

Quick R Package

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May 10, 2013

Overview

We are about to create the QuickPackage R package:

1. Create a dummy function to come into the package
2. Create the package structure
3. Update the package content
4. Build/check/install
5. Enjoy!

```
> ## This is the dummy function that will return  
> ## information about our 'QuickPackage'  
> qpf <- function()  
+   packageDescription("QuickPackage")
```

```
> ## This creates the package template  
> package.skeleton("QuickPackage", list = c("qpf"))
```

Creating directories ...

Creating DESCRIPTION ...

Creating NAMESPACE ...

Creating Read-and-delete-me ...

Saving functions and data ...

Making help files ...

Done.

Further steps are described in

'./QuickPackage/Read-and-delete-me'.

QuickPackage structure:

```
QuickPackage/  
|-- DESCRIPTION  
|-- man  
|   |-- qpf.Rd  
|   `-- QuickPackage-package.Rd  
|-- NAMESPACE  
|-- R  
|   `-- qfd.R  
`-- Read-and-delete-me
```

- ▶ Read and delete Read-and-delete-me
- ▶ Update DESCRIPTION
- ▶ Write a proper package documentation file or delete it (this is the only optional documentation) and update the man page for `qpf` (see next slide)

```
\name{qpf}  
\alias{qpf}  
\title{ A test function }  
\description{  
  Returns package information.  
}  
\usage{  
qpf()  
}  
\value{  
An object of class \code{packageDescription}.  
}  
\examples{  
qpf()  
}
```

In a terminal:

1. Build the package with
R CMD build QuickPackage
2. Check the package with
R CMD check QuickPackage_1.0.tar.gz
3. If any, fix errors and warnings and repeat steps 1 and 2.
4. Install the package with
R CMD INSTALL QuickPackage_1.0.tar.gz


```
> library("QuickPackage")  
> qpf()
```

Package: QuickPackage

Type: Package

Title: A quick and mini R package

Version: 1.0

Author: Laurent Gatto <lg390@cam.ac.uk>

Maintainer: Laurent Gatto <lg390@cam.ac.uk>

Description: Mini intro on building R packages.

License: GPL-2

Packaged: 2013-05-10 09:02:57 UTC; lgatto

Built: R 3.1.0; ; 2013-05-10 09:03:07 UTC; unix

-- File: /home/lgatto/R/x86_64-unknown-linux-gnu-library/3

References

- ▶ Advanced R Programming, Robert I. I. Stojnic and Laurent Gatto
<http://www.training.cam.ac.uk/gsls/event/413639>
- ▶ Writing R Extensions, R Development Core Team, (get it with `help.start()`)

```
> toLatex(sessionInfo())
```

- ▶ R Under development (unstable) (2013-04-05 r62500),
x86_64-unknown-linux-gnu
- ▶ Locale: LC_CTYPE=en_GB.UTF-8, LC_NUMERIC=C,
LC_TIME=en_GB.UTF-8, LC_COLLATE=en_GB.UTF-8,
LC_MONETARY=en_GB.UTF-8, LC_MESSAGES=en_GB.UTF-8,
LC_PAPER=C, LC_NAME=C, LC_ADDRESS=C, LC_TELEPHONE=C,
LC_MEASUREMENT=en_GB.UTF-8, LC_IDENTIFICATION=C
- ▶ Base packages: base, datasets, graphics, grDevices, methods,
stats, utils
- ▶ Other packages: knitr 1.2, QuickPackage 1.0
- ▶ Loaded via a namespace (and not attached): digest 0.6.3,
evaluate 0.4.3, formatR 0.7, stringr 0.6.2, tools 3.1.0