R Notebooks

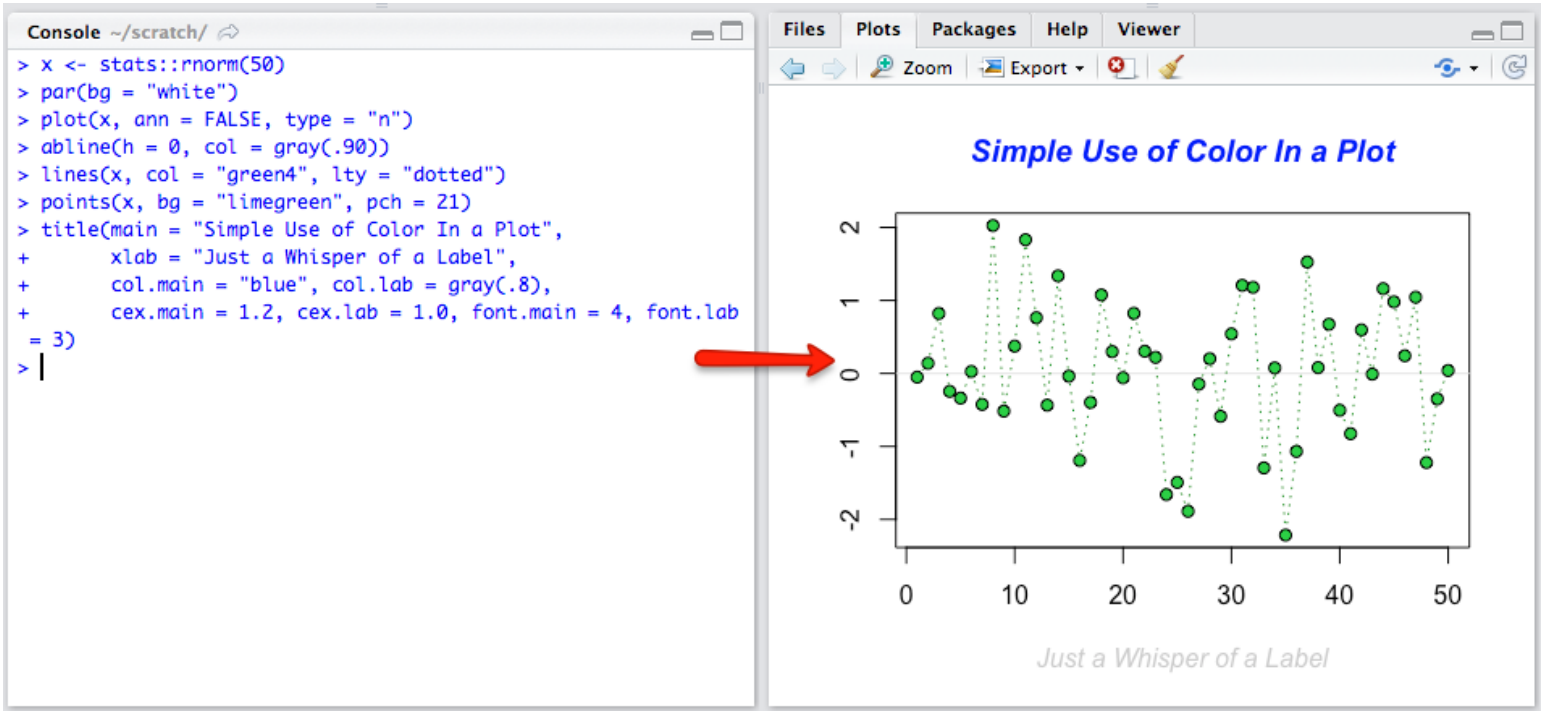
Jonathan McPherson

July 27, 2016

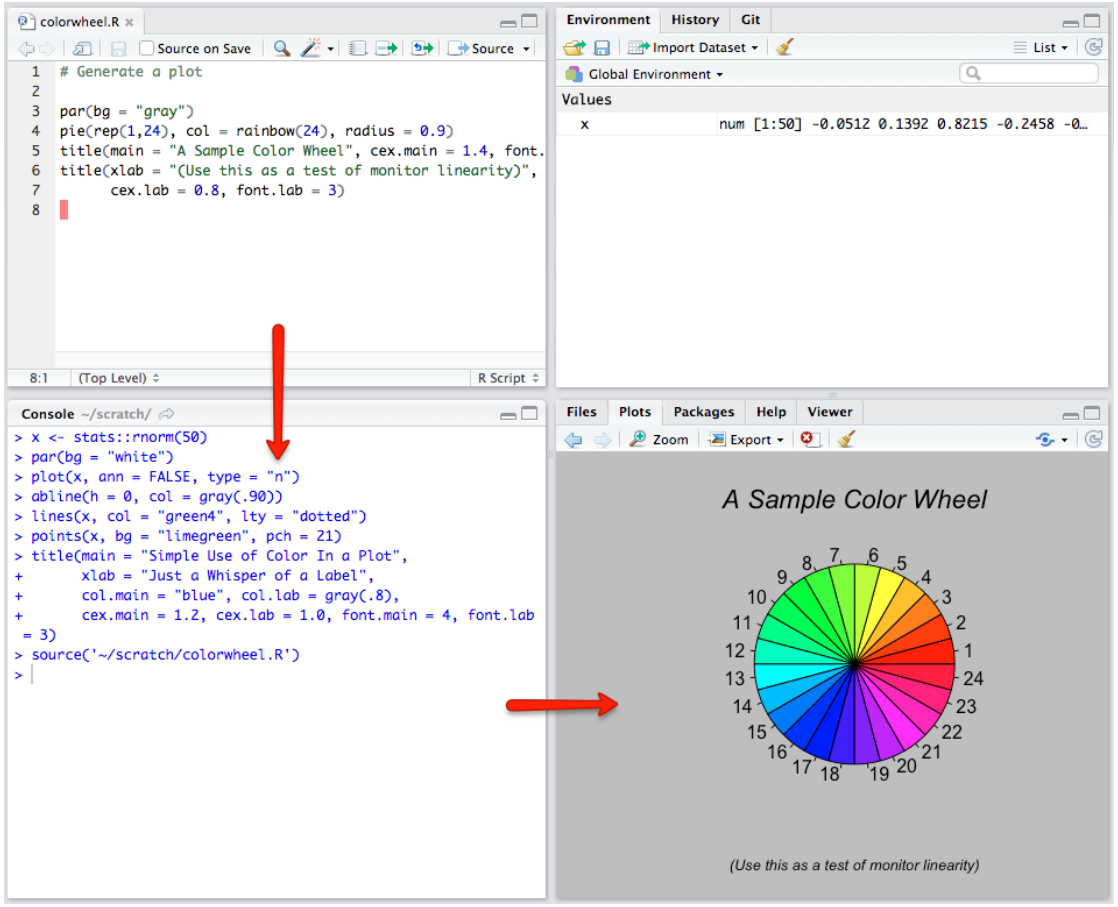
Outline

1. Background: Data Analysis Workflow
2. R Notebooks
3. Demo
4. Q&A

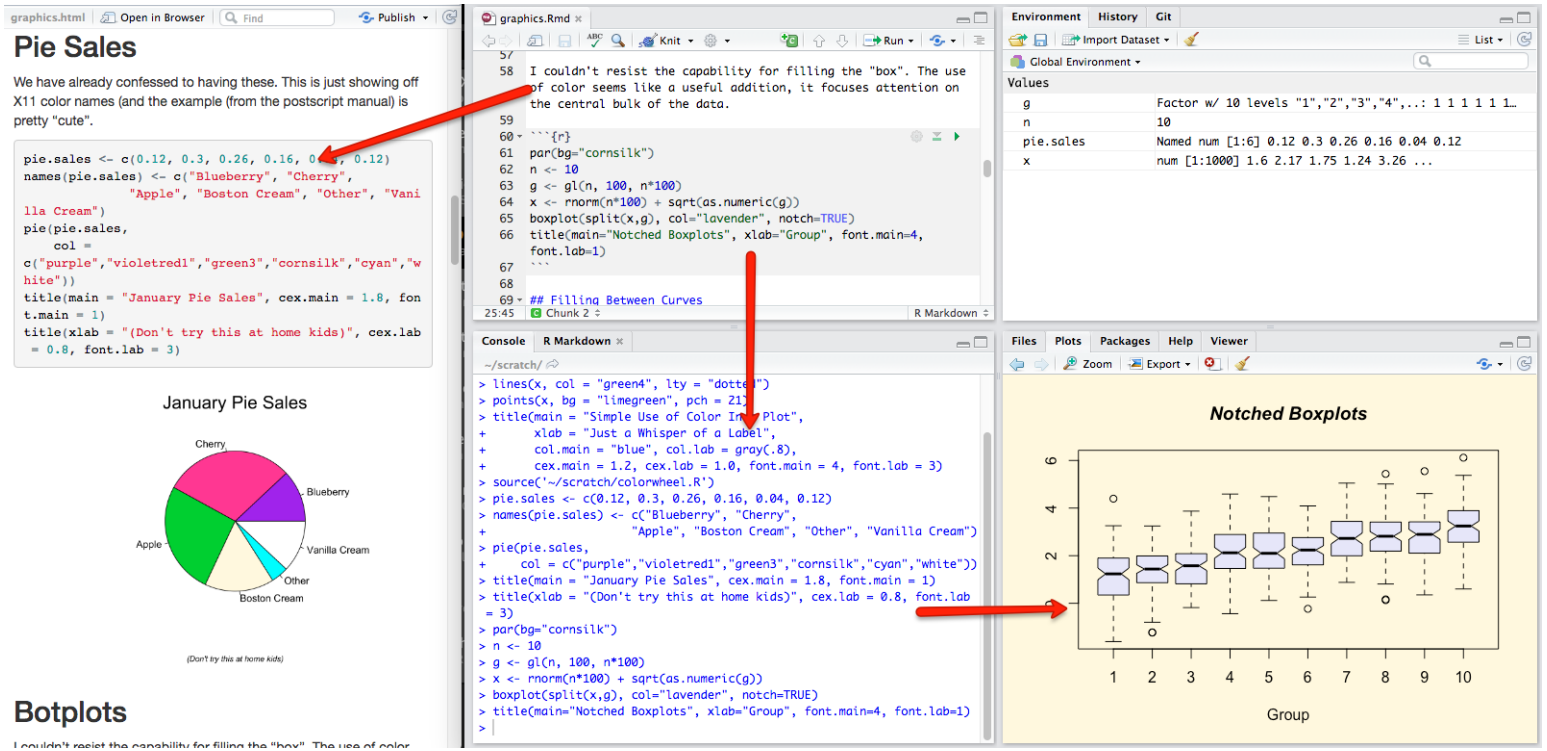
Level 1: Typical new R analyst



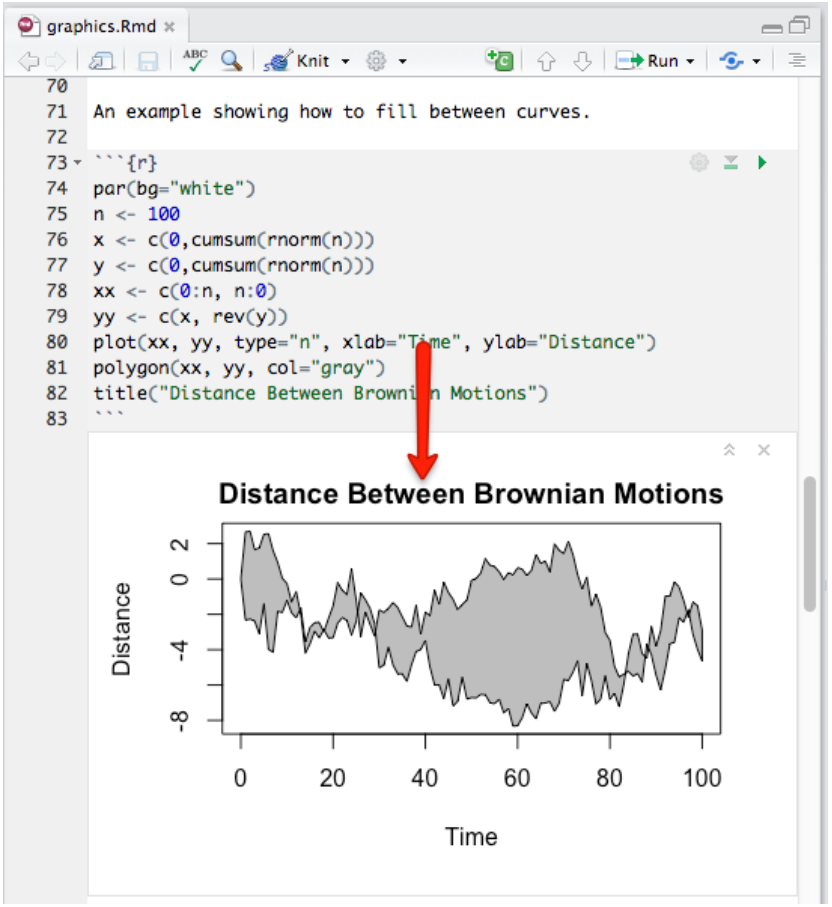
Level 2: Experienced R analyst



Level 3: Literate R analyst



Level 4: Introducing R Notebooks



R Notebooks Summary

1. Interact with R in a **single, seamless stream**.
2. **Iterate quickly** on code and output; see code and output together.
3. Leave a **clean, reproducible record** of your analysis in a simple text file.
4. Document your analysis with **rich, literate prose**.
5. **Share and publish** easily.
6. **One-click export** to PDF, Word, etc.

Demo

Compared with Jupyter

- Different interaction model (cells vs. text)
- First-class support for R, some support for other "kernels"
- Plain text format is more amenable to version control
- No special viewer required
- Cross-render to final output

Advanced topics

- Execution queue control
- Notebooks in RStudio Server
- Version control
- Rendering & hooks from other R front ends

R Notebooks Summary

1. Interact with R in a **single, seamless stream**.
2. **Iterate quickly** on code and output; see code and output together.
3. Leave a **clean, reproducible record** of your analysis in a simple text file.
4. Document your analysis with **rich, literate prose**.
5. **Share and publish** easily.
6. **One-click export** to PDF, Word, etc.

Links

- RStudio Preview: https://www.rstudio.com/products/rstudio/download/preview/
- R Notebooks: http://rmarkdown.rstudio.com/r_notebooks.html

Q&A