Problems and Solutions to Compile a PDF Version of Advanced R

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In order to compile Advanced R into a PDF, I installed the MiKTex and Rmarkdown packages before compiling (Note: added a path in the system settings).

Download the Source:

https://github.com/hadley/adv-r/archive/master.zip

Install R Package dependencies

```r
devtools::install_github("hadley/sloop")
devtools::install_github("hadley/emo")
```

Compile the book

```r
bookdown::render_book("index.Rmd", output_format = "bookdown::pdf_book")
```

During the building process, I've met several problems, the followings are the errors I've met and how I solved them.

rlang0.4.0

```r
knitr::include_graphics("C:/Users/dell/Desktop/adv-r/error/1.PNG")
```

```
> devtools::install_github("hadley/emo")
Error: loadNamespace()里算'pkgload'时.onLoad失败了，详细内容:
  调用: loadNamespace(i, c(lib.loc, .libPaths()), versionCheck = vI[[i]])
  错误: 载入了名字空间'rlang' 0.4.0，但需要的是>= 0.4.1
>
```

To solve it, I removed `rlang` and then reinstalled it.

```r
remove.packages("rlang")
install.packages("munsell")
install.packages("rlang")
```

Failed to install "emo" from Github:

```r
knitr::include_graphics("C:/Users/dell/Desktop/adv-r/error/2.PNG")
```

```
Error: Failed to install 'emo' from GitHub:
  schannel: failed to receive handshake, SSL/TLS connection failed
```

To solve this problem,I executed the following command in Git.

```
$ git config --global http.sslBackend "openssl"
$ git config --global http.sslCAInfo E:/R/R-3.6.1/library/openssl/cacert.pem
```

Quitting from lines 223-235 (Introduciton.Rmd)

```
knitr::include_graphics("C:/Users/dell/Desktop/adv-r/error/3.PNG")
```

```
Quitting from lines 223-235 (Introduction.Rmd)
Error in cat(paste0(contributors$desc, collapse = ", ")) :
  '<86>,<4e>A (\@kfeng123), Karl Forner (\@kforner), Kirill Sevastyanenk
o (\@kirillseva), Brian Knaus (\@knausb), Kirill M眉ller (\@krlmlr), Krit
i Sen Sharma (\@ksens), Kai Tang (鎭愭伆锛<89>,NA (\@ktang), Kevin Wright
 (\@kwstat), suo.lawrence.liu@gmail.com (\@Lawrence-Liu), \@ldfmrails, K
evin Kainan Li (\@legendre6891), Rachel Severson (\@leighseverson), Laur
ent Gatto (\@lgatto), C. Jason Liang (\@liangcj), Steve Lianoglou (\@lia
nos), Yongfu Liao (\@liao961120), Likan (\@likanzhan), \@lindbrook, Ling
bing Feng (\@Lingbing), Marcel Ramos (\@LiNk-NY), Zhongpeng Lin (\@linzh
p), Lionel Henry (\@lionel-), Llu锎s (\@llrs), myq (\@lrcg), Luke W Johns
ton (\@lwjohnst86), Kevin Lynagh (\@lynaghk), \@MajoroMask, Malcolm Barr
ett (\@malcolmbarrett), \@mannyishere, \@mascaretti, Matt (\@mattbaggot
t), Matthew Grogan (\@mattgrogan), \@matthewhillary, Matthieu Gomez (\@m
atthieugomez), Matt Malin (\@mattmalin), Mauro Lepore (\@maurolepore), M
ax Ghenis (\@MaxGhenis), Maximilian Held (\@maxheld83), M
Calls: local ... withCallingHandlers -> withVisible -> eval -> eval -> c
at

停止执行
Error in Rscript_render(f, render_args, render_meta, add1, add2) :
  Failed to compile Introduction.Rmd
>
```

Adding `encoding = "UTF-8"` in line 224 can fix it. The line 224 is displayed as

```
contributors <- read.csv("contributors.csv", stringsAsFactors = FALSE,encoding = "UTF-8")
```

Missing Packages

Most of the warnings are packages missing. Use install.packages() to solve this kind of problem. The packages I installed during the process are glue, lubridate, purr, stringing, Rcpp, tinytex, dbplyr, etc.

Fonts cannot be found

```
knitr::include_graphics("C:/Users/dell/Desktop/adv-r/error/4.PNG")
```

```
! Package fontspec Error: The font "Inconsolata" cannot be found.

! Sorry, but miktex-makemf did not succeed.

! The log file hopefully contains the information to get MiKTeX going again:

!   C:\Users\dell\AppData\Local\MiKTeX\2.9\miktex\log\miktex-makemf.log

! hbf2gf (CJK ver. 4.8.4)

! Couldn't open `Inconsola.cfg'

! Sorry, but miktex-maketfm did not succeed.

! The log file hopefully contains the information to get MiKTeX going again:

!   C:\Users\dell\AppData\Local\MiKTeX\2.9\miktex\log\miktex-maketfm.log

����: LaTeX failed to compile _main.tex. See https://yihui.org/tinytex/r/#debugging for
 debugging tips. See _main.log for more info.
ꞌ��

Exited with status 1.
```

I downloaded the font `Inconsolate` and `Andale Mono` from the internet.

After solving these problems, the book was successfully built.