## 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 <u>\_\_sync\_fetch\_and\_add</u> function instead of <u>\_\_exchange\_and\_add</u> and **int** type instead of <u>\_Atomic\_word</u> in case of using FreeBSD LLVM/Clang compiler. I generalised this to **PLATFORM\_BSD** and <u>\_\_clang\_</u> 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'

 $typedef \_Atomic\_word \ Atomic;$ 

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./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...

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./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.

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# #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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