

# Switch off the precompilation

So that errors can already be displayed when coding in Codesys, there is the "precompiler", which underlines errors in the editors.



The precompiler does not generate any code!!!  
Therefore, the message of the build process are the decisive ones

Unfortunately, there can be different displays between the precompilation and the actual compilation process (as demonstrated in the following example with the compiler version V3.5.16.30).

The screenshot shows the Siemens STEP 7 IDE. On the left, the 'Devices' tree is expanded to 'PLC\_PRG (PRG)'. The main editor displays a ladder logic program for 'PLC\_PRG'. The program includes a variable declaration section and two conditional logic blocks. The first block checks if 'xSwitch' is not true, and if so, it sets 'ref1' to 0. The second block checks if 'ref1' is invalid, and if so, it increments 'iCnt' by 'ref1'. The status bar at the bottom indicates 'Messages - Total 1 error(s), 0 warning(s), 0 message(s)'. A dropdown menu is open, showing 'Precompile' selected, with a red box highlighting it and a red circle around the '1 error(s)' count. The description of the error is 'C0032: Cannot convert type 'BIT' to type 'INT''.

```
1 PROGRAM PLC_PRG
2 VAR
3   ref1 : REFERENCE TO INT;
4   il : INT := 1;
5   xSwitch : BOOL;
6   iCnt : INT;
7 END_VAR
8
9 IF NOT xSwitch THEN
10   ref1 REF= 0;
11 ELSE
12   ref1 REF= il;
13 END_IF
14
15 IF __ISVALIDREF(ref1) THEN
16   iCnt := iCnt + ref1;
17 END_IF
```

Messages - Total 1 error(s), 0 warning(s), 0 message(s)

Precompile 1 error(s)

Description

C0032: Cannot convert type 'BIT' to type 'INT'

It's a bug!!

The screenshot shows the same Siemens STEP 7 IDE environment as the previous one. The main editor displays the same ladder logic program. The status bar at the bottom indicates 'Messages - Total 1 error(s), 0 warning(s), 0 message(s)'. A dropdown menu is open, showing 'Build' selected, with a red box highlighting it and a red circle around the '0 error(s)' count. The description of the build is 'The application is up to date' and 'Build complete -- 0 errors, 0 warnings : Ready for download'.

```
1 PROGRAM PLC_PRG
2 VAR
3   ref1 : REFERENCE TO INT;
4   il : INT := 1;
5   xSwitch : BOOL;
6   iCnt : INT;
7 END_VAR
8
9 IF NOT xSwitch THEN
10   ref1 REF= 0;
11 ELSE
12   ref1 REF= il;
13 END_IF
14
15 IF __ISVALIDREF(ref1) THEN
16   iCnt := iCnt + ref1;
17 END_IF
```

Messages - Total 1 error(s), 0 warning(s), 0 message(s)

Build 0 error(s)

Description

The application is up to date

Build complete -- 0 errors, 0 warnings : Ready for download

The generated code is OK

If desired, the precompiler can be switched off via the option "Tools\Options...\SmartCoding\Underline errors in the editor".

Options



- FBD, LD and IL editor
- Help
- International Settings
- Libraries
- Library download
- Load and Save
- Monitoring
- PLCopenXML
- Proxy Settings
- Refactoring
- Runtime Deploy Tool
- SFC editor
- SmartCoding**
- Store
- Text editor
- Visualization
- Visualization styles

### SmartCoding

- ☒ Declare unknown variables automatically (AutoDeclare)
  - ☐ Enable for ST editor
- ☐ Show all instance variables in input assistant
- ☐ Show symbols from system libraries in input assistant
- ☒ List components after typing a dot (.)
  - ☐ List components immediately when typing
  - ☐ Insert with namespace
- ☒ Convert keywords to uppercase automatically (AutoFormat)
- ☒ Automatically list selection in cross reference view
- ☒ Underline errors in the editor
- ☒ Highlight symbols