

## DATA DICTIONARY

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The column or variable names are created by pre pending the original dataset column name where the data are taken from with "ave-". This allow easy refer back.

Column #	Variable	Description
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1	SubjectID	Subject identification number Data range from 1 to 30
2	ave-tBodyAcc-mean()-X	Average value of the original column data tBodyAcc-mean()-X for each subject and each human activity Data range are normalized and bounded within [-1,1]
3	ave-tBodyAcc-mean()-Y	Average value of the original column data tBodyAcc-mean()-Y for each subject and each human activity Data range are normalized and bounded within [-1,1]
4	ave-tBodyAcc-mean()-Z	Average value of the original column data tBodyAcc-mean()-Z for each subject and each human activity Data range are normalized and bounded within [-1,1]
5	ave-tBodyAcc-std()-X	Average value of the original column data tBodyAcc-std()-X for each subject and each human activity Data range are normalized and bounded within [-1,1]
6	ave-tBodyAcc-std()-Y	Average value of the original column data tBodyAcc-std()-Y for each subject and each human activity

Data range are normalized and bounded within [-1,1]

7                   ave-tBodyAcc-std()-Z  
each subject and each human activity

Average value of the original column data tBodyAcc-std()-Z for

Data range are normalized and bounded within [-1,1]

8                   ave-tGravityAcc-mean()-X  
for each subject and each human activity

Average value of the original column data tGravityAcc-mean()-X

Data range are normalized and bounded within [-1,1]

9                   ave-tGravityAcc-mean()-Y  
for each subject and each human activity

Average value of the original column data tGravityAcc-mean()-Y

Data range are normalized and bounded within [-1,1]

10                  ave-tGravityAcc-mean()-Z  
for each subject and each human activity

Average value of the original column data tGravityAcc-mean()-Z

Data range are normalized and bounded within [-1,1]

11                  ave-tGravityAcc-std()-X  
for each subject and each human activity

Average value of the original column data tGravityAcc-std()-X

Data range are normalized and bounded within [-1,1]

12                  ave-tGravityAcc-std()-Y  
for each subject and each human activity

Average value of the original column data tGravityAcc-std()-Y

Data range are normalized and bounded within [-1,1]

13                  ave-tGravityAcc-std()-Z  
for each subject and each human activity

Average value of the original column data tGravityAcc-std()-Z

Data range are normalized and bounded within [-1,1]

14	ave-tBodyAccJerk-mean()-X X for each subject and each human activity	Average value of the original column data tBodyAccJerk-mean()-  Data range are normalized and bounded within [-1,1]
15	ave-tBodyAccJerk-mean()-Y Y for each subject and each human activity	Average value of the original column data tBodyAccJerk-mean()-  Data range are normalized and bounded within [-1,1]
16	ave-tBodyAccJerk-mean()-Z Z for each subject and each human activity	Average value of the original column data tBodyAccJerk-mean()-  Data range are normalized and bounded within [-1,1]
17	ave-tBodyAccJerk-std()-X for each subject and each human activity	Average value of the original column data tBodyAccJerk-std()-X  Data range are normalized and bounded within [-1,1]
18	ave-tBodyAccJerk-std()-Y for each subject and each human activity	Average value of the original column data tBodyAccJerk-std()-Y  Data range are normalized and bounded within [-1,1]
19	ave-tBodyAccJerk-std()-Z for each subject and each human activity	Average value of the original column data tBodyAccJerk-std()-Z  Data range are normalized and bounded within [-1,1]
20	ave-tBodyGyro-mean()-X mean()-X for each subject and each human activity	Average value of the original column data tBodyGyro-  Data range are normalized and bounded within [-1,1]
21	ave-tBodyGyro-mean()-Y mean()-Y for each subject and each human activity	Average value of the original column data tBodyGyro-  Data range are normalized and bounded within [-1,1]

22	ave-tBodyGyro-mean()-Z mean()-Z for each subject and each human activity	Average value of the original column data tBodyGyro-  Data range are normalized and bounded within [-1,1]
23	ave-tBodyGyro-std()-X each subject and each human activity	Average value of the original column data tBodyGyro-std()-X for  Data range are normalized and bounded within [-1,1]
24	ave-tBodyGyro-std()-Y each subject and each human activity	Average value of the original column data tBodyGyro-std()-Y for  Data range are normalized and bounded within [-1,1]
25	ave-tBodyGyro-std()-Z each subject and each human activity	Average value of the original column data tBodyGyro-std()-Z for  Data range are normalized and bounded within [-1,1]
26	ave-tBodyGyroJerk-mean()-X mean()-X for each subject and each human activity	Average value of the original column data tBodyGyroJerk-  Data range are normalized and bounded within [-1,1]
27	ave-tBodyGyroJerk-mean()-Y mean()-Y for each subject and each human activity	Average value of the original column data tBodyGyroJerk-  Data range are normalized and bounded within [-1,1]
28	ave-tBodyGyroJerk-mean()-Z mean()-Z for each subject and each human activity	Average value of the original column data tBodyGyroJerk-  Data range are normalized and bounded within [-1,1]
29	ave-tBodyGyroJerk-std()-X for each subject and each human activity	Average value of the original column data tBodyGyroJerk-std()-X

Data range are normalized and bounded within [-1,1]

30                   ave-tBodyGyroJerk-std()-Y  
for each subject and each human activity

Average value of the original column data tBodyGyroJerk-std()-Y

Data range are normalized and bounded within [-1,1]

31                   ave-tBodyGyroJerk-std()-Z  
for each subject and each human activity

Average value of the original column data tBodyGyroJerk-std()-Z

Data range are normalized and bounded within [-1,1]

32                   ave-tBodyAccMag-mean()  
tBodyAccMag-mean() for each subject and each human activity

Average value of the original column data

Data range are normalized and bounded within [-1,1]

33                   ave-tBodyAccMag-std()  
for each subject and each human activity

Average value of the original column data tBodyAccMag-std()

Data range are normalized and bounded within [-1,1]

34                   ave-tGravityAccMag-mean()  
mean() for each subject and each human activity

Average value of the original column data tGravityAccMag-

Data range are normalized and bounded within [-1,1]

35                   ave-tGravityAccMag-std()  
for each subject and each human activity

Average value of the original column data tGravityAccMag-std()

Data range are normalized and bounded within [-1,1]

36                   ave-tBodyAccJerkMag-mean()  
mean() for each subject and each human activity

Average value of the original column data tBodyAccJerkMag-

Data range are normalized and bounded within [-1,1]

37	ave-tBodyAccJerkMag-std() std() for each subject and each human activity	Average value of the original column data tBodyAccJerkMag-std()  Data range are normalized and bounded within [-1,1]
38	ave-tBodyGyroMag-mean() tBodyGyroMag-mean() for each subject and each human activity	Average value of the original column data  Data range are normalized and bounded within [-1,1]
39	ave-tBodyGyroMag-std() tBodyGyroMag-std() for each subject and each human activity	Average value of the original column data  Data range are normalized and bounded within [-1,1]
40	ave-tBodyGyroJerkMag-mean() mean() for each subject and each human activity	Average value of the original column data tBodyGyroJerkMag-mean()  Data range are normalized and bounded within [-1,1]
41	ave-tBodyGyroJerkMag-std() std() for each subject and each human activity	Average value of the original column data tBodyGyroJerkMag-std()  Data range are normalized and bounded within [-1,1]
42	ave-fBodyAcc-mean()-X for each subject and each human activity	Average value of the original column data fBodyAcc-mean()-X  Data range are normalized and bounded within [-1,1]
43	ave-fBodyAcc-mean()-Y for each subject and each human activity	Average value of the original column data fBodyAcc-mean()-Y  Data range are normalized and bounded within [-1,1]
44	ave-fBodyAcc-mean()-Z for each subject and each human activity	Average value of the original column data fBodyAcc-mean()-Z  Data range are normalized and bounded within [-1,1]

45	ave-fBodyAcc-std()-X each subject and each human activity	Average value of the original column data fBodyAcc-std()-X for  Data range are normalized and bounded within [-1,1]
46	ave-fBodyAcc-std()-Y each subject and each human activity	Average value of the original column data fBodyAcc-std()-Y for  Data range are normalized and bounded within [-1,1]
47	ave-fBodyAcc-std()-Z each subject and each human activity	Average value of the original column data fBodyAcc-std()-Z for  Data range are normalized and bounded within [-1,1]
48	ave-fBodyAccJerk-mean()-X X for each subject and each human activity	Average value of the original column data fBodyAccJerk-mean()-  Data range are normalized and bounded within [-1,1]
49	ave-fBodyAccJerk-mean()-Y Y for each subject and each human activity	Average value of the original column data fBodyAccJerk-mean()-  Data range are normalized and bounded within [-1,1]
50	ave-fBodyAccJerk-mean()-Z Z for each subject and each human activity	Average value of the original column data fBodyAccJerk-mean()-  Data range are normalized and bounded within [-1,1]
51	ave-fBodyAccJerk-std()-X for each subject and each human activity	Average value of the original column data fBodyAccJerk-std()-X  Data range are normalized and bounded within [-1,1]
52	ave-fBodyAccJerk-std()-Y for each subject and each human activityY	Average value of the original column data fBodyAccJerk-std()-Y

Data range are normalized and bounded within [-1,1]

53                   ave-fBodyAccJerk-std()-Z  
for each subject and each human activity

Average value of the original column data fBodyAccJerk-std()-Z

Data range are normalized and bounded within [-1,1]

54                   ave-fBodyGyro-mean()-X  
mean()-X for each subject and each human activity

Average value of the original column data fBodyGyro-

Data range are normalized and bounded within [-1,1]

55                   ave-fBodyGyro-mean()-Y  
mean()-Y for each subject and each human activity

Average value of the original column data fBodyGyro-

Data range are normalized and bounded within [-1,1]

56                   ave-fBodyGyro-mean()-Z  
mean()-Z for each subject and each human activity

Average value of the original column data fBodyGyro-

Data range are normalized and bounded within [-1,1]

57                   ave-fBodyGyro-std()-X  
each subject and each human activity

Average value of the original column data fBodyGyro-std()-X for

Data range are normalized and bounded within [-1,1]

58                   ave-fBodyGyro-std()-Y  
each subject and each human activity

Average value of the original column data fBodyGyro-std()-Y for

Data range are normalized and bounded within [-1,1]

59                   ave-fBodyGyro-std()-Z  
each subject and each human activity

Average value of the original column data fBodyGyro-std()-Z for

Data range are normalized and bounded within [-1,1]



60	ave-fBodyAccMag-mean() fBodyAccMag-mean() for each subject and each human activity	Average value of the original column data  Data range are normalized and bounded within [-1,1]
61	ave-fBodyAccMag-std() for each subject and each human activity	Average value of the original column data fBodyAccMag-std()  Data range are normalized and bounded within [-1,1]
62	ave-fBodyBodyAccJerkMag-mean() fBodyBodyAccJerkMag-mean() for each subject and each human activity	Average value of the original column data  Data range are normalized and bounded within [-1,1]
63	ave-fBodyBodyAccJerkMag-std() fBodyBodyAccJerkMag-std() for each subject and each human activity	Average value of the original column data  Data range are normalized and bounded within [-1,1]
64	ave-fBodyBodyGyroMag-mean() fBodyBodyGyroMag-mean() for each subject and each human activity	Average value of the original column data  Data range are normalized and bounded within [-1,1]
65	ave-fBodyBodyGyroMag-std() std() for each subject and each human activity	Average value of the original column data fBodyBodyGyroMag-std()  Data range are normalized and bounded within [-1,1]
66	ave-fBodyBodyGyroJerkMag-mean() fBodyBodyGyroJerkMag-mean() for each subject and each human activity	Average value of the original column data  Data range are normalized and bounded within [-1,1]
67	ave-fBodyBodyGyroJerkMag-std() fBodyBodyGyroJerkMag-std() for each subject and each human activity	Average value of the original column data  Data range are normalized and bounded within [-1,1]

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HumanActivity

Human activity descriptor

Option:

WALKING/WALKING\_UPSTAIRS/WALKING\_DOWNSTAIRS/SITTING/STANDING/LAYING