U++ - Bug #906
The _Atomic_word and __exchange_and_add issue on FreeBSD LLVM/Clang compiler

10/15/2014 10:43 AM - Sender Ghost

Status:	Approved		**Start date:**	10/15/2014
Priority:	Normal		**Due date:**	
Assignee:	Miroslav Fidler		**% Done:**	0%
Category:	Core		**Estimated time:**	0.00 hour
Target version:			**Spent time:**	0.00 hour

Description

The FreeBSD LLVM/Clang compiler (for example, 3.3 version on FreeBSD 10) complains about undefined **_Atomic_word** type and **__exchange_and_add** function inside of uppsrc/Core/Mt.h file. Also, there is no bits/atomic.h or ext/atomic.h files inside of include directories to resolve this.

I propose to use **__sync_fetch_and_add** function instead of **__exchange_and_add** and **int** type instead of **_Atomic_word** in case of using FreeBSD LLVM/Clang compiler. I generalised this to **PLATFORM_BSD** and **__clang__** defines, but it could be related to other platforms without mentioned type and function.

History

#1 - 10/15/2014 10:45 AM - Sender Ghost

- File deleted (patch-uppsrc_Core_Mt.h)

#2 - 10/15/2014 10:46 AM - Sender Ghost

- File uppsrc_Core_Mt.h.diff added

#3 - 10/15/2014 11:10 AM - Sender Ghost

The mentioned error message, when building **TheIDE** on **GUI MT** package configuraion:

    In file included from ide/UppWspc.cpp:1:
    In file included from ide/ide.h:4:
    In file included from ./ide/Common/Common.h:4:
    In file included from ./ide/Core/Core.h:4:
    In file included from ./Esc/Esc.h:4:
    In file included from ./Core/Core.h:272:
    ./Core/Mt.h:281:9: error: unknown type name '_Atomic_word'
    typedef _Atomic_word Atomic;
          ^
    ./Core/Mt.h:283:73: error: expected namespace name
    inline int AtomicXAdd(volatile Atomic& t, int incr) { using namespace __gnu_cxx; return __exchange_and_add(&t...
                                          ^
    ./Core/Mt.h:283:91: error: use of undeclared identifier '__exchange_and_add'
    inline int AtomicXAdd(volatile Atomic& t, int incr) { using namespace __gnu_cxx; return __exchange_and_add(&t...

#4 - 10/20/2014 08:21 PM - Miroslav Fidler

Thanks, applied.

#5 - 10/20/2014 08:21 PM - Miroslav Fidler

- Status changed from Patch ready to Approved

Files

uppsrc_Core_Mt.h.diff	830 Bytes	10/15/2014	Sender Ghost

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