
Subject: GraphDraw/GraphCtrl

Posted by [Didier](#) on Fri, 01 May 2020 10:20:21 GMT

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Pradip wrote on Fri, 01 May 2020 12:02Hello Didier,

Thanks for replying! Yes exactly, I need date/time on x-axis. I'm trying to make something like this:

I already have a tree and an array (synced) showing the activities, I will need to sync them with the graph. Also zooming is important, it should be able to zoom in to days (S, M, T, W...) as in the image, and while zooming out it could show weeks, then months, quarter and finally year.

I won't really need layout designer, in any case I'll have to manipulate it with code.

Thanks a lot, I'll try it once you upload it :)

Well you can definitely display the days/weeks/months as you want but you will have to :
make your own GridAxisDraw child class with own grid style drawing (or maybe I could push further into Chameleon capacities) Add time custom display format method (The exact same format is not available out of the box)

For all the zoom/scroll, everything you need is available.

There is also a Linking feature that allows to sync axis between graphs (when one zooms or scrolls, the other ones follow) : maybe you could use this to link to your grid to the graph Y axis

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Fri, 01 May 2020 11:04:15 GMT

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Quote:make your own GridAxisDraw child class with own grid style drawing (or maybe I could push further into Chameleon capacities)

Add time custom display format method (The exact same format is not available out of the box)

I'll try it with my limited capacity :lol:. It will be fine to get something close if not same.

Quote:For all the zoom/scroll, everything you need is available.

There is also a Linking feature that allows to sync axis between graphs (when one zooms or scrolls, the other ones follow) : maybe you could use this to link to your grid to the graph Y axis
Exactly what I was planning to do!

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Fri, 01 May 2020 11:30:58 GMT

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Hello Pradip,

Here is the first part of GraphCtrl packages

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Fri, 01 May 2020 11:37:44 GMT
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Here is the sencond part.

I packaged my demo app GraphCtrl_demo_GUI (which doesn't look how it should since Layout Designer properties are no more taken into account (for the moment))

Take a look at : GraphCtrl_Demo/CustomDataSource_WF.h
This is the cutom data class used to display the bars you saw on my screenshot

Everything compiles fine with lattest Upp/trunk on windows and linux

Subject: Re: GraphDraw/GraphCtrl
Posted by [koldo](#) on Sat, 02 May 2020 08:16:41 GMT
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Maybe the Ctrl name would have to be something like GanttCtrl :)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sat, 02 May 2020 09:38:07 GMT
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Hello Koldo,

Yes why not have a pre-configured GanttCtrl ready-to go out of the box :)

But first I have to simplify GraphCtrl/GraphDraw architecture (CRTP layering), since Chameleon introduction is going way to complex du to the layering technique I used, and the use of LayoutDesigner is less needed (that was the first reason for going with CRTP layers) ... so I could probably kick-out a lot of complexity and make it more usable

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sun, 03 May 2020 13:46:24 GMT

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Hello Pradip,

I started the GanttCtrl class so that you can see where to start coding and it was also at test for me to see if all was going to work as intended before letting you search how to do it.

Here is what I get:

I will upload code later today

File Attachments

1) [Scatter.png](#), downloaded 1343 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sun, 03 May 2020 14:08:41 GMT
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here is the first part

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Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sun, 03 May 2020 14:10:31 GMT
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Here is the second part

[Edit] deleted download file

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Thu, 07 May 2020 19:10:32 GMT
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Hello Pradip,

Did you download the code ?
Was it useful for you ?

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Fri, 08 May 2020 07:37:49 GMT

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Hello Didier,

Sorry for replying late, struggling without salary :(

It's amazing that you made a custom GanttCtrl! Thanks a lot.

I realized that I need to keep the data set ready for making the graph, so I have learned to use S_* structures last few days, reading every line from database was taking long time. I'll be ready in 2 more days, then I'll download the code and try to make the graph. Thanks again :)

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Fri, 08 May 2020 07:43:10 GMT

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Hello Pradip,

Glad to here this helps you.

Hope you will get a salary soon :?

Before writing the GanttCtrl, I also refactored GraphDraw/GraphCtrl CRTP part that had become useless and to complex : I almost kicked out all of CRTP :)

Things are simpler now (although all is not completely finished)

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Sun, 10 May 2020 12:53:12 GMT

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Hello Pradip,

I made some refactoring, simplifications, cleaning, namespace/include management, one two bug corrections and a compilation issue with latest Upp svn version

Please use this last version

EDIT : removed attachement (see further)

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Wed, 13 May 2020 15:42:14 GMT

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Hello Didier,

I've downloaded it. I'm using MSVS17 compiler. GanttCtrl_Test compiles fine (except conversion and possible loss of data warnings) and I'm getting the same graph.

However, GraphCtrl_Demo is giving some errors, perhaps all in Chameleon, see the image.

Though I could do without any Chameleon capability for now, to understand the working of GraphCtrl, running the demo would be useful.

I'll study more (please bear with my limited coding knowledge) and revert.

File Attachments

1) [Annotation 2020-05-13 210754.png](#), downloaded 1059 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Wed, 13 May 2020 18:51:09 GMT
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Hello Pradip,

Well this is strange, under linux all compiles fine with latest svn version
The missing functions can be found in uppsrc/CtrlLib/Ch.h so it shouldn't be a problem

Which Upp version are you using ?

I am having difficulties with the latest Upp svn versions on Win : my MCS V15 compiler crashes
80 (and CLANG doesn't work due to path problems and I can't change them: I don't have admin
rights to change paths)

The current version I work with on Win is svn 14390

So I am stuck to 14390 for the moment on Win

Didier

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Wed, 13 May 2020 19:06:44 GMT
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I also tried with and without Blitz : no compilation problem (under linux)

I will have to resolve my Win problem to check further

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 14 May 2020 06:16:08 GMT
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Hello Didier,
Didier wrote on Thu, 14 May 2020 00:21
Which Upp version are you using ?

That could be the issue, I was using 13664, for which uppsrc/CtrlLib/Ch.h contains only this much:

```
void ChStdSkin();  
void ChClassicSkin();  
void ChHostSkin();
```

I'm downloading latest stable release at the moment, I'll let you know the result.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 14 May 2020 06:51:26 GMT
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McAfee is blocking to execute 14429 :x

Subject: Re: GraphDraw/GraphCtrl
Posted by [mirek](#) on Thu, 14 May 2020 07:30:52 GMT
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Pradip wrote on Thu, 14 May 2020 08:51McAfee is blocking to execute 14429 :x

This is really worrissome, but I really do not have any means how to prevent that....

I think it is the debugger code causing this issue :(

That said, I am not sure who would believe this guy:
<https://cryptopotato.com/wp-content/uploads/2019/01/mcafee-new-finke-min-min.jpg>

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 14 May 2020 07:44:29 GMT
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Hello Didier,

I can't run 14429 yet, until it gains some "reputation" with McAfee! Well the issue is with Chameleon only, I'll keep studying the demo code and try to get this done.

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Thu, 14 May 2020 08:01:49 GMT

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Mirek :lol: :lol:

Truly these antiviruses make so much trouble at times. First time theide.exe ran, it was the clang.exe that was blocked first, and next time onwards theide.exe was also blocked.

14-05-2020 11:47:34 mfeatp(7744.8772) <SYSTEM> Orchestrator.RepChangeListener.Activity: Real Protect cloud scanner trace complete for process id 3572 , file

E:\upp-win-14429\upp\theide.exe with reason id 1

14-05-2020 11:51:22 mfeatp(7744.7476) <SYSTEM> Orchestrator.Action.Activity: Action Taken on File E:\upp-win-14429\upp\bin\clang\bin\clang.exe with reputation 1 is: Block

14-05-2020 11:51:22 mfeatp(7744.7476) <SYSTEM> Orchestrator.Action.Activity: Action Details:: File: clang.exe , Mode: Enforce , Scanner: On-Execute Scan , Detection Name: ATP/Suspect!bcea0d393d11 , Reputation: 1 [Known Malicious] , ActionTaken: Block Rule id: 0 , Content Version: Not Available

14-05-2020 11:52:58 mfeatp(7744.3840) <SYSTEM> Orchestrator.Action.Activity: Action Taken on File E:\upp-win-14429\upp\theide.exe with reputation 1 is: Block

14-05-2020 11:52:58 mfeatp(7744.3840) <SYSTEM> Orchestrator.Action.Activity: Action Details:: File: theide.exe , Mode: Enforce , Scanner: On-Execute Scan , Detection Name: ATP/Suspect!8b4fa2a4e3c1 , Reputation: 1 [Known Malicious] , ActionTaken: Block Rule id: 0 , Content Version: Not Available

I think it's all about some 'reputation', saw it happening before too. And this is the reason I don't get the latest stable release immediately on release. Probably after some usage it gains on reputation with those AVs, shouldn't worry about it much.

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Thu, 14 May 2020 08:57:10 GMT

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Hello Pradip,

If the problem is the Ide.exe that doesn't pass MacAfee

Try mixing Ide.exe old version with uppsrc recent version I'm always doing this since I update from svn

If the dowload wont acheive because of McAfee, dowload a source only version (svn, git, ..)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 14 May 2020 10:18:07 GMT
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Hello Didier,
That's a nice trick, using old ide.exe with new uppsrc :d! McAfee is still blocking clang.exe, gcc.exe, c++.exe, but I can use MSVS17 compiler.
GraphCtrl_Demo_GUI is running this way now, so I have enough to study, thanks a lot.

Subject: Re: GraphDraw/GraphCtrl
Posted by [mirek](#) on Thu, 14 May 2020 11:47:18 GMT
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Pradip wrote on Thu, 14 May 2020 12:18Hello Didier,
That's a nice trick, using old ide.exe with new uppsrc :d! McAfee is still blocking clang.exe, gcc.exe, c++.exe, but I can use MSVS17 compiler.
GraphCtrl_Demo_GUI is running this way now, so I have enough to study, thanks a lot.

Well, I would offer you even better trick: Uninstall McAfee...

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 14 May 2020 12:15:17 GMT
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Really wish I could do that. This is work laptop, so you know.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Fri, 15 May 2020 11:10:24 GMT
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Didier the code is so complex, but the result is really fascinating! Hope you won't mind if I ask you stupid questions as I go on to try it.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Fri, 15 May 2020 16:04:19 GMT
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Hello Pradip,

No problem : ask all the questions you need

I will add data to GanttCtrl_Test so that it's more simple.

GraphCtrl_Demo was not intended to be a public demo: it is more my overall testing application with some ugly code.

There is also some documentation in graphDraw and GrapCtrl packages (although the CRTP part is not completely true any more : since it was to complex, I qicked out most of it)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sat, 16 May 2020 08:06:19 GMT
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Hello Didier,

You may consider explicit conversions to avoid these warnings by MS compilers. Anyways this is of low priority, I think other compilers don't complain about it.

```
e:\upp_projects\graphdraw\GridStepManager.h (165): warning C4244: '=': conversion from
'double' to 'unsigned int', possible loss of data
e:\upp_projects\graphdraw\GridAxisDraw.h (239): warning C4244: 'argument': conversion from
'Upp::GraphDraw_ns::TypeGraphCoord' to 'Upp::int64', possible loss of data
e:\upp_projects\ganttctrl\GanttGridAxisDraw.h (81): warning C4244: 'argument': conversion from
'Upp::GraphDraw_ns::TypeGraphCoord' to 'int', possible loss of data
e:\upp_projects\ganttctrl\GanttGridAxisDraw.h (82): warning C4244: 'argument': conversion from
'Upp::GraphDraw_ns::TypeGraphCoord' to 'int', possible loss of data
e:\upp_projects\graphdraw\GraphDrawBase.h (841): warning C4244: '=': conversion from
'Upp::int64' to 'unsigned int', possible loss of data
e:\upp_projects\graphdraw\GraphDrawBase.h (857): warning C4244: '=': conversion from
'Upp::int64' to 'int', possible loss of data
e:\upp_projects\graphdraw\GraphDrawBase.h (863): warning C4244: '=': conversion from
'Upp::int64' to 'int', possible loss of data
e:\upp_projects\graphdraw\GraphDrawBase.h (997): warning C4244: '=': conversion from
'Upp::int64' to 'unsigned int', possible loss of data
e:\upp_projects\graphdraw\GraphDrawBase.h (1024): warning C4244: '=': conversion from
'double' to 'unsigned int', possible loss of data
e:\upp_projects\graphdraw\GraphFunctions.h (82): warning C4244: 'return': conversion from
'Upp::int64' to 'int', possible loss of data
e:\upp_projects\graphdraw\GraphFunctions.h (56): warning C4244: 'initializing': conversion from
'T' to 'float', possible loss of data
e:\upp_projects\graphdraw\GraphFunctions.h (57): warning C4244: 'initializing': conversion from
'T' to 'float', possible loss of data
e:\upp_projects\graphdraw\GraphFunctions.h (58): warning C4244: 'initializing': conversion from
```

'T' to 'float', possible loss of data
e:\upp_projects\graphdraw\GraphFunctions.h (33): warning C4244: 'initializing': conversion from 'T' to 'float', possible loss of data
e:\upp_projects\graphdraw\GraphFunctions.h (34): warning C4244: 'initializing': conversion from 'T' to 'float', possible loss of data
e:\upp_projects\graphdraw\GraphFunctions.h (35): warning C4244: 'initializing': conversion from 'T' to 'float', possible loss of data
e:\upp_projects\graphdraw\GridStepManager.h (165): warning C4244: '=': conversion from 'double' to 'unsigned int', possible loss of data
e:\upp_projects\graphdraw\GridAxisDraw.h (239): warning C4244: 'argument': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'Upp::int64', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (126): warning C4244: 'initializing': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (131): warning C4244: 'initializing': conversion from 'double' to 'unsigned int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (237): warning C4244: 'argument': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (238): warning C4244: 'argument': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (240): warning C4244: 'argument': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (246): warning C4244: 'initializing': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (250): warning C4244: '=': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'Upp::int16', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (266): warning C4244: '=': conversion from 'Upp::int64' to 'Upp::GraphDraw_ns::TypeGraphCoord', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (278): warning C4244: 'initializing': conversion from 'T' to 'int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (283): warning C4244: 'initializing': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (302): warning C4244: '=': conversion from 'Upp::int64' to 'Upp::GraphDraw_ns::TypeGraphCoord', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (315): warning C4244: '=': conversion from 'T' to 'Upp::int64', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (317): warning C4244: 'argument': conversion from 'Upp::int64' to 'Upp::GraphDraw_ns::TypeGraphCoord', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (345): warning C4244: 'argument': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'Upp::int64', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (346): warning C4244: 'argument': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'Upp::int64', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (347): warning C4244: 'argument': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'Upp::int64', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (358): warning C4244: 'initializing': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (362): warning C4244: '=': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'Upp::int16', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (377): warning C4244: '=': conversion from

'Upp::int64' to 'Upp::GraphDraw_ns::TypeGraphCoord', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (391): warning C4244: 'initializing': conversion from 'T' to 'int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (396): warning C4244: 'initializing': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'int', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (415): warning C4244: '=': conversion from 'Upp::int64' to 'Upp::GraphDraw_ns::TypeGraphCoord', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (431): warning C4244: 'argument': conversion from 'Upp::int64' to 'Upp::GraphDraw_ns::TypeGraphCoord', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (431): warning C4244: '=': conversion from 'T' to 'Upp::int64', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (433): warning C4244: 'argument': conversion from 'Upp::int64' to 'Upp::GraphDraw_ns::TypeGraphCoord', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (447): warning C4244: 'argument': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'Upp::int64', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (448): warning C4244: 'argument': conversion from 'Upp::GraphDraw_ns::TypeGraphCoord' to 'Upp::int64', possible loss of data
E:\UPP_Projects\GraphDraw\GridStepManager.cpp (454): warning C4244: 'initializing': conversion from 'Upp::int64' to 'Upp::GraphDraw_ns::TypeGraphCoord', possible loss of data
e:\upp_projects\graphdraw\GraphDrawBase.h (841): warning C4244: '=': conversion from 'Upp::int64' to 'unsigned int', possible loss of data
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e:\upp_projects\graphdraw\GraphDrawBase.h (1024): warning C4244: '=': conversion from 'double' to 'unsigned int', possible loss of data
e:\upp_projects\graphdraw\GraphFunctions.h (82): warning C4244: 'return': conversion from 'Upp::int64' to 'int', possible loss of data
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e:\upp_projects\graphdraw\GraphFunctions.h (35): warning C4244: 'initializing': conversion from 'T' to 'float', possible loss of data

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sat, 16 May 2020 18:51:40 GMT
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Hello Pradip,

Usually I remove ALL warnings : A good code does not have any warning at all.

On linux it does not show these errors, and it's my main dev platform : that's the reason why they are still around ;)

I will check if I can enable these errors with CLANG or GCC on linux

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sun, 17 May 2020 21:59:56 GMT
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Hello Pradip,

I removed all the warnings I see on MSC15 + some others that don't appear (sign conversions)

I used the following compile flags on CLANG/linux :

-std=c++14 -Wno-logical-op-parentheses -Wimplicit-float-conversion -Wshorten-64-to-32
-Wfloat-conversion -Wconditional-uninitialized

But there are still some warnings that only appear on MSC :?

File Attachments

1) [Archive1.tar.gz](#), downloaded 312 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Mon, 18 May 2020 04:10:33 GMT
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Thanks Didier, now there are not a single warning on MSVS17. I'm working for displaying timeline bars, understanding the CustomData and CustomDataSource classes. Once done I'll show you the result.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sun, 24 May 2020 11:07:34 GMT
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Hello Didier,
Need some help. Please see my implementation of CustomData and CustomDataSource, similar to your demo:

```
namespace Upp {  
namespace GraphDraw_ns {  
  
class GanttBar : public CustomData {  
private:  
    int row_num;  
    const S_ACTIVITIES* act;  
    RectGraph bar;  
    // TypeScreenCoord bar_thk = 5;  
  
public:
```

```

GanttBar(int row, const S_ACTIVITIES* ac) : row_num(row), act(ac) {
    bar.left = act->START_DATE_PL.Get();
    bar.right = act->END_DATE_PL.Get();
    bar.top = row_num + 0.25;
    bar.bottom = row_num + 0.75;
};

virtual ~GanttBar() {};

virtual bool Intersects(const RectGraph& graphView) const {
    return graphView.Intersects(bar);
};

virtual bool Contains(const PointGraph& pt) const {
    return bar.Contains(pt);
};

virtual void PaintDataPoint(BufferPainter& dw, int scale,
    const CoordinateConverter* xCoordConv, const CoordinateConverter* yCoordConv) {

    const TypeScreenCoord left = xCoordConv->toScreen(bar.left);
    const TypeScreenCoord right = xCoordConv->toScreen(bar.right);
    const TypeScreenCoord bottom = yCoordConv->toScreen(bar.top);
    const TypeScreenCoord top = yCoordConv->toScreen(bar.bottom);
    Rect r(left,top, right, bottom);

    ChPaint(dw, r, Yellow());
};

String ToString() const {
    return Format("Row num=%i\tActivity ID=%i\tBar=%s", row_num, act->ACT_ID, bar.ToString());
};
};

class GanttBarSeries : public CustomDataSource {
private:
    const ArrayCtrl* array;
    Array<GanttBar> ganttBars;

public:
    GanttBarSeries() {};

    void Link(const ArrayCtrl* ar) {
        array = ar;
    };

    void RefreshBars() {
        if(!ganttBars.IsEmpty()) ganttBars.Clear();
    };
};

```



```

int n = array->GetCount();
for(int i = 0; i < n; i++) {
    GanttBar gb(i, &ActById(array->Get(i, ACT_ID)));
    ganttBars.Add(gb);
}
DUMP(ganttBars);
};

virtual ~GanttBarSeries() {};
virtual unsigned int GetCount() const {return ganttBars.GetCount();};
virtual const CustomData& Get(unsigned int dataIndex) const {return ganttBars[dataIndex];};
virtual CustomData& Get(unsigned int dataIndex) {return ganttBars[dataIndex];};
};

};
};

```

You will see that I'm trying to link the Gantt with an ArrayCtrl. The DUMP is showing this:

```

ganttBars = [Row num=0 Activity ID=10 Bar=[737830, 0.25] - [737947, 0.75] : (117, 0.5), Row
num=1 Activity ID=28 Bar=[737832, 1.25] - [737854, 1.75] : (22, 0.5), Row num=2 Activity
ID=29 Bar=[737854, 2.25] - [737856, 2.75] : (2, 0.5), Row num=3 Activity ID=118 Bar=[737856,
3.25] - [737898, 3.75] : (42, 0.5), Row num=4 Activity ID=126 Bar=[737856, 4.25] - [737859, 4.75]
: (3, 0.5), Row num=5 Activity ID=127 Bar=[737859, 5.25] - [737862, 5.75] : (3, 0.5), Row
num=6 Activity ID=128 Bar=[737862, 6.25] - [737867, 6.75] : (5, 0.5), Row num=7 Activity
ID=129 Bar=[737867, 7.25] - [737870, 7.75] : (3, 0.5), Row num=8 Activity ID=130 Bar=[737870,
8.25] - [737881, 8.75] : (11, 0.5), Row num=9 Activity ID=131 Bar=[737870, 9.25] - [737873, 9.75]
: (3, 0.5), Row num=10 Activity ID=133 Bar=[737873, 10.25] - [737875, 10.75] : (2, 0.5), Row
num=11 Activity ID=134 Bar=[737875, 11.25] - [737879, 11.75] : (4, 0.5), Row num=12 Activity
ID=388 Bar=[737879, 12.25] - [737881, 12.75] : (2, 0.5), Row num=13 Activity
ID=136 Bar=[737881, 13.25] - [737886, 13.75] : (5, 0.5), Row num=14 Activity
ID=137 Bar=[737881, 14.25] - [737883, 14.75] : (2, 0.5), Row num=15 Activity
ID=138 Bar=[737883, 15.25] - [737884, 15.75] : (1, 0.5), Row num=16 Activity
ID=139 Bar=[737883, 16.25] - [737890, 16.75] : (7, 0.5), Row num=17 Activity
ID=140 Bar=[737890, 17.25] - [737895, 17.75] : (5, 0.5), Row num=18 Activity
ID=141 Bar=[737895, 18.25] - [737898, 18.75] : (3, 0.5), Row num=19 Activity
ID=121 Bar=[737898, 19.25] - [737931, 19.75] : (33, 0.5), Row num=20 Activity
ID=143 Bar=[737898, 20.25] - [737901, 20.75] : (3, 0.5), Row num=21 Activity
ID=144 Bar=[737901, 21.25] - [737909, 21.75] : (8, 0.5), Row num=22 Activity
ID=145 Bar=[737909, 22.25] - [737916, 22.75] : (7, 0.5), Row num=23 Activity
ID=148 Bar=[737916, 23.25] - [737924, 23.75] : (8, 0.5), Row num=24 Activity
ID=149 Bar=[737924, 24.25] - [737926, 24.75] : (2, 0.5), Row num=25 Activity
ID=150 Bar=[737926, 25.25] - [737931, 25.75] : (5, 0.5), Row num=26 Activity
ID=123 Bar=[737931, 26.25] - [737939, 26.75] : (8, 0.5), Row num=27 Activity
ID=124 Bar=[737939, 27.25] - [737946, 27.75] : (7, 0.5), Row num=28 Activity
ID=125 Bar=[737946, 28.25] - [737947, 28.75] : (1, 0.5)]

```

So the bars are being made alright. In my application (TopWindow) header:

```
GraphDraw_ns::GanttCtrl gantt;  
Upp::GraphDraw_ns::GanttBarSeries ganttBarSeries;
```

In TopWindow constructor:

```
ganttBarSeries.Link(&array);  
gantt.AddCustomSeries(ganttBarSeries);
```

And in a callback which refreshes the linked array:

```
ganttBarSeries.RefreshBars();  
gantt.Refresh();
```

However the gantt chart is always empty, doing FitToData() is also not showing any bar. What am I missing here?

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sun, 24 May 2020 18:52:04 GMT
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Hello Pradip,

Two points:

- * FitToData() isn't implemented yet for CustomData :blush:
- * RefreshBars() is useless, all the refresh is already managed

What you need to do is:

- 1 - Set graph limits

```
graph.GetX1CoordConverter().SetGraphMin(...)  
graph.GetX1CoordConverter().SetGraphMax(...)  
graph.GetX1CoordConverter().setGraphMinRangeLimit(...);  
graph.GetX1CoordConverter().setGraphMaxRangeLimit(...);
```

- 2 - Set data as modified (so it will be refreshed automatically)

This is important because the resulting image is cached to speed-up display when moving a cursor, changing tabs or whatever

```
graph.SetModifyCustomSeries(); // this will force full repaint on next refresh  
graph.Refresh();
```


Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 28 May 2020 07:23:50 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Didier!

Yes it worked! Fantastic!

Please tell me, is there an easy way to flip the Y axis? Currently the origin is in bottom-left, how to make it in top-left?

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 28 May 2020 16:52:09 GMT
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Hello Didier,

Really amazing work with the GraphCtrl!
Is there a way to allow only X axis zooming but prevent Y axis zooming?

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Thu, 28 May 2020 22:00:19 GMT
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Hello Pradip,

Pradip wrote on Thu, 28 May 2020 18:52Hello Didier,

Really amazing work with the GraphCtrl!
Is there a way to allow only X axis zooming but prevent Y axis zooming?

Thank you and yes there is :)
Several restriction methods are available for zoom / scroll (these are also available directly through the layout designer as options)

DisableGraphZoom
DisableGraphScroll
DisableAxisZoom
DisableXZoom
DisableYZoom
DisableAxisScroll
DisableXScroll
DisableYScroll

Quote:Please tell me, is there an easy way to flip the Y axis? Currently the origin is in bottom-left,

how to make it in top-left?

Well I never needed this so it isn't available out of the box, but it should be quite easy to do.
I'll see if I can add a 'void InvertAxis()' method : this may come handy one day

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Fri, 29 May 2020 15:23:35 GMT

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Hello Didier,

DisableXZoom(true) and DisableYZoom(true) individually are not working; they are working only if together; please check.

InvertAxis will really be helpful, there are many engineering graphs which are drawn with origin at top left.

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Fri, 29 May 2020 21:09:36 GMT

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Hello Pradip,

I will check tomorrow

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Sat, 30 May 2020 10:42:36 GMT

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Thanks Didier,

Take your time.

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Sat, 30 May 2020 13:45:24 GMT

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Hello Pradip,

I just checked and DisableYAxis() works fine but DisableXAxis() almost works fine

zoom from axis (on one side of graph) (CTRL + mouse wheel) : OK X & Y

zoom from graph area selection (CTRL + mouse left click n drag) : OK X & Y

zoom with ctrl+ mouse wheel : does not work for X and works for Y ==> strange... code for both should be the same

Need more time to investigate further

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sun, 31 May 2020 10:23:05 GMT
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Hello Didier,

Just take your time with the zoom and scroll features. All scrolling seems to be just fine, there might be a small glitch with zooming. This is what I found:

With DisableYScroll(true) and DisableYZoom(true), the graph can never be scrolled in Y direction, but it is possible to zoom in Y direction by ctrl + mouse wheel. This might help you in finding the glitch.

Meanwhile if you can add the InvertAxis() it will really be very helpful.

As I'm exploring it, I'm amazed more and more with the thoughtful features of the GraphCtrl!!!
Superb work indeed!

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Mon, 01 Jun 2020 14:15:55 GMT
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Hello Pradip,
InvertAxis() is comming, I have something working. Needs some cleaning

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sat, 06 Jun 2020 20:31:16 GMT
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tHello Pradip,

I finally finished InvertAxis was working since last week but I had a bug laying around. took me some time to find it

I updated GanttCtrl_test so you can see how to use it.

File Attachments

1) [Archive1.tar.gz](#), downloaded 348 times

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Sun, 07 Jun 2020 12:07:00 GMT

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Hello Didier!

Yay! You are just awesome!

`gantt.GetY1GridAxisDraw().setAxisInverted();` this does the job! Yaay!

Plus the bug with zoom/scroll is also fixed now! Thank you so much! See a screenshot of my app, you really made it possible!

Next I need to have dynamic grid, changing the granularity and type of display with zoom in and out, and need to find a way to scroll the gantt along with tree/array. I'll show you some sample of the dynamic grids that I'm talking about. Also I need to have a vertical line showing today, and the gray vertical bands should appear for declared holidays also. I'll study class `GanttGridAxisDraw` bit more. I'll write you about it soon.

Thanks a lot :d

File Attachments

1) [Annotation 2020-06-07 170803.png](#), downloaded 860 times

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Sun, 07 Jun 2020 16:49:19 GMT

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Hello Pradip,

Looks great, happy to see it is usefull for you :p

To make a dynamic grid you have to :

- .. * modify `GanttGridStepCalcCbK()`

- This is the method that determines where to put grid lines

- .. * Modify `PaintXxxx()` methods to give each grid step the look you want

- * `PaintHGrid()` : paints the grid on the graph

- * `PaintAxisTop()` : paints the upper axis part (where the date is displayed)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 11 Jun 2020 08:44:11 GMT
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Hello Didier,

Please suggest an easy way to set the grid step to a specific value, bypassing NormalizedStep.
For Y axis I need to have the grid steps interval as 1, that's why.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 11 Jun 2020 10:34:42 GMT
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Hello Didier,

And how to change the X and Y grid colors? For previous message and this one I tried these,
don't seem to work

```
gantt.SetYGridColor(Yellow());  
gantt.SetXGridColor(Yellow());  
gantt.setYNbGridSteps(array.GetCount());
```

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 11 Jun 2020 13:53:47 GMT
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Hello Didier,

Hope you don't mind me asking random questions :p

Please check this code in GraphDraw.cpp

```
void DrawSmartText(Draw& draw, int x, int y, int cx, const char *text, const Font scaledFont,  
Color ink, int scale) {  
    if(*text == '\1') {  
        RichText txt = ParseQTF(text + 1, 0);  
        txt.ApplyZoom(GetRichTextStdScreenZoom());  
        txt.Paint(Zoom(scale, 1), draw, x, y, cx);  
        return;  
    }  
    DrawTLText(draw, x, y, cx, ToUnicode(text, CHARSET_DEFAULT), scaledFont, ink, 0);  
}
```

QTF is activated if the first byte is '\1', is this different behavior from standard QTF, where '\1'

escapes all following characters?

Subject: Re: GraphDraw/GraphCtrl
Posted by [deep](#) on Fri, 12 Jun 2020 08:31:40 GMT
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`void DrawSmartText(Draw& draw, ...)`
This is defined in LabelBase h/cpp
Where ever it is derived from LabelBase you can use QTF.

e.g. Labels, Button, Tooltip, OK/Cancel prompts etc.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sat, 13 Jun 2020 07:13:01 GMT
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Dear Deepak,

Thanks! That will definitely help my understanding.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sat, 13 Jun 2020 21:49:47 GMT
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Hello Pradip,

Quote:`void DrawSmartText(Draw& draw, ...)`

In fact I have a modified copy of the original method : 'scale' parameter is added
'\1' is a QTF trick of original method : if first character == '\1' then text is QTF otherwise it is not the case

Quote:`gantt.SetYGridColor(Yellow());`
`gantt.SetXGridColor(Yellow());`

These methods do not work anymore since I added Chameleon support : work is not finished
And to be honest, the simple solution would be to suppress these methods.
But on the other hand, these methods allow access through the layout-designer
which was my first objective... so suppressing them doesn't satisfy me.
I have to find an elegant way to mix both (I have some ideas but didn't start coding yet)

Quote:`gantt.setYNbGridSteps(array.GetCount());`
This one shouldn't be present: it uses `GridStepManager::SetNbSteps()` which is for internal use

Quote:Please suggest an easy way to set the grid step to a specific value, bypassing NormalizedStep. For Y axis I need to have the grid steps interval as 1, that's why I will post you solution in next message

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sat, 13 Jun 2020 22:09:31 GMT
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Here the code you need,

A dedicated function to calculate the steps (with a fixed grid step off 1)

```
static void GanttCtrl::step1_GridStepCalcCbk(GridStepManager& gridStepManager,
CoordinateConverter& coordConv) {
    const unsigned int nbMaxSteps = GridStepManager::NB_MAX_STEPS;
    //gridStepManager.GetNbMaxSteps();
    GridStepData* gridStepData = gridStepManager.GetGridStepData();
    TypeGraphCoord gridStepValue = 1;
    TypeGraphCoord gridStartValue = GridStepManager::GetGridStartValue( gridStepValue,
coordConv.getGraphMin() );

    unsigned int nbSteps = (unsigned int)tabs((coordConv.getGraphMax() - gridStartValue) /
gridStepValue);

    if (nbSteps > nbMaxSteps) {
        nbSteps = nbMaxSteps;
    }
    gridStepManager.SetNbSteps(nbSteps);

    // fill step values ==> used by gridStepIterator
    for (unsigned int c=0; c<nbSteps+1; ++c) {
        gridStepData[c].stepGraphValue = gridStartValue + gridStepValue*c;
        gridStepData[c].drawTickText = 0;// ==> draw tick text not needed (from you're screen shot)
    }
}
```

In GanttCtrl constructor, add:

```
GetY1GridAxisDraw().GetGridStepManager().setCustomGridSteps(STDBACK(step1_GridStepCalcCbk));
```

And the trick is done :)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sat, 13 Jun 2020 22:44:49 GMT
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To set the colors using Chameleon, use the following code:

In you're application header (in GanttCtrl_Test class) declare the following variable:
Upp::GraphDraw_ns::GanttCtrl::Style ganttStyle;

In application init (GanttCtrl_Test constructor) add the following code:

(Not sure it is axisColor you wanted to change, probably gridColor)

```
ganttStyle = graph.StyleDefault();
// ganttStyle.x1AxisStyle.axisWidth    = 2;
ganttStyle.x1AxisStyle.axisColor    = Yellow();
// ganttStyle.x1AxisStyle.axisTextFont = StdFont();
// ganttStyle.x1AxisStyle.axisTextColor = SRed();
// ganttStyle.x1AxisStyle.axisTickColor = SRed();
// ganttStyle.x1AxisStyle.gridColor    = Yellow();
// ganttStyle.x1AxisStyle.primaryTickFactory << []() ->TickMark* { TickMark* t = new
LineTickMark(); t->SetTickLength(3); return t; };
// ganttStyle.x1AxisStyle.secondaryTickFactory << []() ->TickMark* { TickMark* t = new
LineTickMark(); t->SetTickLength(1); return t; };
// ganttStyle.x1AxisStyle.lmntBackgnd = Null;
//
// ganttStyle.y1AxisStyle.axisWidth    = 2;
ganttStyle.y1AxisStyle.axisColor    = Yellow();
// ganttStyle.y1AxisStyle.axisTextFont = StdFont();
// ganttStyle.y1AxisStyle.axisTextColor = SRed();
// ganttStyle.y1AxisStyle.axisTickColor = SRed();
// ganttStyle.y1AxisStyle.gridColor    = Yellow();
// ganttStyle.y1AxisStyle.primaryTickFactory << []() ->TickMark* { TickMark* t = new
LineTickMark(); t->SetTickLength(3); return t; };
// ganttStyle.y1AxisStyle.secondaryTickFactory << []() ->TickMark* { TickMark* t = new
LineTickMark(); t->SetTickLength(1); return t; };
// ganttStyle.y1AxisStyle.lmntBackgnd = Null;

graph.SetStyle( ganttStyle );
```

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sun, 21 Jun 2020 10:48:07 GMT
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Hello Didier,

GraphCtrl's sheer brilliance amazes me indeed! I could do all these without much difficulty:

Learned to use Chameleon, bit tricky though, need to dig through a lot of typedefsDynamic grid; virtually anything can be done with the grids with your framework! uploaded few screenshotsSync scroll with another ctrl, by using SetGraphMin and SetGraphMax; noted that Link syncs with another CoordinateConverter

2 questions:

How to alter the default margin of 3 px? The following line doesn't work:

```
// gantt.SetTopMargin(1).SetLeftMargin(1).SetBottomMargin(1).SetRightMargin(1);
```

some text seems to spill into the margin, see in one of the uploaded imagesWhat can be done with CustomDataSource::PaintOne? How does style work?

I must say again, thanks a lot for GraphCtrl! It makes life so easy!

File Attachments

1) [Images.rar](#), downloaded 294 times

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Sun, 21 Jun 2020 10:53:04 GMT

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Didier wrote on Sun, 14 June 2020 03:19

I have to find an elegant way to mix both (I have some ideas but didn't start coding yet)

I'm sure you will find a way!

Subject: Re: GraphDraw/GraphCtrl

Posted by [koldo](#) on Sun, 21 Jun 2020 14:22:42 GMT

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Quote:uploaded few screenshotsThey look great.

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Sun, 21 Jun 2020 14:59:23 GMT

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koldo wrote on Sun, 21 June 2020 19:52They look great.

Thanks Koldo. Didier's work pays off.

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Sun, 21 Jun 2020 22:28:58 GMT

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Hello Pradip,

I see you're are making good progress on you're app : looking good :thumbup:

I suppose you used two CustomDataSource classes in you're Gantt:

- one for the jobs
- one for the links ?

I have made some cleaning up and plugged back-in all the SetXxxx methods (colors, fonts, ...) so the layout designer is parameters are working again

I mixed Chameleon and Layout params the following way:

- At création Chameleon is used in standard way and stays unmodified until a SetXxxx() method is called

- After modifying a parameter with SetXxxx() the a local copy of the style is made and the copy is modified

==> so you get Chameleon settings + local settings together :)

There still is a bug : a small heap leak is there (the delete of local copy makes the app crash and I didn't find why for the moment)

I also did some more cleaning and did some methods renaming:

- All the GetXxxx GraphElement() are now named GetElementXxxxx()
 - All the SetXTttt() are now named SetX1Tttt() (so that the you have X1, X2, Y1, Y2, ... (and not X, X1 which was not homogenous)
- X (not X1 or X2) now applies only to methods that apply to all X1, X2,
- Its clearer this way

One good side effect of all this (I was hopping this would come around sooner or latter) : Completion works fine now on GraphCtrl :) :)

File Attachments

1) [Archive1.tar.gz](#), downloaded 292 times

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Sun, 21 Jun 2020 22:41:06 GMT

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Quote:How to alter the default margin of 3 px? The following line doesn't work:

```
// gantt.SetTopMargin(1).SetLeftMargin(1).SetBottomMargin(1).SetRightMargin(1);
```

some text seems to spill into the margin, see in one of the uploaded images

This works (at least when modifying it through the layout designer) : maybe a Refresh() is missing somewhere

Normaly the updateSizes() method recalculates all the internal sizes taking into account the margins but it is for internal use and is called by Refresh()

Question : When you resize you're app, all is recalculated so the new margin values should be taken into account : does this work for you ?

Quote:What can be done with CustomDataSource::PaintOne? How does style work?
This work in progress, it is nearly at start point : I intend to use it to enable things like selection
(draw the point with a different style : highlight for example)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Mon, 22 Jun 2020 07:52:54 GMT
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Hello Didier,

Downloaded the last one and got trouble, really don't know how to fix this. GanttCtrl constructor is leading to this, please help.

File Attachments

1) [Annotation 2020-06-22 131708.png](#), downloaded 697 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Mon, 22 Jun 2020 08:35:21 GMT
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Hello Didier,

I reverted to the version sent by you on 07-Jun, that's still working fine. I'll try to figure out what went wrong with the latest one.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Mon, 22 Jun 2020 10:54:01 GMT
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Hello Didier,

Sorry I panicked a bit. I missed to add the GD_ macros in GanttCtrl declaration, after adding them that error is gone. Also I needed to change the first line in the macro to make it run:

```
CH_STYLE(GanttCtrl, Style, StyleDefault) {  
    gdStyle      = GanttCtrl::CH_EmptyGraphDraw::StyleGDDefault();
```

Plus I made other method name changes as described by you in your message.

However, the result is this:

Both axes are inverted; custom grids are not drawn as before, and a floating element has appeared.

I'll continue with the previous version and wait for you have a look at these and advise.

File Attachments

1) [Annotation 2020-06-22 161217.png](#), downloaded 999 times

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Mon, 22 Jun 2020 11:22:44 GMT

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Hello Pradip,

This is either upp version that needs update or a memory corruption du to my latest modifications...

If it doesn't disapear with an upp update, don't bother, it's probably the same problem I'm tracking with my delete bug.

Sorry for this I published it to soon

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Mon, 22 Jun 2020 12:01:56 GMT

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Hello Didier,

Didier wrote on Mon, 22 June 2020 03:58

I suppose you used two CustomDataSource classes in you're Gantt:

Exactly, I have used two CustomDataSource classes, so that the links (now made arrows) are drawn first, then the activity bars.

Didier wrote on Mon, 22 June 2020 03:58

One good side effect of all this (I was hopping this would come around sooner or latter) : Completion works fine now on GraphCtrl :) :)

Definitely it does, and be rest assured that I'll find enough usage of GraphCtrl in future so I guess it will be validated thoroughly :lol:

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Mon, 22 Jun 2020 12:28:18 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hello Didier,

Didier wrote on Mon, 22 June 2020 04:11

This works (at least when modifying it through the layout designer) : maybe a Refresh() is missing somewhere

Normally the updateSizes() method recalculates all the internal sizes taking into account the margins but it is for internal use and is called by Refresh()

Question : When you resize you're app, all is recalculated so the new margin values should be taken into account : does this work for you ?

No this is not working, see the image, even after resizing, the margins are 3px. This line is in the constructor of that TopWindow.

```
gantt.SetTopMargin(1).SetLeftMargin(1).SetBottomMargin(1).SetRightMargin(1);
```

Didier wrote on Mon, 22 June 2020 04:11

This work in progress, it is nearly at start point : I intend to use it to enable things like selection (draw the point with a different style : highlight for example)

Good god! Are you reading my mind? lol! I want exactly that to happen when the selection in tree/array changes! so thoughtful :d

File Attachments

1) [Annotation 2020-06-22 174948.png](#), downloaded 1060 times

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Mon, 22 Jun 2020 12:35:08 GMT

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Hello Didier,

Didier wrote on Mon, 22 June 2020 16:52Hello Pradip,

This is either upp version that needs update or a memory corruption du to my latest modifications...

If it doesn't disappear with an upp update, don't bother, it's probably the same problem I'm tracking with my delete bug.

Sorry for this I published it to soon

It's just fine, I'm going ahead with the previous package you gave, that is working fine. I still can't run 14429 thanks to McAfee, we'll see if we can make it work in future. Right now it's good, just

need to find out how to adjust the margins.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Mon, 22 Jun 2020 13:56:58 GMT
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The floating element is the Legend, I also updated a bit the default chameleon style (the floating style was missing)
So the float element was there before, it just wasn't visible.
Just add: `graph.HideLegend();`

For the rest, I have no idea. I will check tonight

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Mon, 22 Jun 2020 18:52:12 GMT
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Pradip,

Quote: just need to find out how to adjust the margins
I found what is wrong : at L21 of GraphDraw/StdGraphElements.h

```
class BlankAreaElement : public GraphElement
{
public:
    typedef BlankAreaElement CLASSNAME;
    typedef GraphElement _B;

    BlankAreaElement() {}

    virtual ~BlankAreaElement() {}
    virtual void PaintElement(Draw& dw, int scale) { /* do nothing */}
    virtual void SetElementWidth(int v) { _width = Upp::max(v, 3); } // --- REMOVE THIS LINE ---

private:
    BlankAreaElement( BlankAreaElement& p) {}
};
```

I have no idea why this was here and it is useless (just checked, it's been around for years 6.5 years LOL), I am removing it from the code base

For the rest, if you send me the code of your GanttCtrl (and only that) it would be easier

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Tue, 23 Jun 2020 05:29:54 GMT
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Didier wrote on Mon, 22 June 2020 19:26
For the rest, I have no idea. I will check tonight
Fine, I'll continue with the previous one until you are done.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Tue, 23 Jun 2020 07:22:31 GMT
[View Forum Message](#) <> [Reply to Message](#)

Didier wrote on Tue, 23 June 2020 00:22
I have no idea why this was here and it is useless (just checked, it's been around for years 6.5 years LOL), I am removing it from the code base

Ah that works, too wasy LOL! And somewhere in your code I've even seen a date in 2012! Codes never age isn't it, they are evergreen :d

Quote:

For the rest, if you send me the code of you're GanttCtrl (and only that) it would be easier

Uploading my code. I have CustomData and CustomDataSource in the same file. You will see there are some dependencies.

`bool IsHoliday(Date)`

this determines if that date is holiday or not (2nd or 4th Sat and Sun and declared holidays). you may plan to replace this with a callback maybe.
Other dependencies I'll explain if you need.

One suggestion:

CustomData::Intersects and CustomData::Contains deal with bounding box of the data point. In some situations the bounding box depends on screen coordinates, please consider this.

File Attachments

1) [CustomGantt.rar](#), downloaded 395 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Tue, 23 Jun 2020 12:27:45 GMT
[View Forum Message](#) <> [Reply to Message](#)

Pradip wrote on Tue, 23 June 2020 12:52One suggestion:
CustomData::Intersects and CustomData::Contains deal with bounding box of the data point. In some situations the bounding box depends on screen coordinates, please consider this.

Didier,
This is really needed, please consider Intersects() and Contains() to have knowledge of CoordinateConverter objects

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Wed, 24 Jun 2020 22:10:50 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Pradip,

I did a quick check on you're code, and after only renaming what needed to be renamed and commented the code for which I didn't have the data types, all compiled and works fine: grid and axis are draw as you wan't and only Y axis is inverted.
I uploaded the modifyied code
So maybe it's the app code that modifys the configuration ?

Quote:One suggestion:

CustomData::Intersects and CustomData::Contains deal with bounding box of the data point. In some situations the bounding box depends on screen coordinates, please consider this.
In fact this was done on purpose: to avoid manipulating Graph and Screen coordinates.
At first I used screen coordinates in API but it revealed to be un-adapted and error prone du to all the clipping and/or offsets applied

EDIT : file removed (newer dowload available)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 25 Jun 2020 08:37:45 GMT
[View Forum Message](#) <> [Reply to Message](#)

Didier wrote on Thu, 25 June 2020 03:40

I did a quick check on you're code, and after only renaming what needed to be renamed and commented the code for which I didn't have the data types, all compiled and works fine: grid and axis are draw as you wan't and only Y axis is inverted.
I uploaded the modifyied code
So maybe it's the app code that modifys the configuration ?

Didier:

Sorry I screwed up in panic mode! Now it's all working fine with the new code base. I think I know what went wrong, I didn't clean either GraphDraw or my app package, so maybe old object file was linking with new and... :blush:

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Mon, 29 Jun 2020 09:34:45 GMT

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Hello Didier,

Another suggestion:

Right now the zoom seems to happens with respect to the center of graph, of course subject to MinRangeLimit and MaxRangeLimit. It would be just great if instead of center of graph it would have been the mouse position!

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Mon, 29 Jun 2020 10:25:34 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hello Pradip,

Yes I agree with you, center the zooming on mouse cursor would be much better, I will see what I can do

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Sat, 11 Jul 2020 21:31:50 GMT

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Hello Pradip,

I just uploaded the latest version of the code.

The feature you requested is now the default behaviour :) (although original behaviour can stil be set by using `SetZoomOnCursor(false)`)

It took me some time because I had to finish plugging back in Properties Editors and be compatible with Chameleon) and I did some more cleaning up.

Noticable changes:

- * Properties dialog accessible in plot area now displays one Properties dialog containing all the dialogs in tabs (it can be fully customized)
- * Properties values can now be changed and are comptible with Chameleon :)
- * some renaming has been done
- * some cleaning has been done

GraphDraw_CRTP has been deleted and an unneeded inheritance level has been removed
Take a look at GD_XYLTMM_GraphCtrl : it now contains a good example to build a fully custom GraphCtrl

You should get 2 small compilation issues:

- * all GraphElements `StyleXxxx` renamed to `StyleGEXxxx` example: `StyleXAxisDefault()` ==>

StyleGEXAxisDefault()

* all X_ or Y_ in Types renamed to X1_ and Y1_ example X_TypeCoordConverter ==> X1_TypeCoordConverter

Look at the GanttCtrl package : I made the corrections needed

These renamings aim to suppress ambiguities to make code more readable.

I think most of the renaming/cleaning should be finished now, all this started when I pushed Chameleon in and I wanted to have a better code base

Note: Properties dialogs are quite ugly and not finished : next step is to try to do better ;)

BTW : you're GridAxis works fine, looks great and it will be a great addition. If you enhance it please post it back so we can all benefit

File Attachments

1) [Archive1.tar.gz](#), downloaded 398 times

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Sun, 12 Jul 2020 06:06:18 GMT

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That's just great Didier, I'm downloading the package, I'll check it.

Of course, I'll upload my version of the GridAxis, you may need to do some alteration to include it in the base.

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Sun, 12 Jul 2020 08:26:11 GMT

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Hello Didier,

I'm getting 1 warning and a few errors in Upp 13664 and MSVS17 compiler. What am I missing?

File Attachments

1) [Annotation 2020-07-12 135116.png](#), downloaded 812 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sun, 12 Jul 2020 09:57:39 GMT
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Oh crap !!! : The 'Hash_t' type only exists in recent versions of Upp ... you're version is too old
Just replace it with the type returned by memhash()

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sun, 12 Jul 2020 10:11:53 GMT
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After checking, memhash() was introduced with hash_t ... so you don't have it (you need at least svn 14534)

Here is the current default code (svn 14673) which should work for you (until you can update to latest version :))

```
hash_t memhash(const void *ptr, size_t count)
{
    unsigned hash = 1234567890U;

    const byte *s = (byte *)ptr;
    const byte *e = s + count;
    while(s < e)
        hash = ((hash << 5) - hash) ^ *s++;

    return hash;
}
```

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sun, 12 Jul 2020 10:18:25 GMT
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As for the warning, MSVC is probably winning about this

```
// GraphElements are NOT COPYABLE nor MOVEABLE
GraphElementParent(GraphElementParent&&) = delete;
GraphElementParent(const GraphElementParent&&) = delete;
GraphElementParent(GraphElementParent& ) = delete;
GraphElementParent(const GraphElementParent& ) = delete;
```

Since I don't have access to a valid MSVC, just tell what to put (normally this is valid code :?)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sun, 12 Jul 2020 11:22:00 GMT
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Oh, this is going to be a challenge. I've checked again, I still can't run even 14429, McAfee :(

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Tue, 14 Jul 2020 15:52:41 GMT
[View Forum Message](#) <> [Reply to Message](#)

Didier wrote on Sun, 12 July 2020 15:48As for the warning, MSVC is probably winning about this

```
// GraphElements are NOT COPYABLE nor MOVEABLE
GraphElementParent(GraphElementParent&&) = delete;
GraphElementParent(const GraphElementParent&&) = delete;
GraphElementParent(GraphElementParent& ) = delete;
GraphElementParent(const GraphElementParent& ) = delete;
```

Since I don't have access to a valid MSVC, just tell what to put (normally this is valid code :?)
I think this we can ignore. In MSVS community also someone reported this as an issue.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Tue, 14 Jul 2020 18:45:42 GMT
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Didier wrote on Sun, 12 July 2020 03:01
I just uploaded the latest version of the code.

Hello Didier!

Guess what, I can now run 14679! McAfee didn't cry about it :lol:

Modified my code and successfully eliminated all errors. Now there are some new 'possible loss of data' warning, see the image. You can ignore 'multiple copy constructors specified' errors.

File Attachments

1) [Annotation 2020-07-14 235802.png](#), downloaded 994 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Tue, 14 Jul 2020 21:18:06 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Pradip,

Quote: Guess what, I can now run 14679! McAfee didn't cry about it

Great news !

You should now see a good performance boost due to all the optimization work Mirek did using intrinsics (Thanks Mirek :))

For the other warnings, they are not from my packages ... so I can't do anything about it
ScatterDraw, which is now part of Uppsrc was written by Koldo ==> you need to post him a request for correction in this thread :

[https:// www.ultimatepp.org/forums/index.php?t=thread&frm_id=93&a mp;a mp;](https://www.ultimatepp.org/forums/index.php?t=thread&frm_id=93&a mp;a mp;)

Subject: Re: GraphDraw/GraphCtrl

Posted by [koldo](#) on Wed, 15 Jul 2020 07:45:30 GMT

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Dear Pradip, dear Didier

I cannot reproduce the warnings in DataSource.h.

Could you indicate me which compiler has been used and how DataSource.h is included?

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Wed, 15 Jul 2020 07:57:37 GMT

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Dear Koldo, I have used MSVS17 compiler.

Dear Didier, please advise how you have used ScatterDraw in GraphDraw

Subject: Re: GraphDraw/GraphCtrl

Posted by [koldo](#) on Wed, 15 Jul 2020 07:57:39 GMT

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Well, I think I have found and fixed the warnings,

Please check them (I cannot :roll:)

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Wed, 15 Jul 2020 08:01:31 GMT

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Dear Koldo,

Thanks! Should I check tomorrow in tonight's nightly build then?

Subject: Re: GraphDraw/GraphCtrl
Posted by [koldo](#) on Wed, 15 Jul 2020 10:58:41 GMT
[View Forum Message](#) <> [Reply to Message](#)

It is already uploaded and available in svn.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sat, 16 Jan 2021 06:08:24 GMT
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Hello Didier,

Hope you are doing fine :)

I tried to compile GraphCtrl_Demo in UPP version 15260 and found some errors in clang compiler; it is complaining about VectorDouble and ArrayDouble. Please see the image.

What should be done?

File Attachments

1) [Screenshot 2021-01-16 113114.png](#), downloaded 932 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sat, 16 Jan 2021 07:04:46 GMT
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Okay I got it. Changes in ScatterDraw:

VectorDouble -> VectorXY
ArrayDouble -> ArrayXY

Didier you may please update GraphCtrl accordingly

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sat, 16 Jan 2021 19:57:59 GMT
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Hello Pradip,

All is fine here thanks

I have a version which contains the necessary corrections ... but also comes with a lot of other modifications : corrections and enhancements.

The modifications are the following:

The main modifications aim to allow easy overriding of the properties editors (so that they can be fully customized (my graphic designer talent is very very bad ;))

To achieve this I had to kick out inheritance in Style classes (simpler this way) ==> No inheritance at all must be used at all !

==> this implies the StyleDefault() methods may need update

==> the main properties window (the one accessible when hovering graph area now displays all available properties as TABs) I also did some renaming (very few) where needed

One renaming was to follow a simple naming convention : when in a GraphElement class, getter and setter should be named GetElement...() SetElement...()) ==> so no confusion with GraphDraw / GraphCtrl methods Bug corrections

Here is the updated package

File Attachments

1) [Archive1.tar.gz](#), downloaded 357 times

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Thu, 21 Jan 2021 18:55:03 GMT

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Hello again Pradip,

While reconnecting with code (which I didn't work on for some time now : other things to do ;)) I just noticed I forgot to talk about some important modifications which I was working on and are not finished yet (but are isolated from rest of code for the moment and so normally will not bother you)

==> I was working on making ScatterDraw compatibility encapsulated in a CustomDataSource so that this could be optional (I like it when embedding all libraries is not mandatory ;)) ... This would have the could side effect of moving all ScatterDraw dedicated code to this CustomDataSource and thus cleaning GraphDraw.

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Sat, 20 Mar 2021 04:34:52 GMT

Hello Didier!

Sorry for not replying to you for a while! Me too wasn't working with the code for sometime, got back to them recently. Will try the new GraphCtrl package after some days, will keep the points you mentioned in mind for then.

Ahh you have worked on making things better, can't wait to see them :d

By any chance could you implement the PaintOne() (not sure if I remember the name right), for highlighting one data point for say selection or so?

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Sat, 20 Mar 2021 19:48:02 GMT

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Hello Pradip,

I recommend you wait a little bit more before synching.

I enhanced support for custom series, I did the following changes:

Introduced GraphSeries class : it's a proxy to the data that also nows takes care of drawing and editor dialog Did a clean separation for custom series ==> the series can now be in other packages Added legend management for all series (even custom series :) Added properties editor dialog management for all series (even custom series :) . A custom serie can come with it's properties dialog Did some packaging : isolated existing Series in a dedicated packages ==> this allows to choose exactly which kind of serie you will use and limit minimal dependancies Did some renaming (CustomDataSource was to confusing whith the ScatterDraw class)
[*] ScatterSerie interface changed a (very little bit) : preproperties are not available directly at GraphCtrl level, you need to get access to the GraphSeries (so just one simple modification that can be done with search/replace)

I reached a good level, but some other changes aren't done yet and still very dirty (example I tried to isolate GraphElements in different packages and succeded but this makes to many packages, so I rolled back

With these enhancements, you could contribute you're series very simply :)

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Mon, 22 Mar 2021 05:26:33 GMT

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Hello Didier,

Sure, I'll wait until you finish working at your end, and I'm sure it will be very cool when you are

done :d

Looking forward to it!

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 25 Mar 2021 04:43:09 GMT
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Hello Didier,

While trying to print the gantt chart in a report, please advise if using the GetImage() method is best for this purpose?

Thanks in advance :)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Thu, 25 Mar 2021 18:16:26 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Pradip,

The GetImage() method is intended exactly for that ;)

I recommend you use one of the following GetImage(...) methods (search in GraphDraw package) :

```
Image GetImage( Size size, Color backGndColor = Upp::White(), const int scale = 1 );  
Image GetImage(Size size, const int scale = 1 ) { return GetImage(size, White(), scale ); }  
inline Image GetImage(const int scale=1)      { return GetImage( _ctrlRect.Size()*scale, scale ); }  
inline Image GetImage(Color backGndColor, const int scale=1) { return GetImage(  
_ctrlRect.Size()*scale, backGndColor, scale ); }
```

The 'scale' parameter is intended to make a high resolution image intended for better rendering in reports (and printing).

Basically reportImageSize = screenImageSize * scale and it doesn't scale anything else so it works as if you had a bigger screen.

If you want a predefined size for you're repport, just use GetImage(size, scale)

I use it regularly in my repports.

Take a look at the 'copy' action in context menu in graph ==> it will copy the graph to clipboard while applying a scale=3 (3 is default copy ratio)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Fri, 26 Mar 2021 05:19:52 GMT
[View Forum Message](#) <> [Reply to Message](#)

Thankssss Didier! :d

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Wed, 31 Mar 2021 08:02:55 GMT
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Hello Didier,

While working for printing the gantt chart, found that these functions need const access to scale.

```
void GanttXGridAxisDraw::GanttGridStepCalcCbk(GridStepManager& gridStepManager,  
CoordinateConverter& coordConv){
```

```
void GanttXGridAxisDraw::PaintHGrid(Draw& dw, int yRange, const_GridSteplterator iter,  
const_GridSteplterator endlter) {
```

```
void GanttYGridAxisDraw::PaintVGrid(Draw& dw, int xRange, const_GridSteplterator iter,  
const_GridSteplterator endlter) {
```

GanttXGridAxisDraw::GanttGridStepCalcCbk needs scale to show the dynamic grid on both screen and print correctly, Please see the attached PDF which will illustrate this clearly.

Paint*Grid needs scale to draw the grids with right thickness on both screen and print.

Please advise.

File Attachments

1) [ScreenVsPrint.pdf](#), downloaded 366 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Wed, 31 Mar 2021 20:22:15 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Pradip,

You are wright !

The scale parameter is missing.

I will add it right away so it will be included in next version

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Wed, 31 Mar 2021 20:32:56 GMT
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I added 'scale' to PaintVGrid() and PaintHGrid() : was trivial

But for the other one, I have to look further into it : it's not trivial

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 01 Apr 2021 04:45:01 GMT
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Thanks a lot Didier!

Please send me the package once you are done, I'll attempt to sync.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Wed, 07 Apr 2021 12:51:06 GMT
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Hello Pradip,

Here is first version (not 100% finished, but what I wanted to see working is now OK)
There will be some more renaming to come (not to much I hope) but you can start with this version.

The main additions since your last sync are:

Introduced GraphSeries class : it's a proxy to the data that also takes care of drawing and editor dialog construction Did a clean separation for custom series ==> the series can now be in other packages Added legend management for all series (even custom series) Smile Added properties editor dialog management for all series (even custom series) Smile . A custom GraphSerie can come with it's properties dialog and it can be changed application wide with static methods SetDefaultXxxx() (just like Chameleon) Did some packaging : isolated existing Series in a dedicated packages ==> this allows to choose exactly which kind of serie you will use and limit minimal dependencies (I added a GraphSerie directory intended to contain all the GraphSerie packages) Did some renaming (CustomDataSource was too confusing with the ScatterDraw class) NEW : Changed GraphElement properties editors management : you can now change application wide the editor of a GraphElement with static methods SetDefaultXxxx() (just like Chameleon) (This enhances Styling capacities quite easily) NEW : did some more simplifications NEW : did some more renaming

All the modifications you requested have also been added :)
But after thinking about it, maybe you have a bug : the image copied to clipboard is supposed to look exactly the same as the one on the screen but with higher resolution so the number of grid

lines should not change and you should not have the behaviour you see in the image you shared
Maybe you could share with the code of you're GridAxis manager ?

[EDIT] : removed attached file, new version available further

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Wed, 07 Apr 2021 16:44:48 GMT
[View Forum Message](#) <> [Reply to Message](#)

Here the demo application I use to do some testing of GraphCtrl

[EDIT] : removed attached file, new version available further

Subject: Re: GraphDraw/GraphCtrl
Posted by [Klugier](#) on Wed, 07 Apr 2021 19:33:40 GMT
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Hello Dider,

Did you consider publishing GraphCtrl on UppHub? I think it would be good addition.

Klugier

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Wed, 07 Apr 2021 20:33:11 GMT
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Hello Klugier.

Yes I have this in mind.

Just did find time to do it and frankly, some clear intructions are missing

Putting code into github is quite easy but I don't know where to put the description files which upphub uses

Subject: Re: GraphDraw/GraphCtrl
Posted by [Oblivion](#) on Thu, 08 Apr 2021 06:53:55 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Didier,

Quote:

Putting code into github is quite easy but I don't know where to put the description files which upphub uses

You don't need to edit or create any description files. IF your module/ctrl isn't already on a public Github repo, just create a repo following these instructions and notify us. It's our responsibility to handle the rest. :)

Example of the directory structure to be created

If you have more than one closely related packages, such as GraphDraw and GraphCtrl, you can put them both into the same root directory, e.g.

GraphDraw
GraphCtrl
examples,
test
autotest
README.(md/qtf/or plain text)
LICENSE (md/or plain text)

If you have any questions let us know.

Best regards,
Oblivion

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 08 Apr 2021 07:49:23 GMT
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Hello Didier!

Wonderful :) , I'll download the package and will attempt to sync.

Also uploading the full CustomGantt package. The reason why I'm getting a different grid density between screen and print is:

Please see GanttXGridAxisDraw::GanttGridStepCalcCbK, where I'm deciding the grid mode and in GanttXGridAxisDraw::FormatAsDateCbK, based on the grid mode, formatting the axis. I've enclosed a PDF showing different grid modes as displayed.

In GanttXGridAxisDraw::GanttGridStepCalcCbK, in the following lines (got those limits by trial), the limits must be multiplied by scale to render correct output on print.

```
if(daySpacing > Zx(90)) gridMode = DAY;
else if(daySpacing > Zx(30)) gridMode = LONG_WEEK;
else if(daySpacing > Zx(17)) gridMode = SHORT_WEEK;
else if(weekSpacing > Zx(70)) gridMode = LONG_MONTH;
else if(weekSpacing > Zx(25)) gridMode = SHORT_MONTH;
else if(monthSpacing > Zx(28)) gridMode = QUARTER;
else if(yearSpacing > Zx(220)) gridMode = LONG_YEAR;
```

File Attachments

1) [CustomGantt.rar](#), downloaded 326 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Fri, 09 Apr 2021 04:37:13 GMT
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Hello Didier,

The updated GraphCtrl needs AutoScroller, failing on compilation. Where can I get that package?

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Fri, 09 Apr 2021 12:07:25 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Pradip,

The autoscroller is part of UppHub, if you have a very recent version of Theide, it will be available.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 15 Apr 2021 07:21:32 GMT
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Hello Didier,

Please, help is needed while syncing!

How should I modify the following lines? They are failing in compilation :(

```
struct GanttCtrlDefaultTypes {
    typedef GanttCtrlDefaultTypes                                     Types;
    typedef GraphDraw_ns::CoordinateConverter
    X1_TypeCoordConverter;
```

```
typedef GraphDraw_ns::CoordinateConverter
Y1_TypeCoordConverter;
typedef GraphDraw_ns::StdGridAxisECtrl<Types, GraphDraw_ns::GanttXGridAxisDraw >
X1_TypeGridAxisDraw;
typedef GraphDraw_ns::StdGridAxisECtrl<Types, GraphDraw_ns::GanttYGridAxisDraw >
Y1_TypeGridAxisDraw;
typedef GraphDraw_ns::StdLabelECtrl<Types, GraphDraw_ns::LabelElement>
TypeLabelElement;
typedef GraphDraw_ns::StdLegendECtrl<Types, GraphDraw_ns::LegendElement >
TypeLegendElement;
typedef GraphDraw_ns::StdBlankAreaECtrl<Types, GraphDraw_ns::BlankAreaElement >
TypeBlankElement;
typedef GraphDraw_ns::DynamicMarkerECtrl< Types >
TypeMarkerElement;
};
```

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 15 Apr 2021 07:25:49 GMT
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Didier wrote on Fri, 09 April 2021 17:37The autoscroller is part of UppHub, if you have a very recent version of Theide, it will be available.
Thanks! Got the latest version of UPP and got the autoscroller too

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Thu, 15 Apr 2021 12:52:09 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Pradip,

Quote:How should I modify the following lines? They are failing in compilation Sad

Code: [Select all] [Show/ hide]
struct GanttCtrlDefaultTypes {
 typedef GanttCtrlDefaultTypes Types;
 typedef GraphDraw_ns::CoordinateConverter
X1_TypeCoordConverter;
 typedef GraphDraw_ns::CoordinateConverter
Y1_TypeCoordConverter;
 typedef GraphDraw_ns::StdGridAxisECtrl<Types, GraphDraw_ns::GanttXGridAxisDraw >
X1_TypeGridAxisDraw;
 typedef GraphDraw_ns::StdGridAxisECtrl<Types, GraphDraw_ns::GanttYGridAxisDraw >
Y1_TypeGridAxisDraw;
 typedef GraphDraw_ns::StdLabelECtrl<Types, GraphDraw_ns::LabelElement >

```

TypeLabelElement;
typedef GraphDraw_ns::StdLegendEctl<Types, GraphDraw_ns::LegendElement >
TypeLegendElement;
typedef GraphDraw_ns::StdBlankAreaEctl<Types, GraphDraw_ns::BlankAreaElement >
TypeBlankElement;
};

```

This is due to some simplifications ==> one of the template parameters was removed, it had become useless over time

So you just need to remove the 'Types' from the template declaration

'TYPES' template parameter isn't passed any more to GraphElements (they don't need this information)

Example:

```

typedef GanttCtrlDefaultTypes                                     Types;
typedef GraphDraw_ns::CoordinateConverter                       X1_TypeCoordConverter;
typedef GraphDraw_ns::CoordinateConverter                       Y1_TypeCoordConverter;
typedef GraphDraw_ns::StdGridAxisEctl<GraphDraw_ns::GanttXGridAxisDraw >
X1_TypeGridAxisDraw;
typedef GraphDraw_ns::StdGridAxisEctl<GraphDraw_ns::GanttYGridAxisDraw >
Y1_TypeGridAxisDraw;
typedef GraphDraw_ns::StdLabelEctl<GraphDraw_ns::LabelElement>
TypeLabelElement;
typedef GraphDraw_ns::StdLegendEctl<GraphDraw_ns::LegendElement >
TypeLegendElement;
typedef GraphDraw_ns::StdBlankAreaEctl<GraphDraw_ns::BlankAreaElement >
TypeBlankElement;
typedef GraphDraw_ns::DynamicMarkerEctl                        TypeMarkerElement;

```

Look at the GanttCtrlDefaultTypes declaration (there are some other simplifications : some don't have templates at all)

Subject: Re: GraphDraw/GraphCtrl
 Posted by [Pradip](#) on Mon, 19 Apr 2021 13:14:47 GMT
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Hello Didier,

The syncing is fully complete now. Addition of the scale parameter came very handy, thanks a lot!

Enclosing comparison of screen and print outputs now, perfect!

While syncing, noted the following changes:

Changed this as you suggested, but noticed that the template name is TStdGridAxisECtrl and not StdGridAxisECtrl; similar changes in other related lines

```
//typedef GraphDraw_ns::StdGridAxisECtrl<Types, GraphDraw_ns::GanttXGridAxisDraw >
X1_TypeGridAxisDraw;
typedef GraphDraw_ns::TStdGridAxisECtrl<GraphDraw_ns::GanttXGridAxisDraw >
X1_TypeGridAxisDraw;
```

This needs package GraphSeries/SimpleJobSerie

```
//class GanttBarSeries : public CustomDataSource {
class GanttBarSeries : public SimpleJobSerie {
```

For chameleon; similar changes in other related lines

```
//ganttPrintStyle.x1AxisStyle.gridColor = WhiteGray();
ganttPrintStyle.x1AxisStyle.gdStyle.gridColor = WhiteGray();
```

In Ctor, this was bit of a surprise. The first line worked fine before in both modes, now works in debug but crashes in release. Changed line works in both.

```
//GetElementY1GridAxisDraw().SetAxisInverted(); // crashes in release mode!
GetElementY1GridAxisDraw().GetCoordConverter().SetInverted();
```

Finally, noticed that now ScatterDraw package is needed, which wasn't the case earlier.

It's an awesome experience, working with the GraphCtrl! Cheers :d

File Attachments

1) [ScreenVsPrint.pdf](#), downloaded 317 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Mon, 19 Apr 2021 17:42:49 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Pradip,

Glad to here you succeeded in syncing (hope it wasn't to much work :blush:)

Quote:Changed this as you suggested, but noticed that the template name is TStdGridAxisEctl and not StdGridAxisEctl; similar changes in other related lines

When I removed the TYPE template parameter from GraphElementCtrl i Noticed I could simplify things and define default types (that don't need templates)

This is why I added 'T' : it's shows it is the Template version

```
typedef TStdGridAxisEctl< GridAxisDraw >    StdGridAxisEctl;  
typedef TStdLabelEctl  < LabelElement>      StdLabelEctl;  
typedef TStdLegendEctl < LegendElement>     StdLegendEctl;  
typedef TStdBlankAreaEctl<BlankAreaElement> StdBlankAreaEctl;  
typedef DynamicMarkerEctl                StdMarkerEctl;
```

Quote:This needs package GraphSeries/SimpleJobSerie

```
//class GanttBarSeries : public CustomDataSource {  
class GanttBarSeries : public SimpleJobSerie {
```

You should have used :

```
class GanttBarSeries : public GraphSerie  
Since CustomDataSource was renamed GraphSerie  
SimpleJobSerie is just an example of a job serie
```

Quote:In Ctor, this was bit of a surprise. The first line worked fine before in both modes, now works in debug but crashes in release. Changed line works in both.

```
//GetElementY1GridAxisDraw().SetAxisInverted(); // crashes in release mode!  
    GetElementY1GridAxisDraw().GetCoordConverter().SetInverted() ;
```

I will look into this, obviously there is a problem ...

Quote:Finally, noticed that now ScatterDraw package is needed, which wasn't the case earlier ScatterDraw was always necessary before: it was part of the dependencies of GraphDraw.

Now, after the laast modifications, if you don't use ScatterSeries in you're application ScatterDraw package is no more included (since it's not needed by application)

If you need ScatterSeries you need to make it a dependency of you're application package

This was done to limit dependencies to the minimum and prevent inclusion of unused packages

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Mon, 19 Apr 2021 19:01:38 GMT

[View Forum Message](#) <> [Reply to Message](#)

Quote:ScatterDraw was always necessary before

After verification isolating Scatter isn't completely finished code doesn't compile without it :blush:

I will have to finish this

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Fri, 23 Apr 2021 06:03:07 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Didier,

Didier wrote on Mon, 19 April 2021 23:12
Glad to here you succeeded in syncing (hope it wasn't to much work :blush:)

Amazing :d! Though it took bit of a time, it was smooth sailing through the syncing! For custom series, now there are styles, mouse events, editor dialog (I'm still exploring) all thanks to your amazing work 8o

Didier wrote on Mon, 19 April 2021 23:12
When I removed the TYPE template parameter from GraphElementCtrl i Noticed I could simplify things and define default types (that don't need templates)

It is simplified now

Didier wrote on Mon, 19 April 2021 23:12
You should have used :
class GanttBarSeries : public GraphSerie
Since CustomDataSource was renamed GraphSerie
SimpleJobSerie is just an example of a job serie

Got your point. Now I'm using:
class GanttBarSeries : public SimpleGraphSerie {
And removed dependency with SimpleJobSerie

Didier wrote on Mon, 19 April 2021 23:12
Quote:In Ctor, this was bit of a surprise. The first line worked fine before in both modes, now works in debug but crashes in release. Changed line works in both.

```
//GetElementY1GridAxisDraw().SetAxisInverted(); // crashes in release mode!  
    GetElementY1GridAxisDraw().GetCoordConverter().SetInverted() ;
```

I will look into this, obviously there is a problem ...

Sure, I'll keep syncing with your updates.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Fri, 23 Apr 2021 06:06:00 GMT
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Didier wrote on Tue, 20 April 2021 00:31
After verification isolating Scatter isn't completely finished code doesn't compile without it :blush:
I will have to finish this
Right, I'm not using ScatterDraw, so tried to remove it, then it didn't compile.
Just take your time and keep up the amazing work :)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Fri, 23 Apr 2021 11:00:38 GMT
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Hello Didier,

One question:
How to pass the style info (StyleGS) from GraphSerie derived classes to CustomData derived classes?

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Mon, 26 Apr 2021 10:50:36 GMT
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Hello Didier,

Another question, while trying to implement mouse click on data point:

```
void CustomData_Job::PaintDataPoint(BufferPainter& dw, int scale, const CoordinateConverter*
xCoordConv, const CoordinateConverter* yCoordConv ) const
{
    const TypeScreenCoord left = xCoordConv->toScreen(rectGraphBound.left);
    const TypeScreenCoord right = xCoordConv->toScreen(rectGraphBound.right);
    const TypeScreenCoord bottom = yCoordConv->toScreen(rectGraphBound.top);
    const TypeScreenCoord top = yCoordConv->toScreen(rectGraphBound.bottom);
    Rect r(left,top, right, bottom);
    r.Normalize();
    ChPaint(dw, r, rectStyle);
    if (isSelected) {
        DrawFrame(dw, r, Cyan());
    }
}
```

```
bool SimpleJobSerie::LeftDown (unsigned int pIndex, PointGraph p, dword keyflags) {
```

```
data[pIndex].isSelected = !(data[pIndex].isSelected);  
return true;  
}
```

Here, the Cyan frame isn't drawn when mouse is clicked, it's only drawn at the time of next repaint. What to do?

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Mon, 26 Apr 2021 20:48:43 GMT
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Hello Pradip,

Quote:One question:

How to pass the style info (StyleGS) from GraphSerie derived classes to CustomData derived classes?

The best way to do this is to initialize you're instances : look at the CustomData_Job::Init().

I would set a parameter to the GrapSerie owner instance and get acces to it's Style

This will have very poor performance, but I introduced CustomData / SimpleArrayGraphSerie classes to ease development of simple series with few data.

So it shouldn't be a problem.

Quote:Another question, while trying to implement mouse click on data point: it's only drawn at the time of next repaint. What to do?

These CustomData / SimpleArrayGraphSerie aren't finished so this doesn't work at this time.

But ... you don't need this to get selection working. I have something working which doesn't use SimpleGraphSerie but I don't have to code at hand right now.

I'll tell you tomorrow how I did it

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Tue, 27 Apr 2021 08:11:43 GMT
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Hello Didier,

Uh huh! Nice, I'll wait for you to finish CustomData / SimpleArrayGraphSerie.

Also let me know how to make that selection working, that's not that critical though.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Tue, 27 Apr 2021 18:08:42 GMT
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Hello Pradip,

In fact you caught me in middle of refactororing/enhancement process, that's why things aren't stable/finished :p

I correct my previous reply

Quote:These CustomData / SimpleArrayGraphSerie aren't finished so this doesn't work at this time.

Yes they are not finished but the have to be used to evolve in the right direction

The CustomData_Job is only an example class which is intended to be a first use case (with selection :)) and be a laboratory for features that will go in SimpleArrayGraphSerie or GraphSerie but this stopped when I switched to cleaning style management.

I first needed to clean style management before going further: I think style and associated properties editors management is OK now ;)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Tue, 27 Apr 2021 18:28:39 GMT
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Quote:Also let me know how to make that selection working

I made it work by calling, in LeftDown(unsigned int pIndex, PointGraph p, dword keyflags) a callback function.

I set this callback to what I need.

In you're case I think you should add a onSelectCB Callback.

In order to display properly, you just need to do a
RefreshFromChild(GraphDraw_ns::REFRESH_FULL)

This is not optimal for performance : all gets redrawn (graph and graph data)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Tue, 27 Apr 2021 21:33:49 GMT
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Hello Pradip,

Here is my latest version:

Separation from ScatterDraw is complete (although I am not satified about how I did it : I had to copy the drawing methods,and this is not good but it will do for the moment) Added ability to Refresh owner graph from a GraphSerie

This is what was missing in SimpleJobSerie and it's more open to other usages replaced all `dynamic_cast<>` left in code with `static_cast<>` Finished memory cleaning of GraphSeries (their was a memory leak) Did some cleaning of management of auto color of series Added possibility to change legend text color : if NULL, text will have same color as serie, otherwise it will have the color set for legend test (black by default)

[Edit] : removed download file (new version available)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Tue, 27 Apr 2021 21:34:54 GMT
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Here is second part

[Edit] : removed download file (new version available)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sun, 02 May 2021 10:31:55 GMT
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Hello Didier,
Didier wrote on Tue, 27 April 2021 23:38Hello Pradip,

In fact you caught me in middle of refactororing/enhancement process, that's why things aren't stable/finished :p

I correct my previous reply
Quote:These CustomData / SimpleArrayGraphSerie aren't finished so this doesn't work at this time.

Yes they are not finished but the have to be used to evolve in the right direction

Of course, I'm totally with you on this process of development of GraphCtrl, and very happy to be a part of it!

Didier wrote on Tue, 27 April 2021 23:38
The CustomData_Job is only an example class which is intended to be a first use case (with selection :)) and be a laboratory for features that will go in SimpleArrayGraphSerie or GraphSerie but this stopped when I switched to cleaning style management.
I first needed to clean style management before going further: I think style and associated properties editors management is OK now ;)

Yes understood about the example class. Will keep giving you inputs about it, giving few in next message. I will check the style management / properties management dialogs soon and will ask

my doubts then :d

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sun, 02 May 2021 10:43:20 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello Didier,
Didier wrote on Wed, 28 April 2021 03:03Hello Pradip,
Here is my latest version:

Separation from ScatterDraw is complete (although I am not satisfied about how I did it : I had to copy the drawing methods, and this is not good but it will do for the moment) Added ability to Refresh owner graph from a GraphSerie

This is what was missing in SimpleJobSerie and it's more open to other usages replaced all `dynamic_cast<>` left in code with `static_cast<>` Finished memory cleaning of GraphSeries (there was a memory leak) Did some cleaning of management of auto color of series Added possibility to change legend text color : if NULL, text will have same color as serie, otherwise it will have the color set for legend text (black by default)

Synced with your latest version, no trouble syncing at all!
Pointwise:

Great, now it compiles without ScatterDraw Refreshing owner graph works quite well, I can use it now for that selection, but as you said it repaints the whole graph, so may not be optimal. Can the PaintOne method help in this scenario? Okay Right, had noticed some memory leak before, will let you know if I encounter that now Not using for Gantt, will check for other usage So thoughtful! Not using for Gantt, will check for other usage

New question:

Is there any way the painting order of X and Y grid can be specified? Now that order seems to change randomly.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Mon, 03 May 2021 21:00:12 GMT
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Hello Pradip,

Quote: Is there any way the painting order of X and Y grid can be specified? Now that order seems to change randomly.

The order is absolutely not random: it is directly dependent on the order the GraphElements are inserted and where the drawing is supposed to be done:

The different painting layers are drawn in the following order :

- * Draw Graph background and Plot background
- * Call PaintOnPlot_underData()
- * Paint Series DATA

- * Call PaintOnPlot_overData()
- * Call PaintElement()
- * Call PaintFloatElement()

Look at GraphDrawBase.h L901 CRTP_EmptyGraphDraw::Paint() method

Quote:Right, had noticed some memory leak before, will let you know if I encounter that now
If you encounter such issues please tell me so that I can correct

Quote:Refreshing owner graph works quite well, I can use it now for that selection, but as you said it repaints the whole graph, so may not be optimal. Can the PaintOne method help in this scenario?

I'm not sure about it: if the API is too directive, this will close many possible usages.

Example:

If I use the PaintOne() method, this will work perfectly in your case. If I take another use case : "try to select many data points of scatter data with a select rectangle", the PaintOne() method will be very slow and completely unadapted

Maybe these two use cases are too far away to be approached in one unified way (I don't think so): but I really have to spend some time on it before giving up.

If you have some ideas, they are welcome

Subject: Re: GraphDraw/GraphCtrl

Posted by [Pradip](#) on Tue, 04 May 2021 11:15:23 GMT

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Hello Didier,

Quote:

Look at GraphDrawBase.h L901 CRTP_EmptyGraphDraw::Paint() method

Studied GraphDrawBase.h.

In these lines, since Sort() is used, and since X and Y grids are having same priority, at times the draw order is changed (only between X and Y grids, draw order of other elements are just fine).
Uploading a PDF in next message to illustrate the effect. Have tried changing Sort() to StableSort(), which resolves this issue, please consider this.

Quote:

If you have some ideas, they are welcome

Let me think about this, if I get any idea I'll be glad to share with you.

File Attachments

1) [Screenshot 2021-05-04 144228.jpg](#), downloaded 900 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Tue, 04 May 2021 11:17:42 GMT
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Hello Didier,

Quote:
Uploading a PDF in next message to illustrate the effect.

Please see the PDF

File Attachments

1) [Grid display.pdf](#), downloaded 430 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Tue, 04 May 2021 17:31:58 GMT
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Hello Pradip,

Well I forgot about the Sort() part (it was added in 2014: I just checked) :blush:
Like you proposed, I will replace with StableSort, this is will make things predictable.

If you want to change the drawing order, you can just adjust the stacking priority so that X and Y grid don't have the same priority anymore and fit you're needs (But you probably already figured that out ;)

By default there are free values between the default GraphElements stacking priority: this is intentional so that local adjustments can be done without having to modify everything

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sun, 16 May 2021 20:30:31 GMT
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Hello Pradip,

Here is a new version.
Most of the work is :

- * code cleaning
- * quality enhancement: memory leaks, uninitialized vars, readability
- * and some code corrections

Next step is try to get Selection running :)

Details are here:

- * Code cleaning
- * Replace Sort() with StableSort in GraphDraw
- * Documentation:
 - * Corrected invalid references
 - * Somme documentation writing
- * GSeriesCtrlDlg :
 - * Correct series common style parameters modification when editor CANCEL (modifications should not be applied)
 - * Correct series Serie style modification when editor CANCEL (modifications should not be applied)
 - * Erase previous SeriesEditor current GraphSerieserie when Serie doesn't create one
 - * Corr update after SeriesStyle modification
- * renamed
 - class SeriesPropertiesDlgInfo ==> class GraphSerieEditorInterface
 - GraphSerie_child_classes::
 - MakeSerieEditorDlg() ==> MakeGraphSerieEditorInfo()
 - class GraphSeriesGroup::
 - AddCustomSeries() ==> AddCustomSeries()
 - SetModifyCustomSeries() ==> SetModifyGraphSeries()
 - CreateCustomSeries() ==> CreateGraphSerie()
 - ClearModifyCustomSeries() ==> ClearModifyGraphSeries()
 - IsModifyCustomSeries() ==> IsModifyGraphSeries()
 - ClearAllCustomSeries() ==> ClearAllOwnedGraphSeries()
 - OwnedGraphDataSources ==> GraphSeriesGroup::OwnedGraphSeries
 - customDataSourceProxyVector ==> graphSeriesProxyList
 - _isCustomSeriesModified ==> _isGraphSeriesModified
 - class GraphSerieDecorator::
 - SetDataSource() ==> SetGraphSerie()

[EDIT] removed dowload file (newer one available further)

Subject: Re: GraphDraw/GraphCtrl
 Posted by [Didier](#) on Sun, 16 May 2021 20:36:26 GMT
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Second file

[EDIT] removed dowload file (newer one available further)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 20 May 2021 08:52:13 GMT
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Hello Didier!

Synced with the new version seamlessly! Glad to see GraphCtrl evolving so well :o, I can't live without it anymore :d!

Following are my points:

Noted the overall change in terminology: CustomSeries ==> GraphSeries For the selection, I tried something different (without using RefreshOwnerGraph()); made a separate GraphSeries, only to display the selection, and it worked so well! Though still it works through SetModifyGraphSeries(), which isn't optimal, but it does the job for me. Uploading the CustomGantt package in next message, you may have a look. About using the PaintOne() method, I was thinking about this use case : "try to select many data points of scatter data with a select rectangle"; to make this work, I think the client code in any case must go through each data point and run a check if the point is contained within the select rectangle, which might be speeded up with some hash value (I didn't work with hash values yet so can't say for sure). If a data point is contained, then the client code can still use PaintOne() method to show the selected points differently. About drawing order, yess I know you wrote that part many years back! Right, StableSort() is making it predictable, and also after you wrote I've figured out about stacking priority of grids, just incrementing one grid's stacking priority gives full control! Wow you thought about everything didn't you! Not seeing any more memory leaks Please see line 123 of CustomGantt.h (uploaded in next message). Can you give some idea how to use StyleGS to specify the colours used in GanttChart without using GanttColors* as I've done before? I was trying to display information about the Gantt bars when mouse hovered on them, with some ToolTip, but then noticed that MouseEnter() or MouseLeave() are not implemented in GraphSerie class. Tried to do that with MouseMove() but neither that was captured for GraphSerie. Any thought about it?

See how the app looks now, with selection!

File Attachments

1) [Screenshot 2021-05-20 140123.jpg](#), downloaded 878 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Thu, 20 May 2021 08:54:30 GMT
[View Forum Message](#) <> [Reply to Message](#)

Pradip wrote on Thu, 20 May 2021 14:22Hello Didier!
Uploading the CustomGantt package in next message

Here it is

File Attachments

1) [CustomGantt.rar](#), downloaded 391 times

Subject: Re: GraphDraw/GraphCtrl

Posted by [Didier](#) on Thu, 20 May 2021 17:45:07 GMT

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Hello Pradip,

You're app is looking good :thumbup:

Quote:Noted the overall change in terminology: CustomSeries ==> GraphSeries
Naming is now stabilising, I'm feeling quite happy with them now

Quote:For the selection, I tried something different (without usi...

Well I made huge progress with selection, I have something almost ready for delivery : with point and area selection, selection with append and/or include/intersect

All is already ready for GraphSeries inheriting from SimpleGraphSerie (which I might rename SmallGraphSerie since it reflects more what it really is)

Only two methods need to be written and everything will work out of the box :)

I will deliver it very soon (maybe tonight)

Note: Since it is the first delivery, things are not very stable but it's looking quite good

Quote:Please see line 123 of CustomGantt.h

I just looked quickly: it should fit in easily, I will try to do the code

Quote:I was trying to display information about the Gantt bars when mouse hovered on them, with some ToolTip, but then noticed that MouseEnter() or MouseLeave() are not implemented in GraphSerie class

I have never needed MouseEnter or MouseLeave so they are not there ...

After second thought, I'm not sure this is not a good idea. MouseLeav and MouseEnter() are called when mouse enters or leaves GraphCtrl.

I would have to reproduce this behaviour: I'm not sure this is a good idea for performance view.

Maybe you can get around this limitation by using CenterClick() or RightClick() to get help or CursorImage()

Another solution maybe would be to introduce some CursorTip() method that would be called after 1s of no mouse movement. This would not impact performance and do just what you need

GraphCtrl is looking more and more like it's own Ctrl management framework (although it's not the case and certainly not intended to be the case 8o)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Thu, 20 May 2021 20:30:51 GMT
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Hello Pradip,

Here is the updated package.

Compile my example app and play with the Full Demo tab.

- * SHIT : activates select (
- * CTRL : activates APPEND to select (otherwise previous selection is lost each time you select)
- * ALT : activates INTERSECT (when selecting in an area, all objects that intersect with the area are selected. Otherwise only the fully include ones are selected)

Point selection is enabled (with flip/flop selection : if object is already selected it is unselected)
* SHIFT, SHIFT+CTRL

Area selection is enabled

- * SHIFT, SHIFT+CTRL, SHIFT+ALT, SHIFT+CTRL+ALT

Image cursor changes with use-case (tried to make something not too ugly)

To enable selection for your SimpleGraphSeries, you have to add the following methods (for the moment the '=0' are not enabled in base classes because other series are not updated yet).

- * In CustomData child class : virtual void PaintDataPoint(BufferPainter& dw, int scale, int style, const CoordinateConverter* xCoordConv, const CoordinateConverter* yCoordConv) const override;

This will paint the data that is HIGHLIGHTED if style==DataPaintingStyle::HIGHLIGHT_STYLE

- * In your GraphSerie's constructor: set the serie Ctrlable() and Selectable()

Look at SimpleGraphSerie for an example ;)

[Edit] deleted download file : newer version available further

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Wed, 26 May 2021 14:22:25 GMT
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Hello Pradip,

Did you have time to play around with the selection ?

I deployed it to one of applications and had to make some adjustments and add WhenSelectAction.

==> This first use-case is now OK for me.

Next step is to try to deploy it to ScatterSeries.
With these two use-cases, maybe selection will be stabilized.

How does your use-case go ?

I will deliver tonight a new version

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Tue, 01 Jun 2021 21:23:09 GMT
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Hello Pradip,

Here is my latest update :)

There is a lot of cleaning up and corrections around the GraphSerie style editor
As for selection, I had to do some small refactoring (nothing really heavy, but you will be impacted: See PaintDataPoint() and MCoordinateConverter

All modifications are:

Quote: * GraphSerieEditorInterface:

- * Added default filling of Functions<> (no more needed to fill them in custom creator function)
- * Changed procedure used to create GraphSerieEditorInterface instances
==> You now have to use GraphSerieEditorInterface::Create()
This allows to "catch" types and have full type checking in code
- * Added RevertChange() : used by the [Cancel] button (All is managed automatically by doing a copy of the Style before modifying it)
!! NOTE !!! : All MY_GrapSerie::StyleGS structs now MUST have an 'operator=()' defined (needed to copy styles)
- * Series Style editor :
 - * corrected serie selection when filtering & sorting
 - * Corrected preview update
 - * added update of preview in list table
- * Added FitToData() capacities to SimpleJobSerie example
- * Corrected FitToVisibleData() (had same behaviour as FitToData() since refactoring)
- * Removed method: CustomData::PaintDataPoint(BufferPainter& , int scale, const MCoordinateConverter& coordConv)
Only version with 'int style' is kept
- * Introduced class : MCoordinateConverter
- * Changed GraphSerie::SelectXxx() API (to use MCoordinateConverter)

- * Changed GraphSerie::PaintXxx() API (to use MCoordinateConverter)
- * Changed CustomData class methods API (to use MCoordinateConverter)
- * Added GraphSerie selection related action Functions<>
 - Event<> WhenPreSelectAction;
 - Event<> WhenPostSelectAction;

File Attachments

1) [ArchivGraphCtrl.7z](#), downloaded 338 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Mon, 07 Jun 2021 08:43:23 GMT
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Hello Didier!

Sorry last few days I got busy with other things a bit, also I was trying to show the info by mouse hover, which I could achieve by using CursorImage(), though perhaps it wasn't the intention of that method, but it is working quite well.

In a few days I'll download the new package and will sync.

Noticed one thing though now, which wasn't happening before:
If the GraphCtrl Rect has non-positive height or width (which might happen by window resizing or by moving a Splitter), then it crashes at this line:

Please notice the _plotRect

Will let you know how the syncing goes, very soon.

File Attachments

1) [Screenshot 2021-06-07 140956.jpg](#), downloaded 726 times

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Mon, 07 Jun 2021 11:33:10 GMT
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Hello Pradip,

I also noticed this crash, and did not take time to look into it.
I will do it as soon as I have some time

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Tue, 08 Jun 2021 20:28:04 GMT
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Hello Pradip,

Quote:If the GraphCtrl Rect has non-positive height or width (which might happen by window resizing or by moving a Splitter), then it crashes at this line:

just surround the code with :
if ((_plotRect.GetHeight() > 0) && (_plotRect.GetWidth() > 0)) {

just like for 'paint PLOT DATA'

It will be in next release :)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Sat, 03 Jul 2021 04:18:49 GMT
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Hello Didier!

I'm all done with the syncing, and woah!

You indeed made huge progress with the selection, using ALT and CTRL and SHIFT, amazing!
And the style editor improvements are done wonderfully as well. Though as of now I'm not using the full potential of these features, but very soon I will!

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Sat, 03 Jul 2021 07:41:42 GMT
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Hello Pradip,

Glad to see the recent evolutions fit you're apps needs :thumbup:
If you need to change the default keys, look at :
GraphCtrl_Keys::Reset()

I am less working on it these days : raining has stopped :d
So i'm spending most of my spare time taking advantage of the good weather 8)

Subject: Re: GraphDraw/GraphCtrl
Posted by [Pradip](#) on Wed, 12 Apr 2023 07:12:03 GMT
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Hello Didier!

It's been a long time since we communicated last. How have you been? Facing another rainy season soon? :d We are getting geared up for the famous Indian summer here 8o

I have been using the GraphCtrl, the masterpiece done by you in some projects. Have you done some more refinements to it? If yes then let me have the latest one please.

I've got one question: is it possible to keep the scale factors for both X and Y scale same always? I did it some messy way by overriding paint and setting min and max of axes, just wondering if there would be a better way.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Fri, 23 Feb 2024 17:23:30 GMT
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Hello Pradip,

Nice to here about you.

It's been some time since i've connected to the forum, although I go to it without connecting myself ... so I missed you're message :blush:

I have done some enhancements since then (maybe not much though : I didn't have any needs) but I am currently adding data selection for ScatterSeries (I already added whole serie selection/highlight through legend select)

I will try to add X/Y zoom synchronisation.

Subject: Re: GraphDraw/GraphCtrl
Posted by [Didier](#) on Fri, 23 Feb 2024 17:26:26 GMT
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Hello again Pradip,
do you have an image of you're app using GraphCtrl, so I can see what you've done with it, how you styled it ?

Thanks :)
