**Output**

output.txt

**Variables**

Each row contains, for a given subject and activity, 79 averaged signal measurements.

**Id****s**

* subject

Subject identifier, integer, ranges from 1 to 30.

* activity

Activity identifier, string with 6 possible values:

* + WALKING
  + WALKING\_UPSTAIRS
  + WALKING\_DOWNSTAIRS
  + SITTING
  + STANDING
  + LAYING

**Average of measurements** **(variables)**

All measurements are floating-point values, normalised and bounded within [-1,1].

* + timeDomainBodyAccelerometerMeanX
  + timeDomainBodyAccelerometerMeanY
  + timeDomainBodyAccelerometerMeanZ
  + timeDomainBodyAccelerometerStandardDeviationX
  + timeDomainBodyAccelerometerStandardDeviationY
  + timeDomainBodyAccelerometerStandardDeviationZ
  + timeDomainGravityAccelerometerMeanX
  + timeDomainGravityAccelerometerMeanY
  + timeDomainGravityAccelerometerMeanZ
  + timeDomainGravityAccelerometerStandardDeviationX
  + timeDomainGravityAccelerometerStandardDeviationY
  + timeDomainGravityAccelerometerStandardDeviationZ
  + timeDomainBodyAccelerometerJerkMeanX
  + timeDomainBodyAccelerometerJerkMeanY
  + timeDomainBodyAccelerometerJerkMeanZ
  + timeDomainBodyAccelerometerJerkStandardDeviationX
  + timeDomainBodyAccelerometerJerkStandardDeviationY
  + timeDomainBodyAccelerometerJerkStandardDeviationZ
  + timeDomainBodyGyroscopeMeanX
  + timeDomainBodyGyroscopeMeanY
  + timeDomainBodyGyroscopeMeanZ
  + timeDomainBodyGyroscopeStandardDeviationX
  + timeDomainBodyGyroscopeStandardDeviationY
  + timeDomainBodyGyroscopeStandardDeviationZ
  + timeDomainBodyGyroscopeJerkMeanX
  + timeDomainBodyGyroscopeJerkMeanY
  + timeDomainBodyGyroscopeJerkMeanZ
  + timeDomainBodyGyroscopeJerkStandardDeviationX
  + timeDomainBodyGyroscopeJerkStandardDeviationY
  + timeDomainBodyGyroscopeJerkStandardDeviationZ
  + timeDomainBodyAccelerometerMagnitudeMean
  + timeDomainBodyAccelerometerMagnitudeStandardDeviation
  + timeDomainGravityAccelerometerMagnitudeMean
  + timeDomainGravityAccelerometerMagnitudeStandardDeviation
  + timeDomainBodyAccelerometerJerkMagnitudeMean
  + timeDomainBodyAccelerometerJerkMagnitudeStandardDeviation
  + timeDomainBodyGyroscopeMagnitudeMean
  + timeDomainBodyGyroscopeMagnitudeStandardDeviation
  + timeDomainBodyGyroscopeJerkMagnitudeMean
  + timeDomainBodyGyroscopeJerkMagnitudeStandardDeviation
  + frequencyDomainBodyAccelerometerMeanX
  + frequencyDomainBodyAccelerometerMeanY
  + frequencyDomainBodyAccelerometerMeanZ
  + frequencyDomainBodyAccelerometerStandardDeviationX
  + frequencyDomainBodyAccelerometerStandardDeviationY
  + frequencyDomainBodyAccelerometerStandardDeviationZ
  + frequencyDomainBodyAccelerometerMeanFrequencyX
  + frequencyDomainBodyAccelerometerMeanFrequencyY
  + frequencyDomainBodyAccelerometerMeanFrequencyZ
  + frequencyDomainBodyAccelerometerJerkMeanX
  + frequencyDomainBodyAccelerometerJerkMeanY
  + frequencyDomainBodyAccelerometerJerkMeanZ
  + frequencyDomainBodyAccelerometerJerkStandardDeviationX
  + frequencyDomainBodyAccelerometerJerkStandardDeviationY
  + frequencyDomainBodyAccelerometerJerkStandardDeviationZ
  + frequencyDomainBodyAccelerometerJerkMeanFrequencyX
  + frequencyDomainBodyAccelerometerJerkMeanFrequencyY
  + frequencyDomainBodyAccelerometerJerkMeanFrequencyZ
  + frequencyDomainBodyGyroscopeMeanX
  + frequencyDomainBodyGyroscopeMeanY
  + frequencyDomainBodyGyroscopeMeanZ
  + frequencyDomainBodyGyroscopeStandardDeviationX
  + frequencyDomainBodyGyroscopeStandardDeviationY
  + frequencyDomainBodyGyroscopeStandardDeviationZ
  + frequencyDomainBodyGyroscopeMeanFrequencyX
  + frequencyDomainBodyGyroscopeMeanFrequencyY
  + frequencyDomainBodyGyroscopeMeanFrequencyZ
  + frequencyDomainBodyAccelerometerMagnitudeMean
  + frequencyDomainBodyAccelerometerMagnitudeStandardDeviation
  + frequencyDomainBodyAccelerometerMagnitudeMeanFrequency
  + frequencyDomainBodyAccelerometerJerkMagnitudeMean
  + frequencyDomainBodyAccelerometerJerkMagnitudeStandardDeviation
  + frequencyDomainBodyAccelerometerJerkMagnitudeMeanFrequency
  + frequencyDomainBodyGyroscopeMagnitudeMean
  + frequencyDomainBodyGyroscopeMagnitudeStandardDeviation
  + frequencyDomainBodyGyroscopeMagnitudeMeanFrequency
  + frequencyDomainBodyGyroscopeJerkMagnitudeMean
  + frequencyDomainBodyGyroscopeJerkMagnitudeStandardDeviation
  + frequencyDomainBodyGyroscopeJerkMagnitudeMeanFrequency

**Transformations**

The zip file containing the source data is located at <https://d396qusza40orc.cloudfront.net/getdata%2Fprojectfiles%2FUCI%20HAR%20Dataset.zip>.

The following transformations were applied to the source data:

1. Original sets were merged to create one data set.
2. The measurements on the mean and standard deviation were extracted for each measurement.
3. The activity identifiers were replaced with descriptive names.
4. The variable names were replaced with descriptive variable names using the following set of rules:
   * Special characters “(“, “)”, and “-“ were removed
   * The initial f and t were expanded to frequencyDomain and timeDomain respectively.
   * Acc, Gyro, Mag, Freq, mean, and std were replaced with Accelerometer, Gyroscope, Magnitude, Frequency, Mean, and StandardDeviation respectively.
   * Replaced (supposedly incorrect as per source's features\_info.txt file) BodyBody with Body.
5. From the data set in step 4, the final data set was created with the average of each variable for each activity and each subject.