

Tools for a Reproducible Workflow

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ICPSR, July 2016

Slides available online at

<https://github.com/BITSS/ICPSR2016>



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Workflow

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Introduction

Workflow

Conclusion

“Reproducibility is just collaboration with people you don’t know, including yourself next week”
—Philip Stark, UC Berkeley Statistics

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- Version Control
- Dynamic Documents

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Write your code and your paper in the same file so you won't lose information or make copy and paste mistakes.

- Include tables by linking to a file, instead of a static image.
- Include number by linking to a value calculated by an analysis file, instead of a static number typed manually.
- Automatically update tables and numbers.
- Produce entire paper with one or two clicks.

Possible in Python, R, and to a lesser extent, Stata

- Jupyter—several (many?) languages
- R—use R Studio to manage projects with built-in version control, and R Markdown/knitr for publication-quality dynamic documents.
- Stata—combine with LaTeX for two click workflow
- Stata—use ‘markdoc’ ado for some dynamic ability.



Studio[®]

The Jupyter logo features a stylized orange 'J' shape that forms a partial circle around the text. Four dark gray dots are positioned at the top-left, top-right, bottom-left, and bottom-right corners, completing the circular arrangement.

jupyter

OK, I'm convinced. How do I learn more?

- Work through my demos. [▶ Link](#)
- Software Carpentry's tutorials [▶ Link](#)