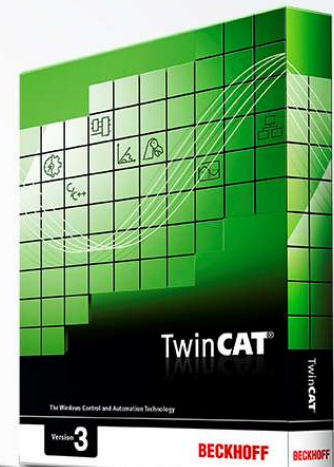
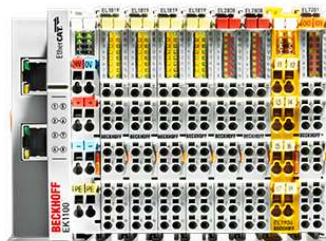


Adding Code

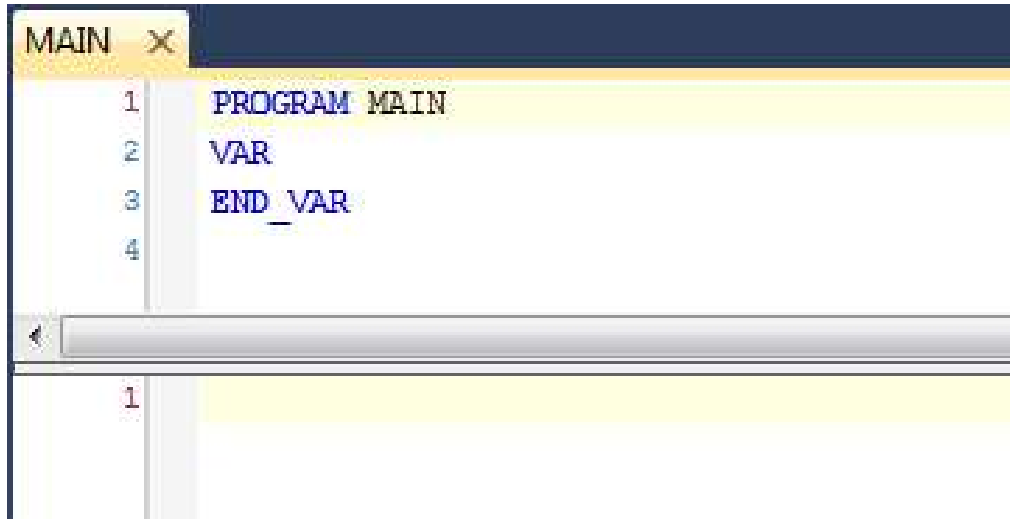
BECKHOFF



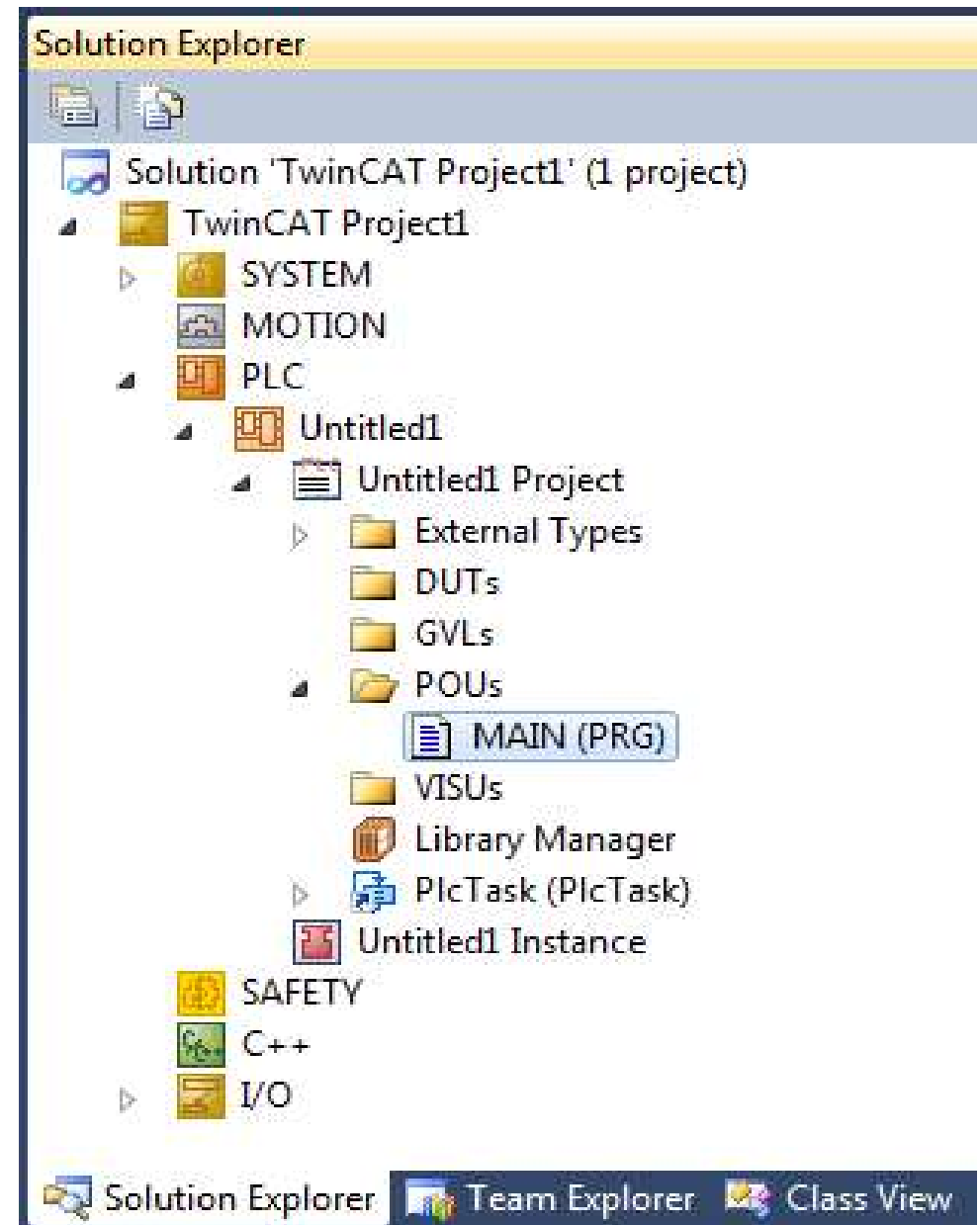
Adding Code

BECKHOFF

- In the 'Solution Explorer' under the 'PLC' double-click on 'Main' to open it.



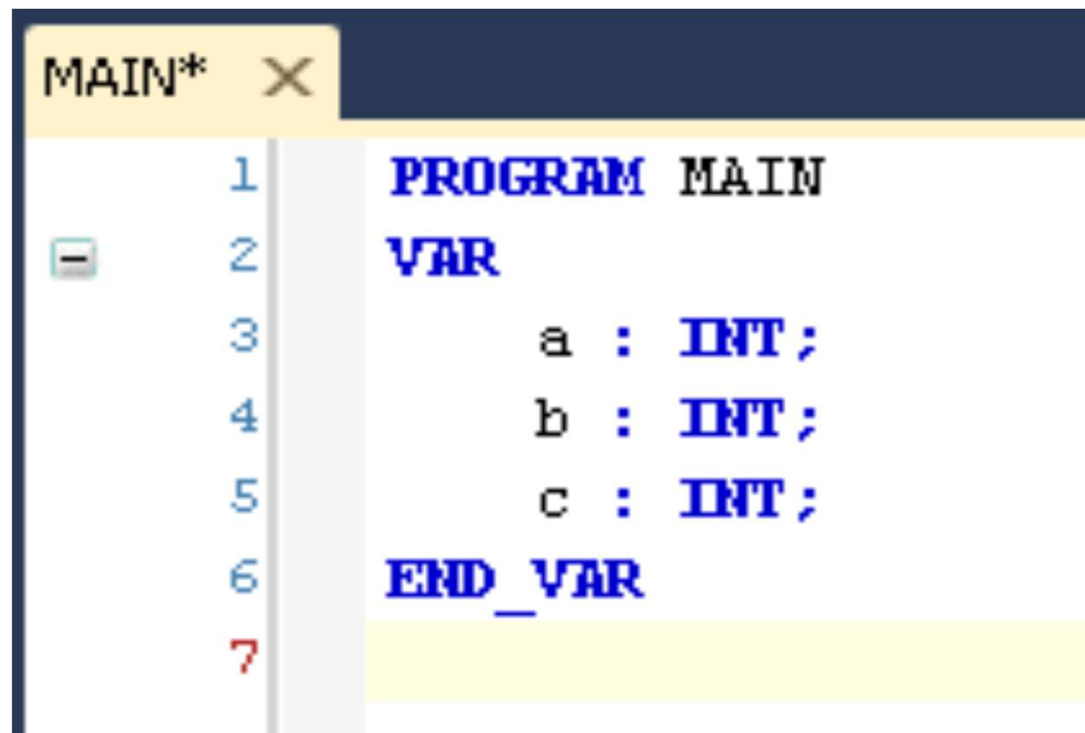
```
1 PROGRAM MAIN
2 VAR
3 END_VAR
4
```



Adding Code

BECKHOFF

- In the 'Declaration' section of 'MAIN' place 3 variables between 'VAR' and 'END_VAR'



The screenshot shows a software window titled 'MAIN*' with a close button. Inside the window, a code editor displays the following text in blue font:

```
1 PROGRAM MAIN
2 VAR
3     a : INT;
4     b : INT;
5     c : INT;
6 END_VAR
7
```

Line numbers 1 through 7 are shown on the left side of the code. Line 7 is highlighted in yellow. A small icon is visible on the left margin next to line 2.

Adding Code

BECKHOFF

- In the 'Code' window of 'MAIN' place the following line of code on line 1
- `a := b + c`

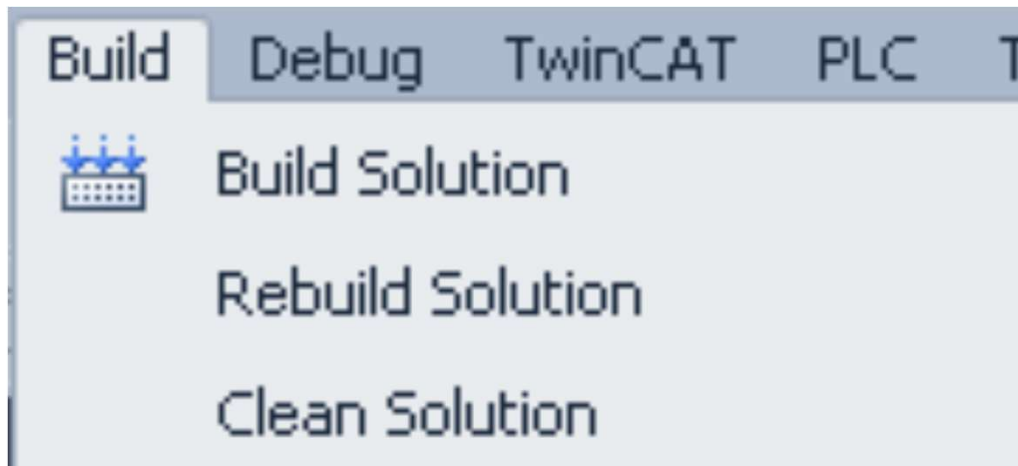
```
1 | a := b + c
```

Note: The error in the code is intentional.

Adding Code

BECKHOFF

- From the 'Build' menu, select 'Build Solution'



Note: Build only checks changes. Rebuild checks the entire PLC project for errors.

Adding Code

BECKHOFF

- The 'Error List' at the bottom should show '1 Error'
- The 'Yellow' background of 'Error', 'Warnings', and 'Messages' indicates which items are currently being displayed.
- Click on 'Messages' to deselect it

Error List

 1 Error |  0 Warnings |  9 Messages | Clear

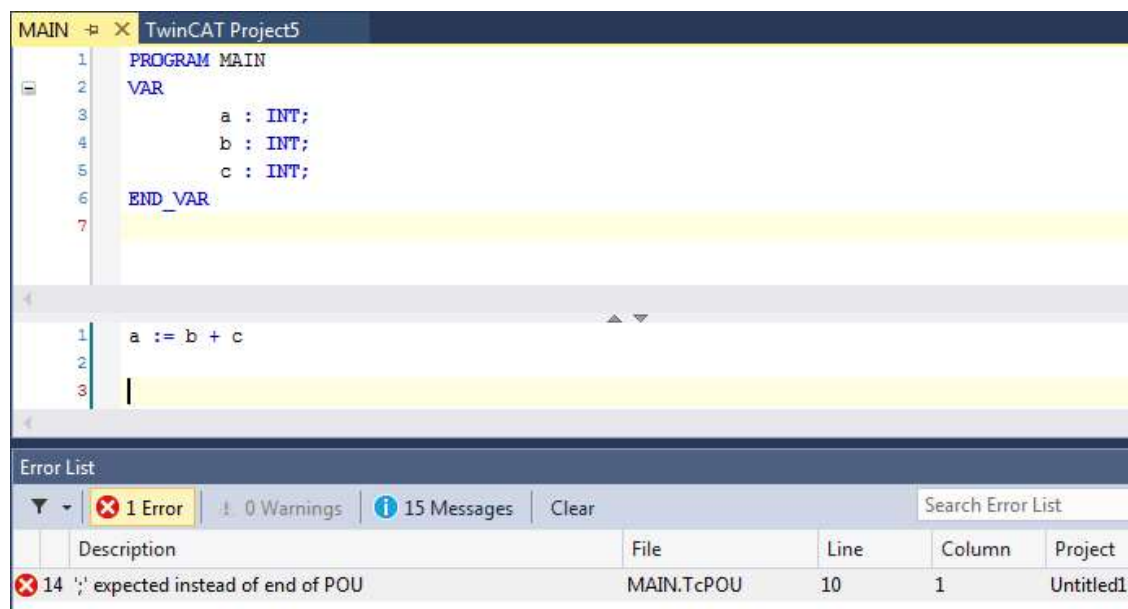
	Description
 1	'TwinCAT System' (10000): TwinCAT System Restart initiated from AmsNetId: 192.168.56.101.1.1 port 32970.
 2	'TwinCAT System' (10000): TCIO Server started: TCIO.
 3	'TwinCAT System' (10000): TCPLC30 Server started: TCPLC30.

 Error List |  Output

Adding Code

BECKHOFF

- Now only the 'Errors' are displayed. Double-click on the 'Error' and the cursor will be placed on that line of code.



Note: This error location appears to be misleading. The issue is that the compiler reached the end of the POU without finding the ; at the end of line 1, the end of the POU is Line 3.

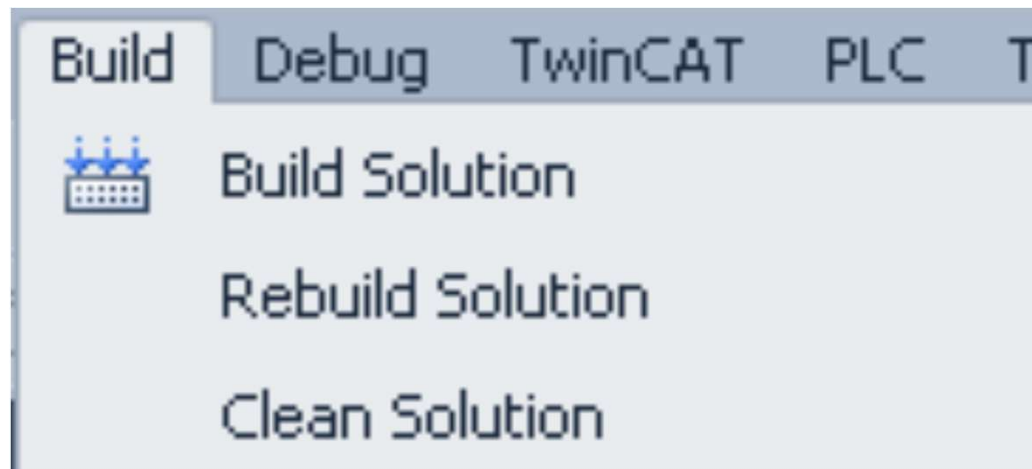
- Place a semicolon at the end of the line of code

```
1 | a := b + c;
```

Adding Code

BECKHOFF

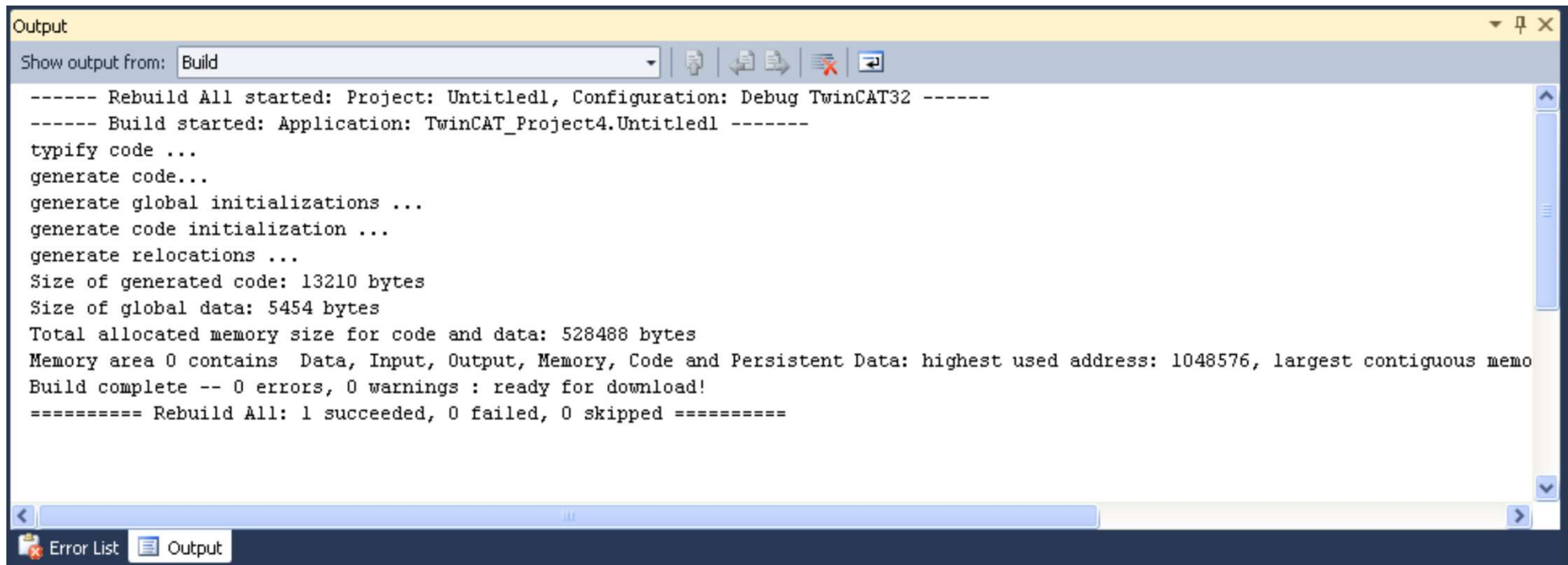
- Again, from the 'Build' menu, select 'Build Solution'



Adding Code

BECKHOFF

- Because there were no Errors, the bottom panel stayed on the 'Output' window
- The 'Output' window contains logging information about the 'Build' that was performed



The screenshot shows the 'Output' window of the Beckhoff TwinCAT software. The window has a yellow title bar and a toolbar with icons for showing output from different sources, copying, and clearing. The main text area displays the following build log:

```
----- Rebuild All started: Project: Untitled1, Configuration: Debug TwinCAT32 -----  
----- Build started: Application: TwinCAT_Project4.Untitled1 -----  
typify code ...  
generate code...  
generate global initializations ...  
generate code initialization ...  
generate relocations ...  
Size of generated code: 13210 bytes  
Size of global data: 5454 bytes  
Total allocated memory size for code and data: 528488 bytes  
Memory area 0 contains Data, Input, Output, Memory, Code and Persistent Data: highest used address: 1048576, largest contiguous memo  
Build complete -- 0 errors, 0 warnings : ready for download!  
===== Rebuild All: 1 succeeded, 0 failed, 0 skipped =====
```

At the bottom of the window, there is a tabbed interface with 'Error List' and 'Output' tabs. The 'Output' tab is currently selected.

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