

SAS: The last of the great mainframe stats packages

STA431 Winter/Spring 2017

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It almost seemed like there was one
for every major university

- **DATATEXT**: Harvard
- **SPSS**: University of Chicago
- **BMDP**: University of California at Los Angeles
- **SAS**: University of North Carolina at Chapel Hill
- **OMNITAB**: Pennsylvania State University
- **S**: AT&T Bell labs

SAS vs. R

- R is like a motorcycle.
- SAS is like a military Humvee.
- Except it doesn't break down.

SAS File Types Include

- Raw data file
- Program file
- Log file
- Results file

- Data Table
- Library

Four files

- **Raw Data File:** A file consisting of rows and columns of numbers; or maybe some of the columns have letters (character data) instead of numbers. The rows represent observations and the columns represent variables. Often in an Excel spreadsheet.
- **Program File:** A file consisting of commands that the SAS software tries to follow. You create this file with a text editor. The program file contains a reference to the raw data file (in the infile statement), so SAS knows where to find the data. Program files have names like reading1.sas.
- **Log File:** This file is produced by every SAS run, whether it is successful or unsuccessful. It contains a listing of the program file, as well any error messages or warnings.
- **Results File:** The list file contains the output of the statistical procedures requested by the program file. Results files have names like reading1.pdf, reading1.rtf, or reading1.htm.

SAS University Edition

- This is new.
- It's not quite the full version, but it does a lot.
- It's free of charge to anybody with a university email address.

http://www.sas.com/en_us/software/university-edition.html

Features of SAS University Edition

- SAS lives in a virtual linux machine
- You interact with it through a browser interface called SAS Studio.
- With SAS running in the virtual machine, you point your browser to a localhost address.
- This way, it is really platform independent.
- You get your data into SAS via a shared folder.

More comments

- It's a **big** download – around 1.8 GB
- Actually it's two downloads.
- First, download the virtualization software, free from Oracle or VMWare.
- The SAS download site has good instructions.
- Once you connect to localhost, see the FAQ
- The FAQ is actually a well-organized manual.

Possible problems

- Slow or flaky internet connection. If it does not work the first time, try again.
 - Virtual machine requires 1GB of RAM.
 - Trouble with older operating systems?
 - Not available in the computer labs.
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- You need your own computer.

Important Rule

- You may not use a classmate's SAS to do your work for this course.
- It's too easy to see each other's program code.
- You must have your own installation.
- If two people use the same installation of SAS University Edition, they will both get zero for the assignment even if there is no academic offence charge.

Getting help with installation is okay

- I expect you to be able to download and install the software yourself.
- But it is not a learning goal of the course.
- Just get the job done somehow.

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