
Subject: Problem adapting child Ctrl to scroller example code

Posted by [jjacksonRIAB](#) on Fri, 05 Apr 2019 07:35:56 GMT

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I end up with some strange pileup ofCtrls at either end of the document if I scroll quickly. What am I doing wrong?

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

```
using namespace Upp;  
int count = 0;
```

```
struct ChildTest : Ctrl {  
    int num=0;
```

```
    ChildTest() {  
        SetFrame(BlackFrame());  
        num = count;  
        count++;  
        SetRect(0, 0, 200, 50);  
    }
```

```
    void Paint(Draw& w) override {  
        LogPos lpos = GetPos();  
        int y = lpos.y.GetA();  
        auto sz = GetSize();
```

```
        w.DrawRect(sz, Color{ 255, 0, 0 } );
```

```
        String pos;  
        pos << "item: " << num << " x: " << lpos.x.GetA() << " y: " << lpos.y.GetA();  
        w.DrawText(10, 10, pos, Arial(14).Bold(), Color(0,0,0));  
    }  
};
```

```
struct App : TopWindow {  
    ScrollBar      sb;  
    int            count;  
    Vector<ChildTest*> items;
```

```
    int GetLineHeight() {  
        return 50;  
    }
```

```
    virtual void Paint(Draw& w)  
    {  
        Size sz = GetSize();  
        w.DrawRect(sz, SWhite);
```

```

int fcy = GetLineHeight();
int i = sb / fcy;
int y = i * fcy - sb;

String sbPos;
sbPos << i;

while(i < count && y < sz.cy) {
    auto item = items[i++];
    item->SetRect(0, y, 200, 45);
    y += fcy;
}

w.DrawText(200, 10, sbPos, Arial(14).Bold(), Color(0,0,0));
}

virtual void Layout()
{
    sb.SetPage(GetSize().cy);
}

virtual void MouseWheel(Point, int zdelta, dword)
{
    sb.Wheel(zdelta);
}

bool Key(dword key, int)
{
    return sb.VertKey(key);
}

void SetCount(int n)
{
    count = n;
    sb.SetTotal(n * GetLineHeight());
}

~App() {
    for(auto item : items) {
        delete item;
    }
}

App() {
    Sizeable().Zoomable().BackPaint();
    AddFrame(sb);
    sb.WhenScroll = [=] { Refresh(); };
    sb.SetLine(GetLineHeight());
}

```

```

for(int i = 0; i < 100; i++) {
    ChildTest* ctrl = new ChildTest();
    ctrl->SetRect(0, i * 50, 200, 45);
    items.Add(ctrl);
    AddChild(ctrl);
}
}
};

```

```

GUI_APP_MAIN

```

```

{
    App app;
    app.SetRect(0, 0, 250, 500);
    app.SetCount(100);
    app.Run();
}

```

Subject: Re: Problem adapting child Ctrl to scroller example code

Posted by [mirek](#) on Fri, 05 Apr 2019 08:23:43 GMT

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Well, the reason is pretty obvious here - you are only setting new positions to a subset of widgets, so the rest of them stays where they are.

I have fixed it for you, being there I could not resist to "beautify" and "make more U++" it...

```

#include <CtrlLib/CtrlLib.h>

```

```

using namespace Upp;

```

```

struct ChildTest : Ctrl {
    int num=0;

```

```

    ChildTest(int num) : num(num) {
        SetFrame(BlackFrame());
        SetRect(0, 0, 200, 50);
    }

```

```

    void Paint(Draw& w) override {
        LogPos lpos = GetPos();
        int y = lpos.y.GetA();
        Size sz = GetSize();
    }

```

```

w.DrawRect(sz, AdjustIfDark(Color{ 255, 0, 0 }));

String pos;
pos << "item: " << num << " x: " << lpos.x.GetA() << " y: " << lpos.y.GetA();
w.DrawText(Zx(10), Zy(10), pos, Arial(14).Bold());
}
};

struct App : TopWindow {
    ScrollBar      sb;
    Array<ChildTest> items;

    int GetLineHeight() {
        return Zy(50);
    }

    void Sync() {
        for(int i = 0; i < items.GetCount(); i++)
            items[i].SetRect(0, i * GetLineHeight() - sb, Zx(200), Zy(45));
    }

    void Paint(Draw& w) override
    {
        Size sz = GetSize();
        w.DrawRect(sz, SWhite());
    }

    void Layout() override
    {
        sb.SetPage(GetSize().cy);
    }

    void MouseWheel(Point, int zdelta, dword) override
    {
        sb.Wheel(zdelta);
    }

    bool Key(dword key, int) override
    {
        return sb.VertKey(key);
    }

    App() {
        Sizeable().Zoomable(); // Backpaint is now default

        for(int i = 0; i < 100; i++)
            Add(items.Create<ChildTest>(i));
    }
};

```

```
AddFrame(sb);
sb.WhenScroll = [=] { Sync(); };
sb.SetLine(GetLineHeight());
sb.SetTotal(items.GetCount() * GetLineHeight());
```

```
    Sync();
}
};
```

```
GUI_APP_MAIN
{
    App app;
    app.SetRect(0, 0, Zx(250), Zy(500));
    app.Run();
}
```

Most important changes: Doing that in Paint is ugly, using 'new' is shunned upon. And you better make your app ready for UHD...

Subject: Re: Problem adapting child Ctrl to scroller example code

Posted by [jjacksonRIAB](#) on Fri, 05 Apr 2019 17:10:52 GMT

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Hey, that does look a lot nicer and this also helps me get rid of new in some other places I was using it. I wanted to avoid using new too but I was unaware of Create. It's funny, I only asked to solve one problem and you ended up solving several for me that I hadn't yet gotten around to asking about. You have absolved me of my future crimes

Thank you again for being so helpful.
