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Subject: Layout and Paint event processing  
Posted by [masu](#) on Fri, 22 Feb 2008 11:08:34 GMT  
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Hi,

I have a problem with attached program, in which I overwrite a ctrl Paint method as well as its Layout method.

What I am trying to achieve is that when the TopWindow is resized I process the Layout event first and afterwards the Paint event.

But this is only working as expected if I call Layout function explicitly inside Paint function.

So my question is: What is the event sequence?

Example package is attached.

WinXP, Mingw 3.4.2

Matthias

#### File Attachments

1) [Example04.zip](#), downloaded 235 times

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Subject: Re: Layout and Paint event processing  
Posted by [mrjt](#) on Fri, 22 Feb 2008 11:56:54 GMT  
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Your example works perfectly (MSVC). Layout is called, followed by GLPaint, so I'm not sure what the problem is?

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Subject: Re: Layout and Paint event processing  
Posted by [masu](#) on Fri, 22 Feb 2008 12:06:34 GMT  
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Are you able to see the points, 'cause I only see the black background?

Matthias

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Subject: Re: Layout and Paint event processing  
Posted by [Oblivion](#) on Fri, 22 Feb 2008 12:39:35 GMT  
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You are right I Use MSVC too, but can't see dots unless I de-comment the Layout() line in the GLPaint in your example

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In Win32GLCtrl.cpp, line 92:

```
LRESULT GLCtrl::WindowProc(UINT message, WPARAM wParam, LPARAM lParam)
{
    if(message == WM_PAINT && hDC && hRC) {
        wglMakeCurrent(hDC, hRC);
        GLPaint();
        SwapBuffers(hDC);
        wglMakeCurrent(NULL, NULL);
        PAINTSTRUCT ps;
        BeginPaint(GetHWND(), &ps);
        EndPaint(GetHWND(), &ps);
        return 0;
    }
    return DHCtrl::WindowProc(message, wParam, lParam);
}
```

It seems that Layout() is called AFTER GLPaint(). I'm not sure if this is intentional or a bug.

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Subject: Re: Layout and Paint event processing  
Posted by [mrjt](#) on Fri, 22 Feb 2008 12:51:12 GMT  
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Sorry, my mistake.

The problem is that the rendering context isn't being made current before Layout is called, so your projection matrix calls have no effect.

If you change it like so:

```
void Layout()
{
    wglMakeCurrent(GLCtrl::GetDC(), GLCtrl::GetHGLRC());

    ....Projection stuff

    wglMakeCurrent(NULL, NULL);
}
```

it almost fixes the problem, but you need to force a call to Layout AFTER the window has opened as well (Layout is normally called before). So add the following function:

```
void State(int reason)
{
    GLCtrl::State(reason);
    Layout();
}
```

This should really all be done by GLCtrl (with a GLLayout function).

James

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Subject: Re: Layout and Paint event processing  
Posted by [masu](#) on Fri, 22 Feb 2008 15:53:50 GMT  
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Thank you both, I have modified GLCtrl to switch context before calling Layout and also to call Layout after Open.

Matthias

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