

About establishing a Stata kernel on JupyterHub

IMPORTANT: Due to the fact that the existing network license only supports 5 users, only the first five people who have expressed their need for Stata in the Google Form can have access to `/usr/local/stata18`. They will also receive email notifications about the access to Stata. For users who wish to use Stata but have not filled out the form, please declare your need through [this link](#). When the demand reaches a certain number, we will try to upgrade the license.

Step 1: Activating Stata in your terminal

Open the terminal on Jupyter and then type the command:

```
nano ~/.bashrc
```

You will be guided to an interface like this:

```
GNU nano 6.2 /home/.jupyter-user/.bashrc
# ~/.bashrc: executed by bash(1) for non-login shells.
# see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)
# for examples

# If not running interactively, don't do anything
case $- in
    *i*) ;;
    *) return;;
esac

# don't put duplicate lines or lines starting with space in the history.
# See bash(1) for more options
HISTCONTROL=ignoreboth

# append to the history file, don't overwrite it
shopt -s histappend

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000

# check the window size after each command and, if necessary,
# update the values of LINES and COLUMNS.
shopt -s checkwinsize

# If set, the pattern "**" used in a pathname expansion context will
# match all files and zero or more directories and subdirectories.
#shopt -s globstar

# make less more friendly for non-text input files, see lesspipe(1)
[ -x /usr/bin/lesspipe ] && eval "$(SHELL=/bin/sh lesspipe)"

# set variable identifying the chroot you work in (used in the prompt below)
if [ -z "${debian_chroot:-}" ] && [ -r /etc/debian_chroot ]; then
    debian_chroot=$(cat /etc/debian_chroot)
fi

# set a fancy prompt (non-color, unless we know we "want" color)
case "$TERM" in
    xterm-color|*-256color) color_prompt=yes;;
esac

# uncomment for a colored prompt, if the terminal has the capability; turned
# off by default to avoid confusion by using the default Bash prompt in
# the event the user set root to present his root prompt.
if [ -n "$debian_chroot" ] && [ -z "$color_prompt" ]; then
    color_prompt=yes
fi

# Read 117 lines
[ Read 117 lines ]
[ Help ] [ Write Out ] [ Where Is ] [ Cut ] [ Execute ] [ Location ] [ Undo ] [ Set Mark ] [ To Bracket ] [ Previous ] [ Back ]
[ Exit ] [ Read File ] [ Replace ] [ Paste ] [ Justify ] [ Go To Line ] [ Redo ] [ Copy ] [ Where Was ] [ Next ] [ Forward ]
```

At the end of the file, add the following argument:

```
export PATH="/usr/local/stata-18:$PATH"
```

Please make sure that you haven't made other changes except adding the command to the end of the file. Then you can save the file by `ctrl+s` and exit by `ctrl+x`.

Please run the following command to apply the change:

```
source ~/.bashrc
```

Then you will be able to run Stata programs simply by typing `stata` in the terminal:

```
(base) jupyter-qiansiqihu@user:/mnt/disk1/qiansiqihu-dot$ stata

StataNow 18.5
BE-Basic Edition

Statistics and Data Science
Copyright 1985-2023 StataCorp LLC
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College Station, Texas 77845 USA
800-782-8272      https://www.stata.com
979-696-4600      service@stata.com

Stata license: 5-user network, expiring 28 Jun 2025
Serial number: 501809388172
Licensed to: Department of Decisions, Operations and Technology; CUHK Business School
             Hong Kong

Notes:
1. Unicode is supported; see help unicode_advice.

. sysuse auto
(1978 automobile data)

. summarize

+-----+-----+
| Variable | Obs | Mean | Std. dev. | Min | Max |
+-----+-----+
| make     |    0 |      |           |     |     |
| price    |   74 | 6165.257 | 2949.496 | 3291 | 15906 |
| mpg      |   74 | 21.2973 | 5.785503 | 12   | 41   |
| rep78    |   69 | 3.405797 | .9899323 | 1    | 5    |
| headroom |   74 | 2.993243 | .8459948 | 1.5  | 5    |
+-----+-----+
| trunk    |   74 | 13.75676 | 4.277404 | 5    | 23   |
| weight   |   74 | 3019.459 | 777.1936 | 1760 | 4840 |
| length   |   74 | 187.9324 | 22.26634 | 142  | 233  |
| turn     |   74 | 39.64865 | 4.399354 | 31   | 51   |
| displacement |   74 | 197.2973 | 91.83722 | 79   | 425  |
+-----+-----+
| gear_ratio |   74 | 3.014865 | .4562871 | 2.19 | 3.89 |
| foreign    |   74 | .2972973 | .4601885 | 0    | 1    |
+-----+-----+

. exit
(base) jupyter-qiansiqihu@user:/mnt/disk1/qiansiqihu-dot$
```

Step 2: Establishing Stata kernels in Jupyter

We can utilize the library `nbstata` to build notebook files for Stata programs. First, open the terminal on Jupyter and install the library:

```
pip install nbstata
```

Then run the following command to install the Stata kernel:

```
python -m nbstata.install --conf-file
```

You can access the configuration file with

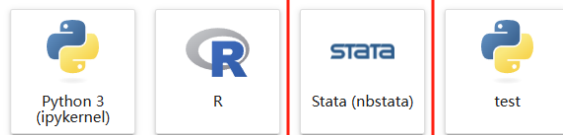
```
nano ~/.config/nbstata/nbstata.conf
```

Please check whether the content is consistent with the screenshot below.

```
CNU nano 6.2 /home/jupyter-qiansiqihu/.config/nbstata/nbstata.conf
[nbstata]
stata_dir = /usr/local/stata18
edition = mp
splash = False
graph_format = png
graph_width = 5.5in
graph_height = 4in
echo = None
missing = .
```

After properly setting up the configuration file, the Stata kernel will become available.

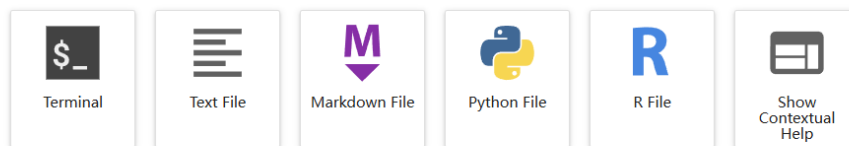
Notebook



Console



Other



Now you can run Stata programs in notebook files:

```
stata-demo.ipynb
```

```
[1]: sysuse auto
(1978 automobile data)
```

```
[2]: summarize
```

Variable	Obs	Mean	Std. dev.	Min	Max
make	0				
price	74	6165.257	2949.496	3291	15906
mpg	74	21.2973	5.785583	12	41
rep78	69	3.480797	.9895323	1	5
headroom	74	2.953243	.8459948	1.5	5
trunk	74	13.75676	4.277484	5	23
weight	74	3019.459	777.1936	1760	4840
length	74	187.9324	22.28634	142	233
turn	74	39.44865	4.399354	31	51
displacement	74	197.2973	91.83722	79	425
gear_ratio	74	3.814865	.4562871	2.19	3.89
foreign	74	.2972973	.4601885	0	1

Please be aware that if you do not have access to `/usr/local/stata18`, the output will look like as follows:

```
[ ]: sysuse auto
```

```
Specified stata_dir, "/usr/local/stata18", is not Stata's installation path
```