Subject: How to show the plot of a function
Posted by forlano on Sat, 17 Jun 2006 17:15:48 GMT
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Hello,

I would like to turn on some pixels of the screen and plot the graphics of a mathematical function. I did it in the past with others OS in C. I remind I needed only to enter in the hiresolution graphics and the elementary function Plot(x,y) to hilight just one pixel at once. Then I should build the rest (axis, label, geometrical transformation). Now I would like to do the same but without loose too much time.
I've investigated the upp example and I am a bit confused about what to use (agg, upp, opengl). Please let me ask you some question:

1) I am running 606dev2. Is it include the new upp graphical routine?

2) which is the best widget where can I draw?

3) I need a transformation from real world coordinate to screen coordinate. Do you think make sense to use opengl? Perhaps I should pay attention to agg given its nice antialiasing capability. Any suggestion? (Please keep in mind that at some moment I would like to convert the application to display even complex functions... I mean those having a real and imaginary part... perhaps to generate a fractal.

Luigi

Subject: Re: How to show the plot of a function
Posted by fudadmin on Sun, 18 Jun 2006 12:33:05 GMT
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Luigi, if you have noticed, ChartCtrl is a section on our forums where nobody wants to post... Plotting is one of the reasons I'm investing my time in agg. Btw, it has coord transformer:
from agg AGG just provides you a transformer of that kind, namely, that can convert your own view port to the device one. And it's your responsibility to include it into the proper place of the pipeline. You can also write your own very simple class that will allow you to operate with millimeters, inches, or any other physical units.

My agg story began also with the question:
forlano wrote
2) which is the best widget where can I draw [plot functions]?

I found that I can easily draw curves (using upp Paint(Draw& w)) on most upp widgets (maybe all?) but the problems arrive when I want to resize and print. So, I guessed, Drawing and Report are the most likely candidates. But...what I if want interactive curves and interactive reports? So , I investigated upp VectorDesigner... and discovered its limitations.

But the biggest limitation for function curves is, IMO, pixel accuracy and/or anti-aliasing. And I

couldn't find what could compete with agg possibilities.
(And I don't like openGL for its text problems).
If you decide to use agg, you can expect some advice from me...
(At the moment I'm trying to solve that agg optimized printing)
Aris

Subject: Re: How to show the plot of a function
Posted by forlano on Sun, 18 Jun 2006 13:29:49 GMT
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Quote:
Luigi, if you have noticed, ChartCtrl is a section on our forums where nobody wants to post...

Just now I noted it
fudadmin wrote on Sun, 18 June 2006 14:33
If you decide to use agg, you can expect some advice from me...
(At the moment I'm trying to solve that agg optimized printing)
Aris

I've decided to use AGG. The image transformation I've seen in action and the line accuracy were enough for me. For my purpose it is very important what can I see on the screen.
I'll just start to study your experiment
http://www.arilect.com/upp/forum/index.php?t=msg&th=1088 &start=0& .

Luigi