Codebook for variables included in tidy_ data.txt

1 Introduction

Includes descriptions of all variables retained in tidy_ data.txt. Variable names as given by original authors (Anguita et al. 2012).

Note that as all measurements have been normalized (and bounded) they are without units.

2 Variables

1. Subject: The unique identification code for each volunteer subject in the study
2. Activity: The textual description of the activity that the subject performed as supplied by the authors of the original dataset
3. tBodyAcc-mean()-X: Time based mean body acceleration signal in the X dimension.
4. tBodyAcc-mean()-Y: Time based mean body acceleration signal in the Y dimension.
5. tBodyAcc-mean()-Z: Time based mean body acceleration signal in the Z dimension.
6. tBodyAcc-std()-X: Standard deviation of time based body acceleration signal in the X dimension.
7. tBodyAcc-std()-Y: Standard deviation of time based body acceleration signal in the Y dimension.

8. tBodyAcc-std()-Z: Standard deviation of time based body acceleration signal in the Z dimension.

9. tGravityAcc-mean()-X: Time based mean gravity acceleration signal in the X dimension.

10. tGravityAcc-mean()-Y: Time based mean gravity acceleration signal in the Y dimension.

11. tGravityAcc-mean()-Z: Time based mean gravity acceleration signal in the Z dimension.

12. tGravityAcc-std()-X: Standard deviation of time based gravity acceleration signal in the X dimension.

13. tGravityAcc-std()-Y: Standard deviation of time based gravity acceleration signal in the Y dimension.

14. tGravityAcc-std()-Z: Standard deviation of time based gravity acceleration signal in the Z dimension.

15. tBodyAccJerk-mean()-X: Time based mean body jerk signal (body linear acceleration) in the X dimension.

16. tBodyAccJerk-mean()-Y: Time based mean body jerk signal (body linear acceleration) in the Y dimension.

17. tBodyAccJerk-mean()-Z: Time based mean body jerk signal (body linear acceleration) in the Z dimension.

18. tBodyAccJerk-std()-X: Standard deviation of time based body jerk signal (body linear acceleration) in the X dimension.

19. tBodyAccJerk-std()-Y: Standard deviation of time based body jerk signal (body linear acceleration) in the Y dimension.

20. tBodyAccJerk-std()-Z: Standard deviation of time based body jerk signal (body linear acceleration) in the Z dimension.

21. tBodyGyro-mean()-X: Time based mean body angular velocity in the X dimension.

22. tBodyGyro-mean()-Y: Time based mean body angular velocity in the Y dimension.

23. tBodyGyro-mean()-Z: Time based mean body angular velocity in the Z dimension.

24. tBodyGyro-std()-X: Standard deviation of time based body angular velocity in the X dimension.

25. tBodyGyro-std()-Y: Standard deviation of time based body angular velocity in the Y dimension.

26. tBodyGyro-std()-Z: Standard deviation of time based body angular velocity in the Z dimension.

27. tBodyGyroJerk-mean()-X: Time based mean body jerk signal (angular velocity) in the X dimension.

28. tBodyGyroJerk-mean()-Y: Time based mean body jerk signal (angular velocity) in the Y dimension.

29. tBodyGyroJerk-mean()-Z: Time based mean body jerk signal (angular velocity) in the Z dimension.

30. tBodyGyroJerk-std()-X: Standard deviation of time based body jerk signal (angular velocity) in the X dimension.

31. tBodyGyroJerk-std()-Y: Standard deviation of time based body jerk signal (angular velocity) in the Y dimension.

32. tBodyGyroJerk-std()-Z: Standard deviation of time based body jerk signal (angular velocity) in the Z dimension.

33. tBodyAccMag-mean(): Time based mean magnitude of body acceleration.

34. tBodyAccMag-std(): Time based standard deviation of magnitude of body acceleration.

35. tGravityAccMag-mean(): Time based mean magnitude of gravity acceleration.

36. tGravityAccMag-std(): Time based standard deviation of magnitude of body acceleration.

37. tBodyAccJerkMag-mean(): Time based mean magnitude of body jerk signal (body linear acceleration).

38. tBodyAccJerkMag-std(): Time based standard deviations of magnitude of body jerk signal (body linear acceleration).

39. tBodyGyroMag-mean(): Time based mean of magnitude of body angular velocity.

40. tBodyGyroMag-std(): Time based standard deviation of magnitude of body angular velocity.

41. tBodyGyroJerkMag-mean(): Time based mean magnitude of body jerk signal (angular velocity).

42. tBodyGyroJerkMag-std(): Time based standard deviation of body jerk signal (angular velocity).

43. fBodyAcc-mean()-X: Frequency based mean body acceleration signal in the X dimension.

44. fBodyAcc-mean()-Y: Frequency based mean body acceleration signal in the Y dimension.

45. fBodyAcc-mean()-Z: Frequency based mean body acceleration signal in the Z dimension.

46. fBodyAcc-std()-X: Standard deviation of frequency based body acceleration signal in the X dimension.

47. fBodyAcc-std()-Y: Standard deviation of frequency based body acceleration signal in the Y dimension.

48. fBodyAcc-std()-Z: Standard deviation of frequency based body acceleration signal in the Z dimension.

49. fBodyAccJerk-mean()-X: Frequency based mean body jerk signal (body linear acceleration) in the X dimension.

50. fBodyAccJerk-mean()-Y: Frequency based mean body jerk signal (body linear acceleration) in the Y dimension.

51. fBodyAccJerk-mean()-Z: Frequency based mean body jerk signal (body linear acceleration) in the Z dimension.

52. fBodyAccJerk-std()-X: Standard deviation of frequency based body jerk signal (body linear acceleration) in the X dimension.

53. fBodyAccJerk-std()-Y: Standard deviation of frequency based body jerk signal (body linear acceleration) in the Y dimension.

54. fBodyAccJerk-std()-Z: Standard deviation of frequency based body jerk signal (body linear acceleration) in the Z dimension.

55. fBodyGyro-mean()-X: Frequency based mean body angular velocity in the X dimension.

56. fBodyGyro-mean()-Y: Frequency based mean body angular velocity in the Y dimension.

57. fBodyGyro-mean()-Z: Frequency based mean body angular velocity in the Z dimension.

58. fBodyGyro-std()-X: Standard deviation of frequency based body angular velocity in the X dimension.

59. fBodyGyro-std()-Y: Standard deviation of frequency based body angular velocity in the Y dimension.

60. fBodyGyro-std()-Z: Standard deviation of frequency based body angular velocity in the Z dimension.

61. fBodyAccMag-mean(): Frequency based mean magnitude of body acceleration.

62. fBodyAccMag-std(): Frequency based standard deviation of magnitude of body acceleration.

63. fBodyBodyAccJerkMag-mean(): Frequency based mean magnitude of body jerk signal (body linear acceleration).

64. fBodyBodyAccJerkMag-std(): Frequency based standard deviation of magnitude of body jerk signal (body linear acceleration).

65. fBodyBodyGyroMag-mean(): Frequency based mean of magnitude of body angular velocity.

66. fBodyBodyGyroMag-std(): Frequency based standard deviation of magnitude of body angular velocity.

67. fBodyBodyGyroJerkMag-mean(): Frequency based mean magnitude of body jerk signal (angular velocity).

68. fBodyBodyGyroJerkMag-std(): Frequency based standard deviation of magnitude of body jerk signal (angular velocity).

3 Literature Cited

Davide Anguita, Alessandro Ghio, Luca Oneto, Xavier Parra and Jorge L. Reyes-Ortiz. Human Activity Recognition on Smartphones using a Multiclass Hardware-Friendly Support Vector Machine. International Workshop of Ambient Assisted Living (IWAAL 2012). Vitoria-Gasteiz, Spain. Dec 2012