
Subject: Repainting of DropDownList

Posted by [crydev](#) on Sun, 10 Feb 2019 11:34:44 GMT

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Hello,

I'm having trouble with the DropDownList control. Suppose that I add some item with string description 'test' to the DropDownList. It will be added and visible. When I click the DropDownList, everything is okay.

Now I change the string representation of this element to 'somethingelse', but I don't yet click the DropDownList. The DropDownList will not reflect the new string representation of the element, even when I call 'Refresh'. How can I make sure it refreshes without having to drop the list?

Thanks in advance!

Subject: Re: Repainting of DropDownList

Posted by [mirek](#) on Wed, 13 Feb 2019 09:33:00 GMT

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crydev wrote on Sun, 10 February 2019 12:34Hello,

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How do you change it?

Anyway, in general, the value displayed in DropDownList is not really the value from the list - it is independent. In fact, DropDownList can even display value that is not in the list (some setup of DropDownList is needed for this).

So if I understand your situation well, I think you will need to reassign the value (using <=> aka SetData). If not, provide better explanation and testcase please.

Subject: Re: Repainting of DropDownList

Posted by [crydev](#) on Sat, 23 Feb 2019 09:29:44 GMT

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Hi Mirek,

I'm sorry, I use a 'virtual' DropDownList made by somebody on the forum a few years ago. I realized that I should go through the logic I use there, and try to add something to fix it. I use the following

(maybe something for the U++ framework if not already in it):

VirtualDropList.h

```
#ifndef _VirtualDropList_VirtualDropList_h_
#define _VirtualDropList_VirtualDropList_h_
```

```
NAMESPACE_UPP
```

```
class VirtualPopUpTable : public PopUpTable {
```

```
public:
```

```
    void Virtual() {
        AddRowNumColumn(String()).Accel();
        NoHeader();
        HeaderTab(0).SetMargin(0);
        MouseMoveCursor();
        NoGrid();
        AutoHideSb();
        SetLineCy(Draw::GetStdFontCy());
        NoPopUpEx();
    }
};
```

```
class VirtualDropList : public MultiButton {
```

```
protected:
```

```
    VirtualPopUpTable list;
    int index;
    int dropwidth;
    const Convert *valueconvert;
    const Display *valuedisplay;
    bool dropfocus;
    bool notnull;
    bool alwaysdrop;
    bool usewheel;
public:
```

```
    VirtualDropList();
    ~VirtualDropList() { }
```

```
typedef VirtualDropList CLASSNAME;
```

```
typedef MultiButton::Style Style;
```

```
Callback WhenDrop;
```

```
virtual void MouseWheel(Point p, int zdelta, dword keyflags);
virtual bool Key(dword key, int);
```

```
void Drop();
```

```

void Sync();
void Cancel();
void Select();
void Change(int q);

void EnableDrop(bool b = true) { MainButton().Enable(b || alwaysdrop); }
int GetCount() const      { return list.GetCount(); }
void SetCount(int c)      { list.SetCount(c); EnableDrop(c > 0 ? true : false); Sync(); }

void SetData(const Value& data) { SetIndex(data); }
Value GetData() const        { Value value = GetValue(); return notnull && IsNull(value) ? 
NotNullError() : value; }
Value GetValue(int i) const   { return valueconvert->Format(i); }
Value GetValue() const       { return index < 0 ? Null : GetValue(index); }
Value operator[](int i) const { return GetValue(i); }

void SetIndex(int i);
int GetIndex() const { return index; }
void GoBegin()      { if (GetCount()) SetIndex(0); }
void GoEnd()        { if (GetCount()) SetIndex(GetCount() - 1); }

const VirtualPopUpTable& GetList() const { return list; }
VirtualPopUpTable& ListObject()         { return list; }

VirtualDropList& SetDropLines(int d)           { list.SetDropLines(d); return *this; }
VirtualDropList& SetValueConvert(const Convert& cv);
VirtualDropList& SetConvert(const Convert& cv);
VirtualDropList& SetDisplay(int i, const Display& d);
VirtualDropList& SetDisplay(const Display& d);
VirtualDropList& SetLineCy(int lcy)            { list.SetLineCy(lcy); return *this; }
VirtualDropList& SetDisplay(const Display& d, int lcy);
VirtualDropList& ValueDisplay(const Display& d);
VirtualDropList& DropFocus(bool b = true)       { dropfocus = b; return *this; }
VirtualDropList& NoDropFocus()                 { return DropFocus(false); }
VirtualDropList& AlwaysDrop(bool e = true);
VirtualDropList& SetStyle(const Style& s)       { MultiButton::SetStyle(s); return *this; }
VirtualDropList& NotNull(bool b = true)          { notnull = b; return *this; }
VirtualDropList& DropWidth(int w)               { dropwidth = w; return *this; }
VirtualDropList& DropWidthZ(int w)              { dropwidth = HorzLayoutZoom(w); return *this; }
VirtualDropList& Wheel(bool b = true)            { usewheel = b; return *this; }
VirtualDropList& NoWheel()                     { return Wheel(false); }

VirtualDropList& SetScrollBarStyle(const ScrollBar::Style& s) { list.SetScrollBarStyle(s); return
*this; }
};

VirtualDropList END_UPP_NAMESPACE

```

```
#endif
```

VirtualDropList.cpp

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

NAMESPACE_UPP

VirtualDropList::VirtualDropList() : index(-1), valueconvert(&NoConvert()), valuedisplay(NULL),
dropfocus(false), notnull(false), alwaysdrop(false), dropwidth(0), usewheel(true)
{
    AddButton().Main().WhenPush = THISBACK(Drop);
    NoInitFocus();
    EnableDrop(false);
    list.Virtual();
    list.WhenCancel = THISBACK(Cancel);
    list.WhenSelect = THISBACK(Select);
}

void VirtualDropList::MouseWheel(Point p, int zdelta, dword keyflags)
{
    if (usewheel)
        Change(zdelta < 0 ? 1 : -1);
}

bool VirtualDropList::Key(dword key, int)
{
    if (IsReadOnly())
        return false;
    switch(key) {
    case K_ALT_DOWN:
        Drop();
        break;
    case K_DOWN:
    case K_RIGHT:
        Change(1);
        break;
    case K_UP:
    case K_LEFT:
        Change(-1);
        break;
    default:
        if (key >= 32 && key < 65536) {
            bool b = list.Key(key, 1);
            int c = list.GetCursor();
        }
    }
}
```

```

if (c >= 0 && c < list.GetCount())
    Select();
return b;
}
return false;
}
return true;
}

void VirtualDropList::Drop()
{
if (IsReadOnly())
return;
if(dropfocus)
    SetFocus();
WhenDrop();
list.SetCursor(index);
list.PopUp(this, dropwidth);
}

void VirtualDropList::Sync() {
const Display& d = valuedisplay ? *valuedisplay : index >= 0 ? list.GetDisplay(index, 0)
                                         : list.GetDisplay(0);
MultiButton::SetDisplay(d);
MultiButton::SetValueCy(list.GetLineCy());
if (index >= 0)
    Set(valueconvert->Format(index));
}

void VirtualDropList::Cancel()
{
if (dropfocus)
    SetFocus();
Sync();
}

void VirtualDropList::Select()
{
int c = list.GetCursor();
if (c >= 0)
    index = c;
if (dropfocus)
    SetFocus();
Sync();
UpdateAction();
}

void VirtualDropList::Change(int q)

```

```

{
int count = list.GetCount();
if (count == 0)
    return;
int c = index + q;
if (c < 0)
    c = 0;
else if (c >= count)
    c = count - 1;
SetIndex(c);
}

void VirtualDropList::SetIndex(int i)
{
if (i == index)
    return;
index = i;
Update();
Sync();
}

VirtualDropList& VirtualDropList::SetValueConvert(const Convert& cv)
{
valueconvert = &cv;
Sync();
return *this;
}

VirtualDropList& VirtualDropList::SetConvert(const Convert& cv)
{
list.ColumnAt(0).SetConvert(cv);
return SetValueConvert(cv);
}

VirtualDropList& VirtualDropList::SetDisplay(int i, const Display& d)
{
list.SetDisplay(i, 0, d);
Sync();
return *this;
}

VirtualDropList& VirtualDropList::SetDisplay(const Display& d)
{
list.ColumnAt(0).SetDisplay(d);
Sync();
return *this;
}

```

```
VirtualDropList& VirtualDropList::SetDisplay(const Display& d, int lcy)
{
    SetDisplay(d);
    SetLineCy(lcy);
    Sync();
    return *this;
}
```

```
VirtualDropList& VirtualDropList::ValueDisplay(const Display& d)
{
    valuedisplay = &d;
    Sync();
    return *this;
}
```

```
VirtualDropList& VirtualDropList::AlwaysDrop(bool e)
{
    alwaysdrop = e;
    if (e)
        EnableDrop();
    return *this;
}
```

END_UPP_NAMESPACE

I use the VirtualDropList::SetCount(c) function to set the virtual element count, and the function looked as follows before:

```
void SetCount(int c) { list.SetCount(c); EnableDrop(c > 0 ? true : false); }
```

I added a call to Sync(); at the end of this function, and now the redrawing works as expected. :)

Thanks for your reply! You set me thinking about what is actually under the hood of the control. :)

crydev
