Codebook

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2021/11/21

Summary

- This Codebook explains the data source (original text files), original variables, created variables as well as some R functions used to transform the variables.

- To achieve efficient calclation, subsetting data of relevant time frame (e.g.“2007-02-01” and “2007-02-02”) at an earlier part of coding was adopted.

- Please note that data “myData” ,“myData2” and variables “myDate”, “myDate2”, and “myDate3” look similar, but different.
- In the final graphics, due to my Japanese environment for R installation, “datetime axis” are expressed differently. The Japanese character should be read as “Thu”, “Fri”, and “Sat” in this order.

Original text file provided

- **household_power_consumption.txt**

Text files stored as data.frame

- **myData** :original text file stored as data.frame

- **myData2** :transformed data for final plotting

Original variables from the original text file

- **Date** :Date in format dd/mm/yyyy

- **Time** :time in format hh:mm:ss

- **Global_active_power** :household global minute-averaged active power (in kilowatt)

- **Global_reactive_power** :household global minute-averaged reactive power (in kilowatt)

- **Voltage** :minute-averaged voltage (in volt)

- **Global_intensity** :household global minute-averaged current intensity (in ampere)

- **Sub_metering_1** :energy sub-metering No. 1 (in watt-hour of active energy). It corresponds to the kitchen, containing mainly a dishwasher, an oven and a microwave (hot plates are not electric but gas powered).

- **Sub_metering_2** :energy sub-metering No. 2 (in watt-hour of active energy). It corresponds to the laundry room, containing a washing-machine, a tumble-drier, a refrigerator and a light.

- **Sub_metering_3** :energy sub-metering No. 3 (in watt-hour of active energy). It corresponds to an electric water-heater and an air-conditioner.

Other Variables created in the code

- **t1** :date type variable of "2007-02-01" to subset relevant data

- **t2** :date type variable of "2007-02-02" to subset relevat data

- **myDate** :temporary date type variable transformed using "as.Date()" to "Date"

- **myDate2** :temporary variable to concatenate "Date" and "Time" of myData

- **myDate3** :datetime type variable transformed using "strptime()" to "myDate2"

- **GAP** :numeric representation of variable "Global_active_power"

- **GRAP** :numeric representation of variable "Global_reactive_power"

- **VOL** :numeric representation of variable "Voltage"

- **SM1** :numeric representation of variable "Sub_metering_1"

- **SM2** :numeric representation of variable "Sub_metering_2"

- **SM3** :numeric representation of variable "Sub_metering_3"