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Subject: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Mon, 12 Mar 2012 17:18:15 GMT

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Sorry for the screenshot.

Maybe those should be separate topics? But for now...

In order to attract more people into upp-cocoa who doesn't have macs I have been developing upp-cocoa also on MS Windows.

I constantly struggling which flags should I change and how to name them because, I can only guess the whole future picture of the u++ flag system.

Can someone outline structure of the u++ compiling flags?

Or is there one?

Something like:

1 Kernel or OS (like in google chrome and other places):

1.1 OS\_WINDOWS

1.2 OS\_LINUX

1.3 OS\_BSD

(I am still using PLATFORM\_COCOA but it is not correct. see below)

2 peripherals middleware?

Keyboard? for cocoa I need

WINDOWS\_KEYBOARD

APPLE\_KEYBOARD

LINUX\_BSD\_KEYBOARD

.... something in between for draw?

then GUI\_BACKENDS

dont forget GUI\_XCB!

eg cygwin - OS\_WINDOWS - WINDOWS\_KEYBOARD - GUI\_X11

cocoa OS\_WINDOWS - WINDOWS\_KEYBOARD - GUI\_COCOA

but some cocoa is used if GUI\_OPENGL? so it would be logical to have MIDDLE\_COCOA ?

then inside I am using GNU\_STEP

or simply \_\_APPLE\_\_

or what?

So, what better prefix would be instead of MIDDLE\_..

The prefixes OS\_.. GUI\_.. are clear. Imagine a table? or is there one for u++?

help...

But, I am sorry, IMO, PLATFORM\_POSIX meaning is too wide and confusing..

Other ideas?

P.S I want to harmonize and clean at least those 2 sets of uppsrc on my mac and windows to be ready to post or commit somewhere ...

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## File Attachments

1) [Screen\\_GNUSTEP\\_U++.PNG](#), downloaded 1400 times

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [mirek](#) on Tue, 13 Mar 2012 07:11:16 GMT

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fudadmin wrote on Mon, 12 March 2012 13:18

But, I am sorry, IMO, PLATFORM\_POSIX meaning is too wide and confusing..

Why confusing? The sole purpose is to identify API for conditional compilation. POSIX represents a pretty wide but guaranteed set of API calls, which is different from Win32 API.

Surely, PLATFORM\_LINUX or PLATFORM\_BSD are narrower subsets, but it is definitely worth to have superset, as most things are the same.

Mirek

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [Tom1](#) on Tue, 13 Mar 2012 09:29:04 GMT

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Hi Aris,

Thanks for bringing to my knowledge the alternative test platform - GNUstep. I just downloaded+installed the parts (MSYS system, core and devel) for windows. I may be a bit ahead of schedule with this, but: Once you get your work uploaded, could you please post a (hopefully short step-by-step guide how to get it up and running on GNUstep.

--

I don't know the big picture, so don't take me too seriously, but I think OpenGL is always used in companion with something else, like GDI, X11 or Cocoa in this case. So, maybe GUI\_OPENGL should not exist as an alternative to GUI\_X11, etc. but instead as a kind of add-on to them.

Best regards,

Tom

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Tue, 13 Mar 2012 17:43:54 GMT

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Tom1 wrote on Tue, 13 March 2012 09:29

Thanks for bringing to my knowledge the alternative test platform - GNUstep. I just downloaded+installed the parts (MSYS system, core and devel) for windows. I may be a bit ahead of schedule with this, but: Once you get your work uploaded, could you please post a (hopefully short step-by-step guide how to get it up and running on GNUstep.

Great! Thanks Tom for your interest! You are not much ahead of schedule.. Maybe only one day At the moment for upp-cocoa I use 2 packages: UNS and SkeletonCoc.

So the first rough steps:

1. install gnustep. - You did it (hopefully correctly )
  2. I should have UNS for testing on gnustep and mac to be ready in a few hours zipped somewhere here.
  3. I will post a version if of theide for windows gnustep.
  4. You will try to compile some tests and if any errors I will tell you what to change in Core.
- 

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Tue, 13 Mar 2012 17:56:47 GMT

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mirek wrote on Tue, 13 March 2012 07:11fudadmin wrote on Mon, 12 March 2012 13:18

But, I am sorry, IMO, PLATFORM\_POSIX meaning is too wide and confusing..

Why confusing? The sole purpose is to identify API for conditional compilation. POSIX represents

a pretty wide but guaranteed set of API calls, which is different from Win32 API.

Surely, PLATFORM\_LINUX or PLATFORM\_BSD are narrower subsets, but it is definitely worth to have superset, as most things are the same.

Mirek

ok, thanks. I will try to adjust them as little as possible to be fit for purpose. And then you adjust...

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Wed, 14 Mar 2012 02:06:08 GMT

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fudadmin wrote on Tue, 13 March 2012 17:43

2. I should have UNS for testing on gnustep and mac to be ready in a few hours zipped somewhere here.

Tom, I have posted the new UNS. Check another topic. (what the hell happened to forum settings? Where the nice addresses disappeared?)

Try to build with the existing windows theide but you might need to copy ide.exe somewhere inside gnustep dir and also create uppsrc nests inside gnustep and run ide and/or (in order to) run built products from there. sorry, I can't remember environment variables etc and I dont have windows pc tonight.

You will need to have active LIBRARIES (in project settings) depending on flags  
objc gnustep-base gnustep-gui ffi m libstdc++  
(but they are in UNS)

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Wed, 14 Mar 2012 12:49:35 GMT

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check MINGW.bm

```
BUILDER = "GCC";  
COMPILER = "g++";  
DEBUG_INFO = "2";  
DEBUG_BLITZ = "1";  
DEBUG_LINKMODE = "1";  
DEBUG_OPTIONS = "-O0 -gstabs -pipe -fvisibility=hidden -Wno-trigraphs";
```

```
DEBUG_FLAGS = "";
DEBUG_LINK = "";
RELEASE_BLITZ = "1";
RELEASE_LINKMODE = "1";
RELEASE_OPTIONS = "-O3 -ffunction-sections";
RELEASE_SIZE_OPTIONS = "-Os -finline-limit=20 -ffunction-sections";
RELEASE_FLAGS = "";
RELEASE_LINK = "";
DEBUGGER = "gdb";
PATH = "C:\\MinGW\\bin";
INCLUDE = "C:\\MinGW\\include;C:\\GNUstep\\GNUstep\\System\\Library\\Headers";
LIB = "C:\\MinGW\\lib;C:\\GNUstep\\GNUstep\\System\\Library\\Libraries";
REMOTE_HOST = "";
REMOTE_OS = "";
REMOTE_TRANSFER = "";
REMOTE_MAP = "";
LINKMODE_LOCK = "0";
```

Edit: for some reasons forum doesn't allow to upload ide.zip  
but try to put your mingw.bm and your version somewhere:  
C:\\GNUstep\\msys\\1.0\\home\\arilect\\upp

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Wed, 14 Mar 2012 13:13:32 GMT

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try to compile your own ide with this file

Edit: Attention! the changes in this file might not help linking gnustep stuff with MINGW ... I will post updates later.

#### File Attachments

1) [GccBuilder.zip](#), downloaded 510 times

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Wed, 14 Mar 2012 13:18:28 GMT

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try to change part of Core/config.h

```
#define COMPILER_GCC 1
```

```
#if __WIN32
```

```

#define COMPILER_MINGW
#define OS_WINDOWS
#define PLATFORM_WIN32
#endif

#ifdef __OBJC__
#include <objc/objc.h>
#endif

#if flagCOCOA
#define PLATFORM_COCOA
#define GUI_COCOA 1
#endif
#if flagX11
#define GUI_X11 1 //aris002 for cygwin?
#endif

#if flagGUI_WIN
#define GUI_WIN
#endif

#if __unix || __unix__ || __APPLE__
#define PLATFORM_POSIX 1

```

Edit: actually I changed everything in Core from PLATFORM\_WIN32 to OS\_WINDOWS and then have been trying to adjust other parts but at the start you don't need.

Please post your errors.

---

Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [Tom1](#) on Wed, 14 Mar 2012 13:49:05 GMT

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Hi Aris,

Your feeding instructions at a rate well beyond my internal clock, but I'm catching up eventually. So, I have applied changes to MINGW.bm, config.h and now finally merged your GccBuilder.icpp. However, this last change caused inability to build theide:

```
----- ide/Builders ( GUI SVO_VALUE GCC WIN32 ) ( 5 / 35)
```

```
GccBuilder.icpp
```

```
...
```

```
There were errors. (0:01.27)
```

How to proceed?

Best regards,

Tom

Edit by fudadmin: deleted the log to keep the forums cleaner .

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Wed, 14 Mar 2012 13:58:05 GMT

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my uppsrc version is not merged with the latest updates. try to compare gccbuilder.icpp and apply my changes intelligently...

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [Tom1](#) on Wed, 14 Mar 2012 14:21:04 GMT

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OK, now you may determine how 'intelligent' I was... (The revised file is attached.) This one compiled into a supposedly working ide.exe.

However, the same compilation errors seem to still exist when compiling UNS package.

You were referring to flags in one of your posts. You mean Main package configuration flags / or not? I have nothing there yet. Should I?

// Tom

#### File Attachments

1) [GccBuilder.zip](#), downloaded 487 times

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Wed, 14 Mar 2012 14:26:06 GMT

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Tom1 wrote on Wed, 14 March 2012 14:21OK, now you may determine how 'intelligent' I was... (The revised file is attached.) This one compiled into a supposedly working ide.exe.

However, the same compilation errors seem to still exist when compiling UNS package.

---

You were referring to flags in one of your posts. You mean Main package configuration flags / or not? I have nothing there yet. Should I?

// Tom

Have you applied the changes to the Core/config.h?

What flags have you got in test package?

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [Tom1](#) on Wed, 14 Mar 2012 14:30:20 GMT

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config.h was already applied earlier.

Currently no flags. I tried with GUI and GUI SKELETON COCOA without effect.

// Tom

---

Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Wed, 14 Mar 2012 14:34:04 GMT

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but flags in your testing should be something like  
GUI USEMALLOC COCOA .NOGTK TEST\_UN  
.NOGTK - may not needed (I switched to mac...)

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Wed, 14 Mar 2012 14:38:02 GMT

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After applying flags from above please post the first few errors.

---

Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [Tom1](#) on Wed, 14 Mar 2012 14:43:30 GMT



Tried with and without .NOGTK -- no apparent difference. Then tried to add SVO\_VALUE, but that did not have effect either.

Here are the first lines of plenty more...

```
----- UNS ( GUI USEMALLOC COCOA TEST_UN SVO_VALUE GCC SHARED WIN32 ) ( 1 / 7 )
UNSUtills.mm
UNSAApplication.mm
UNSAApplicationDelegate.mm
UNSIImage.mm
UNSVView.mm
In file included from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc/Core/Core.h:251:0,
      from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc/Draw/Draw.h:6,
      from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc/RichText/RichText.h:4,
      from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc\UNS\UNS.h:11,
      from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc\UNS\UNSAApplication.mm:2:
C:\GNUstep\msys\1.0\home\tom\upp\uppsrc/Core/ValueUtil.h: In constructor 'Upp::Id::Id(const
Upp::String&)':
C:\GNUstep\msys\1.0\home\tom\upp\uppsrc/Core/ValueUtil.h:80:52: error: expected
unqualified-id before '=' token
C:\GNUstep\msys\1.0\home\tom\upp\uppsrc/Core/ValueUtil.h: In constructor 'Upp::Id::Id(const
char*)':
C:\GNUstep\msys\1.0\home\tom\upp\uppsrc/Core/ValueUtil.h:81:52: error: expected
unqualified-id before '=' token
In file included from C:\GNUstep\GNUstep\System\Library\Headers/Foundation/NSObject.h:30:0,
      from
C:\GNUstep\GNUstep\System\Library\Headers/Foundation/FoundationErrors.h:29,
      from C:\GNUstep\GNUstep\System\Library\Headers/Foundation/Foundation.h:33,
      from C:\GNUstep\GNUstep\System\Library\Headers/Cocoa/Cocoa.h:33,
      from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc\UNS\UNS.h:29,
      from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc\UNS\UNSAApplication.mm:2:
C:\GNUstep\GNUstep\System\Library\Headers/Foundation/NSObjCRuntime.h: At global scope:
C:\GNUstep\GNUstep\System\Library\Headers/Foundation/NSObjCRuntime.h:147:20: error:
'INTPTR_MAX' was not declared in this scope
In file included from
C:\GNUstep\GNUstep\System\Library\Headers/Foundation/Foundation.h:68:0,
      from C:\GNUstep\GNUstep\System\Library\Headers/Cocoa/Cocoa.h:33,
      from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc\UNS\UNS.h:29,
      from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc\UNS\UNSAApplication.mm:2:
C:\GNUstep\GNUstep\System\Library\Headers/Foundation/NSFileManager.h:190:8: warning:
'NSDirectoryEnumerator' has a field 'NSDirectoryEnumerator::_flags' whose type uses the
anonymous namespace [enabled by default
t]
In file included from C:\GNUstep\GNUstep\System\Library\Headers/AppKit/AppKit.h:93:0,
      from C:\GNUstep\GNUstep\System\Library\Headers/Cocoa/Cocoa.h:34,
      from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc\UNS\UNS.h:29,
      from C:\GNUstep\msys\1.0\home\tom\upp\uppsrc\UNS\UNSAApplication.mm:2:
```

C:\GNUstep\GNUstep\System\Library\Headers/AppKit/NSDataLink.h:150:25: error:  
previous declaration of 'NSString\* NSDataLinkPboardType' with 'C++' linkage  
C:\GNUstep\GNUstep\System\Library\Headers/AppKit/NSPasteboard.h:109:25: error:  
conflicts with new declaration with 'C' linkage  
In file included from C:\GNUstep\GNUstep\System\Library\Headers/AppKit/AppKit.h:159:0,

// Tom

---

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on  
Windows 7 GNUSTEP

Posted by [fudadmin](#) on Wed, 14 Mar 2012 15:07:22 GMT

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My uppsrc is something 6 months old. Damn, it looks like I do not have Core/ValueUtil.h and I will  
need to merge. It might take some time. Id, I think, might be used in Cocoa Foundation, to... But,  
for now, try without SVO\_VALUE and post errors.

---

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on  
Windows 7 GNUSTEP

Posted by [Tom1](#) on Wed, 14 Mar 2012 15:18:55 GMT

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---

Hi,

Please find attached the compiler errors...

I'll leave the office now. Will return to morrow.

// Tom

#### File Attachments

1) [compile-errors-2012-03-14b.zip](#), downloaded 479 times

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on  
Windows 7 GNUSTEP

Posted by [fudadmin](#) on Wed, 14 Mar 2012 15:21:53 GMT

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---

you can try my Core and help to merge... . Leaving? Ok. see you later. thanks for trying.

Edit: Core.zip removed. see posts below.

---

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Thu, 15 Mar 2012 00:50:58 GMT

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fudadmin wrote on Wed, 14 March 2012 15:21 you can try my Core and help to merge... .  
Leaving? Ok. see you later. thanks for trying.

Sorry, Tom, I was rushing and juggling computers and other tasks.  
Forget the Core.zip above...

Only 1 problem in core for now and it should compile.

What helps is: `Id::Id(const String& s) { id = s; }`

`Id::Id(const char *s) { id = s; }`

I mean, split the declaration and definition and move the latter to the \*.cpp file intelligently...

But I don't foresee this is a proper intelligent solution. Very likely it's a road mine which can explode and I am glad you exposed it. Cocoa's objc uses 'id' for any object. 'id' might be isolated (if used) by a namespace and not to clash in cpp part but in the future we will need to think what to do. Rename all 'id' in u++ and declare it taboo? It would be interesting what other guys and Mirek think? Btw, there are no namespaces in objc. Only the dark room...

Edit1: Also, download the updated UNS.zip from the other topic

Edit2: the GccBuilder.icpp I posted doesn't link (or stopped linking) for some reasons. I will try to find out. But first, try to compile.

Edit3: linking also depends on flags... the updated UNS compiles and runs on windows with the latest u++ <Core> and the changes already mentioned.

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [Tom1](#) on Thu, 15 Mar 2012 10:36:08 GMT

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Hi,

Great! Good thing you figured out the Id stuff. In my opinion Mirek's word on solving the namespace issue would be needed.

--

Now: I was actually able to compile+link+run the test app on GNUstep using SVN4690 sources modified as follows:

1. Core/config.h as you showed above.
2. GccBuilder in the way you demonstrated and I yesterday uploaded the 'intelligently' merged

changes compatible with SVN4690.

3. Applied the Id::Id fix in the Value. (BTW: This works the same way for OldValue and the new SVO\_VALUE.)

4. I had to change UNS.h as follows to remove some errors:

...

```
#ifdef __OBJC__
extern "C"{           // 2012-03-15 Tom added
#define INTPTR_MAX 0x7fffffff // 2012-03-15 Tom added
#include <Cocoa/Cocoa.h>
#include <Foundation/Foundation.h>
}           // 2012-03-15 Tom added
#include "UNSTDef.h"
```

...

Flags were "COCOA USEMALLOC". (This also worked with SVO\_VALUE).

--

What comes out of this is an empty console window and then an empty gray 300x300px window. So, it works! (Right?)

Now, how to connect TopWindow and other Ctrl's to this?

// Tom

---

Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [fudadmin](#) on Thu, 15 Mar 2012 13:42:07 GMT

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---

Very good news you have got it running! But I don't need this:...

```
#ifdef __OBJC__
extern "C"{           // 2012-03-15 Tom added
#define INTPTR_MAX 0x7fffffff // 2012-03-15 Tom added
#include <Cocoa/Cocoa.h>
#include <Foundation/Foundation.h>
}           // 2012-03-15 Tom added
#include "UNSTDef.h"
```

...

Also it looks that this kind of includes I had left commented (except INTPTR\_MAX) are still needed. But, according to some, it is

a brutal fix

What gcc version have got? I have got 4.6.1.

You can try to use UNSWindow and UNSView in CocWnd and other stuff from UNS package. I will post more later.

---

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Subject: Re: Need help with the structure of flags etc. and running u++ cocoa on Windows 7 GNUSTEP

Posted by [Tom1](#) on Thu, 15 Mar 2012 14:14:13 GMT

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I've got 4.6.1 too, but still needed the changes...

I'll stay tuned for more details on UNSWindow and UNSView.

Thanks and best regards,

Tom

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