use\_case.3.2.R

kremmdi

2019-08-29

#...................................................................................#  
#  
# USE CASE 2 example  
#  
# Load r-data from a data.dir  
#  
#...................................................................................#  
  
  
  
  
# Always load fadnUtils and data.table  
library(fadnUtils)  
library(data.table)  
  
  
# The first step is to set the current data.dir  
set.data.dir("H:/IFM-CAP/sample.fadnutils.dir")  
  
  
# Let's see what countries and years have been imported in the current data.dir  
show.data.dir.contents()  
  
  
# .............. LOAD RAW R-DATA ..................................................#  
  
# We can either load raw r-data files (the original FADN csv in r-friendly format),  
# or structured r-data files (the original data transformed into meaningful  
# information)  
  
  
#To load raw r-data, only for Spain (ESP) for 2015  
my.data = load.fadn.raw.rds(  
 countries = "ESP",  
 years = 2015  
)  
  
# my.data is a single large data.table, with the original csv columns and rows  
nrow(my.data) #Number of rows  
names(my.data) #Column names  
length(names(my.data)) #Number of columns  
str(my.data) #Overall structure  
  
  
  
# .............. LOAD STRUCTURED R-DATA ...........................................#  
  
#To load structured data, for Spain (ESP) for 2015  
my.data = load.fadn.str.rds(  
 countries = "ESP",  
 years = 2015  
)  
  
  
# You can see that my.data is a list, with three elements: info, costs, crops  
str(my.data)  
  
# You can access each individual element like this  
str(my.data$info)  
str(my.data$costs)  
str(my.data$crops)  
  
  
# The first columns of each of the above elements (info, costs, crops)  
# are created according to the ID section of the raw\_str\_map  
names(my.data$info)  
names(my.data$costs)  
names(my.data$crops)  
  
  
# info and costs data.tables are in wide-format (each observation in a single row,  
# all attributes of a single observation in different columns).  
# crops element is in long format (one observation is in many rows,  
#  
#  
# See https://seananderson.ca/2013/10/19/reshape/ for  
# discussion of the two types of data formats  
head(my.data$info)  
head(my.data$costs)  
head(my.data$crops)  
  
  
  
# Also on the attributes section of each of the above elements, we can access  
# the column formulas and descriptions, as defined in the raw\_str\_map file.  
View(  
 attr(my.data$info,"column.descriptions")  
)  
View(  
 attr(my.data$costs,"column.descriptions")  
)  
View(  
 attr(my.data$crops,"column.descriptions")  
)  
  
  
# Especially for the crops element, we can also see the description  
# CROP column  
View(  
 attr(my.data$crops,"crops.descriptions")  
)  
  
  
# .............. HOW TO LOAD COUNTRIES-YEARS COMBINATIONS .........................#  
  
# In the previous examples, we showed how to load data for one country and one year  
# In the following examples we show more combinations  
  
  
  
#To load for Spain (ESP) and Greece (ELL) for year 2015  
my.data = load.fadn.str.rds(countries = c("ESP","ELL"), years = 2015)  
  
  
#To load for Spain (ESP) and Greece (ELL) for all years  
my.data = load.fadn.str.rds(countries = c("ESP","ELL"))  
  
  
#To load all available countries for year 2015  
my.data = load.fadn.str.rds(years = 2015)  
  
  
#To load all availabel data  
my.data = load.fadn.str.rds()