodyAccJerk-std-Y
- fBodyAccJerk-std-Z
- fBodyGyro-mean-X
- fBodyGyro-mean-Y
- fBodyGyro-mean-Z
- fBodyGyro-std-X
- fBodyGyro-std-Y
- fBodyGyro-std-Z
- fBodyAccMag-mean
- fBodyAccMag-std
- fBodyBodyAccJerkMag-mean
- fBodyBodyAccJerkMag-std
- fBodyBodyGyroMag-mean
- fBodyBodyGyroMag-std
- fBodyBodyGyroJerkMag-mean
- fBodyBodyGyroJerkMag-std

where:

- X,Y,Z are 3 dimensional directions
- t refers to time
- f refers to frequency
- mean is the mean value
- std is the standard deviation
- acc means acceleration
- gyro means angular velocity

- jerk refers to jerk signals
- gravity refers to gravity signals
- mag means magnitude

The datacleaned data set includes also the following set of variables estimated for the signals:

- mad(): Median absolute deviation
- max(): Largest value in array
- min(): Smallest value in array
- sma(): Signal magnitude area
- energy(): Energy measure. Sum of the squares divided by the number of values.
- iqr(): Interquartile range
- entropy(): Signal entropy
- arCoeff(): Autorregresion coefficients with Burg order equal to 4
- correlation(): correlation coefficient between two signals
- maxInds(): index of the frequency component with largest magnitude
- meanFreq(): Weighted average of the frequency components to obtain a mean frequency
- skewness(): skewness of the frequency domain signal
- kurtosis(): kurtosis of the frequency domain signal
- bandsEnergy(): Energy of a frequency interval within the 64 bins of the FFT of each window.