
Subject: ArrayCtrl: GPF when thread Add(), PopUpEx, and Scroll collide

Posted by [alendar](#) on Tue, 07 Sep 2010 03:07:51 GMT

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Hi,

I finally tracked down a bug that has been embedded in my code since I converted from Windows 7 to Ubuntu 9.10, now Ubuntu 10.04 LTS 64-bit.

The error is intermittent but easy for me to reproduce.

In debug mode, from the log file.

Assertion failed in /home/jeff/upp/uppsrc/CtrlCore/X11Wnd.cpp, line 473

!IsChild() && !IsOpen()

Resource temporarily unavailable

A blank white popup label box remains on the screen, no text, until the program is terminated.

The code is from CtrlCore::X11Wnd.cpp::Ctrl::Create0(Ctrl *owner, bool redirect, bool savebits)

At the assertion around line 470.

```
ASSERT(!IsChild() && !IsOpen());
```

I determined that the IsOpen() test is failing.

I was able to fix it, but not sure if its the greatest solution.

The steps to reproduce:

- 1) Create multithreaded app. An ArrayCtrl is built in the main thread with 14 columns. The number of columns may load the system enough to cause it. A thread is spawned to Add rows and populate in background. GuiLock __ is used.
- 2) In main, call PopUpEx() to enable popup info.
- 3) Load enough data to enable scrolling.
- 4) Begin scrolling rapidly down with the mouse wheel and hovering over cells. Sometimes shifting between columns causes the failure to happen sooner.

Using LLOG, I determined its during the Add() call to ArrayCtrl.

Here's where the popup creation happens successfully:

```
POPUP: N3Upp12DisplayPopupE : 0x7fffeb7377c0(window 0x0)
```

```
Create N3Upp12DisplayPopupE : 0x7fffeb7377c0(window 0x0) [1045, 384] - [1087, 403] : (42, 19)
```

Note that the POPUP: statement precedes the create command.

Here's where the failure happens:

```
Invalidate N3Upp12DisplayPopupE : 0x7fffeb7377c0(window 0x66014d5) [0, 0] - [152, 19] : (152,
```

19)

Create N3Upp12DisplayPopupE : 0x7fffeb7377c0(window 0x66014d5) [667, 579] - [819, 598] :
(152, 19)

The window exists already since it is invalidated, and the the Create statement crashes because it already exists.

My solution was to add a Close() call if it was Open:

```
void Ctrl::Create0(Ctrl *owner, bool redirect, bool savebits)
{
    GuiLock __;
    ASSERT(IsMainThread());
    LLOG("Create " << Name() << " " << GetRect());
    if (IsChild())
        LLOG("Ctrl::Create0 IsChild = True");
    if (IsOpen()) {
        LLOG("Ctrl::Create0 IsOpen = True");
        Close(); // HACK
    }
    ASSERT(!IsChild() && !IsOpen());
}
```

Ubuntu: 2.6.32-24-generic #42-Ubuntu SMP Fri Aug 20 14:21:58 UTC 2010 x86_64 GNU/Linux
CPU: AMD Athlon(tm) 64 X2 Dual Core Processor 4600+
U++: 2667-lucid-amd64-nogtk (64 bit)
gcc: (Ubuntu 4.4.3-4ubuntu5) 4.4.3

I will try to dummy up a sample. Hopefully I can get a fix applied to the code since I get automatic upgrades.

Note: Fails on GTK version, too.