
Subject: Re: How to dynamically add remove tabs
Posted by [Oblivion](#) on Tue, 26 Sep 2023 22:46:41 GMT
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Hello nicesai,

Quote:Question-1: Is it necessary to call the destructor after removing the tab?
tabLay->~WithTabLay();

No, not unless you want to manually destroy the pane object (tablay).

Quote:Question-2: Is it necessary to delete the allocated memory? This line causes the application to crash. So probably I should not, if so, how can I free the allocated memory?
delete tabLay;

Well, if you manually allocate the widget on the heap (something we usually avoid in U++, it is not a good practice), yes you need to delete the object when you're done with it (or it will leak)

Quote:Questions-3: Is there any better way to do this without using pointers? If I create the Tab on stack, its free'ed at the end of the function (from RAII I suppose). And the Tab will not be visible.

In general, if we want to create multiple (a lot of, or indeterminate number of) tabs, we'd usually use containers (e.g. could be `Array<WithTabLay<ParentCtrl>>`, in this case). Containers take care of mem alloc/dealloc. THAT is the way to go.

An example (just to give you an idea. Not the only way to do it)

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

using namespace Upp;

struct MyApp : TopWindow {
    TabCtrl tabs;
    Array<Button> panes;
    Button bt;
    MyApp()
    {
        Title("Tabs test");
        Sizeable().Zoomable().CenterScreen().SetRect(0, 0, 800, 600);
        Add(tabs.HSizePosZ().VSizePosZ(0, 28));
        Add(bt.SetLabel("Add New Tab").HSizePosZ().BottomPosZ(2, 24));

        auto AddPane = [this] {
            int n = tabs.GetCount();
            if (n < 10) {
                tabs.Add(new TabCtrl());
                tabs[tabs.GetCount() - 1].SetLabel("Tab " + String(n));
            }
        };
    }
};
```

```
Button& b = panes.Add();
b.SetLabel("Pane " + AsString(n) + " (click to delete)");
b << [this] { // DelPane
    panes.RemoveIf([this](int i) { return &panes[i] == tabs.GetItem(~tabs).GetSlave(); });
    tabs.Remove(~tabs);
};
tabs.Add(b.SizePos(), "Tab " + AsString(n));
};

bt << [&] { AddPane(); };

for(int i = 0; i < 5; i++)
    AddPane();

}

};

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

Best regards,
Oblivion
