

Calling Custom functions from Python using rpy2

Asked 6 years, 6 months ago Active 3 years, 10 months ago Viewed 8k times

▲ Is there a way to call functions defined in a file say myfunc.r

11
▼

```
-----myfunc.r -----
myfunc = function(){
  return(c(1,2,3,4,5,6,7,8,9,10))
}

★
5  getname = function(){
    return("chart title")
  }

---- Python
    How to call getname() here ?
```

Any help would be greatly appreciated ?

[python](#) [r](#) [rpy2](#)

asked Mar 14 '13 at 20:41

 [user2171582](#)
56 1 6

Why do you define myfunc here? – [agstudy](#) Mar 14 '13 at 20:51

@agstudy: just an example showing that the file can contain several functions, I think. – [lgautier](#) Mar 15 '13 at 14:09

3 Answers

▲ The are features in rpy2 that should help making this cleaner than dumping objects into the global workspace.

14
▼

```
from rpy2.robjects.packages import STAP
# if rpy2 < 2.6.1 do:
# from rpy2.robjects.packages import SignatureTranslatedAnonymousPackage
# STAP = SignatureTranslatedAnonymousPackage
with open('myfunc.r', 'r') as f:
    string = f.read()
myfunc = STAP(string, "myfunc")
```

The objects in the R file can now be accessed with myfunc.myfunc and myfunc.getname .

Check the documentation about [importing arbitrary R code as a package](#) (older doc [here](#)).

edited Nov 23 '15 at 4:11

answered Mar 15 '13 at 14:06

 [lgautier](#)
9,284 21 39

SignatureTranslatedAnonymousPackage The name is a little bit long I think..for R and python developers:) – [agstudy](#) Mar 15 '13 at 14:12

Yes, may be on the Java extravaganza end of the naming spectrum but still under 140 characters ;-). A shorter class name while keeping it clear would mean introducing a subpackage. Suggestions for names are also welcome. – [lgautier](#) Mar 15 '13 at 14:25

Of course I came from the .net world and I know what you mean. rpy2 is a great work. I appreciate. +1.. long name but clean solution! I think you can just add import SignatureTranslatedAnonymousPackage as STAP for example... – [agstudy](#) Mar 15 '13 at 14:28

1 @agstudy: I edited the code snippet; now the real class name is written only once – [lgautier](#) Mar 15 '13 at 21:15

string = ".join(f.readlines()) will give errors. What you should do for R version 3.2.0 (at the time of writing) is like this string = f.read().replace("\n", " ") – [momokjaaaaa](#) Jun 9 '15 at 9:21

▲ You can do something like this (python code here)

8
▼


```
import rpy2.robjects as robjects
robjects.r('''
    source('myfunc.r')
''')

r_getname = robjects.globalenv['getname']
```

then you call it

```
r_getname()
```

answered Mar 14 '13 at 20:50

 [agstudy](#)
103k 11 153 217

This still worked for me in 2016 with R=3.2.2 and rpy2=2.7.0 :) – [Sudipta Basak](#) Mar 8 '16 at 22:43

▲ I'd suggest to use what [user3282437](#) suggested [here](#):

1
▼

```
import rpy2.robjects as robjects
r_source = robjects.r['source']
```

I'm not sure that it's a global issue, but on my Windows machine direct call like **agstudy** advised:

```
import rpy2.robjects as robjects
robjects.r('source("some_file.R")')
```

leads to python crash.

edited May 23 '17 at 12:02



Community ♦

1 1

answered Jun 1 '14 at 14:23



Dmitry Deryabin

635 7 16