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Subject: PopEasy

Posted by [Lance](#) on Fri, 01 Jun 2012 14:33:02 GMT

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I am working on a small utility that may help make Popup easier in many situations.

It seeks to handle some situations which DropChoice, DropTree and DropGrid either don't take care of or can not be used in with ease.

It aims to support auto-popup, auto-select, and auto-completion. Attached example shows auto-popup and auto-select. auto-completion is not currently supported. I am still debating on the mechanism to communicate auto-completion information from the popup to the owner (or main) ctrl.

For an brief idea of what PopEasy is, please try attached example. It's still very primitive, but please feel free to give your input.

Some concrete PopUp class similar to DropTree and DropChoice will be added for convenience. They are not currently present though.

Thanks,

Lance

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## File Attachments

1) [PopEasyTest.zip](#), downloaded 480 times

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Subject: Re: PopEasy

Posted by [koldo](#) on Sat, 02 Jun 2012 12:25:10 GMT

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Hello Lance

I have a problem with POSITION. It is in PopEasy.h and it is not declared.

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Subject: Re: PopEasy

Posted by [omari](#) on Sat, 02 Jun 2012 17:51:06 GMT

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Hello Lance,

I have do same thing similar in an old project

to facilitate the work, I propose to add an EditField in the same window as the ArrayCtrl.

zip attached explain my proposal.

Regards

Omari.

## File Attachments

1) [APopupTest.zip](#), downloaded 462 times

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Subject: Re: PopEasy  
Posted by [Lance](#) on Sat, 02 Jun 2012 23:16:33 GMT  
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Thank you both. I will have a quick examine.

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Subject: Re: PopEasy  
Posted by [Lance](#) on Sat, 02 Jun 2012 23:28:43 GMT  
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Hi Koldo:

it's in CtrlCore.h

```
public:
enum StateReason {
    FOCUS    = 10,
    ACTIVATE = 11,
    DEACTIVATE = 12,
    SHOW     = 13,
    ENABLE   = 14,
    EDITABLE = 15,
    OPEN     = 16,
    CLOSE    = 17,
    POSITION  = 100,
    LAYOUTPOS = 101,
};
```

Not sure if it's because of a namespace issue. I'll do a test compilation in Ubuntu in a while. WithPopUp<> inherits from Ctrl or its derivative, so POSITION should be visible to it. Anyway, it use explicit Ctrl::POSITION or Ctrl:::StateReason::POSITION silence the compiler, please let me know.

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Subject: Re: PopEasy  
Posted by [Lance](#) on Sat, 02 Jun 2012 23:45:50 GMT  
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Hi Omari:

I separate the Edit Ctrl (main ctrl) and the pop up on purpose.

In the above example, the Edits use the PopUp but don't contain it. They share a single instance of PopUp. If the list is static (no auto filtering) as in your case, this can save some memory space.

Also there are other concerns. The EditField could be a multi-line edit (LineEdit) or even a RichEdit. As long as they talk to each other through some simple and complete interface (normal functions and virtual functions and callbacks).

The PopUp can be a TreeCtrl, a ArrayCtrl, a GridCtrl, or a combination of many of them.

I am not familiar with Upp, but EditField might be a better option than EditString. There are lots of details waiting to be decided. Please do have a look at the code and give me some suggestion.

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Subject: Re: PopEasy  
Posted by [Lance](#) on Sun, 03 Jun 2012 01:26:30 GMT  
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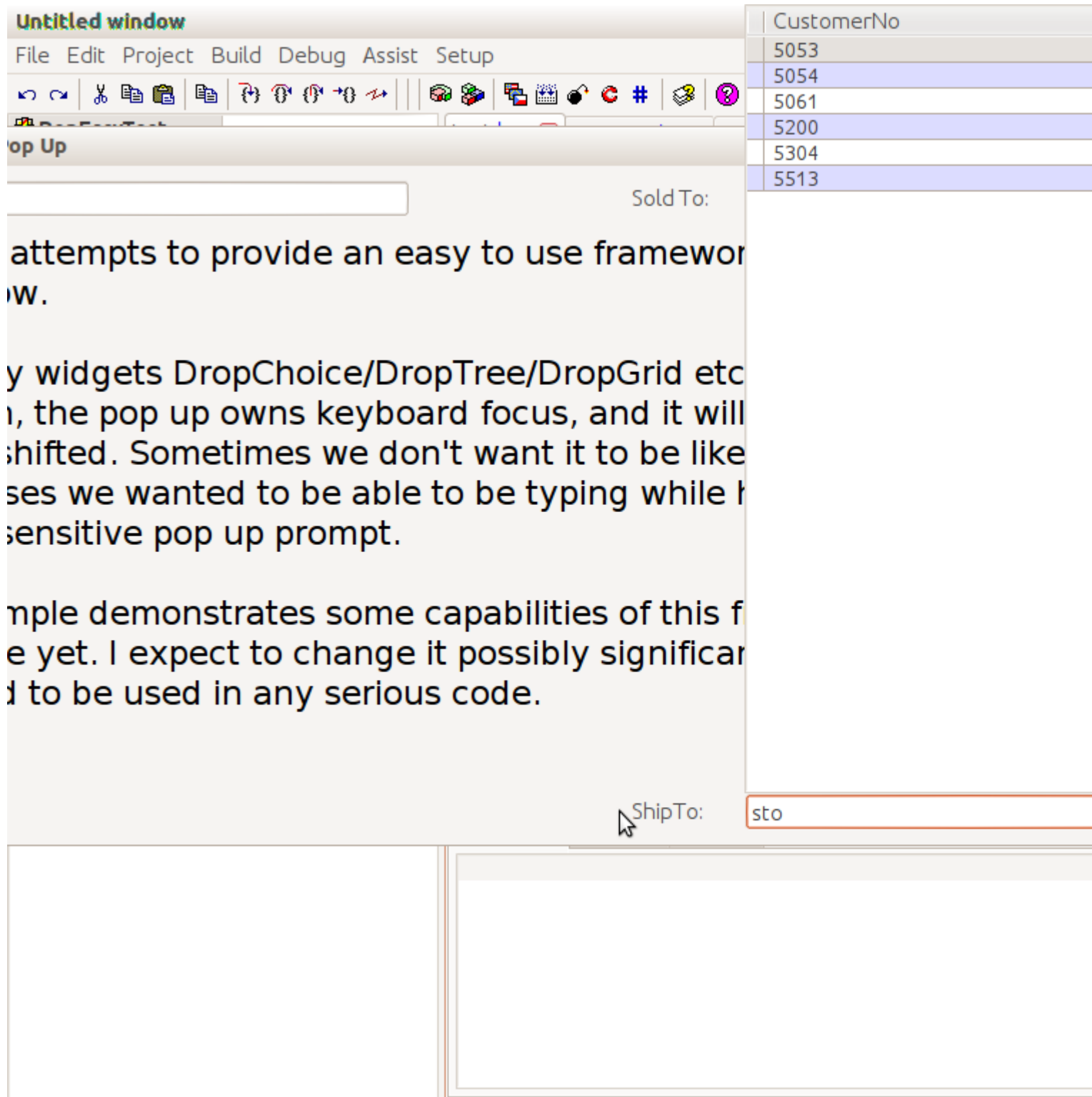
Hi Koldo:

Yes, I encountered the same problem in g++. It has been fixed.

Here is a screenshot.

## File Attachments

1) [Screenshot from 2012-06-02 21:21:21.png](#), downloaded 1164 times



Subject: Re: PopEasy  
Posted by [Lance](#) on Sun, 03 Jun 2012 20:56:53 GMT  
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Main motivation:

In database application, a typical requirement we frequently have is some kind of Ctrl (or group of Ctrls) that do key-value conversion. Eg, you (or users of your application) will key in some text in certain area intended for an inventory item, and your application can search database in whatever way you decided for all matching inventory items; these items are subsequently presented to user. He/she may select one either with key stroke or mouse, or he/she may keep on typing until the list is short enough. And when a choice is finally made, a user friendly text will be displayed and the associated inventory item id (of integral type) is provided to the application for subsequent processing.

DropGrid with search-hide-row is a closest match. I have been using it extensively. DropGrid, however, like DropChoice, DropTree, will own the keyboard focus in its session. This make editing not always as natural as we would like. For example, I need to do some interesting things with all inventory items containing "fatastic", one at a time. Let's say I have 10 items containing this text. With DropGrid, I need to key in "fatastic" for 10 times. Why couldn't I just type it once, copy it in the clipboard, and paste it for the subsequent 9 times? I might be wrong in DropGrid's not accepting Ctrl-V, but you'll definitely find situations you would rather work with a real edit ctrl, be it EditField derivative, EditLine, or RichEdit.

For that purpose, the popup should not take focus away from the main ctrl (the ctrl the popup will work for. In Ctrl::PopUp(...), it's called the \*owner\*). I did some experiment, and fixed some issue associated with that.

One of it happens when the main window is resized or moved. Resize'ing or move'ing will not trigger main's lost-focus event, we end up have a popup detached from its owner. BTW, theide's CodeCompletion, which is the best among the open-source ones (second only to Visual Studio and possibly a couple of other commercial ides), uses the same approach that would-be PopEasy uses: a non-focus popup with the focused editor. Theide's popup will no respond to size/move. If you bring up a PopUp and then resize or move theide, you'll found the popup detached from the location it's giving options for. Anyway, after some research, I find it can be handled nicely with UPP's built-in capability: just use the State virtual method.

Another issue I encountered is a visibility issue. I use TabBarCtrl to provide a multi-tab user interface similar to FireFox. If I bring up a popup for a ctrl and switch to another tab, the popup becomes detached and clueless as its owner remains focused and doesn't have a size/position change. To fix this issue, I decide to unpop the popup when its owner becomes invisible. This is a very dubious decision because it prohibits the popup from covering its owner which is theoretically wrong. But for now, it doesn't seem to be so much a problem and promises an easy fix.

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Subject: Re: PopEasy  
Posted by [koldo](#) on Mon, 04 Jun 2012 13:34:50 GMT  
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Hello Lance

Now it works for me .

It is interesting. Please upload it to Bazaar and maintain us informed about its evolution with samples.

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Subject: Re: PopEasy  
Posted by [Lance](#) on Mon, 04 Jun 2012 16:01:18 GMT  
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Thanks, Koldo.

I will when it's in a better shape.

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Subject: Re: PopEasy  
Posted by [Lance](#) on Wed, 06 Jun 2012 15:29:14 GMT  
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PopEasy is now in a more presentable state. See attached for a simple example with auto-popup, auto-completion, auto-selection supported.

Koldo:

I need some guidance on utf-8 support. Or should I use WString instead just like what EditField does internally?

Please PM me a password for uploading, or if you don't mind, you can also upload for me.

### File Attachments

1) [PopEasyTest.zip](#), downloaded 464 times

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Subject: Re: PopEasy  
Posted by [koldo](#) on Wed, 06 Jun 2012 16:17:00 GMT  
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Hello Lance

It works for me in XP and Ubuntu. PopList follows frenetically the main window .

I do not understand the UTF-8 problem: Adding accented words in the company list the program uses them perfectly.

GCC hates Ctrl::StateReason::POSITION. All compilers prefer Ctrl::POSITION.

Backspace to remove the auto-completed suffix could be a good feature.

I have seen that PopList is apart. One serve for all EditCust fields .

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Subject: Re: PopEasy  
Posted by [Lance](#) on Wed, 06 Jun 2012 17:00:52 GMT  
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Hi Koldo:

Thanks for taking your time to actually looking at the code.

By full utf-8 support, I mean in suffix computation, current implementation may mistaken part of a utf-8 character as a independent character. I don't know utf-8 very well, I just assume it. Let's say 2 characters in certain charset share the first 2 bytes in common, only differ in the 3rd characters, current implementation may think they bare some resemblance even though they should be considered different for suffix calculation purpose. To avoid that kind of mistake, we need to advance character by character, instead of byte by byte as currently employed. Or maybe it's easier to do with WString. I guess there is a reason why EditField should use WString internally

GCC hates Ctrl::StateReason::POSITION. All compilers prefer Ctrl::POSITION.

Will fix it right away.

I have seen that PopList is apart. One serve for all EditCust fields

And one can easily extend PopListBase to retrieve live data from a database. I find it's easier in most cases than to cache all customer lists and listen to subsequent add/delete/edit to the underlying data and update the cached list.

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Subject: Re: PopEasy  
Posted by [Lance](#) on Thu, 07 Jun 2012 02:48:01 GMT  
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GCC hates Ctrl::StateReason::POSITION. All compilers prefer Ctrl::POSITION.

Backspace to remove the auto-completed suffix could be a good feature.

Fixed these two. The latter for PopList only though.

## File Attachments

1) [PopEasyTest.zip](#), downloaded 504 times

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