Subject: Turtle package is ported to VirtualGui
Posted by Oblivion on Mon, 31 Aug 2020 12:47:24 GMT
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Hi,

Turtle package is ported to VirtualGui.

- It now includes two project templates (both basic & complex) that will show up in TheIDE, and API docs.
- reference/WebWord example is updated accordingly.
- A simpler example, WebHelloWorld, is also added to the reference examples.

See Turtle/issues file for known issues.

And let me know if you encounter any problems.

Best regards,
Oblivion.

Subject: Re: Turtle package is ported to VirtualGui
Posted by Tom1 on Sat, 19 Sep 2020 20:47:10 GMT
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Hi Oblivion,

I noticed your work on this and tried compiling reference/webword, but unfortunately this failed with TURTLEGUI flag due to a whole bunch of errors. (I was using a freshly updated svn copy and did a 'rebuild all'.)

Platforms used:
- Linux with CLANG
- Windows with CLANG and MSBT19x64

Could you take a quick look at it?

With GUI flag reference/webword did compile, although I had to fix a missing PdfDraw initializer on Windows. (Interestingly, this was not an issue on Linux.)

Additionally, I noticed that in some cases flag TURTLE is used and in some, flag TURTLEGUI.

Best regards,

Tom

Subject: Re: Turtle package is ported to VirtualGui
Posted by Oblivion on Sat, 19 Sep 2020 22:12:06 GMT

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Hello Tom,

Thank you for the bug report & testing.

I've tested the latest package and WebWord with:

Linux: upp-SVN GCC x64 (10.2.0)
Linux: upp-SVN CLANG x64 (10.0.1)
Windows 7: upp-15080 (with the bundled CLANG).

(Unfortunately, MSC 19 has to wait for tomorrow I don't have access to my win 10 machine right now)

WebWord works fine in Turtle mode here. However,

Quote:
With GUI flag reference/webword did compile, although I had to fix a missing PdfDraw initializer on Windows. (Interestingly, this was not an issue on Linux.)

Apparently this is my mistake. It seems that I forgot to add the pdfdraw to WebWord's package configuration.
Fixed it. Please check the svn.

Quote:
Additionally, I noticed that in some cases flag TURTLE is used and in some, flag TURTLEGUI.

This is interesting. The new Turtle package neither defines nor uses the TURTLE flag.
In fact, even the TURTLEGUI flag is defined at application level. (It is not defined in uppsrc.)

Maybe old and new files got mixed in the process?

Best regards,
Oblivion

Subject: Re: Turtle package is ported to VirtualGui
Posted by Tom1 on Sun, 20 Sep 2020 16:11:05 GMT

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Hi Oblivion,

Thanks! Now it works for me both on Linux and Windows when using CLANG/CLANGx64.

After I added package "plugin/FT_fontsys" to the project, it finally linked properly with both MSBT19 and MSBT19x64 too. Maybe you can include "plugin/FT_fontsys" in Turtle or VirtualGui. (I do not know where it really belongs.)

Best regards,

Tom

Subject: Re: Turtle package is ported to VirtualGui
Posted by Tom1 on Sun, 20 Sep 2020 18:42:10 GMT
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Hi,

While not related to porting Turtle to VirtualGui, there are a couple of things with Turtle that might need some attention:

1. When accessing the session from a smart phone (Android in this case), I do not seem to have any input capability available. No touch keyboard, no taps / no clicks / no pointer... Is there any way to create such a GUI with Turtle that could be used with smart phones / tablets? Or is that simply a very bad idea? I think it would be nice if a tap could be mapped to a left mouse click and a tap on a text/numeric entry could activate touch keyboard. At least very basic operations could be accomplished through such interface.

2. When opening a session from a Hi-DPI desktop, the window contents do get scaled by two and look blurry. It should preferably work the same way as Hi-DPI enabled applications. (I'm not sure if this is even possible, but still it would be nice.)

The reason I'm asking is that Turtle would give a very nice GUI for embedded systems using a browser on a smart phone.

Best regards,

Tom

Subject: Re: Turtle package is ported to VirtualGui
Posted by Oblivion on Sun, 20 Sep 2020 21:42:01 GMT
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Hello Tom,

Thank you very much for your feedbacks!

I've added the DroidFonts/FT_Fonsyss package as a requirement for Turtle (MSC + WIN32).

Quote:
1. When accessing the session from a smart phone (Android in this case), I do not seem to have any input capability available. No touch keyboard, no taps / no clicks / no pointer... Is there any way to create such a GUI with Turtle that could be used with smart phones / tablets? Or is that simply a very bad idea? I think it would be nice if a tap could be mapped to a left mouse click and a tap on a text/numeric entry could activate touch keyboard. At least very basic operations could be accomplished through such interface.

I'm afraid touch keyboard support is not very easy to implement. But I am looking for options. OTOH, the *basic* taps (left clicks) are working fine here, both on my Android phone (Sony xperia X) and Dell laptop with touch screen. However, it is very rudimentary and needs to be improved.

Quote:2. When opening a session from a Hi-DPI desktop, the window contents do get scaled by two and look blurry. It should preferably work the same way as Hi-DPI enabled applications. (I'm not sure if this is even possible, but still it would be nice.)

I believe this is possible. Added to my TODO list.

Quote:
The reason I'm asking is that Turtle would give a very nice GUI for embedded systems using a browser on a smart phone.

I agree. This is why I stepped up as the new maintainer of Turtle package.

My plan is to:

1) Port the package to VirtualGui (This is hopefully done.)
2) Improve the server side, i.e add a client login and authentication mechanism, see if we can add wss (server-side/secure web socket) support. (This is what I aim to start after 2020.2 release. At the moment I am testing a login mechanism in my Upp "playground".)

3) Add a TurtleCtrl for native virtualization (which will decouple the transportation and presentation layers, so that we can have a light-weight virtualization ctrl that can basically work over any network transport (http, ssh, binary), using the same turtle protocol. (This a personal project, I will publish it separately.).

In short. We are just starting. :)

If you encounter any problems or have ideas, questions, feedbacks, let me know.

Best regards,
Oblivion.

Subject: Re: Turtle package is ported to VirtualGui
Posted by Tom1 on Mon, 21 Sep 2020 18:50:36 GMT
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Hi Oblivion,

The taps now go through as clicks, which is nice. :)

The DroidFonts is too much for MSBT19 and MSBT19x64. Linking fails due to already defined
font functions. (The same as were missing before...) In my case the plain FT_fontsys is enough.

I also noted that now the window size automatically matches that of the browser window client
area even when the phone is rotated between landscape/portrait modes. This is very nice indeed!

Thanks and best regards,

Tom