

Building Data Products Overview

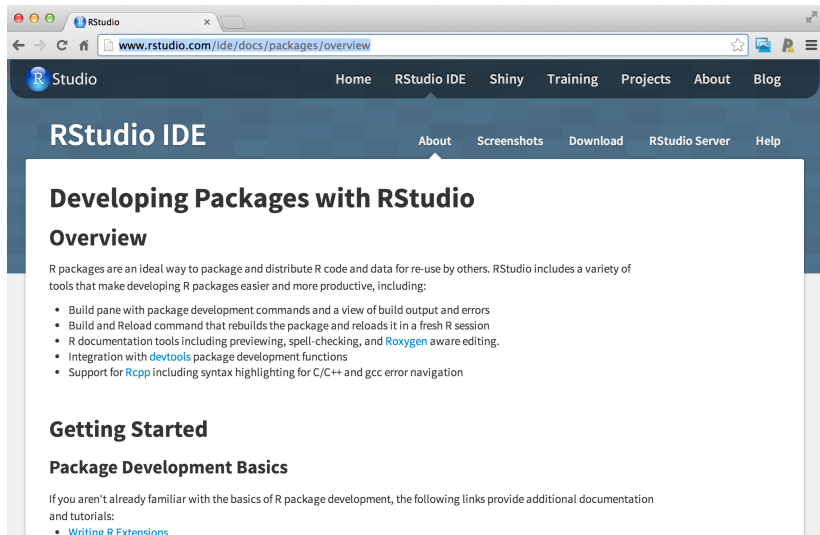
Jeffrey Leek

May 17, 2016

Building Data Products Content

- ▶ R packages
- ▶ devtools
- ▶ roxygen
- ▶ testthat
- ▶ rCharts
- ▶ Slidify
- ▶ Shiny

R packages - for the engineers



The screenshot shows a web browser window with the URL www.rstudio.com/ide/docs/packages/overview. The page is titled "RStudio IDE" and has a navigation bar with links: Home, RStudio IDE, Shiny, Training, Projects, About, and Blog. Below this is a sub-navigation bar with links: About, Screenshots, Download, RStudio Server, and Help. The main content area is titled "Developing Packages with RStudio Overview". It contains a paragraph stating that R packages are an ideal way to package and distribute R code and data for re-use by others, and that RStudio includes a variety of tools to make developing R packages easier and more productive, including:

- Build pane with package development commands and a view of build output and errors
- Build and Reload command that rebuilds the package and reloads it in a fresh R session
- R documentation tools including previewing, spell-checking, and [Roxygen](#) aware editing.
- Integration with [devtools](#) package development functions
- Support for [Rcpp](#) including syntax highlighting for C/C++ and gcc error navigation

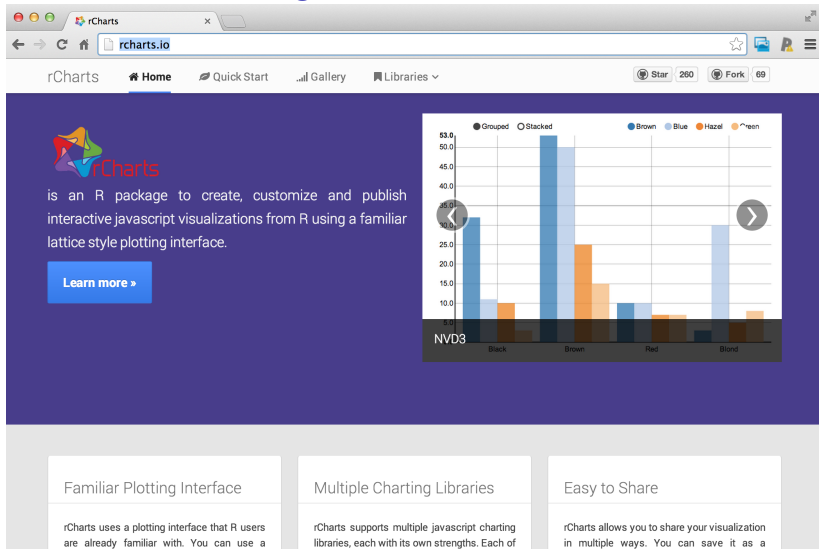
Below this is a section titled "Getting Started" with a sub-section "Package Development Basics". It contains a paragraph stating that if you aren't already familiar with the basics of R package development, the following links provide additional documentation and tutorials:

- [Writing R Extensions](#)

<http://cran.r-project.org/web/packages/>

<http://www.rstudio.com/ide/docs/packages/overview>

rCharts - for marketing



The screenshot shows the rCharts website in a browser. The browser address bar shows `rcharts.io`. The website has a navigation bar with links: Home, Quick Start, Gallery, and Libraries. It also shows 260 stars and 69 forks on GitHub. The main content area has a purple background. On the left, there is a logo for rCharts and a description: "is an R package to create, customize and publish interactive javascript visualizations from R using a familiar lattice style plotting interface." Below this is a blue button that says "Learn more >". On the right, there is a sample grouped bar chart. The chart has a y-axis from 0.0 to 55.0 and an x-axis with categories: Black, Brown, Red, and Blond. The legend indicates five series: Grouped (dark blue), Stacked (light blue), Brown (brown), Blue (light blue), Hazel (orange), and Green (green). The chart shows that the 'Brown' category has the highest values, with the 'Stacked' series reaching over 50.0. Below the main content area, there are three white boxes with grey borders, each containing a feature of rCharts.

Familiar Plotting Interface

rCharts uses a plotting interface that R users are already familiar with. You can use a

Multiple Charting Libraries

rCharts supports multiple javascript charting libraries, each with its own strengths. Each of

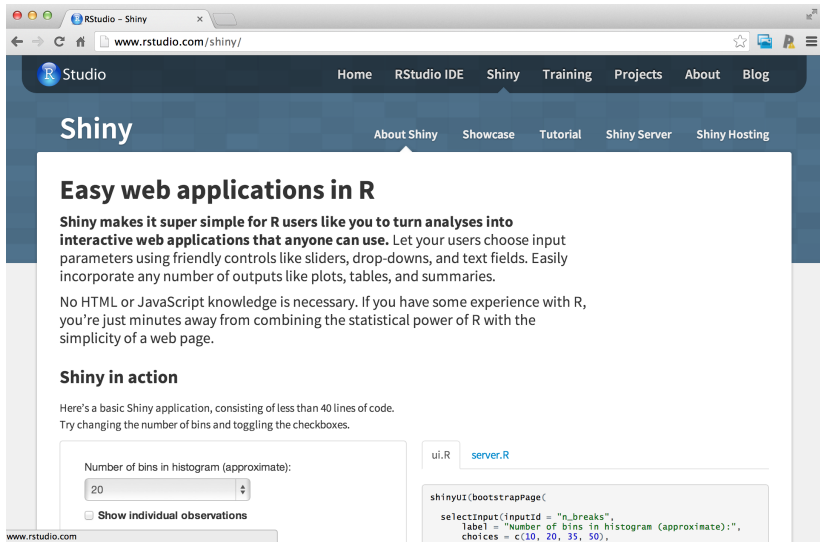
Easy to Share

rCharts allows you to share your visualization in multiple ways. You can save it as a

<http://rcharts.io/>

<http://ramnathv.github.io/rChartsNYT/>

Shiny - for your users

A screenshot of a web browser displaying the RStudio Shiny website. The browser's address bar shows 'www.rstudio.com/shiny/'. The website has a dark blue header with navigation links: Home, RStudio IDE, Shiny, Training, Projects, About, and Blog. Below the header, the word 'Shiny' is prominently displayed in a large white font. To the right of 'Shiny' are links for 'About Shiny', 'Showcase', 'Tutorial', 'Shiny Server', and 'Shiny Hosting'. The main content area has a white background and features the heading 'Easy web applications in R'. Below this heading, a paragraph explains that Shiny makes it simple for R users to create interactive web applications. Another paragraph states that no HTML or JavaScript knowledge is necessary. A section titled 'Shiny in action' includes a brief description of a basic Shiny application and a small preview of the application's interface. The preview shows a text input field with the label 'Number of bins in histogram (approximate):', a spinner control with the value '20', and a checkbox labeled 'Show individual observations'. To the right of the preview is a code editor showing R code for creating a Shiny UI. The code includes a 'selectInput' function call with a label and a vector of choices. The browser's status bar at the bottom shows the URL 'www.rstudio.com'.

`http://www.rstudio.com/shiny/`

`http://www.rstudio.com/shiny/showcase/`