

Body Weight Gain Script

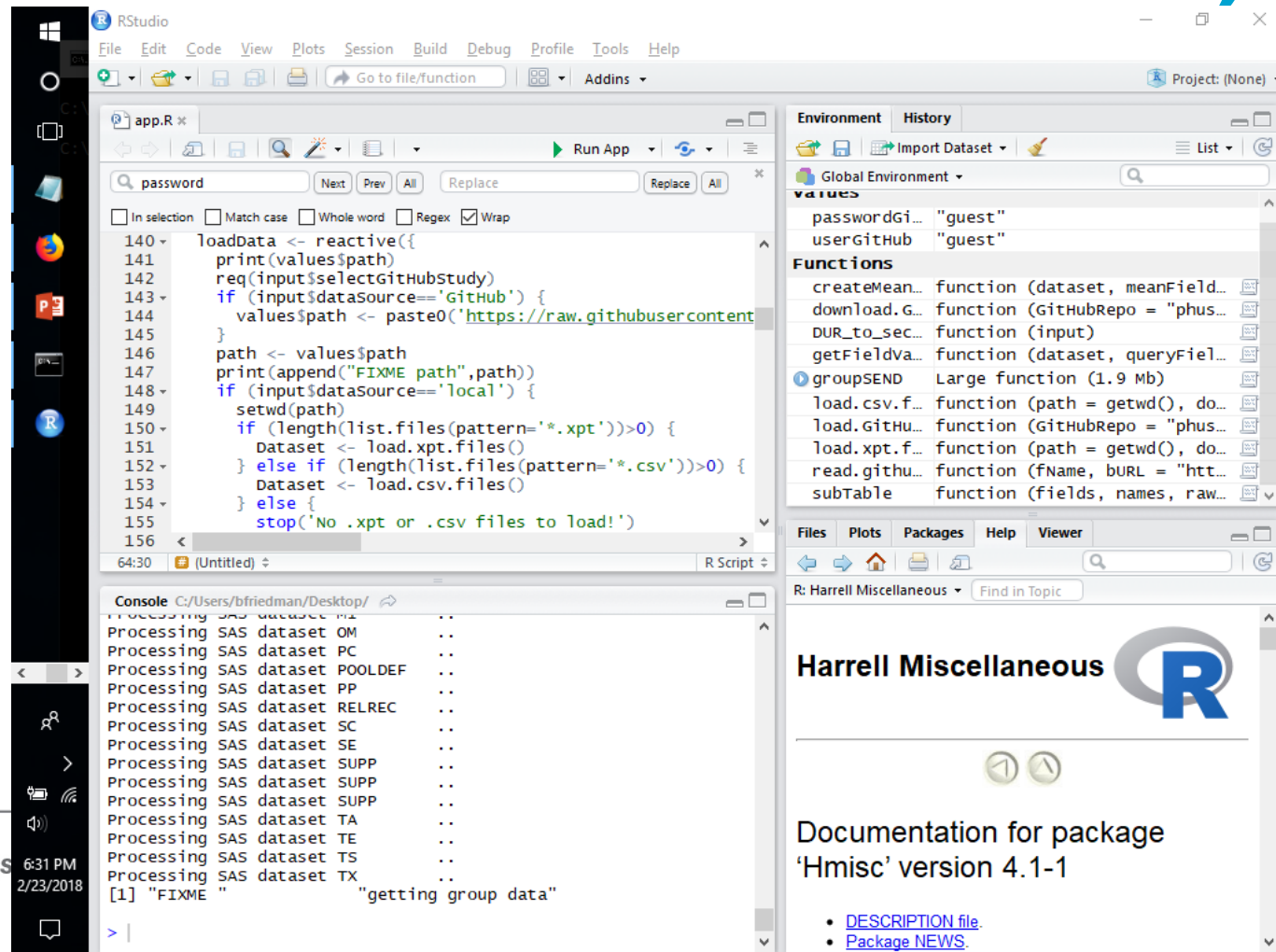
Nonclinical Script Working Group

R Script showing dataset reading, filtering, calculations and graphics

Goals -

- The Body Weight Gain (BG) Domain of the SEND dataset submission contains calculated gains to support the study analysis report.
- However, there exists a need on the part of internal and regulatory reviewers to compute and visualize gains using different filters and different intervals than may be present in the BG domain.

(Live demo – R studio IDE)



The screenshot displays the RStudio IDE interface. The main editor window shows R code for loading data from a GitHub repository or locally. The Environment pane on the right lists variables like 'passwordGi...' and 'userGitHub' with values 'guest'. The Console pane at the bottom shows the execution of the code, including the output '[1] "FIXME "' and the message '"getting group data"'. The bottom right pane shows the documentation for the 'Hmisc' package version 4.1-1, with links for 'DESCRIPTION file' and 'Package NEWS'.

```
140 loadData <- reactive({
141   print(values$path)
142   req(input$selectGitHubstudy)
143   if (input$dataSource=='GitHub') {
144     values$path <- paste0('https://raw.githubusercontent.com/
145   }
146   path <- values$path
147   print(append("FIXME path",path))
148   if (input$dataSource=='local') {
149     setwd(path)
150     if (length(list.files(pattern='*.xpt'))>0) {
151       Dataset <- load.xpt.files()
152     } else if (length(list.files(pattern='*.csv'))>0) {
153       Dataset <- load.csv.files()
154     } else {
155       stop("No .xpt or .csv files to load!")
156     }
157   }
158 }
```

Environment


Global Environment	
passwordGi...	"guest"
userGitHub	"guest"

Functions

createMean...	function (dataset, meanField...
download.G...	function (GitHubRepo = "phus...
DUR_to_sec...	function (input)
getFieldva...	function (dataset, queryFiel...
groupSEND	Large function (1.9 Mb)
load.csv.f...	function (path = getwd(), do...
load.GITHU...	function (GitHubRepo = "phus...
load.xpt.f...	function (path = getwd(), do...
read.githu...	function (fName, bURL = "htt...
subTable	function (fields, names, raw...

Console

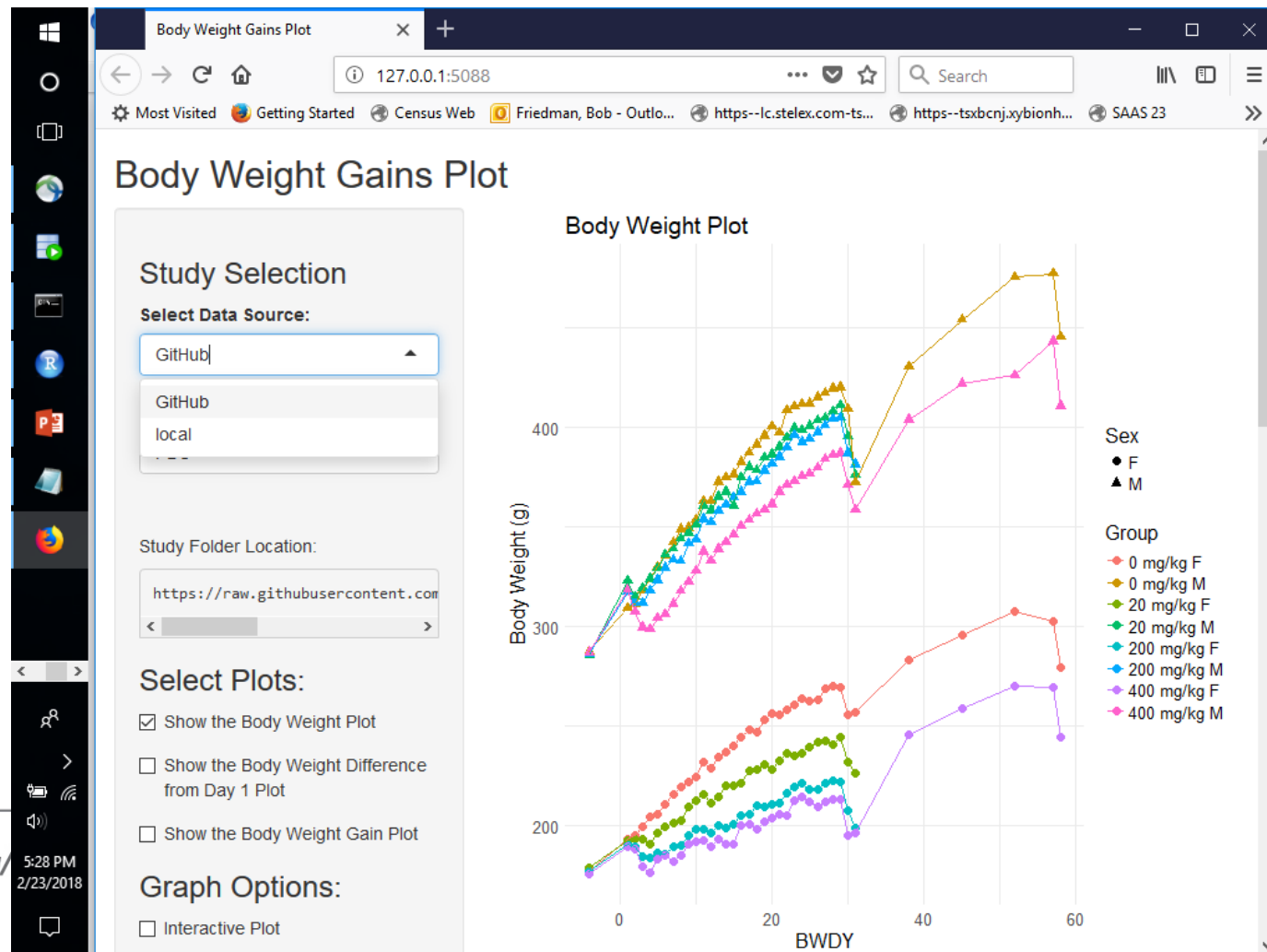
```
C:/Users/bfriedman/Desktop/
Processing SAS dataset OM ...
Processing SAS dataset PC ...
Processing SAS dataset POOLDEF ...
Processing SAS dataset PP ...
Processing SAS dataset RELREC ...
Processing SAS dataset SC ...
Processing SAS dataset SE ...
Processing SAS dataset SUPP ...
Processing SAS dataset SUPP ...
Processing SAS dataset SUPP ...
Processing SAS dataset TA ...
Processing SAS dataset TE ...
Processing SAS dataset TS ...
Processing SAS dataset TX ...
[1] "FIXME " "getting group data"
> |
```

Harrell Miscellaneous 

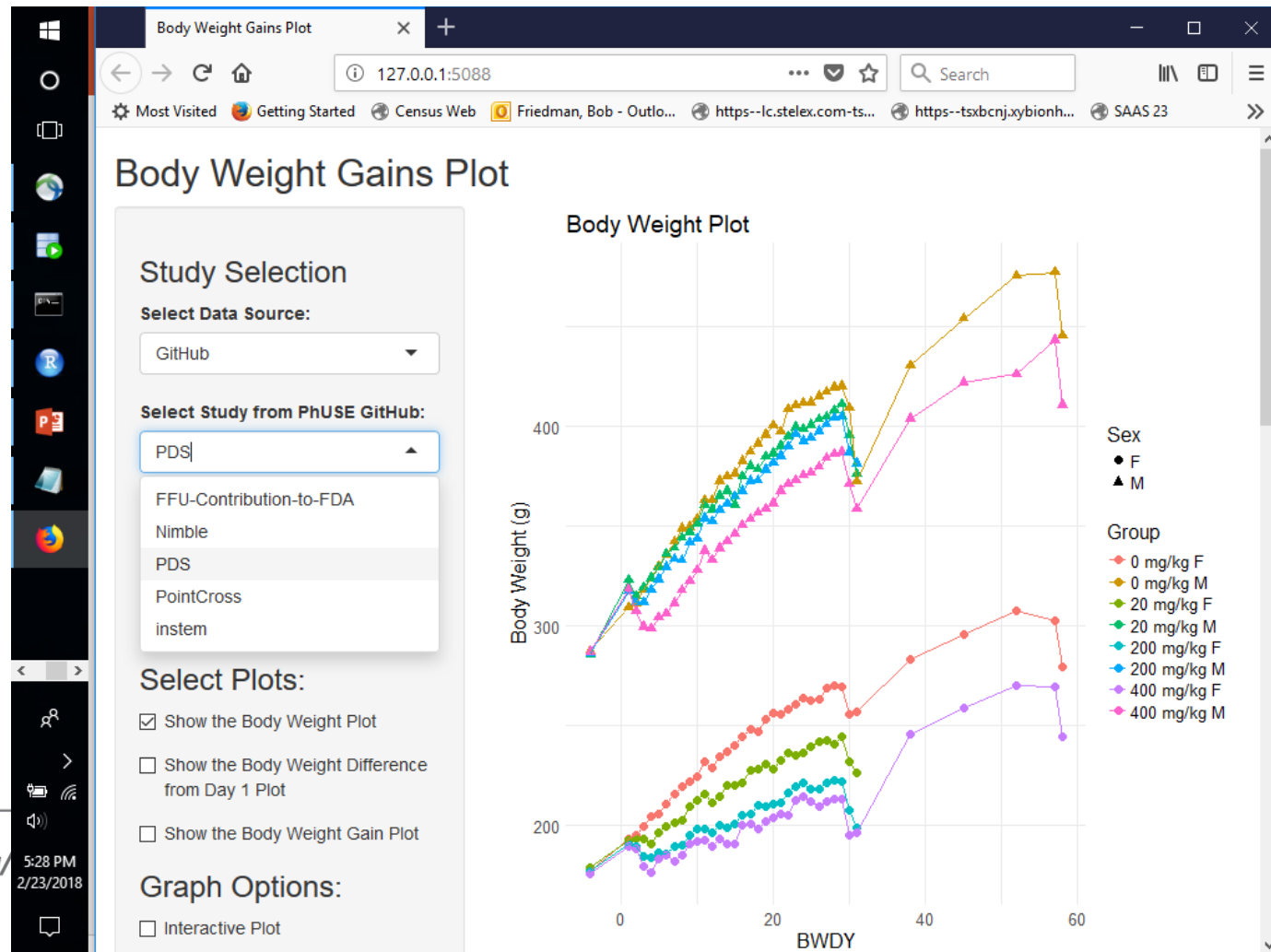
Documentation for package 'Hmisc' version 4.1-1

- [DESCRIPTION file](#)
- [Package NEWS](#)

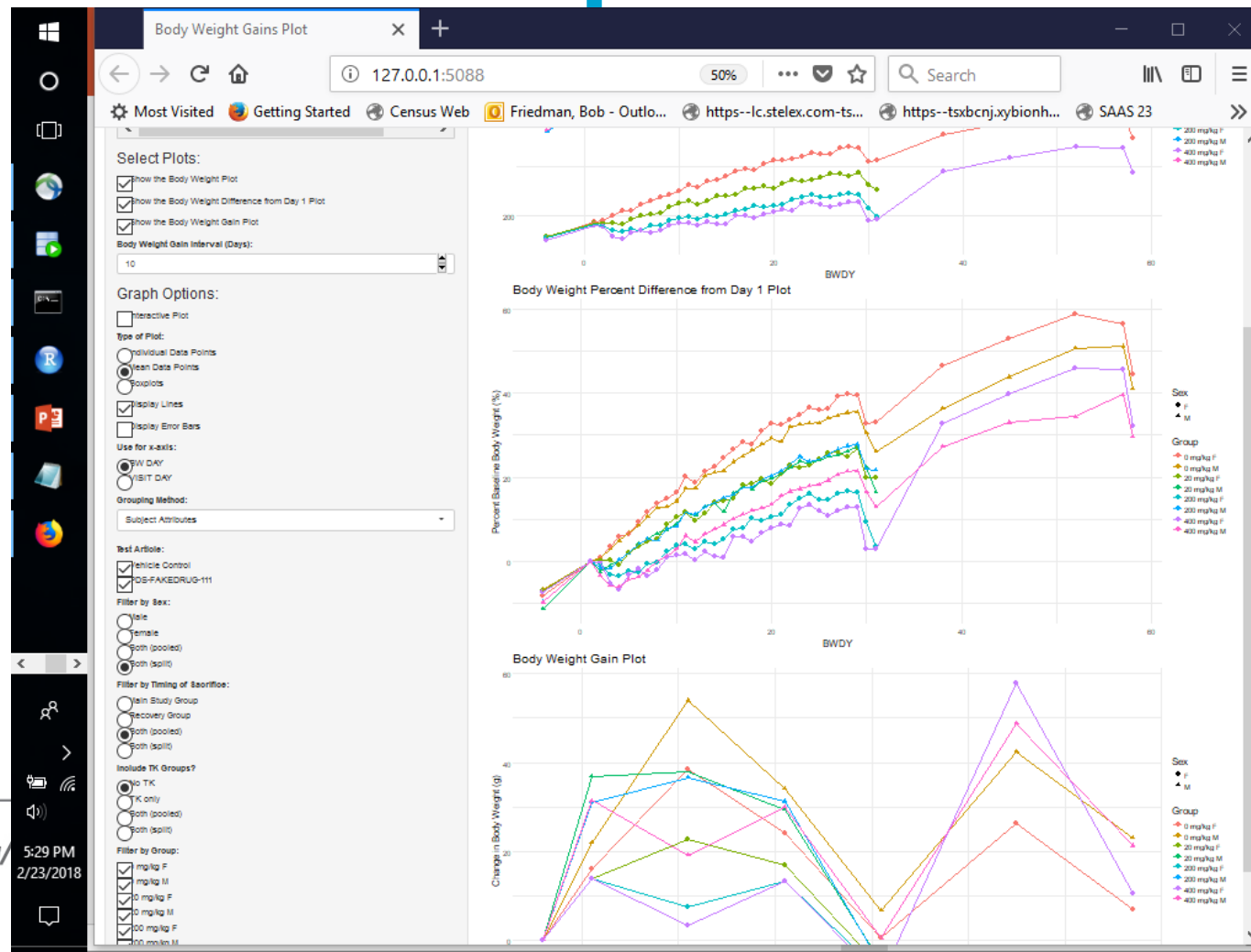
(Live demo – Data selection)



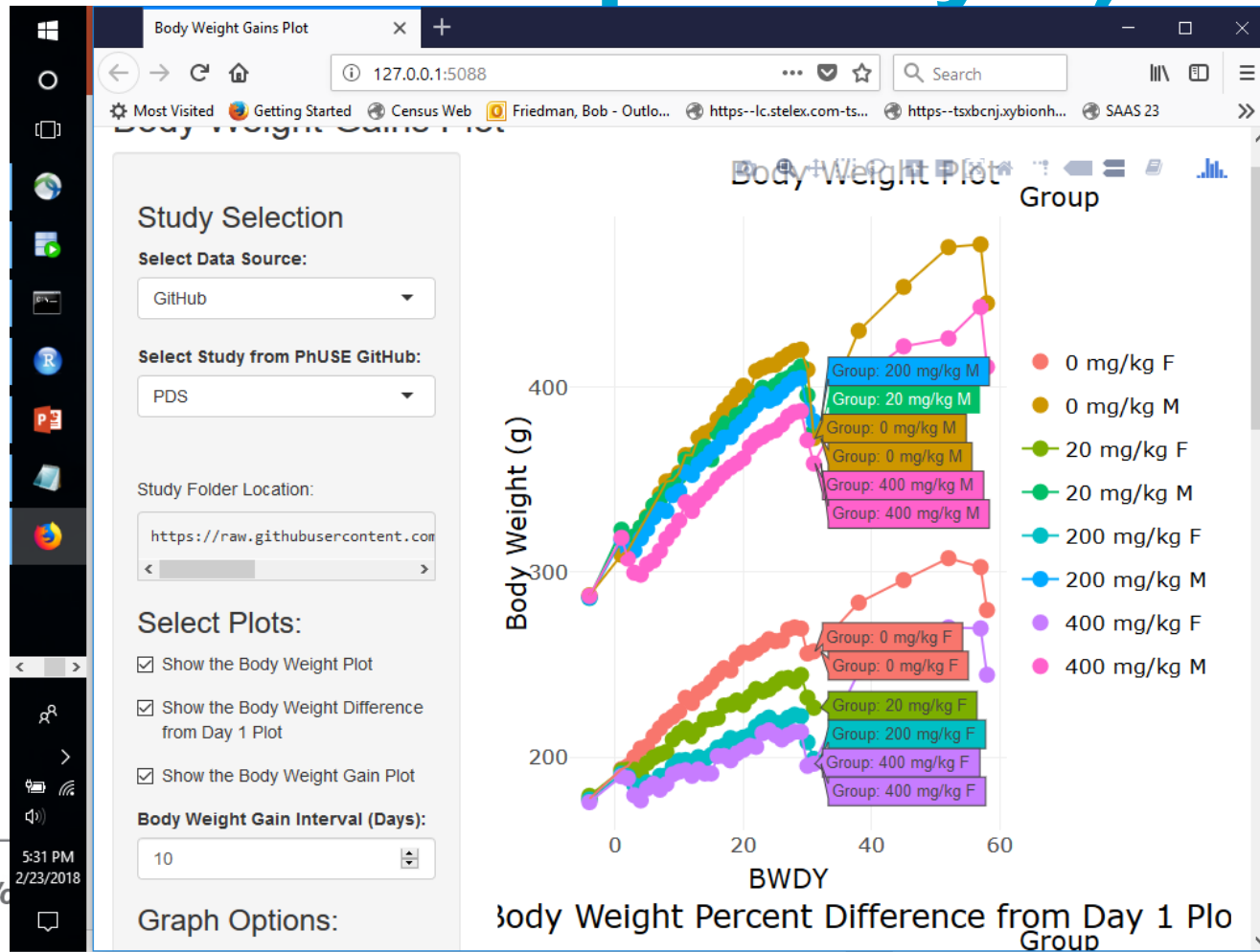
(Live demo – data selections)



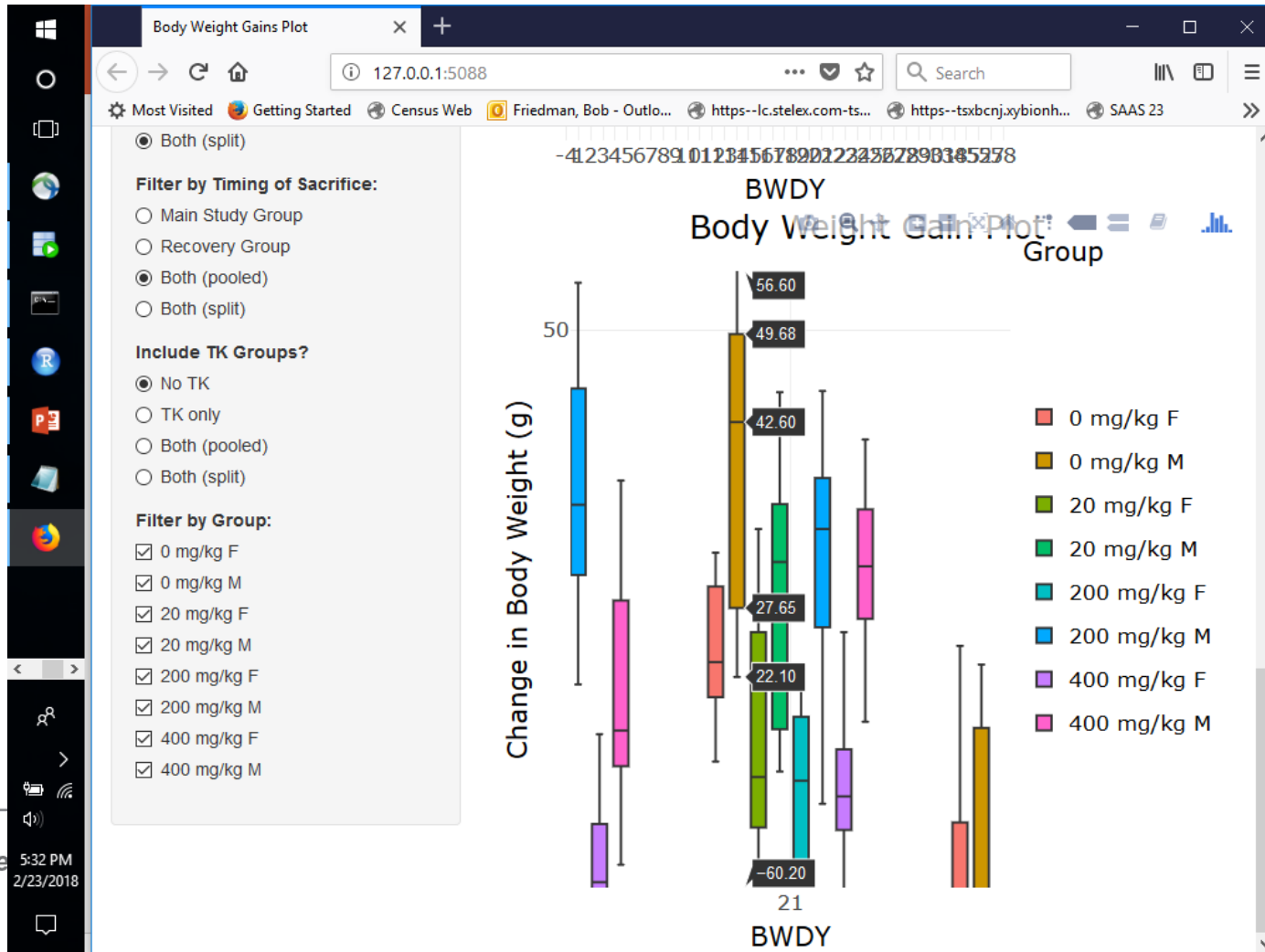
(Live demo – plot selections)



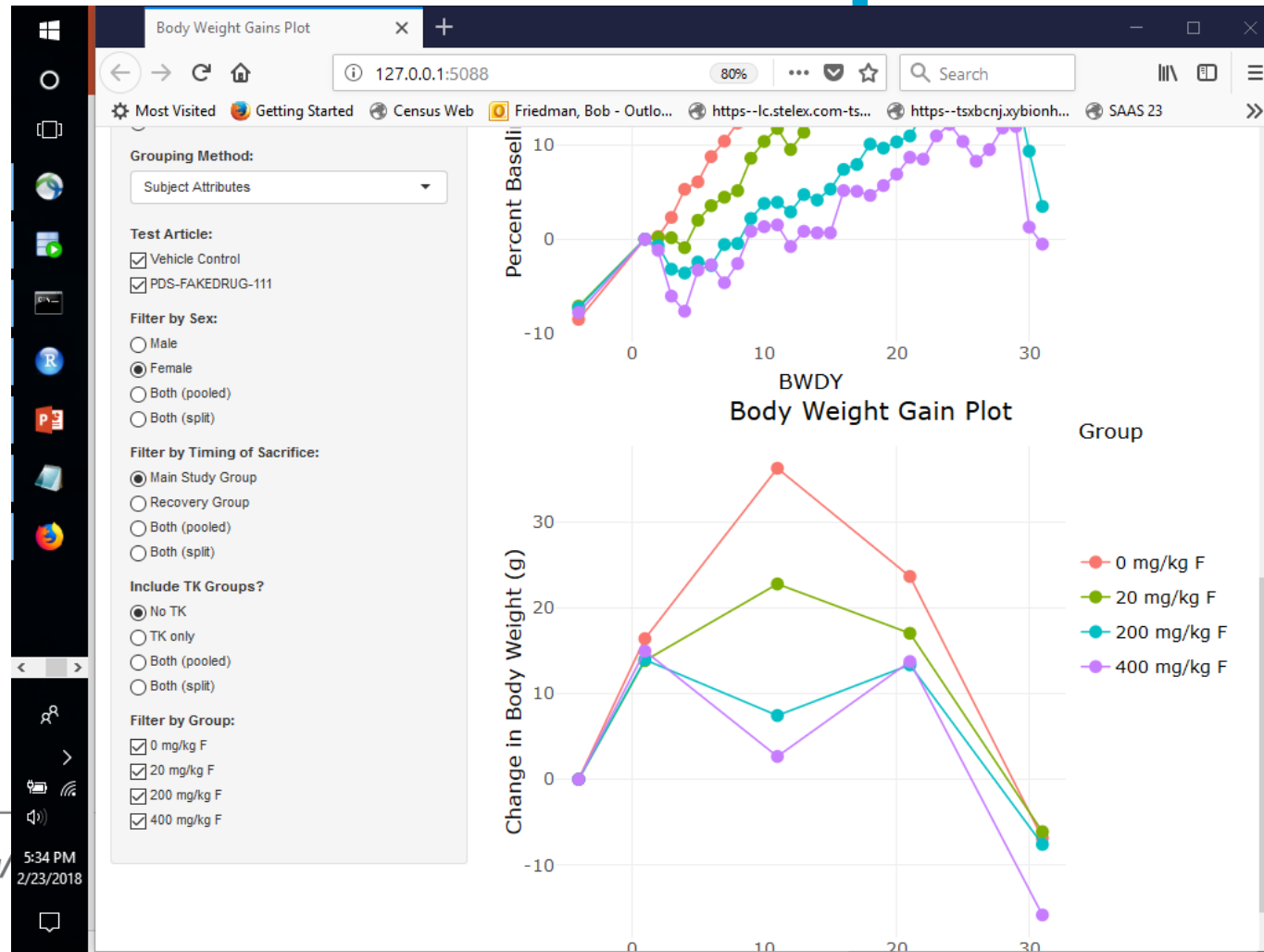
(Live demo – plot style)



(Live demo – Individ, Mean and Box plot



(Live demo – Group filtering)



Conclusion

- The script developed by the group can be used as is or taken as a starting point to update for individual needs.
- The methods and script example can be broadened to other domains needing such analysis, such as the Laboratory Results (LB) domain.
- Prior to the SEND dataset standard, developing tools for such analysis would be very specific to each laboratory data system. The availability of this data standard creates the opportunity for community collaboration to share such analysis methods, scripts and resulting visualizations.

- Code:

- <https://github.com/phuse-org/phuse-scripts/tree/master/contributed/Nonclinical>

- Team:

- http://www.phusewiki.org/wiki/index.php?title=Nonclinical_Script_Assessment_Project



**The premier community for people
working in the biometric area**

 phuse.eu

 [@PhUSETwitta](https://twitter.com/PhUSETwitta)

 [/PhUSE](https://www.facebook.com/PhUSE)

 phusewiki.org