

Re: Problem with event declaration – possible VS.NET bug?

Source:

<http://www.tech-archive.net/Archive/DotNet/microsoft.public.dotnet.languages.vc/2004-09/0163.html>

From: Wild Wind (*nobody_at_blackhole.com*)

Date: 09/06/04

Date: Mon, 6 Sep 2004 10:13:51 +0100

"Brandon Bray [MSFT]" <branbray@online.microsoft.com> wrote in message news:O3HE2#7kEHA.1712@TK2MSFTNGP09.phx.gbl...

> *Wild Wind wrote:*

>> *The problem is that with this event declaration, when*

>> *I compile the code, I get the following errors:*

>>

>> *error C2059: syntax error : ')'*

>> *error C2143: syntax error : missing ')' before ';''*

>> *error C2629: unexpected 'unsigned char ('*

>>

>> *Each error is shown thrice.*

>

> *I was able to reproduce this. With the VC2005 40901 compiler, a different*

> *error message is shown:*

>

> *t.cpp(6) : error C2697: 'i1' : must explicitly specify __gc or __nogc for an*

> *array declared in a managed type*

> *t.cpp(6) : error C2664: 'C::__Delegate_MyEvent::Invoke' : cannot convert*

> *parameter 1 from 'unsigned char (*)[1]' to 'unsigned char (*) __gc[]'*

> *Types pointed to are unrelated; conversion requires*

> *reinterpret_cast, C-style cast or function-style cast*

>

> *Both the VC2003 and VC2005 messages are wrong. There's nothing wrong with*

> *this code. I rewrote it without the typedef as follows:*

>

> *__event void MyEvent(System::Byte (__nogc*ba) __gc[]);*

>

>> *Also, when I modified the event declaration to*

>>

>> *__event void MyEvent(ByteArray ba);*

>>

>> *the errors went away.*

>

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> *That is correct. The difference is the code without errors is only passing
a
> pointer to an array, whereas the code with errors is passing a __nogl
> pointer to a __gc pointer to an array. I'm guessing that two levels of
> indirection are probably not necessary, so the code without errors is
likely
> something you can use.
>
>> *Is this an MS bug? Can anyone reproduce this?*
>> *If it is a problem, is there anyway I can still
>> declare the event I want to?*
>
> *I do believe this is a bug. You can file this at the link below, but it's
> not likely to be fixed. In the new syntax, you need to write the delegate
> declaration separately from the event. For example:*
>
> *delegate void MyDel(array<System::Byte>^* ba);
> event MyDel^ MyEvent;*
>
> *I don't see anyway to workaround the errors above if you really need to
pass
> a pointer to a pointer to the array. I think the best way is to consider a
> different approach.
>
> Sorry for the inconvenience.**

Hello Brandon,

Thanks for your reply. I will file the bug at the link you mention below. You are probably right about there not being a need to have the event delegate taking as an argument a pointer to an array of System::Byte – I did that because in the documentation, it speaks of arrays being objects that must be referenced (presumably using a pointer).

Interestingly enough, you say

"The difference is the code without errors is only passing a pointer to an array"

Is that right? When I declare a managed array of an object, does this mean that in passing the array, I am implicitly passing a pointer to the array? And does this also apply for other managed types, like System::String?

One other question – I take it that the syntax changes you mention are planned for Whidbey, and the caret (hat) signifies a managed pointer to an object? What is the significance the asterisk after the caret you have in

microsoft.public.dotnet.languages.vc: Re: Problem with event declaration – possible VS.NET bug?

```
delegate void MyDel(array<System::Byte>^* ba);
```

TIA for any answers.

--

Akin

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