Subject: FIX - Single Click does not open/close items
Posted by loki on Wed, 09 Jan 2008 22:33:18 GMT
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Hello,

if the TreeCtrl is scrolled to the left, the calculation for the one-click open/close goes wrong.

I think this fix it.

```
void TreeCtrl::DoClick(Point p, dword flags, bool down)
{
 Point org = sb;
 if(p.y + org.y > sb.GetTotal().cy)
  return;
 int i = FindLine(p.y + org.y);
 const Line& l = line[i];
 int x = levelcx + l.level * levelcx - org.x - (levelcx >> 1) /*- org.x*/;
 if(p.x > x - 6 && p.x < x + 6) {
  if(down)
   Open(l.itemi, !IsOpen(l.itemi));
 }
 else {
  if(down && IsSel(l.itemi)) {
   selclick = true;
   return;
  }
  SetFocus();
  int q = cursor;
  SetCursorLine(i, true, false, true);
  if(multiselect) {
   int id = GetCursor();
   if(flags & K_CTRL) {
    SelectOne(id, !IsSelected(id));
    anchor = cursor;
   }
   else
    if(flags & K_SHIFT)
     ShiftSelect(anchor < 0 ? cursor : anchor, cursor);
    else {
     if(selectcount) SelClear(0);
     SelectOne(id);
     anchor = cursor;
    }
  }
  if(cursor != q)
   WhenAction();
 }
}
```

Could it be, that withopen has no effect? In the testcase it does not work.

greetings
loki

File Attachments

1) Testcase_002.zip, downloaded 644 times

Subject: Re: FIX - Single Click does not open/close items
Posted by mrjt on Fri, 11 Jan 2008 09:54:43 GMT
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Nice one.

And you are correct, there was no check for withopen/canopen. I've attached a copy of TreeCtrl.cpp (modified from SVN revision 89) that includes both fixes.

My changes:
TreeCtrl::Clear() - Root node now has canopen = true by default.
TreeCtrl::Open() - Check for canopen added. Nodes can still be closed even with canopen = false.

File Attachments

1) TreeCtrl.cpp, downloaded 844 times

Subject: Re: FIX - Single Click does not open/close items
Posted by mirek on Sat, 12 Jan 2008 18:50:37 GMT
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mrjt wrote on Fri, 11 January 2008 04:54Nice one.

And you are correct, there was no check for withopen/canopen. I've attached a copy of TreeCtrl.cpp (modified from SVN revision 89) that includes both fixes.

My changes:
TreeCtrl::Clear() - Root node now has canopen = true by default.
TreeCtrl::Open() - Check for canopen added. Nodes can still be closed even with canopen = false.

Thanks, patch applied.

Mirek

Subject: Re: FIX - Single Click does not open/close items
Posted by loki on Mon, 14 Jan 2008 21:51:37 GMT
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Thanks mrjt,

but in Open() we should also check for m.child.GetCount() to get it synchron with Paint()

Fix:

```
void TreeCtrl::Open(int id, bool open)
{
 Item& m = item[id];
 if(m.isopen != open && (m.canopen || m.child.GetCount() || !open)) {
  m.isopen = open;
  int q = GetCursor();
  while(q >= 0) {
   q = GetParent(q);
   if(q == id) {
    SetCursor(id, true, true, true);
    break;
   }
  }
  Dirty(id);
  if(open)
   WhenOpen(id);
  else
   WhenClose(id);
 }
}
```

In Paint:

```
if(m.canopen || m.child.GetCount()) {
 Image im = m.isopen ? CtrlImg::treeminus() : CtrlImg::treeplus();
 op -= im.GetSize() / 2;
 w.DrawImage(op.x, op.y, im);
```

greetings
loki

Subject: Re: FIX - Single Click does not open/close items
Posted by mirek on Mon, 14 Jan 2008 23:01:50 GMT
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ok.

Mirek

Subject: Re: FIX - Single Click does not open/close items
Posted by mrjt on Tue, 15 Jan 2008 14:48:56 GMT
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I'm not sure about that.

The purpose of the check in Paint is to draw the +/- indicator, but adding the check to open means that the node can be opened when canopen == false if the node has children. This makes canopen redundant and seems like incorrect behaviour.

If you want consistency I would rather remove the check from Paint:
```
if(m.canopen) { // or possibly: && m.child.GetCount())
 Image im = m.isopen ? CtrlImg::treeminus() : CtrlImg::treeplus();
 op -= im.GetSize() / 2;
 w.DrawImage(op.x, op.y, im);
```
Why would you want to indicate to the user that the node can be opened when it can't actually be opened (canopen == false)?

Subject: Re: FIX - Single Click does not open/close items
Posted by loki on Tue, 15 Jan 2008 19:54:31 GMT
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Ok. I have corrected it to match the painting. But if the painting is wrong, my correction is also wrong...

In other words we should change the painting. I think you are right. (I had an other meaning about canopen).

1) (canopen && childcount > 0) ---> +/- is drawn.
2) (canopen && childcount <= 0) ---> +/- is not drawn.
3) (!canopen && childcount > 0) ---> +/- is drawn in disabled state (grey)
4) (!canopen && childcount <= 0) ---> +/- is not drawn.

```
if(m.child.GetCount()) {
 Image im;
 if(m.canopen)
  im = m.isopen ? CtrlImg::treeminus() : CtrlImg::treeplus();
 else
  im = m.isopen ? CtrlImg::treeminusgrey() : CtrlImg::treeplusgrey();
 op -= im.GetSize() / 2;
 w.DrawImage(op.x, op.y, im);
}
```

treeminusgrey and treeplusgrey are new. I don't know if there is a drawing function which could grey the normal ones.

Is this ok?

greetings
loki

Subject: Re: FIX - Single Click does not open/close items
Posted by mirek on Wed, 16 Jan 2008 07:32:40 GMT
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Well, this not how it was meant

"WithOpen" (and canopen) is "override" flag for nodes that have not children (yet), but are supposed to be opened anyway.

The point is that such nodes get content only after being opened (via WhenOpen Callback). See reference/TreeCtrl tree1.

Mirek

Subject: Re: FIX - Single Click does not open/close items
Posted by loki on Wed, 16 Jan 2008 15:27:40 GMT
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Ok. Than my first interpretation of canopen (because of withopen) was right.

But maybe we can add some new option like bool disable and bool showdisable?
This could be usefull.

Subject: Re: FIX - Single Click does not open/close items
Posted by mirek on Thu, 17 Jan 2008 15:23:48 GMT
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loki wrote on Wed, 16 January 2008 10:27Ok. Than my first interpretation of canopen (because of withopen) was right.

But maybe we can add some new option like bool disable and bool showdisable?
This could be usefull.

Well, I usually add things when they are required by some usage scenario / application. Are you in need of them now?

Mirek

Subject: Re: FIX - Single Click does not open/close items
Posted by loki on Thu, 17 Jan 2008 20:48:07 GMT
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No, I don't need it at the moment. But good to know that we can ask you if we need something.

And thanks for the tip "add things when they are required". I still have to learn lots of things.

greetings
loki