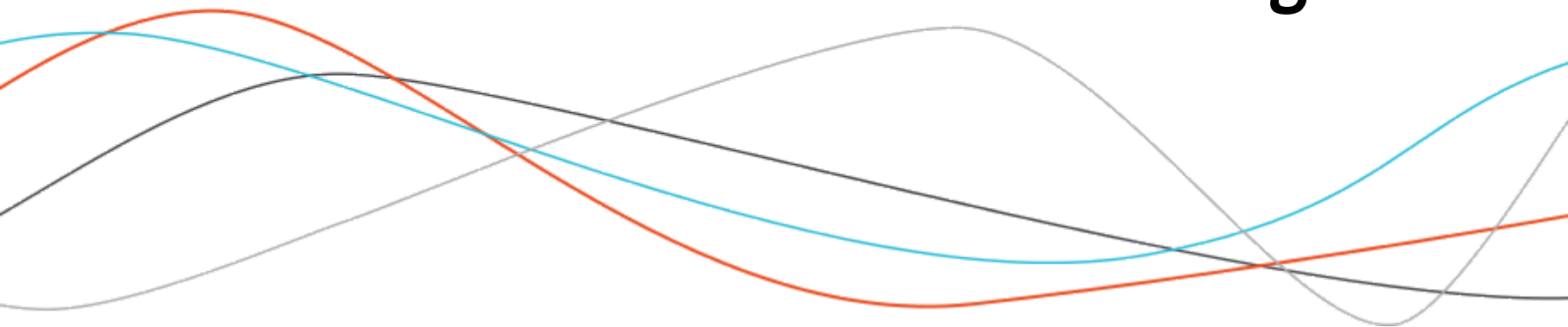


# Building a package that lasts

## Part 6: Continuous integration



# Why use Travis?

- To save time (again) !
- Make sure the package is tested regularly
- Have a shareable test report
- Guarantee the stability of the project

## Travis in my project

To use Travis:

```
usethis::use_travis()
```

Notes :

- The package must first be connected to Github
- The use of Travis is free for Open Source projects (i.e. that are on Github)
- With a "pro" plan you can use Travis on private repos

# What's Travis?

Travis <https://travis-ci.org/> is a continuous integration service that will perform a check whenever you commit on GitHub.

## Configuration

The `{usethis}` command automatically generates the travis configuration file :

```
> usethis::use_travis()
✓ Writing '.travis.yml'
✓ Adding '^\\.travis\\.yml$' to '.Rbuildignore'
• Add a Travis build status badge by adding the following line to your README:
Copying code to clipboard:
  [![Travis build status](https://travis-ci.org/ColinFay/languagelayerR.svg?branch=master)](https://travis-ci.org/ColinFay/languagelayerR)
• Turn on travis for your repo at https://travis-ci.org/ColinFay/languagelayerR
```

# Travis

Search all repositories

My Repositories +

✓ weekly/weekly.org # 1268

Duration: 13 min 50 sec

Finished: about an hour ago

✗ ColinFay/tidytext # 23

Duration: 34 min 48 sec

Finished: 2 days ago

✓ ColinFay/tidysttringdist # 7

Duration: 3 min 4 sec

Finished: about a month ago

✓ ColinFay/tweetthat # 1

Duration: 3 min 10 sec

Finished: about a month ago

✓ ColinFay/proustr # 26

Duration: 3 min 19 sec

Finished: 2 months ago

✓ ColinFay/tidytrycatch # 2

Duration: 13 min 31 sec

Finished: 2 months ago

✗ ThinkR-open/tweetstorm # 12


Duration: 10 min 53 sec

Finished: 3 months ago

✓ ThinkR-open/collage # 6

Duration: 16 min

Finished: 3 months ago

ColinFay / proustr  build passing

Current

Branches

Build History

Pull Requests

More options

✓ master news and stuffs

Commit eb6edba

Compare f8db027..eb6edba

Branch master

ColinFay authored and committed

#26 passed

Ran for 3 min 19 sec

2 months ago

Restart build

Job log

View config

Remove log

Raw log

```
1 Worker information
6 Build system information
402
403 W: http://dl.hvm.com/ubuntu/dists/trusty/InRelease: Signature by key 36AEF640D207E7EEE352D4875A16E7281BE7A449 uses weak digest algorithm (SHA1)
404 W: http://ppa.launchpad.net/couchdb/stable/ubuntu/dists/trusty/Release.gpg: Signature by key 158668AFD9BCC4F3C1E0DFC7D69548E1C17EA857 uses weak digest algorithm (SHA1)
405 R for Travis-CI is not officially supported, but is community maintained.
406 Please file any issues at https://github.com/travis-ci/travis-ci/issues
407 and mention @craigcitro and @jimhester in the issue
408 Installing R
811 $ git clone --depth=50 --branch=master https://github.com/ColinFay/proustr.git ColinFay/proustr
821 Setting up build cache
830 Setting up package cache
835 R session information
838 Installing package dependencies
885 Installed package versions
987 Building package
1005 Checking package
1081 checking installed package size ... NOTE
1082 installed size is 6.3Mb
1083 sub-directories of 1Mb or more:
1084 data 6.1Mb
1085
1086
1087
1088 The command "grep -q -R "WARNING" "${RCHECK_DIR}/00check.log" exited with 0.
1089 store build cache
1104
1105 Done. Your build exited with 0.
```

Colin Fay, ThinkR - <http://thinkr.fr> 4 / 8

# Yaml configuration

If the DESCRIPTION file contains all the necessary information, the yaml can be as simple as :

```
language: r
```

The cache: packages specification speeds up the build.

We can test on several versions of R by specifying :

```
r:  
  oldrel  
  release  
  devel
```

You can request the installation of specific elements, like Pandoc versions, or apt packages :

```
addons:  
  apt:  
    packages:  
      libxml2-dev
```

# AppVeyor

```
usethis::use_appveyor()
```

AppVeyor is a continuous integration service that integrates with a larger number of services:

- Github
- Gitlab
- Git
- Visual Studio
- Subversion
- ...

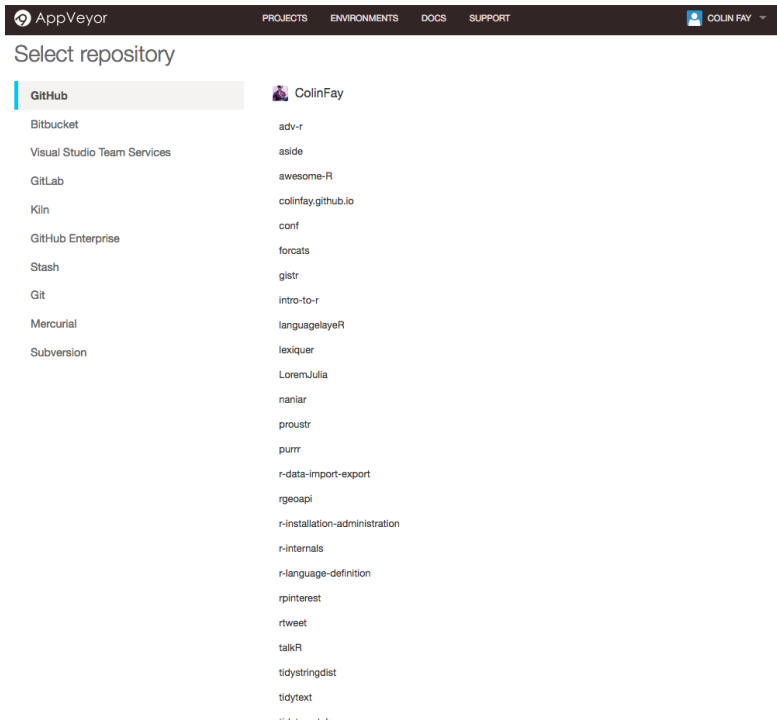
Notes: the free plan "only" allows to cover Open Source projects.

```
> usethis::use_appveyor()
✓ Writing 'appveyor.yml'
✓ Adding '^appveyor\\.yml$' to '.Rbuildignore'
• Turn on AppVeyor for this repo at https://ci.appveyor.com/projects

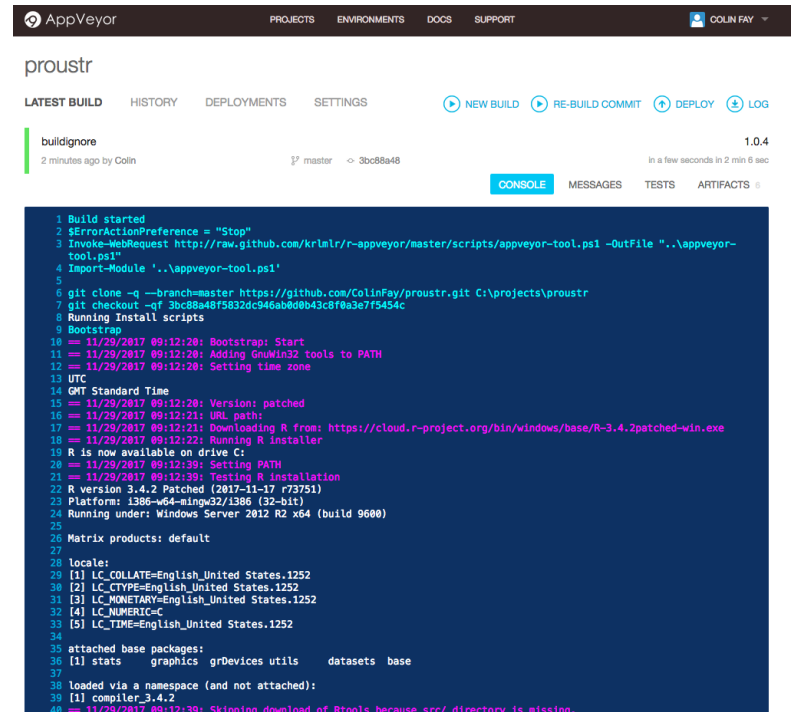
• Add an AppVeyor shield to your README.md:
Copying code to clipboard:
[![AppVeyor Build Status](https://ci.appveyor.com/api/projects/status/github/ColinFay/proustr?branch=master&svg=true)]
(https://ci.appveyor.com/project/ColinFay/proustr)
```

# AppVeyor

Log in on <https://ci.appveyor.com/>, select a project, and launch "New Build" :



The screenshot shows the AppVeyor web interface. At the top is a navigation bar with 'AppVeyor', 'PROJECTS', 'ENVIRONMENTS', 'DOCS', 'SUPPORT', and a user profile 'COLIN FAY'. Below the navigation bar, the heading 'Select repository' is displayed. On the left, a list of repositories is shown under the 'GitHub' tab: Bitbucket, Visual Studio Team Services, GitLab, Kiln, GitHub Enterprise, Stash, Git, Mercurial, and Subversion. On the right, a list of projects is shown under the 'ColinFay' tab: adv-r, aside, awesome-R, colinfay.github.io, conf, forcats, gistr, intro-to-r, languagelayeR, lexisquer, LoremJulia, nanian, proustr, purrr, r-data-import-export, rgeoapi, r-installation-administration, r-internals, r-language-definition, rpinterest, rtweet, talkR, tidystyrngdist, tidytext, and tickdrumatch.



The screenshot shows the AppVeyor build details for the 'proustr' project. The navigation bar is the same as the previous screenshot. Below the navigation bar, the project name 'proustr' is displayed. The 'LATEST BUILD' tab is selected, showing a build status of 'buildignore' with a timestamp of '2 minutes ago by Colin'. The build version is '1.0.4'. The build log is displayed in a dark blue box with white text. The log shows the build process starting with 'Build started', followed by 'Invoke-WebRequest' to download the AppVeyor tool, 'Import-Module' to load the tool, 'git clone' to clone the repository, 'git checkout' to checkout the master branch, 'Running Install scripts' to run the bootstrap script, 'Bootstrap' to start the bootstrap process, 'Adding GnuWin32 tools to PATH' to add the tools to the path, 'Setting time zone' to set the time zone, 'GMT Standard Time' to set the time zone, 'Version: patched' to show the version, 'Downloading R from: https://cloud.r-project.org/bin/windows/base/R-3.4.2patched-win.exe' to download R, 'Running R installer' to run the R installer, 'R is now available on drive C:' to show R is installed, 'Setting PATH' to set the path, 'Testing R installation' to test the R installation, 'R version 3.4.2 Patched (2017-11-17 r73751)' to show the R version, 'Platform: i386-w64-mingw32/i386 (32-bit)' to show the platform, 'Running under: Windows Server 2012 R2 x64 (build 9600)' to show the operating system, 'Matrix products: default' to show the matrix products, 'locale:' to show the locale, 'LC\_COLLATE=English\_United States.1252' to show the locale settings, 'LC\_CTYPE=English\_United States.1252' to show the locale settings, 'LC\_MONETARY=English\_United States.1252' to show the locale settings, 'LC\_NUMERIC=C' to show the locale settings, 'LC\_TIME=English\_United States.1252' to show the locale settings, 'attached base packages:' to show the attached base packages, 'stats graphics grDevices utils datasets base' to show the attached base packages, 'loaded via a namespace (and not attached):' to show the loaded packages, '[1] compiler 3.4.2' to show the loaded packages, and 'Skipping download of Rtools because src/ directory is missing.' to show the skipped download of Rtools.

# Let's practice !

