DATA DICTIONARY – Data from accelerometers from the Samsung Galaxy S smartphone

Number of variables: 81

subject

An identifier of the subject who carried out the experiment.

1

2

..

30

activity

The activity performed by the subjects during the experiments

WALKING

WALKING_UPSTAIRS

WALKING_DOWNSTAIRS

SITTING

STANDING

LAYING

The tridimensional (X,Y,Z) measured variables from accelerometer are organized into:

Body and gravity acceleration signals (tBodyAcc-XYZ and tGravityAcc-XYZ). All of integer type.

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

The body linear acceleration and angular velocity variables derived in time to obtain Jerk signals (tBodyAccJerk-XYZ and tBodyGyroJerk-XYZ).

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

The magnitude of the three-dimensional signals calculated using the Euclidean norm

tBodyAccMag-mean()

tBodyAccMag-std()

tGravityAccMag-mean()

tGravityAccMag-std()

tBodyAccJerkMag-mean()

tBodyAccJerkMag-std()

tBodyGyroMag-mean()

tBodyGyroMag-std()

tBodyGyroJerkMag-mean()

tBodyGyroJerkMag-std()

Variables with Fast Fourier Transform (FFT) applied to indicate frequencies

fBodyAcc-mean()-X

fBodyAcc-mean()-Y

fBodyAcc-mean()-Z

fBodyAcc-std()-X

fBodyAcc-std()-Y

fBodyAcc-std()-Z

fBodyAcc-meanFreq()-X

fBodyAcc-meanFreq()-Y

fBodyAcc-meanFreq()-Z

fBodyAccJerk-mean()-X

fBodyAccJerk-mean()-Y

fBodyAccJerk-mean()-Z

fBodyAccJerk-std()-X

fBodyAccJerk-std()-Y

fBodyAccJerk-std()-Z

fBodyAccJerk-meanFreq()-X

fBodyAccJerk-meanFreq()-Y

fBodyAccJerk-meanFreq()-Z

fBodyGyro-mean()-X

fBodyGyro-mean()-Y

fBodyGyro-mean()-Z

fBodyGyro-std()-X

fBodyGyro-std()-Y

fBodyGyro-std()-Z

fBodyGyro-meanFreq()-X

fBodyGyro-meanFreq()-Y

fBodyGyro-meanFreq()-Z

fBodyAccMag-mean()

fBodyAccMag-std()

fBodyAccMag-meanFreq()

fBodyBodyAccJerkMag-mean()

fBodyBodyAccJerkMag-std()

fBodyBodyAccJerkMag-meanFreq()

fBodyBodyGyroMag-mean()

fBodyBodyGyroMag-std()

fBodyBodyGyroMag-meanFreq()

fBodyBodyGyroJerkMag-mean()

fBodyBodyGyroJerkMag-std()

fBodyBodyGyroJerkMag-meanFreq()

Note:

- prefix 't' - denotes time
- prefix 'f' - indicates frequency domain signals
- suffix ‘mean()’ - indicates the mean of variable
- suffix ‘std()’ - indicates a standart deviation of the variable):