Pandoc and Markdown in 5 Minutes

Lightning Talk @ *Open Source Open Mic*

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26 October 2017

Outline

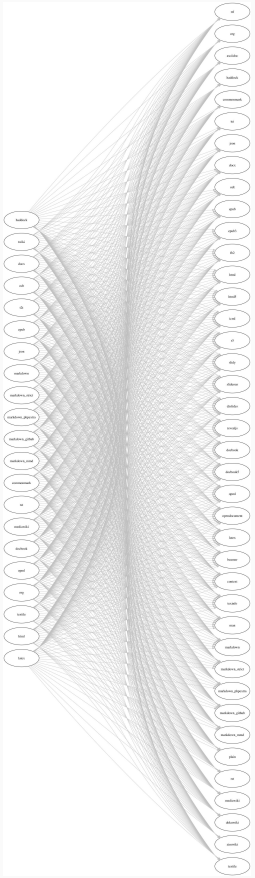
Plan for today

- Pandoc
- Markdoc
- Text *processing*

Pandoc

Pandoc in a nutshell

- The Swiss army knife for text conversion
- From anything to anything
- Rather widely used
- Well documented, many options
- Written in Haskell (!!) by head of UC Berkeley philosophy dept (!!)
- Very scriptable in the Unix tradition; extensible via `pandoc-filters`



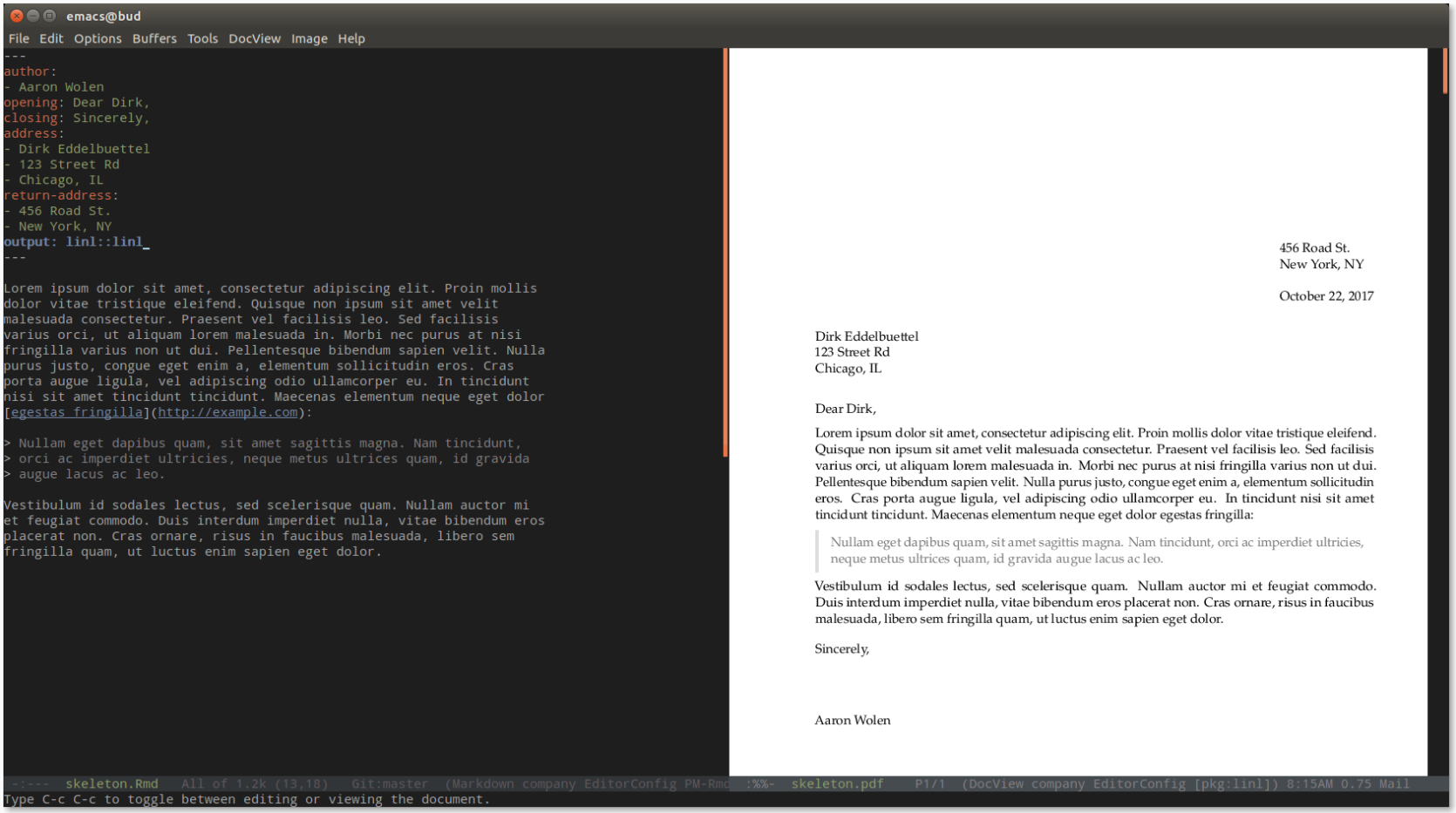
Source: Pandoc website

Markdown

Key Points

- Invented by John Gruber of *Daring Fireball*
- Very widely used as an easy markup language
- It is everywhere now (GitHub, StackOverflow, ...)
- Might get standardised (commonmark, GitHub-flavored, ...)
- Fits with Pandoc like peanut butter and jelly

Example


emacs@bud
File Edit Options Buffers Tools DocView Image Help
---
author:
- Aaron Wolen
opening: Dear Dirk,
closing: Sincerely,
address:
- Dirk Eddelbuettel
- 123 Street Rd
- Chicago, IL
return-address:
- 456 Road St.
- New York, NY
output: linl::linl

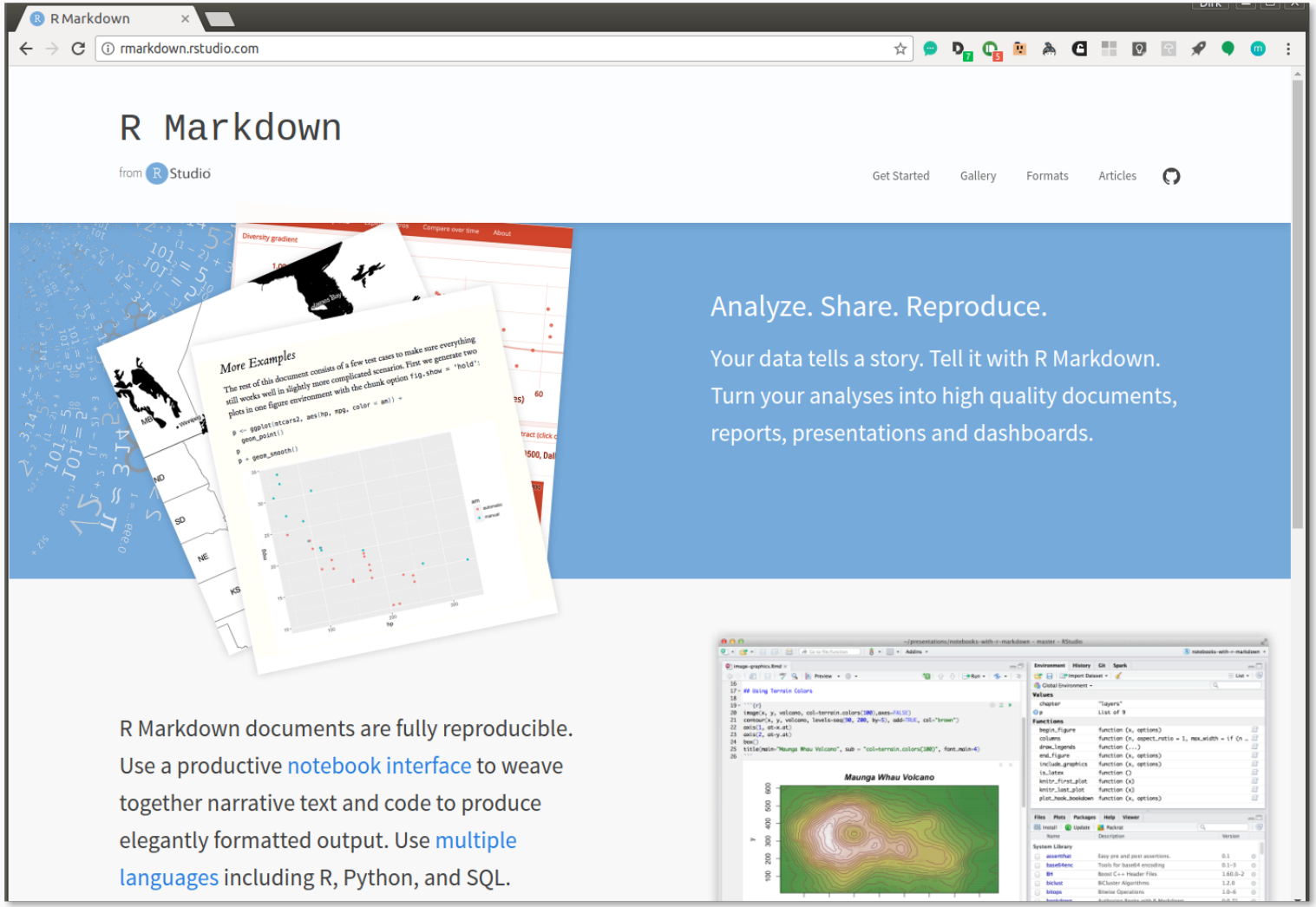
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin mollis dolor vitae tristique eleifend. Quisque non ipsum sit amet velit malesuada consectetur. Praesent vel facilisis leo. Sed facilisis varius orci, ut aliquam lorem malesuada in. Morbi nec purus at nisi fringilla varius non ut dui. Pellentesque bibendum sapien velit. Nulla purus justo, congue eget enim a, elementum sollicitudin eros. Cras porta augue ligula, vel adipiscing odio ullamcorper eu. In tincidunt nisi sit amet tincidunt tincidunt. Maecenas elementum neque eget dolor [egestas fringilla](http://example.com):
> Nullam eget dapibus quam, sit amet sagittis magna. Nam tincidunt, orci ac imperdiet ultricies, neque metus ultrices quam, id gravida augue lacus ac leo.
Vestibulum id sodales lectus, sed scelerisque quam. Nullam auctor mi et feugiat commodo. Duis interdum imperdiet nulla, vitae bibendum eros placerat non. Cras ornare, risus in faucibus malesuada, libero sem fringilla quam, ut luctus enim sapien eget dolor.
456 Road St.
New York, NY
October 22, 2017
Dirk Eddelbuettel
123 Street Rd
Chicago, IL
Dear Dirk,
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin mollis dolor vitae tristique eleifend. Quisque non ipsum sit amet velit malesuada consectetur. Praesent vel facilisis leo. Sed facilisis varius orci, ut aliquam lorem malesuada in. Morbi nec purus at nisi fringilla varius non ut dui. Pellentesque bibendum sapien velit. Nulla purus justo, congue eget enim a, elementum sollicitudin eros. Cras porta augue ligula, vel adipiscing odio ullamcorper eu. In tincidunt nisi sit amet tincidunt tincidunt. Maecenas elementum neque eget dolor egestas fringilla:
Nullam eget dapibus quam, sit amet sagittis magna. Nam tincidunt, orci ac imperdiet ultricies, neque metus ultrices quam, id gravida augue lacus ac leo.
Vestibulum id sodales lectus, sed scelerisque quam. Nullam auctor mi et feugiat commodo. Duis interdum imperdiet nulla, vitae bibendum eros placerat non. Cras ornare, risus in faucibus malesuada, libero sem fringilla quam, ut luctus enim sapien eget dolor.
Sincerely,
Aaron Wolen
-:--- skeleton.Rmd All of 1.2k (13,18) Git:master (Markdown company EditorConfig PM-Rmd
-:%%- skeleton.pdf P1/1 (DocView company EditorConfig [pkg:linl]) 8:15AM 0.75 Mail
Type C-c C-c to toggle between editing or viewing the document.

Integration

RMarkdown

- Integration with R via rmarkdown package
- Extensive documentation by RStudio
- Integration with R (and Python, SQL, ...) code chunks
- Dynamic and computable documents that auto-update

RMarkdown


R Markdown
rmarkdown.rstudio.com
R Markdown
from RStudio
Get Started
Gallery
Formats
Articles
Analyze. Share. Reproduce.
Your data tells a story. Tell it with R Markdown. Turn your analyses into high quality documents, reports, presentations and dashboards.
More Examples
R Markdown documents are fully reproducible. Use a productive notebook interface to weave together narrative text and code to produce elegantly formatted output. Use multiple languages including R, Python, and SQL.
Maunga Whau Volcano

Demo

Our 'Template'

emacs@brad

File Edit Options Buffers Tools Markdown Text Polymode Help

```
---
title: "Daily Randomness"
subtitle: "Don't Take It Seriously"
author: "Department of Random Generators"
date: "`r Sys.Date()`"
output:
  tint::tintPdf:
    latex_engine: pdflatex
---

## Daily Report

`r tint::margin_note("Updated automatically")`


```{r fig-nocap-margin-first, fig.width=6, fig.height=4, cache=TRUE, echo=FALSE}
suppressMessages(library(xts))
n <- 365
pnl <- xts(100 + cumsum(rnorm(n)), order.by=Sys.Date() + (-n+1):0)
plot(pnl,
     main=paste(ifelse(tail(pnl,1)>100,"Great","Shitty"), "Results"),
     col=ifelse(tail(pnl,1)>100,"darkgreen", "darkred"))

```
```

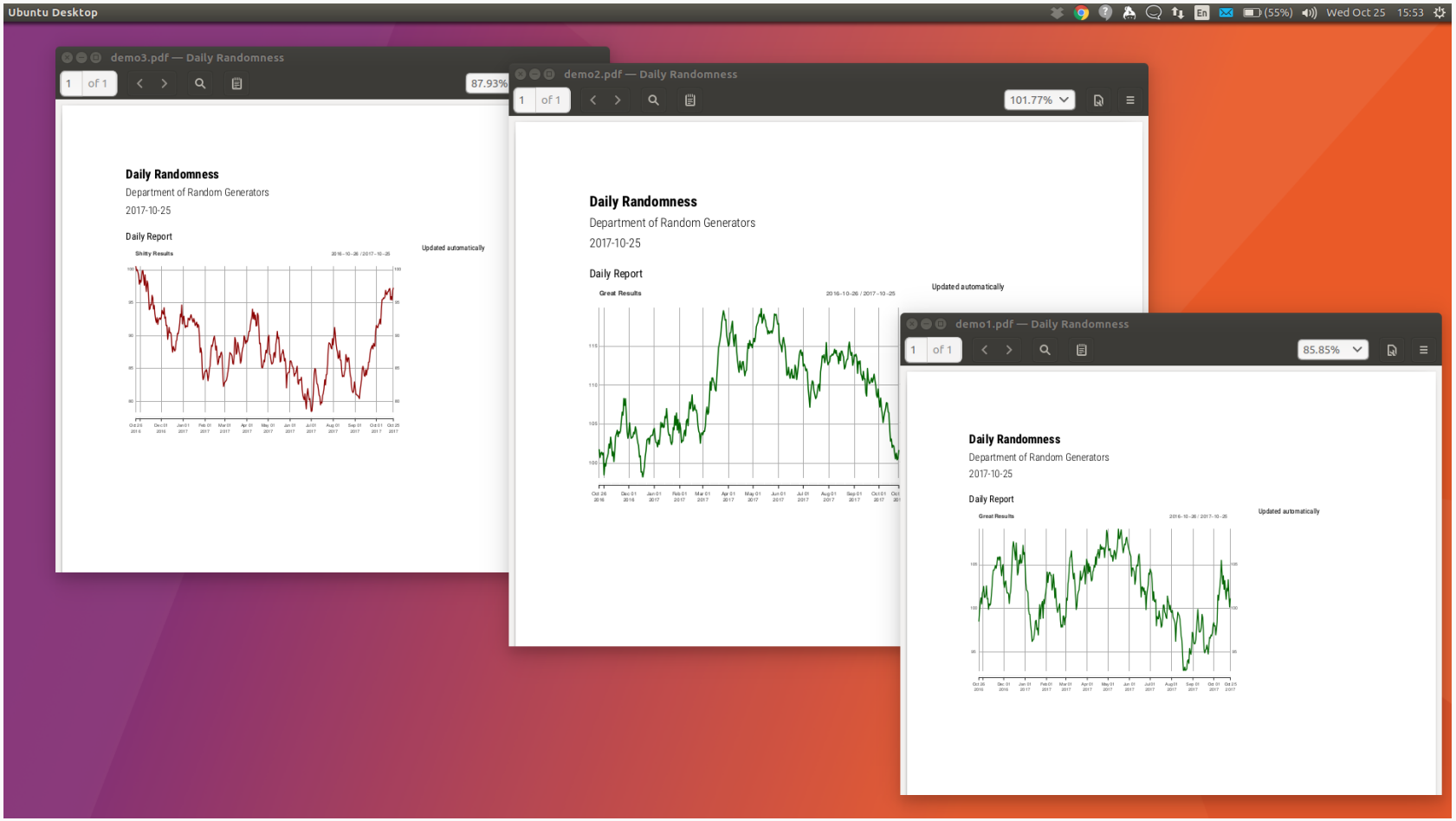
-:--- demo.Rmd   All of 585 L1   (Markdown company EditorConfig PM-Rmd)

Our 'Deployment'

```
#!/bin/sh

for i in 1 2 3; do
    rmdfile="demo${i}.Rmd"
    pdffile="demo${i}.pdf"
    echo ${rmdfile}
    cp -vax demo.Rmd ${rmdfile}
    Rscript -e 'rmarkdown::render("'${rmdfile}'")'
    test -f ${pdffile} && xdg-open ${pdffile}
done
```

Result


Ubuntu Desktop
demo3.pdf — Daily Randomness
Daily Randomness
Department of Random Generators
2017-10-25
Daily Report
Shitty Results
Updated automatically
demo2.pdf — Daily Randomness
Daily Randomness
Department of Random Generators
2017-10-25
Daily Report
Great Results
Updated automatically
demo1.pdf — Daily Randomness
Daily Randomness
Department of Random Generators
2017-10-25
Daily Report
Great Results
Updated automatically

Summary

Pandoc

- rocks as very versatile to/from anything converter
- highly scriptable, widely available

Markdown

- has won the markup languages fight
- is literally everywhere, dialects exists though

RMarkdown

- highly customizable
- highly expressive

Contact

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