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

Dear Dirk,


1. Nullam eget duiibus quam, sit amet sagittis magna. Nam tincidunt,
   orci ac imperdiet ultricies, neque metus ultrices quam, id gravida
   augue luctus ac leo.

2. Vestibulum id sodales lectus, sed scelerisque quam. Nullam auctur 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

456 Road St.
New York, NY
October 22, 2017

Dirk Eddelbuettel
123 Street Rd
Chicago, IL.
INTEGRATION
• 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
R Markdown

From RStudio


Your data tells a story. Tell it with R Markdown.
Turn your analyses into high quality documents, reports, presentations and dashboards.

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.
DEMO
Our ‘Template’

```r
---
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))

```{r}
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"))
```
#!/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
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
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