

Road to install pyRserve and Rserve to connect Python and R

Installing pyRserve for Mac OSX or for Linux for Python 2.7

at <http://packages.python.org/pyRserve/>
look at Quick Installation

Make sure that Numpy is installed; to install it
from the terminal (see note1 and note2):

```
sudo easy_install Numpy
```

(Mac OSX users, pay attention, July 2013, with Python 2.7.5 the simple way of installing written above installs a not working version of Numpy, generating errors when starts; from download <http://sourceforge.net/projects/numpy/files/NumPy/> a recent version of Numpy for Python 2.7, with a macosx number close to your version of Mac OSX; e.g. with OSX 10.8.4 install [numpy-1.7.1-py2.7-python.org-macosx10.6.dmg](#) ; the dmg files installation is usual in Mac systems)

then

```
sudo easy_install pyRserve
```

(note1)

if easy_install does not exist in your Linux box, in Ubuntu-like distribution use
`sudo apt-get install python-setuptools`
in other distribution, use the preferred installation procedure

(note2)

if `sudo easy_install pyRserve`
does not work in your Linux box, follow:
download `pyRserve-0.5.2.tar.gz`
from <http://pypi.python.org/pypi/pyRserve/#downloads>
mount the file (which is a compressed archive) and then within the new created folder
`pyRserve-0.5.2`
run
`sudo python2.7 setup.py install`

Installing pyRserve in Windows for Python 2.7

NB, use Python 2.7 32bit version to have the possibility of using Numpy 32bit; e.g. (April 2013), at <http://www.python.org/download/> chose Python 3.3.1 Windows x86 MSI Installer and not Python 3.3.1 Windows X86-64 MSI Installer

You need to have `python-setuptools` for Python 2.7 installed

from
<http://pypi.python.org/pypi/setuptools#windows>
download
`setuptools-0.6c11.win32-py2.7.exe`
and run it

then, in Command Prompt (the Windows program opening a black window)

```
cd \Python27\Scripts\
```

```
C:\Python27\Scripts>easy_install Numpy  
C:\Python27\Scripts>easy_install.exe pyRserve
```

Installing Rserve in Mac OSX, in Linux and in Windows for Python 2.7 [you can also use Rserve online, but without the graphic part; in case, ask to Pietro Terna]

Rserve is at <http://www.rforge.net/Rserve/>

Within R (try to use USA (WA 1) as Cran mirror when asked; on April 14th 2012, it worked perfectly)

```
> install.packages("Rserve")
```

you are asked for a CRAN server, chose into a list

maybe your system will ask permission to create a folder; allow it

Launching Rserve (any System)

always within R

```
>library(Rserve)
```

```
>Rserve()
```

```
  >Rserve(args="--no-save") in Mac OSX
```

now you can quit R

```
>q()
```

in Windows

Rserve

when executed, can ask (only once for ever) to reply to a firewall screen, with yes to all the options

Interaction between Python and R

Interactive example in the IDLE shell

```
>>> import pyRserve
```

```
>>> conn = pyRserve.connect(host="localhost")
```

```
>>> conn
```

```
<Handle to Rserve on localhost:6311>
```

```
>>> conn.r("33+2")
```

```
35.0
```

```
>>> conn.close()
```

```
>>> conn
```

```
<Closed handle to Rserve on localhost:6311>
```

```
>>>
```

most important, [read](http://packages.python.org/pyRserve/manual.html)

<http://packages.python.org/pyRserve/manual.html>

look at the example

f2_InteractingBuyersAndSellersRserveVersFor_Py2.7.py

in our Python repository at

http://eco83.econ.unito.it/terna/simoec13/Python_examples/

stopping Rserve (daemon) which wait for messages to be addressed to R

in Mac, use the Monitor (is in the Utility apps) and close the process Rserve-bin.so

in Linux (via terminal) find the Rserve-bin.so process number with

```
ps x
```

suppose that the process number is 111, finally use

```
kill 111
```

in Windows find the process Rserve with Alt+Ctrl+Del

go to Windows Task Manager

and then

in Processes

stop

Rserve

ANYWAY you can have the Rserve process running in memory without any problem; its consumes an irrelevant quota of the CPU time.