
Subject: Different native pthread.h implementations
Posted by [Sender Ghost](#) on Fri, 21 Jan 2011 06:04:25 GMT
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Hello.

There is following error on FreeBSD for multithreading source code, after 3041, 3044 revisions:

Web/socket.cpp: In function 'Upp::String& Upp::SockErrorText()':
Web/socket.cpp:815: error: cast from 'pthread*' to 'int' loses precision

Native implementations of pthread.h are different on BSD operating systems:

DragonFlyBSD:

```
/*
 * Run-time invariant values:
 */
#define PTHREAD_DESTRUCTOR_ITERATIONS 4
#define PTHREAD_KEYS_MAX 256
#define PTHREAD_STACK_MIN 1024
#define PTHREAD_THREADS_MAX ULONG_MAX
#define PTHREAD_BARRIER_SERIAL_THREAD -1
```

FreeBSD:

```
/*
 * Run-time invariant values:
 */
#define PTHREAD_DESTRUCTOR_ITERATIONS 4
#define PTHREAD_KEYS_MAX 256
#define PTHREAD_STACK_MIN __MINSIGSTKSZ
#define PTHREAD_THREADS_MAX __ULONG_MAX
#define PTHREAD_BARRIER_SERIAL_THREAD -1
```

OpenBSD:

```
/*
 * Run-time invariant values:
 */
#define PTHREAD_DESTRUCTOR_ITERATIONS 4
#define PTHREAD_KEYS_MAX 256
#define PTHREAD_STACK_MIN 2048
#define PTHREAD_THREADS_MAX ULONG_MAX
```

Not sure about NetBSD.

I solved it with following source code changes:

```
diff -ruN uppsrc/Web/socket.cpp uppsrc-fixed/Web/socket.cpp
--- uppsrc/Web/socket.cpp 2011-01-21 09:20:01.000000000 +0600
+++ uppsrc-fixed/Web/socket.cpp 2011-01-21 09:23:27.000000000 +0600
@@ -812,7 +812,11 @@
 int tid = GetCurrentThreadId();
#else
 #ifdef _MULTITHREADED
- int tid = (int)Thread::GetCurrentId();
+ #ifdef PLATFORM_BSD
+ unsigned long tid = (unsigned long)Thread::GetCurrentId();
+ #else
+ int tid = (int)Thread::GetCurrentId();
+ #endif
#endif
 int tid = 0;
#endif
```

May be it possible to use "unsigned long" for all implementations.
