
Subject: interface with R
Posted by [typhoong](#) on Sat, 19 Mar 2011 12:16:40 GMT
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hi, i have written a lot of codes using the open source statistical package R.

i want to build a GUI using U++ and do the calculations using the R codes.

so i think i need some kind of "interface" or "library" so that U++ can communicate with R and vice versa.

can you tell me what i need and how i can find it??

i have already looked at the libraries of R provided but i cannot find anything useful.

thanks a lot.

graham

Subject: Re: interface with R
Posted by [koldo](#) on Sat, 19 Mar 2011 17:41:56 GMT
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Hello Graham

The Project R has GPL 2 license.

What features are you using from it?

Subject: Re: interface with R
Posted by [typhoong](#) on Mon, 21 Mar 2011 06:37:36 GMT
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hello koldo

thanks for reply but i do not fully understand the gpl license u mentioned. does that mean i cannot use R codes with U++??

i know this software
<http://www.sander-partner.ch/en/mintfeatures.html>

uses U++ for GUI and R for doing the calculation. And i am starting to think about doing similar things.

u asked the features i use for R, they are basic R codes and ggplot2 library for plotting graphs.

please advise.

graham

Subject: Re: interface with R

Posted by [koldo](#) on Mon, 21 Mar 2011 07:27:55 GMT

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Hello Graham

Quote:i do not fully understand the gpl license

In summary it means that if you include R in a commercial program all your source code has to be public .

Quote:i know this software

<http://www.sander-partner.ch/en/mintfeatures.html>

Oh, U++ application for Windmill is going to be widespread .

What are R codes?

Subject: Re: interface with R

Posted by [typhoong](#) on Mon, 21 Mar 2011 11:59:13 GMT

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hi, I don't exactly what the R codes are but the company told me they use R to do the calculation and produce these plots:

<http://www.sander-partner.ch/images/mint/BootStrap.png>

<http://www.sander-partner.ch/images/mint/HourlyCycle.png>

<http://www.sander-partner.ch/images/mint/Vertical.png>

but on their home page, it does not say if you buy the software, they will making their R codes open, does that mean they are violating the license rules? or they have to make open if someone request it?

anyway, i am still trying to find the interface between ultimate++ and R, do you know?

graham

Subject: Re: interface with R
Posted by [dolik.rce](#) on Mon, 21 Mar 2011 12:46:02 GMT
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Hi Graham,

I didn't read the web you linked to carefully, but AFAIK using R in this context can actually mean two things: 1) They are using some R C/C++/... interface or 2) they could be just calling external tools coming from R project. If you don't need some high-speed computing the second option is actually fine enough and it also bypasses the problems accompanied with using GPL licensed software.

If you desire to use C++ interface to R there is a project called Rcpp, which provides just that. It is probably the closest you can get to U++ binding. Unless you decide to write one yourself (And even if you do that, looking at Rcpp code might be very helpful...)

Best regards,
Honza

Subject: Re: interface with R
Posted by [koldo](#) on Mon, 21 Mar 2011 13:04:27 GMT
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Hello Graham

They are probably doing it right.

Although R package is GPL-2, some header files are distributed under LGPL-2.1. (see <http://www.r-project.org/Licenses/> and <https://svn.r-project.org/R/trunk/doc/COPYRIGHTS>):

- src/include/R.h
- src/include/Rdefines.h
- src/include/Rgraphics.h
- src/include/Rinternals.h
- src/include/Rmath.h
- src/include/S.h
- src/include/R_ext/*.h

LGPL license permits use in proprietary programs calling the code through dynamic libraries (dlls in Windows).

If the functions you need are fully in .h files, probably their integration in U++ will be very easy, just

adding the #includes.

Make a simple test and be sure that all .h files are accessible in TheIDE Setup/Build methods/Include directories.

Subject: Re: interface with R

Posted by [koldo](#) on Mon, 21 Mar 2011 13:05:38 GMT

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And about plots, if you do not need very special ones, they can be added to Scatter.

Subject: Re: interface with R

Posted by [typhoong](#) on Tue, 22 Mar 2011 04:02:26 GMT

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koldo and honza,

thanks for all the tips, i will give it a try !

graham
