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Subject: Zooming layout in Windows

Posted by [jerson](#) on Tue, 17 Apr 2012 17:49:08 GMT

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I've looked at all the examples and posts I could possibly study. However, I cannot find out how to fix this. Either the widgets overlap when the layout is zoomed (Hsize,Vsize springs), or they zoom mainly in one direction (Auto springs button).

I would like to (if possible) control the zooming of each widget depending on the size of the Topwindow that holds the widget. So, my strategy is to get the ratio of the size of the zoomed topwindow to its design size and apply the zoom to each child widget to adjust its X and Y pos and also its X and Y size.

What am I doing wrong? Is there some example that shows how to do this?

Pic1 and Pic2 are showing the design size layout and zoomed layout

Pic3 and pic4 are showing the same layout when I apply autosprings

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#### File Attachments

1) [ContactSheet\\_001.jpg](#), downloaded 660 times

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Subject: Re: Zooming layout in Windows

Posted by [jerson](#) on Sat, 21 Apr 2012 01:11:20 GMT

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Bumped for attention. Hope someone has some hints for me.

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Subject: Re: Zooming layout in Windows

Posted by [Lance](#) on Sat, 21 Apr 2012 13:56:52 GMT

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I am not sure if I get you right, but you may need to write customized Layout() virtual method for your container class. Layout() will be called when window is to be displayed or resized, pretty much the WM\_SIZE thing in WIN32. There you have full control over how you want to allocate available space to contained Ctrl's.

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HTH

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Subject: Re: Zooming layout in Windows  
Posted by [jerson](#) on Sat, 21 Apr 2012 14:15:56 GMT  
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Hi Lance

I appreciate you taking time to help me with your reply. Would you have some pointers/any examples on how this is done? I have done quite a bit with Upp since my initial days, but, this is something with which I need some hand holding.

Regards  
Jerson

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Subject: Re: Zooming layout in Windows  
Posted by [Lance](#) on Sat, 21 Apr 2012 17:56:13 GMT  
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Hi Jerson:

Not sure if you're looking for something like this, but:

```
#include <CtrlLib/CtrlLib.h>

using namespace Upp;

struct MyApp : public TopWindow
{
    MyApp()
    {
        lt.SetLabel("5x5");
        rt.SetLabel("5x2");
        lb.SetLabel("2x5");
        rb.SetLabel("2x2");

        Add(lt);
        Add(rt);
        Add(lb);
        Add(rb);
    }
    virtual void Layout()
    {
        Size sz=GetSize();
        int w1,h1;
        w1=sz.cx*5/7;
        h1=sz.cy*5/7;
        lt.LeftPos(0,w1).TopPos(0,h1);
        rt.LeftPos(w1,sz.cx-w1).TopPos(0,h1);
    }
}
```

```
lb.LeftPos(0,w1).TopPos(h1,sz.cy-h1);
rb.LeftPos(w1, sz.cx-w1).TopPos(h1,sz.cy-h1);
}

Button lt, rt, lb, rb;
};

GUI_APP_MAIN
{
MyApp().Sizeable().Run();
}
```

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Subject: Re: Zooming layout in Windows  
Posted by [Lance](#) on Sat, 21 Apr 2012 18:15:20 GMT  
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Following code does the same thing. Feel a bit slow in Ubuntu. There should be better way of achieving it.

```
virtual void Layout()
{
Size sz=GetSize();
int w1,h1,w2,h2;

w1=sz.cx*5/7;
h1=sz.cy*5/7;
w2=sz.cx-w1;
h2=sz.cy-h1;
lt.SetRect(0,0,w1,h1);
rt.SetRect(w1,0,w2,h1);
lb.SetRect(0,h1,w1,h2);
rb.SetRect(w1,h1,w2,h2);
}
```

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Subject: Re: Zooming layout in Windows  
Posted by [jerson](#) on Sun, 22 Apr 2012 00:52:51 GMT  
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Dear Lance

Thank you very much. I reeally appreciate your help. I am considering something on the lines of this (I'm using pseudo code here).

```
Size Designsz = OriginalLayoutSizePos (const)
Size wsz = GetSizePos(MainWindow); // current sizepos
int ratiox = wsz.x / Designsz.x; // amount of X change
int ratioy = wsz.y / Designsz.y; // amount of Y change

// for each widget on the layout, (helps to add/remove widgets later on as the project grows)
for (Widget=0; Widget < LastWidget; Widget++)
{
    // scale each widget. Maybe I need to adjust the LeftPos and TopPos too for each widget
    Widgets[Widget].Size.x *= ratiox
    Widgets[Widget].Size.y *= ratioy
}

// update all widgets on the layout
Refresh();
```

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Subject: Re: Zooming layout in Windows  
Posted by [Lance](#) on Sun, 22 Apr 2012 01:17:31 GMT  
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I see what you mean now.

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Subject: Re: Zooming layout in Windows  
Posted by [Lance](#) on Sun, 22 Apr 2012 03:12:33 GMT  
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Turns out to be a lot more complicated than I had expected. There should be more elegant way of implementing it for those who know Upp better. But here you go:

See attached for an example. I am not certain if every safety guards I put there is necessary.

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#### File Attachments

1) [Resize2.zip](#), downloaded 296 times

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Subject: Re: Zooming layout in Windows  
Posted by [jerson](#) on Sun, 22 Apr 2012 03:49:17 GMT  
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Hi Lance

That is exactly what I want to do. Brilliant example. I am glad I asked; I learnt something new. Thank you so much.

Regards  
Jerson

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**Subject: Re: Zooming layout in Windows**  
Posted by [Lance](#) on Sun, 22 Apr 2012 12:29:56 GMT

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Hi Jerson:

You are very welcome. I also learned a lot from trying to solve this problem. I didn't know Layout will be called for every child Ctrl's position/size changes.

I approached the problem from a library user's perspective. I feel it's kind of clumsy but at least it works as intended.

Lance

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