Codebook

A note on the naming system for tidy variable names in this dataset

In the interest of keeping variable names moderately short while retaining readability, the following conventions were employed in the naming of variables.

The example uses the variable name that appears as: StDevTimeJerkBodyAccelerationZaxis

	statistic type	magnitude	data type	derived?	acceleration source	observation type	axis
example	StDev		Time	Jerk	Body	Acceleration	Zaxis
required in variable name?	required	required if and only if "axis" is not specified	required	optional, indicates derived data	required when following "word" is acceleration	required	required if and only if "magnitude" is not specified
possible values	Mean, StDev		Time, Freq	Jerk	Body, Gravity	Acceleration, AngularVelocity	Xaxis, Yaxis, Zaxis

Variables:

Variable Name	Variable Class	Description of Variable	Range
Subject	integer	Subject ID number	1-30 all values are present in this dataset
Activity	character string	Factor variable of 6 levels: (walking, walking upstairs, walking downstairs, sitting, standing, laying)	6 levels, all levels present for each subject in dataset
MeanTimeBodyAccelerationXaxis	numeric	mean of time domain linear acceleration due to body, X-axis	[-1,1], normalized
MeanTimeBodyAccelerationYaxis	numeric	mean of time domain linear acceleration due to body, Y-axis	[-1,1], normalized
MeanTimeBodyAccelerationZaxis	numeric	mean of time domain linear acceleration due to body, Z-axis	[-1,1], normalized
StDevTimeBodyAccelerationXaxis	numeric	standard deviation of time domain linear acceleration due to body, X-axis	[-1,1], normalized
StDevTimeBodyAccelerationYaxis	numeric	standard deviation of time domain linear acceleration due to body, Y-axis	[-1,1], normalized
StDevTimeBodyAccelerationZaxis	numeric	standard deviation of time domain linear acceleration due to body, Z-axis	[-1,1], normalized
MeanTimeGravityAccelerationXaxis	numeric	mean of time domain linear acceleration due to gravity, X-axis	[-1,1], normalized
MeanTimeGravityAccelerationYaxis	numeric	mean of time domain linear acceleration due to gravity, Y-axis	[-1,1], normalized
MeanTimeGravityAccelerationZaxis	numeric	mean of time domain linear acceleration due to gravity, Z-axis	[-1,1], normalized
StDevTimeGravityAccelerationXaxis	numeric	standard deviation of time domain linear acceleration due to gravity, X-axis	[-1,1], normalized
StDevTimeGravityAccelerationYaxis	numeric	standard deviation of time domain linear acceleration due to gravity, Y-axis	[-1,1], normalized
StDevTimeGravityAccelerationZaxis	numeric	standard deviation of time domain linear acceleration due to gravity, Z-axis	[-1,1], normalized
MeanTimeJerkBodyAccelerationXaxis	numeric	mean of time domain linear acceleration due to body derived in time, X-axis	[-1,1], normalized
MeanTimeJerkBodyAccelerationYaxis	numeric	mean of time domain linear acceleration due to body derived in time, Y-axis	[-1,1], normalized
MeanTimeJerkBodyAccelerationZaxis	numeric	mean of time domain linear acceleration due to body derived in time, Z-axis	[-1,1], normalized
StDevTimeJerkBodyAccelerationXaxis	numeric	standard deviation of time domain linear acceleration due to body derived in time, X-axis	[-1,1], normalized
StDevTimeJerkBodyAccelerationYaxis	numeric	standard deviation of time domain linear acceleration due to body derived in time, Y-axis	[-1,1], normalized
StDevTimeJerkBodyAccelerationZaxis	numeric	standard deviation of time domain linear acceleration due to body derived in time, Z-axis	[-1,1], normalized
MeanTimeAngularVelocityXaxis	numeric	mean of time domain angular velocity, X-axis	[-1,1], normalized
MeanTimeAngularVelocityYaxis	numeric	mean of time domain angular velocity, Y-axis	[-1,1], normalized
MeanTimeAngularVelocityZaxis	numeric	mean of time domain angular velocity, Z-axis	[-1,1], normalized

StDevTimeAngularVelocityXaxis	numeric	standard deviation of time domain angular velocity, X-axis	[-1,1], normalized
StDevTimeAngularrVelocityYaxis	numeric	standard deviation of time domain angular velocity, Y-axis	[-1,1], normalized
StDevTimeAngularVelocityZaxis	numeric	standard deviation of time domain angular velocity, Z-axis	[-1,1], normalized
MeanTimeJerkAngularVelocityXaxis	numeric	mean of time domain angular velocity derived in time, X-axis	[-1,1], normalized
MeanTimeJerkAngularVelocityYaxis	numeric	mean of time domain angular velocity derived in time, Y-axis	[-1,1], normalized
MeanTimeJerkAngularVelocityZaxis	numeric	mean of time domain angular velocity derived in time, Z-axis	[-1,1], normalized
StDevTimeJerkAngularVelocityXaxis	numeric	standard deviation of time domain angular velocity derived in time, X-axis	[-1,1], normalized
StDevTimeJerkAngularVelocityYaxis	numeric	standard deviation of time domain angular velocity derived in time, Y-axis	[-1,1], normalized
StDevTimeJerkAngularVelocityZaxis	numeric	standard deviation of time domain angular velocity derived in time, Z-axis	[-1,1], normalized
MeanMagnitudeTimeBodyAcceleration	numeric	mean magnitude of time domain linear acceleration due to body	[-1,1], normalized
StDevMagnitudeTimeBodyAcceleration	numeric	standard deviation of magnitude of time domain linear acceleration due to body	[-1,1], normalized
MeanMagnitudeTimeGravityAcceleration	numeric	mean magnitude of time domain linear acceleration due to gravity	[-1,1], normalized
StDevMagnitudeTimeGravityAcceleration	numeric	standard deviation of magnitude of time domain linear acceleration due to gravity	[-1,1], normalized
MeanMagnitudeTimeJerkBodyAcceleratio n	numeric	mean magnitude of time domain linear acceleration derived in time	[-1,1], normalized
StDevMagnitudeTimeJerkBodyAcceleratio n	numeric	standard deviation of magnitude of time domain linear acceleration derived in time	[-1,1], normalized
MeanMagnitudeTimeAngularVelocity	numeric	mean of magnitude of time domain angular velocity	[-1,1], normalized
StDevMagnitudeTimeAngularVelocity	numeric	standard deviation of magnitude of time domain angular velocity	[-1,1], normalized
MeanMagnitudeTimeJerkAngularVelocity	numeric	mean of magnitude of time domain angular velocity derived in time	[-1,1], normalized
StDevMagnitudeTimeJerkAngularVelocity	numeric	standard deviation of magnitude of time domain angular velocity derived in time	[-1,1], normalized
MeanFreqBodyAccelerationXaxis	numeric	mean of frequency domain linear acceleration due to body, X-axis	[-1,1], normalized
MeanFreqBodyAccelerationYaxis	numeric	mean of frequency domain linear acceleration due to body, Y-axis	[-1,1], normalized
MeanFreqBodyAccelerationZaxis	numeric	mean of frequency domain linear acceleration due to body, Z-axis	[-1,1], normalized
StDevFreqBodyAccelerationXaxis	numeric	standard deviation of frequency domain linear acceleration due to body, X-axis	[-1,1], normalized
StDevFreqBodyAccelerationYaxis	numeric	standard deviation of frequency domain linear acceleration due to body, Y-axis	[-1,1], normalized
StDevFreqBodyAccelerationZaxis	numeric	standard deviation of frequency domain linear acceleration due to body, Z-axis	[-1,1], normalized
MeanFreqJerkBodyAccelerationXaxis	numeric	mean of frequency domain linear acceleration due to body derived in time, X-axis	[-1,1], normalized
MeanFreqJerkBodyAccelerationYaxis	numeric	mean of frequency domain linear acceleration due to body derived in time, Y-axis	[-1,1], normalized
MeanFreqJerkBodyAccelerationZaxis	numeric	mean of frequency domain linear acceleration due to body derived in time, Z-axis	[-1,1], normalized
StDevFreqJerkBodyAccelerationXaxis	numeric	standard deviation of frequency domain linear acceleration due to body derived in time, X-axis	[-1,1], normalized
StDevFreqJerkBodyAccelerationYaxis	numeric	standard deviation of frequency domain linear acceleration due to body derived in time, Y-axis	[-1,1], normalized
StDevFreqJerkBodyAccelerationZaxis	numeric	standard deviation of frequency domain linear acceleration due to body derived in time, Z-axis	[-1,1], normalized
MeanFreqAngularVelocityXaxis	numeric	mean of frequency domain angular velocity, X-axis	[-1,1], normalized
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MeanFreqAngularVelocityZaxis	numeric	mean of frequency domain angular velocity, Z-axis	[-1,1], normalized
StDevFreqAngularVelocityXaxis	numeric	standard deviation of frequency domain angular velocity, X-axis	[-1,1], normalized
StDevFreqAngularVelocityYaxis	numeric	standard deviation of frequency domain angular velocity, Y-axis	[-1,1], normalized
StDevFreqAngularVelocityZaxis	numeric	standard deviation of frequency domain angular velocity, Z-axis	[-1,1], normalized
MeanMagnitudeFreqBodyAcceleration	numeric	mean of frequency domain magnitude of linear acceleration due to body	[-1,1], normalized
StDevMagnitudeFreqBodyAcceleration	numeric	standard deviation of frequency domain magnitude of linear acceleration due to body	[-1,1], normalized
MeanMagnitudeFreqJerkBodyAcceleration	numeric	mean of frequency domain magnitude of linear acceleration derived in time	[-1,1], normalized
StDevMagnitudeFreqJerkBodyAcceleration	numeric	standard deviation of frequency domain magnitude of linear acceleration derived in time	[-1,1], normalized
MeanMagnitudeFreqAngularVelocity	numeric	mean of frequency domain magnitude of angular velocity	[-1,1], normalized
StDevMagnitudeFreqAngularVelocity	numeric	standard deviation of frequency domain magnitude of angular velocity	[-1,1], normalized
MeanMagnitudeFreqJerkAngularVelocity	numeric	mean of frequency domain magnitude of angular velocity derived in time	[-1,1], normalized
StDevMagnitudeFreqJerkAngularVelocity	numeric	standard deviation of frequency domain magnitude of angular velocity derived in time	[-1,1], normalized