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Subject: Retrieving data from sorted GridCtrl  
Posted by [nixnixnix](#) on Thu, 23 Aug 2012 03:09:28 GMT  
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This must have been asked before so I apologise in advance but I couldn't find it when searching.

When I sort a GridCtrl, I find I can still retrieve data by the original row number for the Ctrl's that I have added myself as, of course, they can be accessed by their original index in my Array of Ctrl objects. However, I do not see how to access data that is just sitting in the GridCtrl itself and that is not longer in its original row due to sorting. I know there must be a way to do this already but how?

Nick

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Subject: Re: Retrieving data from sorted GridCtrl  
Posted by [unodgs](#) on Thu, 23 Aug 2012 08:09:55 GMT  
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nixnixnix wrote on Wed, 22 August 2012 23:09 This must have been asked before so I apologise in advance but I couldn't find it when searching.

When I sort a GridCtrl, I find I can still retrieve data by the original row number for the Ctrl's that I have added myself as, of course, they can be accessed by their original index in my Array of Ctrl objects. However, I do not see how to access data that is just sitting in the GridCtrl itself and that is not longer in its original row due to sorting. I know there must be a way to do this already but how?

Nick

Use:

Item& GetItem(int n, int m)

n is a row number related to sort order used to paint the grid.

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Subject: Re: Retrieving data from sorted GridCtrl  
Posted by [Sender Ghost](#) on Thu, 23 Aug 2012 17:34:20 GMT  
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Hello, Nick, Uno.

unodgs wrote on Thu, 23 August 2012 10:09 Use:  
Item& GetItem(int n, int m)

n is a row number related to sort order used to paint the grid.

The GridCtrl::Item& GetItem(int n, int m) method of GridCtrl is private. Did you mean GridCtrl::Item& GridCtrl::GetCell(int n, int m) method?

nixnix wrote on Wed, 22 August 2012 23:09 When I sort a GridCtrl, I find I can still retrieve data by the original row number for the Ctrl's that I have added myself as, of course, they can be accessed by their original index in my Array of Ctrl objects. However, I do not see how to access data that is just sitting in the GridCtrl itself and that is not longer in its original row due to sorting. I know there must be a way to do this already but how?

In case of manually created Ctrl's inside of Array and assigned to GridCtrl through GridCtrl::SetCtrl method, there is also possible to use int GridCtrl::GetRowId() const or int GridCtrl::GetRowId(int n) const public methods to get "original index" for selected or appropriate row. Then you could use it for Array of unsorted Ctrl objects.

There are also Ctrl \*GridCtrl::GetCtrl(int c) and Ctrl \*GridCtrl::GetCtrl(int r, int c) methods to access Ctrl object through pointer:

Toggle Spoiler

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

```
using namespace Upp;
```

```
void CreateEditString(One<Ctrl>& ctrl) {  
    EditString& edit = ctrl.Create<EditString>();  
    edit.NoWantFocus();  
}
```

```
class App : public TopWindow {  
public:  
    typedef App CLASSNAME;  
    App();
```

```
    GridCtrl list;  
    StaticText text;
```

```
    void OnCursor();  
};
```

```
App::App()  
{  
    Title("GridCtrl sorting example");  
    Sizeable().Zoomable();  
    const Size sz(320, 240);  
    SetMinSize(sz); SetRect(sz);  
  
    list.Chameleon().Sorting();  
    list.AddColumn("Index").Ctrls(CreateEditString);  
    list.WhenCursor = THISBACK(OnCursor);
```

```

text.SetFrame(ThinOutsetFrame());
text.SetImage(CtrlImg::smallright(), 4);

list.Ready(false);
for (int i = 0; i <= 10; ++i) {
    list.Add(AsString(i));
}
list.Ready(true);

OnCursor();

Add(list.VSizePosZ(4, 27).HSizePosZ(4, 4));
Add(text.BottomPosZ(4, 19).HSizePosZ(4, 4));

}

void App::OnCursor()
{
    const int cursor = list.GetCursor(), id = list.GetRowId();
#ifdef 1
    EditString *ctrl = reinterpret_cast<EditString *>(list.GetCtrl(id, 0));
    if (ctrl)
        text.SetText(Format("cursor = %d; id = %d; Value = \"%s\"", cursor, id, ctrl->GetData()));
#else // But also enough to use GridCtrl::Get method in this case
    text.SetText(Format("cursor = %d; id = %d; Value = \"%s\"", cursor, id, list.Get(cursor, 0)));
#endif
}

GUI_APP_MAIN
{
    App app;
    app.Run();
}

```

Edit: Clarified some moments.

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Subject: Re: Retrieving data from sorted GridCtrl  
 Posted by [unodgs](#) on Wed, 29 Aug 2012 05:58:03 GMT  
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Ooops, my mistake. It seems there is no such a method. I'll try to provide one.

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Subject: Re: Retrieving data from sorted GridCtrl

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Posted by [unodgs](#) on Fri, 14 Sep 2012 07:17:55 GMT

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I searched through the grid api once again and Get(int r, int c) should return value from row that reflects display order.

If it's not working for you please paste your code here so I was sure we're thinking about the same problem.

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Subject: Re: Retrieving data from sorted GridCtrl

Posted by [koldo](#) on Fri, 14 Sep 2012 08:45:52 GMT

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Hello Daniel

As this behavior may produce problems, is there a function that "fixes" all the changes in a GridCtrl?

I mean, the user moves the rows (Dragging()) and reorder them (Sorting()). After that, I want to handle the GridCtrl as "it is seen".

As you have told before, Get(row, col) works like this. Also GetCursorPos().y gets the real selected row (GetRowId() gets the initial row before the reorder). However Xmlize()/Jsonize() functions do not store the new reordered GridCtrl.

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Subject: Re: Retrieving data from sorted GridCtrl

Posted by [unodgs](#) on Fri, 14 Sep 2012 09:01:52 GMT

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koldo wrote on Fri, 14 September 2012 04:45: However Xmlize()/Jsonize() functions do not store the new reordered GridCtrl.

Ok, now I get it

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Subject: Re: Retrieving data from sorted GridCtrl

Posted by [Sender Ghost](#) on Fri, 14 Sep 2012 09:08:40 GMT

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unodgs wrote on Fri, 14 September 2012 09:17: I searched through the grid api once again and Get(int r, int c) should return value from row that reflects display order.

If it's not working for you please paste your code here so I was sure we're thinking about the same problem.

If you asked to my reply, then in my example I already showed the case with Get method for selected row:

```

void App::OnCursor()
{
    const int cursor = list.GetCursor(), id = list.GetRowId();
    #if 0
        EditString *ctrl = reinterpret_cast<EditString *>(list.GetCtrl(id, 0));
        if (ctrl)
            text.SetText(Format("cursor = %d; id = %d; Value = \"%s\"", cursor, id, ctrl->GetData()));
    #else // But also enough to use GridCtrl::Get method in this case
        text.SetText(Format("cursor = %d; id = %d; Value = \"%s\"", cursor, id, list.Get(cursor, 0)));
    #endif
}

```

But the row id needed in the case of GetCtrl method:

```

void App::OnCursor()
{
    const int cursor = list.GetCursor(), id = list.GetRowId();
    #if 1
        EditString *ctrl = reinterpret_cast<EditString *>(list.GetCtrl(id, 0));
        if (ctrl)
            text.SetText(Format("cursor = %d; id = %d; Value = \"%s\"", cursor, id, ctrl->GetData()));
    #else // But also enough to use GridCtrl::Get method in this case
        text.SetText(Format("cursor = %d; id = %d; Value = \"%s\"", cursor, id, list.Get(cursor, 0)));
    #endif
}

```

Considering the same variable names inside of Value GridCtrl::Get(int r, int c) const and Ctrl \* GridCtrl::GetCtrl(int r, int c) methods (as row and column), the GetCtrl method should work as Get method with current selected cursor (even in case of sorting), but it doesn't (and require row id instead), currently.

The GridCtrl::Item& GridCtrl::GetCell(int n, int m) have no methods to return Ctrl \* and useful to manage Display(s), for example (in case of unimplemented void GridCtrl::SetDisplay(int r, int c, GridDisplay& gd) method).

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Subject: Re: Retrieving data from sorted GridCtrl  
 Posted by [unodgs](#) on Fri, 14 Sep 2012 09:41:22 GMT  
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Ok, thank you for explanations. So I have to add method for getting ctrl and make xmlize and jsonize aware of display order.

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Subject: Re: Retrieving data from sorted GridCtrl  
 Posted by [nixnixnix](#) on Mon, 17 Sep 2012 16:51:44 GMT  
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Hi Daniel,

From this thread it is not apparent to me what the situation is now.

So far as I can tell, `Get(int r,int c)` gets the value at the currently displayed row and column. Presumably, `Set(int r,int c,Value v)` sets the value at the currently displayed row and column.

What I would like is if you could add a `SetUnsorted(int r,int c,Value v)` and `GetUnsorted(int r,int c)` or whatever names they should go by. These functions would access the data by their original row and column.

Thanks,

Nick

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Subject: Re: Retrieving data from sorted GridCtrl  
Posted by [koldo](#) on Wed, 19 Sep 2012 07:45:22 GMT  
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Hello Daniel

It is true.

It would be great if you could set a clear interface to get and set cells taking into account the real location or the visual location of the cells. And perhaps to have a way to say to GridCtrl that the visual location is the real location, for example, just before storing it. This is not always true so the programmer would have to call that function explicitly.

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Subject: Re: Retrieving data from sorted GridCtrl  
Posted by [unodgs](#) on Wed, 24 Oct 2012 19:54:46 GMT  
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Sorry for taking it so long but better late than never

`GetCtrl(c)` and `GetCtrl(r, c)` should refer to the same column and row as in `Get(c)` and `GetCtrl(r, c)` respectively.

Instead of `GetUnsorted` and `SetUnsorted` I added `GetRaw(r, c)` and `SetRaw(r, c, const Value&)`. In both cases `r` and `c` address internal items matrix directly. Also remember that `SetRaw` only sets the value. It doesn't do anything else so user is responsible for refreshing modified row or particular cell. It also doesn't trigger any grid callbacks.

I hope that those changes satisfy you. If not or there is still something wrong please let me know.

Subject: Re: Retrieving data from sorted GridCtrl  
Posted by [koldo](#) on Thu, 25 Oct 2012 19:12:04 GMT  
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Hello Daniel

Could you add a function that moves the visual data to the real data to be used just before saving with serialize functions?.

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