Subject: PlotCtrl revisited
Posted by dolik.rce on Thu, 12 Aug 2010 05:16:10 GMT

Hello all

I finally got time to finish some of my ideas on PlotCtrl and PlotLib. I brought the code to state where I am not ashamed of it, at least for most of the parts The interfaces are mature now and the code style got quite close to u++ standards.

I am not even sure what everything changed since last time, so I try to really quickly sum up all the features...

 PlotCtrl allows graphical presentation of XY data
 LegendCtrl shows legend based on data in associated PlotCtrl
 PlotStyleDlg lets user dynamically change the properties (title, color, symbol, ...) of any series in associated PlotCtrl.
 PlotCtrl provides easy handling of the view area using mouse.
 User can define his own PlotSymbol just by inheriting from WithPlotSymbol<> templated class and overiding one virtual function.
 PlotLib is an underlaying package that takes care over all the rendering using Painter. It can be used separately to create plots and render them to image files (thanks to Painter it works even on headless machines without X server).
 The axis on the plots are quite unusual and still need some attention, but they represent my idea how scientific data in various ranges should be handled...

I'm pretty sure I forgot something important as always... You should get better idea if you have a look at the example apps, PlotLibExample and PlotCtrlExample, that are included

It still needs some work, but I think I could finally upload it to bazaar now.

Best regards,
Honza


```
File Attachments
```
1) PlotCtrl.zip, downloaded 414 times

Subject: Re: PlotCtrl revisited
Posted by dolik.rce on Thu, 12 Aug 2010 05:19:55 GMT

PS: To show something closer to real time usage, here is a simple tool to show multiple graphs loaded from XY data files from disk. I added #ifdef-ed demo mode where some suitable files are

created first and opened automatically, so you have something to play with

Honza

File Attachments
1) Grapher.zip, downloaded 388 times

Subject: Re: PlotCtrl revisited
Posted by jerson on Thu, 12 Aug 2010 05:47:00 GMT
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Excellent work. I am getting addicted to UPP.

Thanks

Subject: Re: PlotCtrl revisited
Posted by koldo on Thu, 12 Aug 2010 14:22:14 GMT
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Hello Honza

Good job.

I would prefer a Plot3DCtrl but anyway, it shows how U++ is so powerful.

Subject: Re: PlotCtrl revisited
Posted by dolik.rce on Thu, 12 Aug 2010 17:43:57 GMT
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koldo wrote on Thu, 12 August 2010 16:22Hello Honza

Good job.

I would prefer a Plot3DCtrl but anyway, it shows how U++ is so powerful.

I wrote some code displaying and manipulating series of data in 3D few years ago... Thinking about it, it must have been quite long ago, it was in pascal/Lazarus Maybe I could find some of it and rewrite it to U++. But I never did any support for planes

Honza

Subject: Re: PlotCtrl revisited

Posted by kohait00 on Tue, 31 Aug 2010 08:40:58 GMT
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impressing..

what will happen to Scatter

Subject: Re: PlotCtrl revisited
Posted by dolik.rce on Tue, 31 Aug 2010 16:59:23 GMT
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kohait00 wrote on Tue, 31 August 2010 10:40impressing..

what will happen to Scatter
Thanks Kohait

Scatter and PlotCtrl will live happily side by side There are things that PlotCtrl can't do and
Scatter can and vice versa. It will be always up to the programmer to choose which one suits his
needs better.

Honza

Subject: Re: PlotCtrl revisited
Posted by kohait00 on Tue, 31 Aug 2010 20:05:14 GMT
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merging isnt bad either. i havent taken much insight into PlotCtrl yet..it seems more potent..

Subject: Re: PlotCtrl revisited
Posted by dolik.rce on Wed, 01 Sep 2010 08:45:41 GMT
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kohait00 wrote on Tue, 31 August 2010 22:05merging isnt bad either. i havent taken much insight
into PlotCtrl yet..it seems more potent..
I'm against merging those two. They can borrow ideas or even code from each other, but they
have different purpose. Scatter is a full-blown widget, while PlotCtrl is only simple graphical
extension of PlotLib. And PlotLib has much wider use than displaying data on screen

Honza

Subject: Re: PlotCtrl revisited
Posted by kohait00 on Wed, 01 Sep 2010 09:02:09 GMT

ok, that clears it up, in terms of usage, thanks..

Subject: Re: PlotCtrl revisited
Posted by koldo on Wed, 01 Sep 2010 10:10:23 GMT

I agree.

Subject: Re: PlotCtrl revisited
Posted by kohait00 on Wed, 01 Dec 2010 10:46:55 GMT

PlotCtrl and PlotLib still not in bazaar...any reason why?

Subject: Re: PlotCtrl revisited
Posted by dolik.rce on Wed, 01 Dec 2010 11:38:49 GMT

kohait00 wrote on Wed, 01 December 2010 11:46PlotCtrl and PlotLib still not in bazaar...any reason why?
Hello Kohait,
I think the only reason is that I never put it there I think no one so far was interested enough to make me do it I'll check if I have rights to commit to bazaar and upload it later today...

Honza

Subject: Re: PlotCtrl revisited
Posted by kohait00 on Wed, 01 Dec 2010 11:47:29 GMT

that'd be well, i could empty my own nest then a bit

Subject: Re: PlotCtrl revisited
Posted by dolik.rce on Wed, 01 Dec 2010 12:29:13 GMT

Committed. It lacks any documentation at the moment, but I'll try to fix that ASAP. I think you know how to use it anyway and at least the example code is commented.

Also looking at it now, it reminded me, that the axis drawing needs to be rewritten I got few ideas and hope I get some time to implement them soon...

BTW: Do you use it for something interesting? I am very interested

Best regards,
Honza

Subject: Re: PlotCtrl revisited
Posted by kohait00 on Wed, 01 Dec 2010 12:32:30 GMT
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i will be using it actually..
got some own classes i posted here in forum time ago..
but i am rather disappointed, cause they have been made of stich work..so building up from scratch will be a must.

it'll be for a parametrisation graph in audio section, system response, frequency, gain, quality of filters etc..

BTW: what happened to Grapher, the cool test app for PlotCtrl?
will you commit it too?

Subject: Re: PlotCtrl revisited
Posted by dolik.rce on Wed, 01 Dec 2010 13:33:39 GMT
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kohait00 wrote on Wed, 01 December 2010 13:32it'll be for a parametrisation graph in audio section, system response, frequency, gain, quality of filters etc..
Seems interesting, if you need some generalizations to PlotLib to make it more universal and fit your needs, don't hesitate to contact me

kohait00 wrote on Wed, 01 December 2010 13:32BTW: what happened to Grapher, the cool test app for PlotCtrl?
will you commit it too?
I believe that it has been renamed to PlotCtrlExample And it is available in bazaar too.

Honza

Subject: Re: PlotCtrl revisited
Posted by kohait00 on Wed, 01 Dec 2010 15:57:29 GMT
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ahh..i see..

BUT:
Grapher used to open things from file..PlotCtrlExample cant..
sure that its the same?

Subject: Re: PlotCtrl revisited
Posted by dolik.rce on Wed, 01 Dec 2010 17:56:48 GMT
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kohait00 wrote on Wed, 01 December 2010 16:57ahh..i see..
BUT:
Grapher used to open things from file..PlotCtrlExample cant..
sure that its the same?
Oh, I see Sure, I was wrong, it is another project But I think it doesn't really fit into bazaar, as it is
a full app, with quite specific purpose. The archive few posts above is actually up-to-date, I haven't
done any work on it since I post it (I had to do something else and then completely forgot about it
).

Honza