

Development of package **pisar**

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Contents

1	Preparation	2
2	Export as source for package	4
2.1	Extract code	4
2.2	Documentation	6
2.3	Check	7
2.4	Check results	8
2.5	Build a package	10
3	PDF documentation	12

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" "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

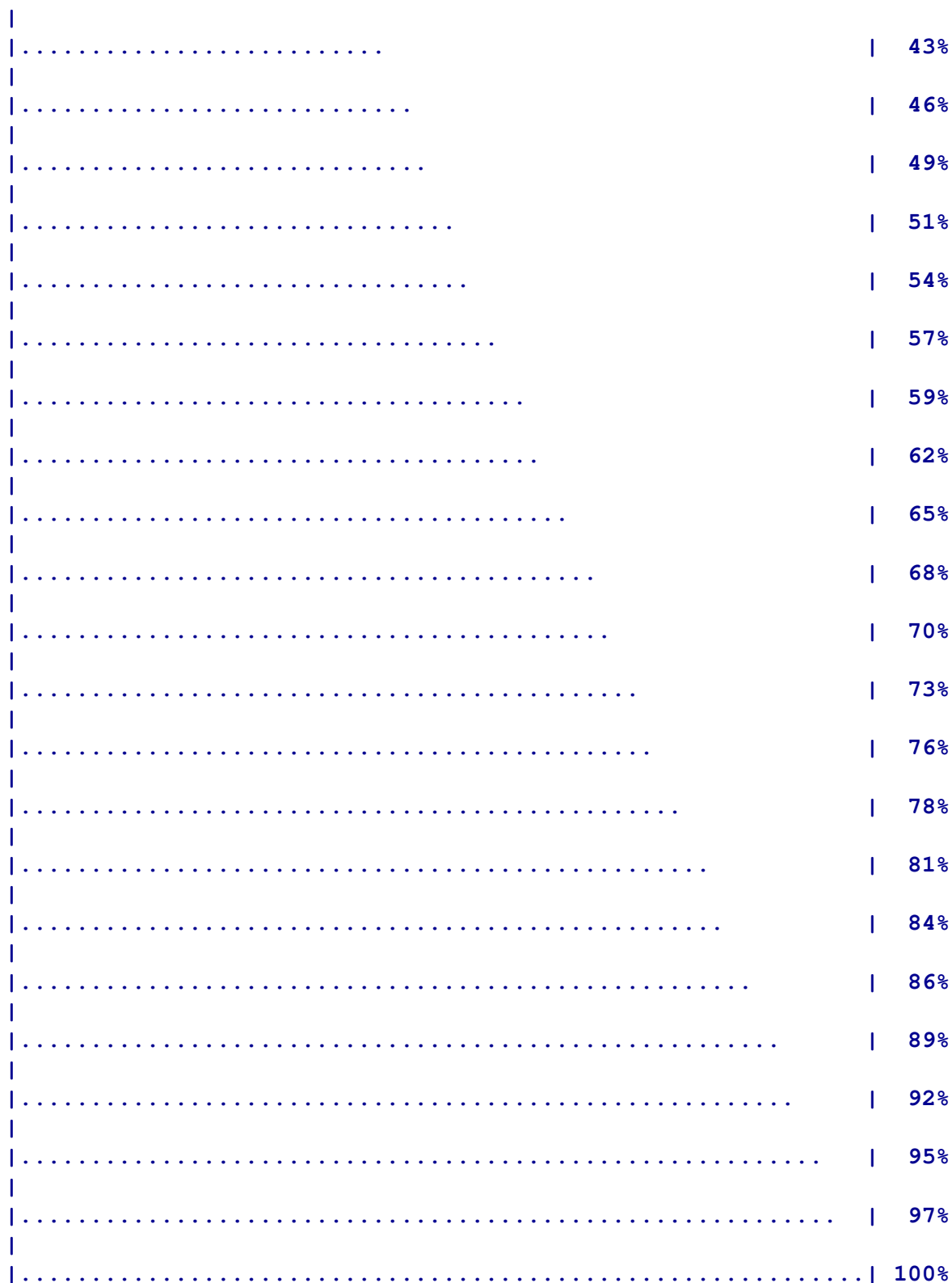
Code is extracted to `pkgPath`.

```
> 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 pizar documentation
Loading pizar
Warning in setup_ns_exports(path, export_all, export_imports): Objects listed
Writing NAMESPACE
Writing NAMESPACE
> usethis::use_package("knitr")
Setting active project to 'C:/__D/OMIKE/pizar'
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

Warning in setup_ns_exports(path, export_all, export_imports): Objects listed

user	system	elapsed
0.33	0.05	0.38

2.4 Check results

```
> check()
Updating pisar documentation
Loading pisar
Warning in setup_ns_exports(path, export_all, export_imports): Objects listed
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' (403ms)

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

    checking DESCRIPTION meta-information ...

<U+221A>  checking DESCRIPTION meta-information

-   installing the package to build vignettes

-----

-   installing *source* package 'pisar' ...
    ** using staged installation
    ** R
    ** data
    *** moving datasets to lazyload DB
    ** inst
    ** byte-compile and prepare package for lazy loading
    ** help
    *** installing help indices
        converting help for package 'pisar'
          finding HTML links ... done
          fileName                      html
          fileType                      html
          fsummary                      html
          getLayer                     html
```



```

        getMeta                html
        getRoot                html
        out.path               html
        pasteMeta              html
        pisa                   html
        pisar                   html
        print.pISAMeta         html
        readMeta               html
    ** building package indices
    ** installing vignettes
    ** testing if installed package can be loaded from temporary location
Error: package or namespace load failed for 'pisar' in namespaceExport(ns,
  undefined exports: getMeta.list
Error: loading failed
Execution halted
ERROR: loading failed
- removing 'C:/Users/ablejec/AppData/Local/Temp/Rtmp8cqwOg/Rinst29748419e4de4
  -----
  ERROR: package installation failed

Error in (function (command = NULL, args = character(), error_on_status = TRUE
E> * checking for file 'C:\_D\OMIKE\pisar/DESCRIPTION' ... OK
E> * preparing 'pisar':
E> * checking DESCRIPTION meta-information ... OK
E> * installing the package to build vignettes
E> -----
E> * installing *source* package 'pisar' ...
E> ** using staged installation
E> ** R
E> ** data
E> *** moving datasets to lazyload DB
E> ** inst
E> ** byte-compile and prepare package for lazy loading
E> ** help
E> *** installing help indices
E>   converting help for package 'pisar'
E>     finding HTML links ... done
E>     fileName                html
E>     fileType                html
E>     fsummary                html
E>     getLayer                html
E>     getMeta                 html
E>     getRoot                 html
E>     out.path                html
E>     pasteMeta               html
E>     pisa                    html
E>     pisar                    html
E>     print.pISAMeta          html
E>     readMeta                html
E> ** building package indices
E> ** installing vignettes
E> ** testing if installed package can be loaded from temporary location

```

```
E> Error: package or namespace load failed for 'pisar' in namespaceExport(ns,  
E>   undefined exports: getMeta.list  
E> Error: loading failed  
E> Execution halted  
E> ERROR: loading failed  
E> * removing 'C:/Users/ablejec/AppData/Local/Temp/Rtmp8cqwoG/Rinst29748419e4d  
E> -----  
E> ERROR: package installation failed
```

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' (377ms)
```

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

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

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

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

```
-----
```

```
- installing *source* package 'pisar' ...  
  ** using staged installation  
  ** R  
  ** data  
  *** moving datasets to lazyload DB  
  ** inst  
  ** byte-compile and prepare package for lazy loading  
  ** help  
  *** installing help indices  
    converting help for package 'pisar'  
      finding HTML links ... done  
      fileName                html  
      fileType                html  
      fsummary                html  
      getLayer                html  
      getMeta                 html  
      getRoot                 html  
      out.path                html  
      pasteMeta               html  
      pisa                    html  
      pisar                   html  
      print.pISAMeta          html  
      readMeta                html
```

```

** building package indices
** installing vignettes
** testing if installed package can be loaded from temporary location
Error: package or namespace load failed for 'pisar' in namespaceExport(ns,
  undefined exports: getMeta.list
Error: loading failed
Execution halted
ERROR: loading failed
- removing 'C:/Users/ablejec/AppData/Local/Temp/RtmpU9wiG7/Rinst2a6ac20e31259
-----
ERROR: package installation failed

Error in (function (command = NULL, args = character(), error_on_status = TRUE
E> * checking for file 'C:\_D\OMIKE\pisar\DESCRIPTION' ... OK
E> * preparing 'pisar':
E> * checking DESCRIPTION meta-information ... OK
E> * installing the package to build vignettes
E> -----
E> * installing *source* package 'pisar' ...
E> ** using staged installation
E> ** R
E> ** data
E> *** moving datasets to lazyload DB
E> ** inst
E> ** byte-compile and prepare package for lazy loading
E> ** help
E> *** installing help indices
E>   converting help for package 'pisar'
E>     finding HTML links ... done
E>     fileName                               html
E>     fileType                               html
E>     fsummary                               html
E>     getLayer                               html
E>     getMeta                                html
E>     getRoot                                html
E>     out.path                               html
E>     pasteMeta                              html
E>     pisa                                   html
E>     pisar                                  html
E>     print.pISAMeta                         html
E>     readMeta                               html
E> ** building package indices
E> ** installing vignettes
E> ** testing if installed package can be loaded from temporary location
E> Error: package or namespace load failed for 'pisar' in namespaceExport(ns,
E>   undefined exports: getMeta.list
E> Error: loading failed
E> Execution halted
E> ERROR: loading failed
E> * removing 'C:/Users/ablejec/AppData/Local/Temp/RtmpU9wiG7/Rinst2a6ac20e312
E> -----
E> ERROR: package installation failed

```

```

> devtools::load_all()
Warning in setup_ns_exports(path, export_all, export_imports): Objects listed
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 15 packages: utf8, crayon, cli, vctrs, rlang, pillar, lifecycle, ellipsis, stringi, Rcpp, tibble, cpp11, tidyselect, forcats, mime
Warning in file.show(outfile, delete.file = TRUE, title = gettextf("Documentat
> ## str(out)(shell(paste( file.path(R.home("bin"), Rcmd.exe), "INSTALL
> ## --no-multiarch --with-keep.source', pkgPath) ,intern=FALSE))

```

Load

```

> devtools::load_all()
Warning in setup_ns_exports(path, export_all, export_imports): Objects listed
Package: Package, pkgName, (in )
> library(pkgName, character.only = TRUE)
> help(package = (pkgName))
Warning in file.show(outfile, delete.file = TRUE, title = gettextf("Documentat

```

3 PDF documentation

```

[1] (pkgName <- basename(dirname(getwd())))
[1] instPath <- find.package(pkgName)
[1] pdfFile <- file.path(getwd(), paste(pkgName, "pdf", sep = "."))
> if (file.exists(pdfFile)) file.remove(pdfFile)
[1] system(paste(shQuote(file.path(R.home("bin"), "R")), "CMD", "Rd2pdf", shQuote
[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, 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, 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=". ")))
> #
```