
Subject: MT assertion failed in IsST()
Posted by [mezise](#) on Thu, 07 Jun 2007 09:08:55 GMT
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I have a problem solving this issue
ASSERT FAILED: Assertion failed in d:/upp705dev3/uppsrc/Core/Mt.h, line 53
Thread::IsST()

Could someone check my Thread implementation in an enclosed test package, please?

The test app downloads a text file through http and shows it in a DocEdit.

To reproduce the issue run the app in MINGW Debug, click on START button, then on STOP button always before download ends, then again on START, again on STOP and so on until error shows.

[My environment: Windows XP Professional SP2 x32, upp-mingw-705-dev3]

Michal

Subject: Re: MT assertion failed in IsST()
Posted by [mirek](#) on Fri, 08 Jun 2007 07:29:55 GMT
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A *nasty* bug in U++ ("Format" function, called in httpcli, initialized formatters, which can be done in ST mode only).

Now fixed.

Quick patch:

Core/Format.cpp 808:

```
static void sRegisterFormatters()
{
    ONCELOCK {
        IntDoubleRegister(BOOL_V);
        IntDoubleRegister(INT_V);
        IntDoubleRegister(INT64_V);
        IntDoubleRegister(DOUBLE_V);

        RegisterStringFormatter("s", &StringFormatter);
        RegisterNullFormatter("", &DateFormatter);
        RegisterFormatter(DATE_V, "", &DateFormatter);
        RegisterFormatter(TIME_V, "", &TimeFormatter);
    }
}
```

```

RegisterNumberFormatter("n", &RealFormatter);
RegisterNumberFormatter("ne", &RealFormatter);
RegisterNumberFormatter("nf", &RealFormatter);
RegisterNumberFormatter("nl", &RealFormatter);
RegisterNumberFormatter("nle", &RealFormatter);
RegisterNumberFormatter("nlf", &RealFormatter);
RegisterNumberFormatter("v", &RealFormatter);
RegisterNumberFormatter("ve", &RealFormatter);
RegisterNumberFormatter("vf", &RealFormatter);
RegisterNumberFormatter("vl", &RealFormatter);
RegisterNumberFormatter("vle", &RealFormatter);
RegisterNumberFormatter("vlf", &RealFormatter);

// real number formats (n = fixed decimals, v = valid decimals)
// ne, ve - force exponential notation; nf, vf - force fixed notation; nl, vl - language-based
formatting
// Options: [+][[-]<digits>][!][^<expdig>]
// + .. always prepend sign
// [-]<digits> .. number of decimals to print (negative = left of decimal point, default = 6)
// ! .. keep insignificant zeros
// ^ .. exponent options:
// + .. always prepend sign to exponent
// <expdig> exponent padding width

RegisterNumberFormatter("a", &IntLowerAlphaFormatter);
RegisterNumberFormatter("A", &IntUpperAlphaFormatter);
RegisterNumberFormatter("r", &IntLowerRomanFormatter);
RegisterNumberFormatter("R", &IntUpperRomanFormatter);

RegisterValueFormatter("vt", &StdFormatFormatter);
RegisterValueFormatter("", &StdFormatFormatter);
}
}

INITBLOCK {
    sRegisterFormatters();
}

String NFormat(int language, const char *s, const Vector<Value>& v)
{
    sRegisterFormatters();
    Formatting f;
    f.language = language;
    String result;
    int pos = 0;
    const char *b;

```

Mirek

Subject: Re: MT assertion failed in IsST()
Posted by [mezise](#) on Fri, 08 Jun 2007 11:58:14 GMT
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Thanks! Patch applied and issue solved but I encountered another 2 failed assertions.
Unfortunately did not found a way to reproduce them (just various clicks between START and STOP buttons).
I do not know if it has something to do with MT.

Twice occurred:
ASSERT FAILED: Assertion failed in d:/upp705dev3/uppsrc/Core/Vcont.h, line 17
i >= 0 && i < items

Once occurred:
ASSERT FAILED: Assertion failed in d:\upp705dev3\uppsrc\CtrlLib\DocEdit.cpp, line 19
this->line.GetCount() == para.GetCount()

Michal

Subject: Re: MT assertion failed in IsST()
Posted by [mirek](#) on Fri, 08 Jun 2007 13:45:20 GMT
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OK, I quickly reviewed the code and...

```
void DownloadThread(CallerInfo caller)
{
    caller.app->isProgressCanceled = false;
```

```
    String result;
    result << "Download started, timeout is set to 30 seconds...";
    caller.app->downloadResult.Set(result);
    caller.app->tab.RefreshFrame();
```

is MT broken -> first, U++ does not allow to call GUI related things from other than the main thread (we the exception of callback queue). And even if it would, you would still need some mutex for caller.app.

Solution: Instead of calling caller.app methods directly, use callback queue; calling

SetTimeCallback is legal at any moment (queue is serialized - there is mutex inside). Set the delay parameter = 0 so that it gets invoked at first opportunity.

Mirek

Subject: Re: MT assertion failed in IsST()
Posted by [mezise](#) on Fri, 08 Jun 2007 17:18:24 GMT
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Thank you Mirek!
Now I realize the meaning of PostCallback function in reference/GuiMT. I should more carefully study examples.

Michal
