What does <T::* int> mean? [duplicate]

Asked 6 years, 5 months ago Modified 6 years, 5 months ago Viewed 2k times



This question already has answers here:

Pointer to class data member "::*" (18 answers)

Closed 6 years ago.

*

In the code:

43

```
typedef
template< typename T>
boost::variant<T::* int, T::* string, T::* double, T::* bool>
    any_member;
```

What does the T::* mean/do?

c++ template-meta-programming

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edited Dec 4, 2015 at 15:39

Fantastic Mr Fox
30k • 25 • 90 • 165



6 See <u>c-pointer-to-class-data-member</u> – Jarod42 Dec 4, 2015 at 15:38

2 — Huh, what makes you guys think that this is valid C++ code? – cpplearner Dec 4, 2015 at 16:01 /

@cpplearner: You're right, must be a transcription error in the OP. Should be int T::* etc.
 - AndyG Dec 4, 2015 at 19:00

Here's an example that might use it. Note that I in no way endorse actually doing this; the pattern is an attempt at being generic, and there's better ways to do what I linked to. – AndyG Dec 4, 2015 at 19:23

@cpplearner I found that example on this blog: <u>blog.asymptotic.co.uk/2011/02/...</u> I haven't read this comprehensively, but that code that's at the top through me off right away. – Matt Dec 6, 2015 at 17:58

@Matt That code is not even close to correct AFAICS. – cpplearner Dec 7, 2015 at 9:59

1 Answer

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T::* is a pointer to a member of T. The int is the type of that member.

3

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edited Dec 4, 2015 at 15:48

answered Dec 4, 2015 at 15:40



NathanOliver **161k** • 27 • 260 • 363



Maybe I am too nitpicky, but you have used the word "type" both for T and int. To avoid confusion I would rephrase it as "T::* int is a pointer to a member of class T; this member is of type int ". The downvote isn't mine though (and if this is the reason I really think it's excessive).

- Fabio says Reinstate Monica Dec 4, 2015 at 15:47

The downvote was mine. The question is marked duplicate, and the close flags were already there before this answer was created. On top of that, there were already comments on the OP both answering the question and linking to the dup. This answer didn't have a reason to exist in my opinion. It's not a critique against the content of it, however. – AndyG Dec 4, 2015 at 15:50

@AndyG Well the close flags were placed while I was posting the answer. In my opinion it not exactly a dupe of the linked to question as the syntax is different. It is your vote so you can do what you want with it but I am leaving the answer here. – NathanOliver Dec 4, 2015 at 15:52