Subject: [FIXED] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by Klugier on Sun, 30 Jun 2013 11:57:59 GMT
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Hello,

The main problem with U++ on X11 is windows resizing quality. When you resize window you can see white square arrtifacts. I have found solution for this issue.

Here is the patch code (CtrlCore/X11Wnd.cpp - Line 488)

```
Window w = XCreateWindow(Xdisplay, RootWindow(Xdisplay, Xscreenno),
                         r.left, r.top, r.Width(), r.Height(),
                         0, CopyFromParent, InputOutput, CopyFromParent,
                         CWBitGravity|CWSaveUnder|CWOverrideRedirect|
                         (IsCompositedGui() ? CWBackPixmap : CWBackPixel),
                         &swa);
```

What I really changed is one little line of code:

```
(IsCompositedGui() ? CWBackPixmap : CWBackPixel),
```

Insted of:

```
(IsCompositedGui() ? CWBackPixel : CWBackPixmap),
```

This patch will have huge impact on your experience with ultimate++ on X11, because it eliminates one of the most annoying bug.

Sincerely,
Klugier

Subject: Re: [BUG & PATCH] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by mirek on Sat, 13 Jul 2013 19:28:00 GMT
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Patch applied...

Mirek

Subject: Re: [BUG & PATCH] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by Novo on Sun, 14 Jul 2013 19:35:10 GMT
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mirek wrote on Sat, 13 July 2013 15:28Patch applied...

Mirek

In my case (Ubuntu + KDE) Upp is flickering like crazy after this change. Example: reference/DockingExample1 (try to resize the main window).

Subject: Re: [BUG & PATCH] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by Klugier on Mon, 15 Jul 2013 12:58:50 GMT
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Hello,

I am almost sure that this patch is OK. I had tested it on several graphical user enviroment such as KDE (4.10.5), LXDE, Xfc & Cinamon. It also works good on VirtualBox.

Novo, Can you write more details about your distribution? BTW, Before this update I had flicker on all my GNU/Linux machines!!!

I have a huge request to ultimatepp community. Can you guys test window resizing on GNU/Linux and write about it. Before you start testing make sure that you have the latest upp version.

I have made some tests on my old machine (Open source Radeon driver). It seems that the result of IsCompositedGui() can depends on too many factors such as graphic card driver. Personally, I think that we should always use "CWBackPixmap", because this flag guarantees smooth resizing. I think we need to create window in following way:

```
Window w = XCreateWindow(Xdisplay, RootWindow(Xdisplay, Xscreenno),
                         r.left, r.top, r.Width(), r.Height(),
                         0, CopyFromParent, InputOutput, CopyFromParent,
                         CWBitGravity|CWSaveUnder|CWOverrideRedirect|CWBackPixmap,
                         &swa);
```

P.S.
Thank you Novo for reporting.

Sincerely,
Klugier

Subject: Re: [BUG & PATCH] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by Novo on Mon, 15 Jul 2013 16:30:07 GMT
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klugier wrote on Mon, 15 July 2013 08:58Hello,

I am almost sure that this patch is OK. I had tested it on several graphical user enviroment such as KDE (4.10.5), LXDE, Xfc & Cinamon. It also works good on VirtualBox.

Novo, Can you write more details about your distribution? BTW, Before this update I had flicker on all my GNU/Linux machines!!!

I have a huge request to ultimatepp community. Can you guys test window resizing on GNU/Linux and write about it. Before you start testing make sure that you have the latest upp version.

Sincerely,
Klugier

I have latest Ubuntu x64 (AMD) + KDE + Openbox as a window manager. Graphics card ATI 5770, I believe. My system has two 24' monitors (rotated 90 degrees). I always use latest code from svn.

I also checked on two my computers at work ("Update the window contents while resizing" is checked):

1) Ubuntu 10.04 32-bit, regular Gnome 2, NVidia video card, one 21' rotated monitor - flickering.

2) Lubuntu 13.04 (Openbox window manager), 64-bit, NVidia video card, one 21' not rotated monitor - flickering

Checked with examples/HomeBudget (no Docking):

1) - flickering.
2) - flickering.

Conclusion:
1) this is not just a problem with Docking;
2) it is not related to multiple and rotated monitors;

Subject: Re: [BUG & PATCH] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by Klugier on Mon, 15 Jul 2013 17:32:28 GMT
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Hello Novo,

Like I said. We need to remove IsCompositedGui() check from XCreateWindow and stay only with CWBackPixmap flag.

The bug in this place is obvious, because smooth resizing works on some machines, but on others it doesn't. So the final code should look like this:

```
Window w = XCreateWindow(Xdisplay, RootWindow(Xdisplay, Xscreenno),
                         r.left, r.top, r.Width(), r.Height(),
                         0, CopyFromParent, InputOutput, CopyFromParent,
                         CWBitGravity|CWSaveUnder|CWOverrideRedirect|CWBackPixmap,
                         &swa);
```

Sincerely,
Klugier

Subject: Re: [BUG & PATCH] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by Sender Ghost on Mon, 15 Jul 2013 17:43:07 GMT
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Hello, Klugier and Sergey.

Generally, I use Ctrl::GlobalBackPaint() static method on GUI_APP_MAIN to disable flickering on Windows XP and/or Posix (FreeBSD, Linux):
Toggle source code

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

using namespace Upp;

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

 LineEdit edit;
};

App::App()
{
 Title("BackPaint text");
 SetRect(Size(320, 240));
 Sizeable().Zoomable();
```

```
 edit <<= "Some text";
 edit.SelectAll();
 Add(edit.HSizePosZ(4, 4).VSizePosZ(4, 4));
}

GUI_APP_MAIN
{
 Ctrl::GlobalBackPaint();

 App app;
 app.Run();
}
```

There is GlobalBackPaint() for Windows 7 already, for some reasons.

Subject: Re: [BUG & PATCH] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by Klugier on Mon, 15 Jul 2013 18:41:59 GMT
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Hello Sender Ghost,

Thank you for tips, but they don't work in this case. I have still flickering when CWBackPixel flags is on. The problem is that CWBackPixmap must be turn on to fully avoid flickering on X11.

Sincerely,
Klugier

Subject: Re: [BUG & PATCH] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by unodgs on Mon, 15 Jul 2013 19:22:04 GMT
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Ubuntu 13.04 64b (cinnamon 3d), dell studio 1735 (radeon hd). In my case the patch helped. Before window flickered. Now everything looks perfect!

Subject: Re: [BUG & PATCH] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by Novo on Mon, 15 Jul 2013 19:34:18 GMT
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klugier wrote on Mon, 15 July 2013 13:32Hello Novo,

Like I said. We need to remove IsCompositedGui() check from XCreateWindow and stay only with CWBackPixmap flag.

The bug in this place is obvious, because smooth resizing works on some machines, but on others it doesn't. So the final code should look like this:

```
Window w = XCreateWindow(Xdisplay, RootWindow(Xdisplay, Xscreenno),
                         r.left, r.top, r.Width(), r.Height(),
                         0, CopyFromParent, InputOutput, CopyFromParent,
                         CWBitGravity|CWSaveUnder|CWOverrideRedirect|CWBackPixmap,
                         &swa);
```

Sincerely,
Klugier

This fixed flickering in configuration 1.

Checked on a home computer with two rotated monitors - no flickering.

Thanks!

Subject: Re: [BUG & PATCH] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by mirek on Tue, 16 Jul 2013 06:32:49 GMT
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OK, it is now CWBackPixmap unconditionally...

(It is still sort of irrelevant, GTK backend is the future...)

Mirek

Subject: Re: [BUG] Fixing X11 resizing issue. (Huge X11 quality improvement!!!)
Posted by Novo on Tue, 16 Jul 2013 13:08:24 GMT
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Thank you! For the time being it still makes a lot of sense.
