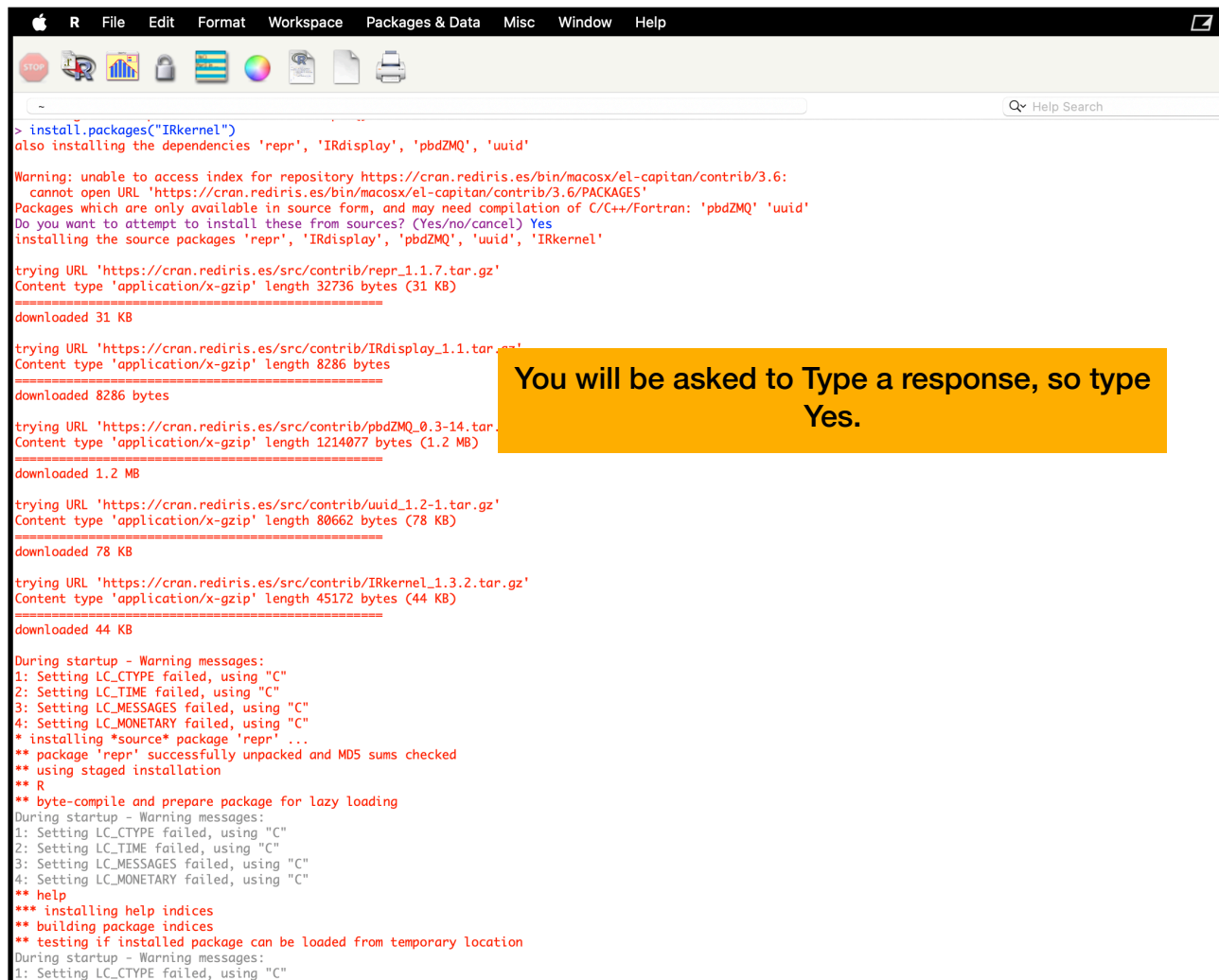


# How to register R kernel with Jupyter?

1. Open R Console or R Studio and run the following command:  
`install.packages("IRkernel")`



The screenshot shows the R Studio interface with the console open. The command `install.packages("IRkernel")` has been executed. The console output shows the installation of the IRkernel package and its dependencies: repr, IRdisplay, pbdZMQ, and uuid. The installation process involves downloading source packages from CRAN. A yellow callout box with the text "You will be asked to Type a response, so type Yes." is overlaid on the console output. The console output also shows warning messages about the inability to access the CRAN index for the repository and the need to compile C/C++/Fortran code. The installation of the IRkernel package is successful, and the console shows the final message: "Installing package into 'C:/Users/liyaung/AppData/Local/Programs/R/Rlib'" (Note: the screenshot shows a Mac path, but the text in the image is "C:/Users/liyaung/AppData/Local/Programs/R/Rlib").

```
> install.packages("IRkernel")
also installing the dependencies 'repr', 'IRdisplay', 'pbdZMQ', 'uuid'

Warning: unable to access index for repository https://cran.rediris.es/bin/macosx/el-capitan/contrib/3.6:
cannot open URL 'https://cran.rediris.es/bin/macosx/el-capitan/contrib/3.6/PACKAGES'
Packages which are only available in source form, and may need compilation of C/C++/Fortran: 'pbdZMQ' 'uuid'
Do you want to attempt to install these from sources? (Yes/no/cancel) Yes
installing the source packages 'repr', 'IRdisplay', 'pbdZMQ', 'uuid', 'IRkernel'

trying URL 'https://cran.rediris.es/src/contrib/repr_1.1.7.tar.gz'
Content type 'application/x-gzip' length 32736 bytes (31 KB)
=====
downloaded 31 KB

trying URL 'https://cran.rediris.es/src/contrib/IRdisplay_1.1.1.tar.gz'
Content type 'application/x-gzip' length 8286 bytes
=====
downloaded 8286 bytes

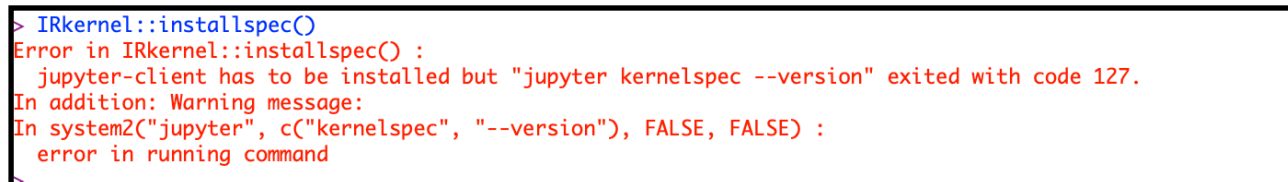
trying URL 'https://cran.rediris.es/src/contrib/pbdZMQ_0.3-14.tar.gz'
Content type 'application/x-gzip' length 1214077 bytes (1.2 MB)
=====
downloaded 1.2 MB

trying URL 'https://cran.rediris.es/src/contrib/uuid_1.2-1.tar.gz'
Content type 'application/x-gzip' length 80662 bytes (78 KB)
=====
downloaded 78 KB

trying URL 'https://cran.rediris.es/src/contrib/IRkernel_1.3.2.tar.gz'
Content type 'application/x-gzip' length 45172 bytes (44 KB)
=====
downloaded 44 KB

During startup - Warning messages:
1: Setting LC_CTYPE failed, using "C"
2: Setting LC_TIME failed, using "C"
3: Setting LC_MESSAGES failed, using "C"
4: Setting LC_MONETARY failed, using "C"
** installing *source* package 'repr' ...
** package 'repr' successfully unpacked and MD5 sums checked
** using staged installation
** R
** byte-compile and prepare package for lazy loading
During startup - Warning messages:
1: Setting LC_CTYPE failed, using "C"
2: Setting LC_TIME failed, using "C"
3: Setting LC_MESSAGES failed, using "C"
4: Setting LC_MONETARY failed, using "C"
** help
*** installing help indices
** building package indices
** testing if installed package can be loaded from temporary location
During startup - Warning messages:
1: Setting LC_CTYPE failed, using "C"
```

2. Installation will proceed, wait a moment
3. Open R Console or R Studio and run the second command:  
`IRkernel::installspec()`

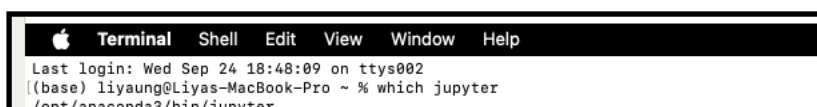


The screenshot shows the R Studio console with the command `IRkernel::installspec()` entered. The console output shows an error message: "Error in IRkernel::installspec() : jupyter-client has to be installed but 'jupyter kernelspec --version' exited with code 127." followed by a warning message: "In addition: Warning message: In system2C('jupyter', c('kernelspec', '--version'), FALSE, FALSE) : error in running command".

```
> IRkernel::installspec()
Error in IRkernel::installspec() :
  jupyter-client has to be installed but "jupyter kernelspec --version" exited with code 127.
In addition: Warning message:
In system2C("jupyter", c("kernelspec", "--version"), FALSE, FALSE) :
  error in running command
```

4. Make sure Jupyter is installed. Now help R Console to find the Jupyter path. Open Terminal in your Mac and type:

which jupyter



The screenshot shows a Mac Terminal window with the command `which jupyter` entered. The output of the command is `/opt/anaconda3/bin/jupyter`.

```
Terminal Shell Edit View Window Help
Last login: Wed Sep 24 18:48:09 on ttys002
liyaung@Liyas-MacBook-Pro ~ % which jupyter
/opt/anaconda3/bin/jupyter
```

5. Now type the path you found into the previous R command and run it in R Console:

```
Sys.setenv(PATH = paste(Sys.getenv("PATH"), "/opt/anaconda3/bin", sep = ":"))  
IRkernel::installspec()
```

```
> Sys.setenv(PATH = paste(Sys.getenv("PATH"), "/opt/anaconda3/bin", sep = ":"))  
> IRkernel::installspec()  
>
```

If no Error the R kernel should be available in Jupyter.

6. Close Jupyter. In MAC Terminal open Jupyter via running the following command:

```
jupyter notebook
```

