Containers and R: the Rockerverse and beyond

by Daniel Nüst

Abstract The Rocker project provides widely-used Docker images for R across different application scenarios. In this article we describe the downstream projects building upon Rocker and look beyond towards other container solutions and libraries to interact with them from R.

Introduction

(R Core Team, 2016)

Containerization

Rocker

R images and containers

Rocker

Bioconductor

MRO

Renjin

pqR

Singularity

OCI

Packages

Automation and packaging

- `containerit`
- `dockertest`
- `liftr`

Control and provisioning

- `harbor`
- `docker`
- `RSelenium`
- `googleComputeEngineR`
- `analogsea`

Downstream Applications

Deployment and processing

- `plumber`
- `batchtools`

Cross-R testing

Show how you can run the same script in multiple R variants in containers (new contribution). Ideally the images should be created using `containerit` and controlled with `harbor/docker`, i.e. via an R script.

Workflows and reproducibility

...

Scalable deployments

- Shiny talks @ useR!2017
- ...

Bibliography

R Core Team. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria, 2016. URL https://www.R-project.org/. ISBN 3-900051-07-0. [p1]

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