# Gadgets, Add-ins and HTML Templates

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# htmlTemplates

Bring your templates to your apps

# Ways To Build the UI

**1** Use R functions and packages
**shiny, shinydashboard, miniUI**

**2** Create your own HTML
**index.html**

**3** Insert your apps into an existing template
**htmlTemplate**

# Basic idea

## index.html

```
<!DOCTYPE html>
<html>
  <head>
    {{ headContent() }}
    {{ bootstrapLib() }}
  </head>
  <body>
    <h1>A Bivariate Normal Distribution</h1>
    <div>
      {{ button }}
      {{ slider }}
    </div>
  </body>
</html>
```

## htmlTemplate UI

```
ui <- htmlTemplate(

  button = actionButton("action", "Action"),

  slider = sliderInput("x", "X", 1, 100, 50)

)
```
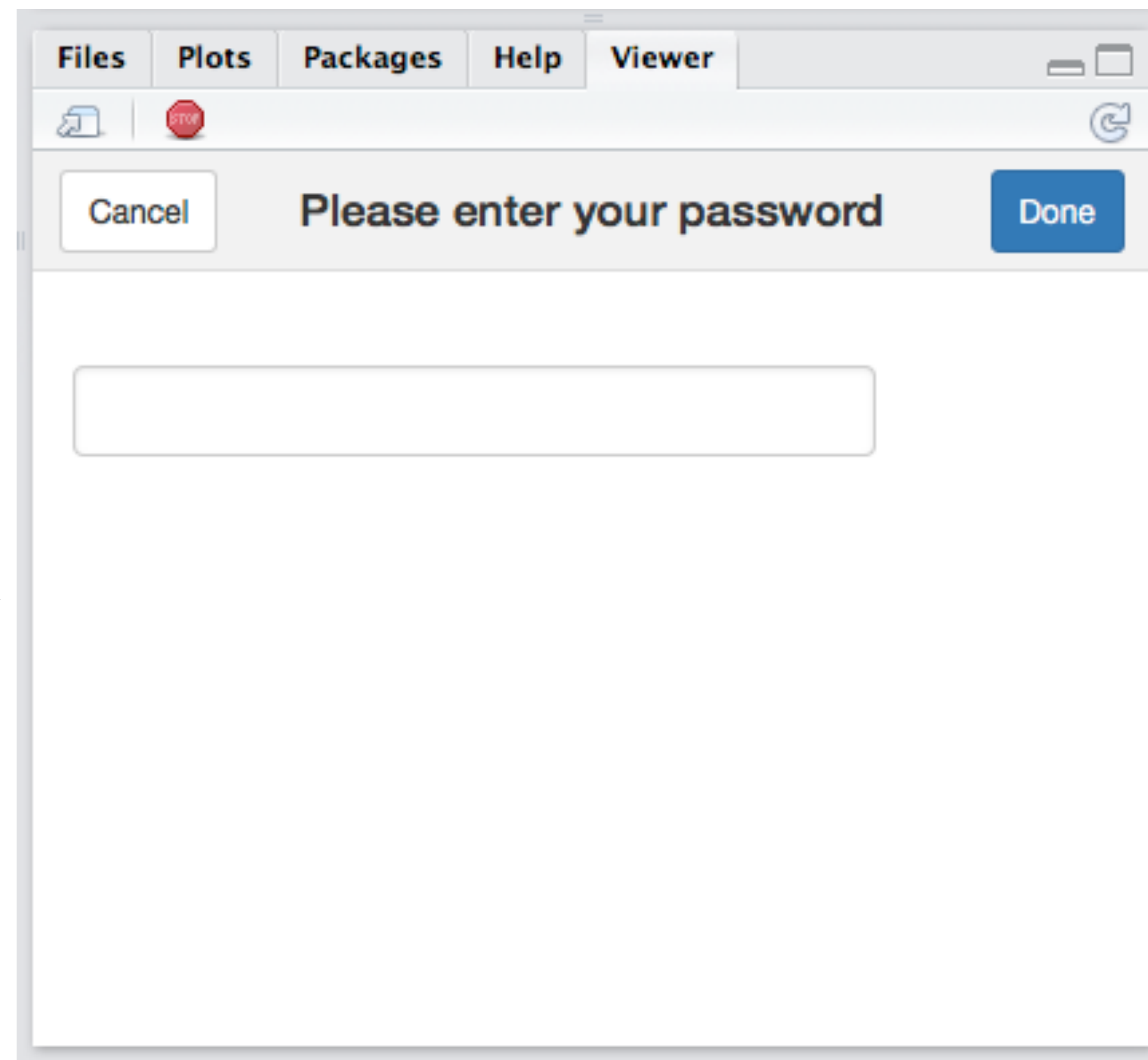
# Shiny Gadgets

## Enhance Your R Programing Experience

# Shiny Gadgets

Shiny apps that are started and stopped by R users during the course of an analysis from inside the RStudio IDE.
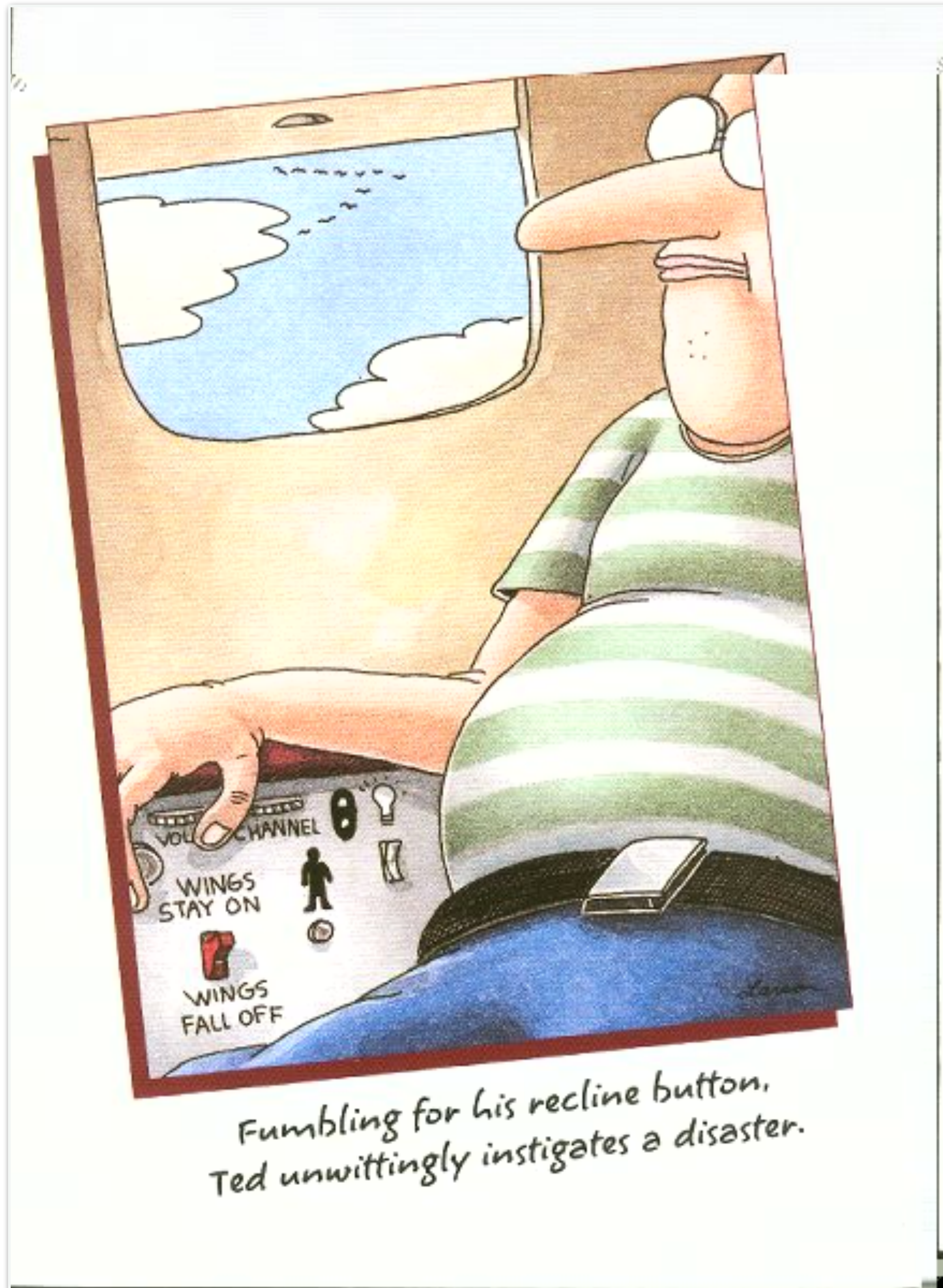
# Simple Shiny Gadget



## 1. Layout

**MiniUI Package**

A Shiny UI for
small spaces

## 2. Done

**Done Button**

R Users initiate
and terminate

*"Fumbling for his recline button, Ted unwittingly instigates a disaster"*

# Two Different Use Cases

| Shiny Gadget | Shiny App |
|:---:|:---:|
| Invoked | Deployed |
| Analysts | Decision makers |
| Programming | Communicating |

# RStudio Add-ins

**Make the RStudio IDE Extensible**

# RStudio Add-ins

RStudio add-ins give R users the
ability to add their own features

# What features can you build?

- Code builder tools

- Editor tools

- Integration with data and other tools

- Kick off scripts or external jobs

- Many more

# Anatomy of an Add-in

1. An **R package** (new or existing)

2. An **R function** that does the add-in work, invoking functions from the rstudioapi package to interact with the IDE.

3. An **addins.DCF** file (under inst/rstudio) that declares the add-in's metadata

Add-ins can be **interactive** or **non-interactive**

Add-ins are easy to **share**

# https://github.com/daattali/rstudio-addins

## List of useful RStudio addins made by useRs

One of the main problems right now with RStudio addins is discoverability: there's just no easy way to find addins. This repo can help in three ways: if you want to browse for useful addins, if you want to showcase your addin, or if you want to look at how others are implementing addins to get ideas for developing your own (since there aren't too many resources or examples yet, it could be useful to inspect other people's code).

If you made a cool RStudio addin, feel free to make a pull request to add it to the list.

| Name | Description | Package | On CRAN? | Author | More links | Notes |
|------|-------------|---------|----------|--------|------------|-------|
| Colour picker | Lets you easily select colours | shinyjs | ✅ | Dean Attali | screenshot, demo GIF | |
| ggplot2 Marginal Plots | Add marginal plots to ggplot2 | ggExtra | ✅ | Dean Attali | screenshot | |
| ggplot Theme Assist | Customize your ggplot theme | ggthemeassist | ✅ | Calli Gross | demo GIF | |
| Schedule Rscripts | Easily scheduling Rscripts | taskscheduleR | ✗ | jwijffels | screenshot | |
| Assign default values | Set function arguments in selection to their default values | jadd | ✗ | Jenny Bryan | demo GIF | |
| Wrap Rmd | Wrap selected R Markdown text but don't insert lines breaks into | WrapRmd | ✗ | TJ Mahr | | |

# Other RStudio releases in Q1 of 2016

### Shiny

Gadgets, HTML Templates, modules, error stack traces, Javascript events, checking inputs

### RStudio Server Pro

Multiple R versions, multiple concurrent R sessions, shared projects, collaborative editing, console auditing

### RStudio

Addins, R Markdown outline view, tear-able source panels, Emacs key bindings, parameterized R Markdown support, pane zooming

### R Markdown

Formats, floating TOC, code folding, tabbed sections, new themes

### Other packages

Feather, nibble, memoise, tidyr, httr, devtools, purrr

# Thank you

Learn more at
rstudio.com