

Development of package **pisar**

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May 11, 2021

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Warning: package 'devtools' was built under R version 4.0.3

Warning: package 'usethis' was built under R version 4.0.3

1 Preparation

Set package source directory

```
> purl <- TRUE
> (pkgPath <- gsub("/R/", "/R/packages/", dirname(getwd())))
[1] "C:/__D/OMIKE/pisar"
> (pkgPath <- gsub("/R/", "/R/packages/", dirname(getwd())))
[1] "C:/__D/OMIKE/pisar"
> (pkgName <- basename(dirname(getwd())))
[1] "pisar"
> dir(pkgPath)
[1] "_COPYRIGHT"      "_DESCRIPTION"     "_pkgdown.yml"
[4] "_VERSION"        "data"             "DESCRIPTION"
[7] "devel"           "doc"              "docs"
[10] "FAIRDOM.log"     "gitHeadInfo.gin" "inst"
[13] "man"             "NAMESPACE"        "out"
[16] "pisar.prj"       "pisar.prj.bak"    "pisar.Rproj"
[19] "R"               "README.md"        "vignettes"
> dir(file.path(pkgPath, "R"))
[1] "pisar-initialize.R"      "pisar-initialize.Rold"
[3] "README.md"
> fctFile <- c("pisar-initialize.Rnw")
> (pkgFile <- gsub("\\.Rnw$", "\\R", fctFile))
[1] "pisar-initialize.R"
```

Files and directories:

Original R source file(s): `pisar-initialize.Rnw`

Package directory: `C:/__D/OMIKE/pisar`

Package source file(s): `pisar-initialize.R`

```
> childtxt <- ""

> for (i in 1:length(fctFile)) {
+   childtxt <- paste(childtxt, knit_child(file.path("../devel", fctFile[i])
+     quiet = TRUE))
+ }
```

2 Export as source for package

perform steps for building a package. Extract code, make documentation files (*.Rd), build a package.

2.1 Extract code

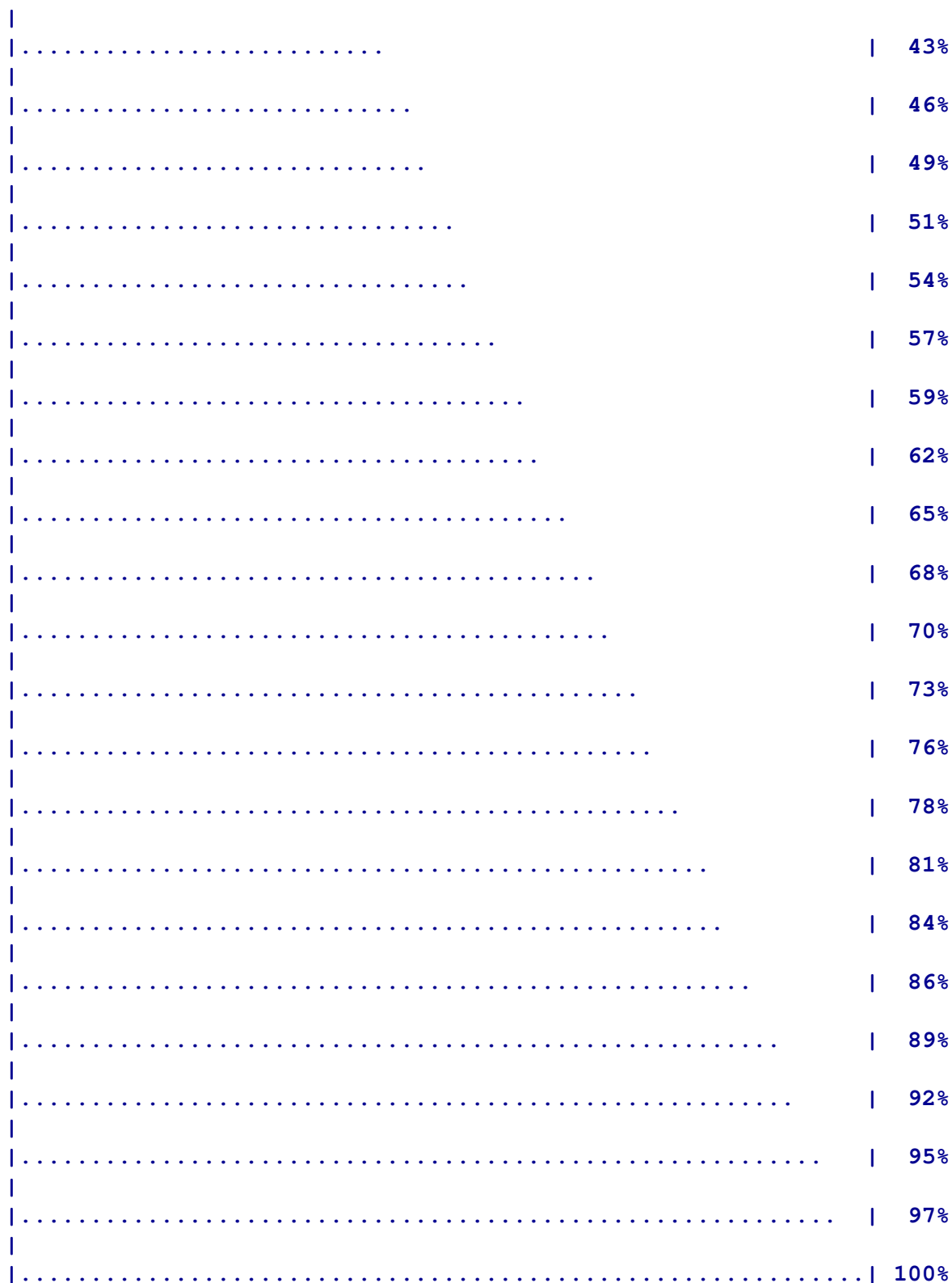
Code is extracted to `pkgPath`.

```
> childtxt <- ""
> for (i in 1:length(fctFile)) {
+   cat(fctFile[i], "\n")
+   childtxt <- paste(childtxt, purl(file.path("../devel", fctFile[i])),
+     output = file.path(pkgPath, "R", pkgFile[i]))
+ }
```

`pisar-initialize.Rnw`

processing file: `../devel/pisar-initialize.Rnw`

		0%
..		3%
...		5%
.....		8%
.....		11%
.....		14%
.....		16%
.....		19%
.....		22%
.....		24%
.....		27%
.....		30%
.....		32%
.....		35%
.....		38%
.....		41%



output file: C:/__D/OMIKE/pisar/R/pisar-initialize.R

```
> file.path(pkgPath, "R")
[1] "C:/__D/OMIKE/pisar/R"
> # dir(file.path(pkgPath, 'R'))
```

C:/__D/OMIKE/pisar/R/pisar-initialize.R

2.2 Documentation

Probably not needed if we do the check?

```
> devtools::document(pkgPath)
Updating pisar documentation
Loading pisar
Writing NAMESPACE
Writing NAMESPACE
Writing getMeta.Rd
> usethis::use_package("knitr")
  Setting active project to 'C:/__D/OMIKE/pisar'
Warning in if (delta < 0) {: the condition has length > 1 and only the first e
Warning in if (delta > 0) {: the condition has length > 1 and only the first e
* Refer to functions with `knitr::fun()`
> usethis::use_package("rio")
* Refer to functions with `rio::fun()`
> usethis::use_package("tools")
* Refer to functions with `tools::fun()`
> usethis::use_package("RCurl")
* Refer to functions with `RCurl::fun()`
> # usethis::use_package('httr') usethis::use_package('jsonlite')
> usethis::use_build_ignore(c("devel"))
```

2.3 Check

```
> # system.time(check <- devtools::check(pkgPath))  
> system.time(miss <- devtools::missing_s3(pkgPath))
```

Loading `pisar`

user	system	elapsed
0.31	0.02	0.32

2.4 Check results

```
> check()
```

```
Updating pisar documentation
```

```
Loading pisar
```

```
Writing NAMESPACE
```

```
Writing NAMESPACE
```

```
-- Building -----
```

```
Setting env vars:
```

```
* CFLAGS      : -Wall -pedantic
```

```
* CXXFLAGS    : -Wall -pedantic
```

```
* CXX11FLAGS  : -Wall -pedantic
```

```
-----
```

```
<U+221A>  checking for file 'C:\__D\OMIKE\pisar/DESCRIPTION' (363ms)
```

```
-  preparing 'pisar':
```

```
  checking DESCRIPTION meta-information ...
```

```
  checking DESCRIPTION meta-information ...
```

```
<U+221A>  checking DESCRIPTION meta-information
```

```
-  installing the package to build vignettes
```

```
  creating vignettes ...
```

```
  creating vignettes ...
```

```
<U+221A>  creating vignettes (6.1s)
```

```
-  excluding invalid files
```

```
  Subdirectory 'R' contains invalid file names:
```

```
    '.RData' 'README.md' 'pisar-initialize.Rold'
```

```
-  checking for LF line-endings in source and make files and shell scripts
```



```
- checking for empty or unneeded directories
```

```
Removed empty directory
```

```
Removed empty directory 'pisar/out'
```

```
- building 'pisar_0.1.0.9000.tar.gz'
```

```
-- Checking -----  
Setting env vars:  
* _R_CHECK_CRAN_INCOMING_REMOTE_: FALSE  
* _R_CHECK_CRAN_INCOMING_: FALSE  
* _R_CHECK_FORCE_SUGGESTS_: FALSE  
* NOT_CRAN: true  
-- R CMD check -----
```

```
Loading from R_PROFILE_USER [
```

```
Loading from R_PROFILE_USER [ C:\Users\ablejec\AppData\Local\Temp\Rtmps5W1q  
native.enc
```

```
R version 4.0.2 (2020-06-22)
```

```
R version 4.0.2 (2020-06-22)
```

```
Error in utils::assignInNamespace("q", function(save = "yes", status = 0,  
locked binding of 'q' cannot be changed  
Calls: source -> withVisible -> eval -> eval -> <Anonymous>
```

```
Execution halted
```

```
-- R CMD check results ----- pisar 0.1.0.9000 ----  
Duration: 379ms
```

```
0 errors <U+221A> | 0 warnings <U+221A> | 0 notes <U+221A>
```

2.5 Build a package

Build the package

```
> devtools::build(pkgPath, manual = TRUE, quiet = FALSE)
```

```
checking for file 'C:\__D\OMIKE\pisar/DESCRIPTION' ...
```

```
<U+221A> checking for file 'C:\__D\OMIKE\pisar/DESCRIPTION' (354ms)
```

```
- preparing 'pisar':  
  checking DESCRIPTION meta-information ...
```

```
    checking DESCRIPTION meta-information ...
```

```
<U+221A> checking DESCRIPTION meta-information
```

```
- installing the package to build vignettes
```

```
    creating vignettes ...
```

```
    creating vignettes ...
```

```
<U+221A> creating vignettes (6.2s)
```

```
- excluding invalid files  
  Subdirectory 'R' contains invalid file names:  
    '.RData' 'README.md' 'pisar-initialize.Rold'
```

```
- checking for LF line-endings in source and make files and shell scripts
```

```
- checking for empty or unneeded directories
```

Removed empty directory

Removed empty directory 'pisar/out'

- building 'pisar_0.1.0.9000.tar.gz'

```
[1] "C:/__D/OMIKE/pisar_0.1.0.9000.tar.gz"
> devtools::load_all()
Loading pisar
```

Install

```
> devtools::install(pkgPath)
utf8      (1.1.4    -> 1.2.1    ) [CRAN]
crayon     (1.3.4    -> 1.4.1    ) [CRAN]
cli        (2.2.0    -> 2.5.0    ) [CRAN]
vctrs      (0.3.6    -> 0.3.8    ) [CRAN]
rlang      (0.4.10   -> 0.4.11   ) [CRAN]
pillar     (1.4.7    -> 1.6.0    ) [CRAN]
lifecycle  (0.2.0    -> 1.0.0    ) [CRAN]
ellipsis   (0.3.1    -> 0.3.2    ) [CRAN]
stringi    (1.5.3    -> 1.6.1    ) [CRAN]
Rcpp       (1.0.5    -> 1.0.6    ) [CRAN]
tibble     (3.0.4    -> 3.1.1    ) [CRAN]
cpp11      (0.2.5    -> 0.2.7    ) [CRAN]
tidyselect (1.1.0    -> 1.1.1    ) [CRAN]
forcats    (0.5.0    -> 0.5.1    ) [CRAN]
mime       (0.9      -> 0.10     ) [CRAN]
xfun       (0.19     -> 0.22     ) [CRAN]
openssl    (1.4.3    -> 1.4.4    ) [CRAN]
curl       (4.3      -> 4.3.1    ) [CRAN]
bitops     (1.0-6    -> 1.0-7    ) [CRAN]
data.table (1.13.2   -> 1.14.0   ) [CRAN]
haven      (2.3.1    -> 2.4.1    ) [CRAN]
highr      (0.8      -> 0.9      ) [CRAN]
RCurl      (1.98-1.2 -> 1.98-1.3) [CRAN]
rio        (0.5.16   -> 0.5.26   ) [CRAN]
knitr      (1.30     -> 1.33     ) [CRAN]
Installing 25 packages: utf8, crayon, cli, vctrs, rlang, pillar, lifecycle, el
Error: (converted from warning) package 'knitr' is in use and will not be inst
> ## str(out)(shell(paste( file.path(R.home('bin'),'Rcmd.exe'), 'INSTALL
> ## --no-multiarch --with-keep.source', pkgPath) ,intern=FALSE))
```

Load

```
> devtools::load_all()
Loading pisar
> cat("Package:", pkgName, "\n")
Package: pisar
> library(pkgName, character.only = TRUE)
> help(package = (pkgName))
Warning in file.show(outFile, delete.file = TRUE, title = gettextf("Documentat
```

3 PDF documentation

```
> (pkgName <- basename(dirname(getwd())))  
[1] "pisar"  
> (instPath <- find.package(pkgName))  
[1] "C:/__D/OMIKE/pisar"  
> pdfFile <- file.path(getwd(), paste(pkgName, "pdf", sep = "."))  
> if (file.exists(pdfFile)) file.remove(pdfFile)  
> system(paste(shQuote(file.path(R.home("bin"), "R")), "CMD", "Rd2pdf", shQuote  
[1] 1  
> dir(pattern = pkgName)  
[1] "pisar-functions.Rnw"          "pisar-initialize.Rnw"  
[3] "pisar-initialize.synctex(busy)" "pisar-initialize.tex"  
[5] "pisar-makePkg.log"           "pisar-makePkg.pdf"  
[7] "pisar-makePkg.Rnw"           "pisar-makePkg.synctex"  
[9] "pisar-makePkg.tex"  
  
> help(package = (pkgName), help_type = "pdf")  
Warning in file.show(outFile, delete.file = TRUE, title = gettextf("Documentat  
  
Send package to R Windows builder  
> devtools::build_win(pkgPath)
```

SessionInfo

Windows 10 x64 (build 19042)

- R version 4.0.2 (2020-06-22), x86_64-w64-mingw32
- Locale: LC_COLLATE=Slovenian_Slovenia.1250, LC_CTYPE=Slovenian_Slovenia.1250, LC_MONETARY=Slovenian_Slovenia.1250, LC_NUMERIC=C, LC_TIME=Slovenian_Slovenia.1250
- Running under: Windows 10 x64 (build 19042)
- Matrix products: default
- Base packages: base, datasets, graphics, grDevices, methods, stats, utils
- Other packages: devtools 2.3.2, knitr 1.30, pisaR 0.1.0.9000, usethis 2.0.0
- Loaded via a namespace (and not attached): assertthat 0.2.1, bitops 1.0-6, callr 3.5.1, cellranger 1.1.0, cli 2.2.0, compiler 4.0.2, crayon 1.3.4, curl 4.3, data.table 1.13.2, desc 1.2.0, digest 0.6.27, ellipsis 0.3.1, evaluate 0.14, fansi 0.4.2, forcats 0.5.0, foreign 0.8-80, formatR 1.7, fs 1.5.0, glue 1.4.2, haven 2.3.1, hms 1.0.0, httr 1.4.2, jsonlite 1.7.2, lifecycle 0.2.0, magrittr 2.0.1, memoise 1.1.0, openxlsx 4.2.3, pillar 1.4.7, pkgbuild 1.2.0, pkgconfig 2.0.3, pkgload 1.1.0, prettyunits 1.1.1, processx 3.4.5, ps 1.5.0, purrr 0.3.4, R6 2.5.0, rcmdcheck 1.3.3, Rcpp 1.0.5, RCurl 1.98-1.2, readxl 1.3.1, remotes 2.2.0, rio 0.5.16, rlang 0.4.10, roxygen2 7.1.1, rprojroot 2.0.2, rstudioapi 0.13, sessioninfo 1.1.1, stringi 1.5.3, stringr 1.4.0, testthat 3.0.1, tibble 3.0.4, tools 4.0.2, vctrs 0.3.6, withr 2.3.0, xfun 0.19, xml2 1.3.2, xopen 1.0.0, zip 2.1.1

Project path: C:/_D/OMIKE/pisaR

Main file: ../devel/pisaR-makePkg.Rnw

View as vignette

Project files can be viewed by pasting this code to R console:

```
> projectName <-"pisaR";  mainFile <-"pisaR-makePkg"

> commandArgs ()
> library(tkWidgets)
> openPDF(file.path(dirname(getwd()), "doc",
> paste(mainFile, "PDF", sep=". ")))
> viewVignette("viewVignette", projectName, #
> file.path("../devel", paste(mainFile, "Rnw", sep=". ")))
> #
```