

Cheatsheet: containers for R

docker command line

Build and push from Dockerfile

```
docker build -t namespace/repo:tag .
docker push
```

Run code inside container

```
docker run --rm namespace/repo:tag Rscript script.R
```

Run rocker/rstudio container

```
docker run --rm -it -e \
PASSWORD=yourpassword -p 8787:8787 rocker/rstudio
# find it at http://localhost:8787
```

Convenient R commands

Dockerfile from DESCRIPTION file

```
dockerfiler::dock_from_desc()
```

Package system requirements

```
pak::pkg_system_requirements(
  "DT", "ubuntu", "20.04")
```

Binary or source installation?

For most applications, a *binary installation* is recommended. It's faster and it's easier to handle dependencies.

Acknowledgements

[Rocker](#) and [r2u](#) are developed by [Carl Boettiger](#) and [Dirk Eddebuetel](#). This cheatsheet was created by [Geert van Geest](#)

Dockerfile examples

```
FROM ubuntu
```

```
RUN apt-get update \
&& apt-get install -y \
r-cran-rmarkdown \
r-cran-dt \
r-bioc-biostrings
```

```
FROM eddelbuetel/r2u:jammy
```

```
RUN install2.r \
rmarkdown \
DT \
Biostrings
```

```
FROM r-base:latest
```

```
RUN apt-get update \
&& apt-get install -y \
r-cran-rmarkdown \
r-cran-dt \
r-bioc-biostrings
```

```
FROM rocker/rstudio:4
```

```
RUN install2.r \
rmarkdown \
DT \
Biostrings
```

Choosing your base image

The base images below have many different characteristics. Refer to their docs for a full overview.

	rocker				r2u
	Versioned	Base	rocker/r-ubuntu	rocker/r-bspm	eddelbuetel/r2u
apt-get install	No	Yes	Yes	Yes	Yes
default repo	RSPM (binary)	CRAN (source)	default (source)	package manager (binary)	r2u (binary)
install.packages()					
default install2.r behavior	RSPM (binary)	CRAN (source)	system package repos (binary)	system package repos (binary)	r2u (binary)
base image	ubuntu	debian	ubuntu	debian, ubuntu, fedora, opensuse	ubuntu

