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Subject: theide Compilation Error - UPP ver 18167  
Posted by [deep](#) on Sat, 22 Nov 2025 09:05:58 GMT  
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My Hardware

Processor ARM cores

While compiling theide with ./install command  
I get following error in ./uppsrc/Core/SIMD\_NEON.h file

```
./uppsrc/Core/SIMD_NEON.h: In function 'int Upp::CountTrue(i16x8)':  
./uppsrc/Core/SIMD_NEON.h:135:86: error: cannot convert 'Upp::int16x8_t' to 'Upp::uint16x8_t'  
 135 | force_inline int CountTrue(i16x8 a) { return CountBits64(cmask16__(a.data)) >>  
3; }
```

```
./uppsrc/Core/SIMD_NEON.h:248:41: note: initializing argument 1 of 'Upp::uint64  
Upp::cmask8__(uint8x16_t)'  
 248 | force_inline uint64 cmask8__(uint8x16_t mask) { return  
cmask16__(vreinterpretq_u16_u8(mask)); }
```

```
./uppsrc/Core/SIMD_NEON.h:190:42: note: initializing argument 1 of 'Upp::uint64  
Upp::cmask32__(uint32x4_t)'  
 190 | force_inline uint64 cmask32__(uint32x4_t mask) { return  
cmask16__(vreinterpretq_u16_u32(mask)); }
```

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Subject: Re: theide Compilation Error - UPP ver 18167  
Posted by [mirek](#) on Mon, 24 Nov 2025 07:59:59 GMT  
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deep wrote on Sat, 22 November 2025 10:05My Hardware

Which one exactly?

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Subject: Re: theide Compilation Error - UPP ver 18167  
Posted by [deep](#) on Thu, 27 Nov 2025 04:24:07 GMT  
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Nvidia DGX spark.

With DGX OS

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Subject: Re: theide Compilation Error - UPP ver 18167

Posted by [mirek](#) on Thu, 27 Nov 2025 06:14:19 GMT

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OK. Please try to add

```
force_inline uint64 cmask16__(uint16x8_t mask) { return vreinterpretq_s16_u16(mask); }
```

at the start of SIMD\_NEON.h

If it fixes the compilation and you have theide working, please run autotest/SIMD\_CMP test (should end with OK). Also autotest/SIMD and autotest/SIMD2 just to be sure all is with NEON...

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Subject: Re: theide Compilation Error - UPP ver 18167

Posted by [deep](#) on Sun, 14 Dec 2025 05:30:42 GMT

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Hi Mirek,

I could not check this for couple of weeks.

I downloaded version 18235.

I am getting following errors

```
<pre>In file included from <b>./uppsrc/Core/Core.h:313</b>,
  from <b>./uppsrc/Esc/Esc.h:4</b>,
  from <b>./uppsrc/ide/Core/Core.h:4</b>,
  from <b>./uppsrc/ide/Builders/Builders.h:4</b>,
  from <b>./uppsrc/umk/umake.h:4</b>,
  from <b>./uppsrc/umk/Export.cpp:1</b>:
<b>./uppsrc/Core/SIMD_NEON.h:</b> In function '<b>bool Upp::</b><font
color="#26A269"><b>AllTrue</b></font>(i16x8)':
<b>./uppsrc/Core/SIMD_NEON.h:135:71:</b> <font color="#2AA1B3"><b>note: </b></font>use
'<b>-flax-vector-conversions</b>' to permit conversions between vectors with differing element
types or numbers of subparts
 135 | force_inline bool AllTrue(i16x8 a)          { return <font
color="#2AA1B3"><b>cmask16__(a.data)</b></font> == cmask_all__; }
    |                                     <font
color="#2AA1B3"><b>~~~~~^~~~~~</b></font>
<b>./uppsrc/Core/SIMD_NEON.h:135:74:</b> <font color="#C01C28"><b>error:
```

```

cannot convert 'Upp::int16x8_t' to 'Upp::uint16x8_t'
 135 | force_inline bool AllTrue(i16x8 a) { return cmask16__(<b>a.data</b></font>) == cmask_all__; }
|
|
|
color="#C01C28"><b>Upp::int16x8_t</b></font>
<b>./uppsrc/Core/SIMD_NEON.h:6:29:</b> <font color="#2AA1B3"><b>note: </b></font>
initializing argument 1 of 'Upp::uint64 Upp::</b><font
color="#26A269"><b>cmask16__</b></font>(uint16x8_t)'
 6 | uint64 cmask16__(<b>Upp::int16x8_t</b></font>
<b>./uppsrc/Core/SIMD_NEON.h:</b> In function 'bool Upp::</b><font
color="#26A269"><b>AnyTrue</b></font>(i16x8)':
<b>./uppsrc/Core/SIMD_NEON.h:136:74:</b> <font color="#C01C28"><b>error:
</b></font>cannot convert 'Upp::int16x8_t' to 'Upp::uint16x8_t'
 136 | force_inline bool AnyTrue(i16x8 a) { return cmask16__(<b>a.data</b></font>); }
|
|
|
color="#C01C28"><b>Upp::int16x8_t</b></font>
<b>./uppsrc/Core/SIMD_NEON.h:6:29:</b> <font color="#2AA1B3"><b>note: </b></font>
initializing argument 1 of 'Upp::uint64 Upp::</b><font
color="#26A269"><b>cmask16__</b></font>(uint16x8_t)'
 6 | uint64 cmask16__(<b>Upp::int16x8_t</b></font>
<b>./uppsrc/Core/SIMD_NEON.h:</b> In function 'int Upp::</b><font
color="#26A269"><b>CountTrue</b></font>(i16x8)':
<b>./uppsrc/Core/SIMD_NEON.h:137:86:</b> <font color="#C01C28"><b>error:
</b></font>cannot convert 'Upp::int16x8_t' to 'Upp::uint16x8_t'
 137 | force_inline int CountTrue(i16x8 a) { return CountBits64(cmask16__(<b>a.data</b></font>)) &gt;&gt; 3; }
|
|
|
color="#C01C28"><b>Upp::int16x8_t</b></font>
|
|
|
color="#C01C28"><b>Upp::int16x8_t</b></font>
<b>./uppsrc/Core/SIMD_NEON.h:6:29:</b> <font color="#2AA1B3"><b>note: </b></font>
initializing argument 1 of 'Upp::uint64 Upp::</b><font
color="#26A269"><b>cmask16__</b></font>(uint16x8_t)'
 6 | uint64 cmask16__(<b>Upp::int16x8_t</b></font>
<b>./uppsrc/Core/SIMD_NEON.h:</b> In function 'int Upp::</b><font
color="#26A269"><b>FirstTrue</b></font>(i16x8)':
<b>./uppsrc/Core/SIMD_NEON.h:138:98:</b> <font color="#C01C28"><b>error:
</b></font>cannot convert 'Upp::int16x8_t' to 'Upp::uint16x8_t'

```

```

138 | force_inline int  FirstTrue(i16x8 a)          { return
CountTrailingZeroBits64(cmask16__(a.data) &&& 3; }
|
~^~
|
|
|
Upp::int16x8_t
./uppsrc/Core/SIMD_NEON.h:6:29: note:
initializing argument 1 of 'Upp::uint64 Upp::
cmask16__(uint16x8_t)'
  6 | uint64 cmask16__(uint16x8_t mask) {
    | ~^~
./uppsrc/Core/SIMD_NEON.h: In function 'int Upp::
FirstFalse(i16x8):
./uppsrc/Core/SIMD_NEON.h:139:99: error:
cannot convert 'Upp::int16x8_t' to 'Upp::uint16x8_t'
139 | force_inline int  FirstFalse(i16x8 a)        { return
CountTrailingZeroBits64(~cmask16__(a.data) &&& 3;
}
|
~^~
|
|
|
Upp::int16x8_t
./uppsrc/Core/SIMD_NEON.h:6:29: note:
initializing argument 1 of 'Upp::uint64 Upp::
cmask16__(uint16x8_t)'
  6 | uint64 cmask16__(uint16x8_t mask) {
    | ~^~
./uppsrc/Core/SIMD_NEON.h: In function 'bool Upp::
IsTrue(i16x8, int):
./uppsrc/Core/SIMD_NEON.h:140:74: error:
cannot convert 'Upp::int16x8_t' to 'Upp::uint16x8_t'
140 | force_inline bool  IsTrue(i16x8 a, int i)     { return cmask16__(a.data) && ((uint64)1 &&& (i &&& 3)); }
|
|
|
Upp::int16x8_t
./uppsrc/Core/SIMD_NEON.h:6:29: note:
initializing argument 1 of 'Upp::uint64 Upp::
cmask16__(uint16x8_t)'
  6 | uint64 cmask16__(uint16x8_t mask) {
    | ~^~

```

