



## Technical Note 30605

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### Warning[25]: Label 'xxxxx' is defined pubweak in a section implicitly declared root

EW targets: ARM, STM8  
 EW component: Assembler  
 Keywords: assembly  
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#### Problem

After upgrading to...  
 EWARM 7.10.1  
 EWSTM8 2.10.1  
 ...the Warning[25] is issued during assembly of a file that assembled without warning on earlier version of the Embedded Workbench.

#### Solution

To avoid the warning, add **":NOROOT"** to the **"SECTION"** control directive.  
 Add the **":NOROOT"** to the left of the **()**-part of the line.

```
PUBWEAK NMI_Handler
SECTION .text:CODE:REORDER:NOROOT(1)
NMI_Handler
```

#### Background

The assembler is issuing Warning[25] for a deprecated assembler construction.

The deprecated assembler source construction looks like this:

```
PUBWEAK NMI_Handler
SECTION .text:CODE:REORDER(1)
NMI_Handler
```

#### Details

The assembler control directive of **"SECTION"** consists of:

```
SECTION section :type [:flag] [(align)]
```

The change is **only** to be made among the **flag** items. I.e. don't change the **"SECTION"**, **"section"**, **":type"** nor the **"[(align)]"** parts of the line. (For example if the *alignment* is expressed as (2) then keep it at (2). (The (2) stands for an alignment of 4 bytes, as the (2) is the power of two to which the address should be aligned.))

The **":flag"**-part can have these **flags**:

ROOT (the default mode) or NOROOT  
 and  
 REORDER or NOREORDER (the default mode)

Where now the Warning from the Assembler shows that the **"explicit noroot"**, due to the directive **"PUBWEAK"**, mismatch the default mode, which gives an **"implied root"**

So the **"explicit noroot"**, from **"PUBWEAK"**, should be matched with the flag **"NOROOT"**.

The details for the assembler control directive of **"SECTION"** can be found in the chapter **"Section control directives"** in the **"IAR Assembler™ Reference Guide."**

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