

META CRAN

Tooling around CRAN

CRAN is great!

It just works!

Installs and examples

Great first impression

Stable API (!)

But I also want to

- 1** Find packages
- 2** Discover packages
- 3** View and search code
- 4** Make Personal modifications

1 Find packages

How would you?

Task views?

Search on web page?

rdocumentation.org?

crantastic.org?

[sos](#) package

mran.revolutionanalytics.com?

Just google?

rseek.org

How would you?

- ✗ Task views?
- ✗ Search on web page?
- ✗ rdocumentation.org?
- ✗ crantastic.org?
- ✗ sos package?
- ✗ mran.revolutionanalytics.com?
- ✗ Just google?

METACRAN search

Indexes DESCRIPTION

Ranks on fields

Ranks on reverse dependencies

Open API

Search from R or on web page

Ranking needed

Downloads

Installations

Reverse dependencies

GitHub stars

Web page visits

2 Discover packages

How would you?

Task views?

Blogs?

Search on GitHub?

How would you?

- ✗ Task views?
- ✗ Blogs?
- ✗ Search on GitHub?

METACRAN web

www.r-pkg.org

Most downloaded

Trending

Fresh

Most depended upon

Most GitHub stars

3 View and search code

How would you?

- ✗ Download package?
- ✗ Local mirror?

CRAN @ GitHub

One package = one repo

One version = one commit

Searchable

Comparable

Refer to code, all versions

4 Personal versions

How would you?

- ✗ Keep a patch?
- ✗ Put the package in a repo?

C.R.A.N @ GitHub

Package repos forkable

Easy rebase and merge

5 Future plans

Versioned deps

J. Ooms: Improving Dependency
Versioning in R. The R Journal, 2013

Semantic versioning

$x.y.z = \text{major.minor.patch}$

Version ranges

2.1.x

~2.1.2

2.1.0 - 2.1.5

Versioned deps

Depends:

R (~3.2.1)

methods

Imports:

Matrix (~1.2-1),

magrittr (~1.5),

NMF (~0.20.6),

irlba (~1.0.3)

Suggests:

igraphdata (1.0.0 - 1.1.0),

stats4,

rgl (~0.95.1247),

tcltk,

graph (bioc:~1.46.0),

ape (~3.3),

scales (~0.2.5)

Versioned Deps FAQ

Bug fixes

API changes

Getting stuck on an old version

Packages depending on
different versions

Disk space

Versioned Deps FAQ

- ✓ Bug fixes
- ✓ API changes
- ✓ Getting stuck on old version
- ✓ Packages depending on different versions
- ✓ Disk space

Versioned Deps in R

github.com/metacran/semver

Need to load the same
package twice

Namespacing of package
names

What is a package?

Code + docs + etc.

Metadata

Declaration of dependencies

Reproducibility: exact
dependencies

More packages!

Everything is a package:

Shiny app

data analysis

research project

More packages!

Scaffolding:

github.com/metacran/mason

Package manager:

github.com/metacran/rpkg

Summary

Services:

search, package discovery,
code tools, personal fork

Future plans:

versioned dependencies,
everything is a package