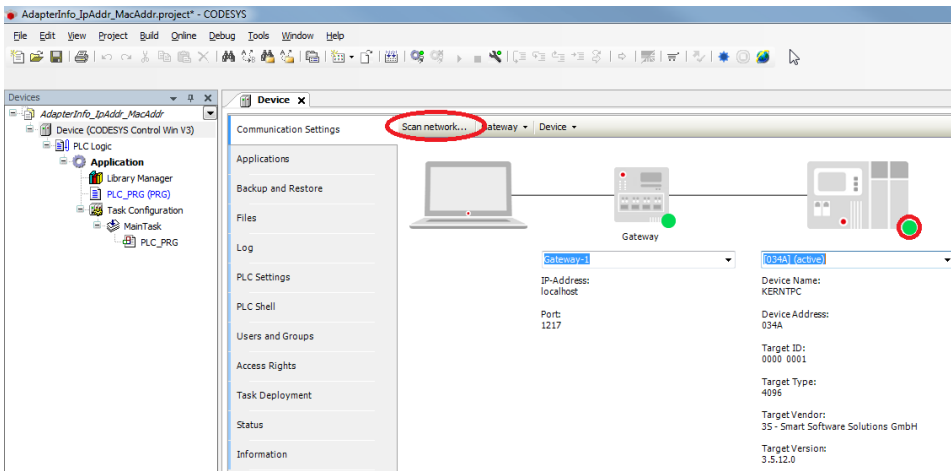
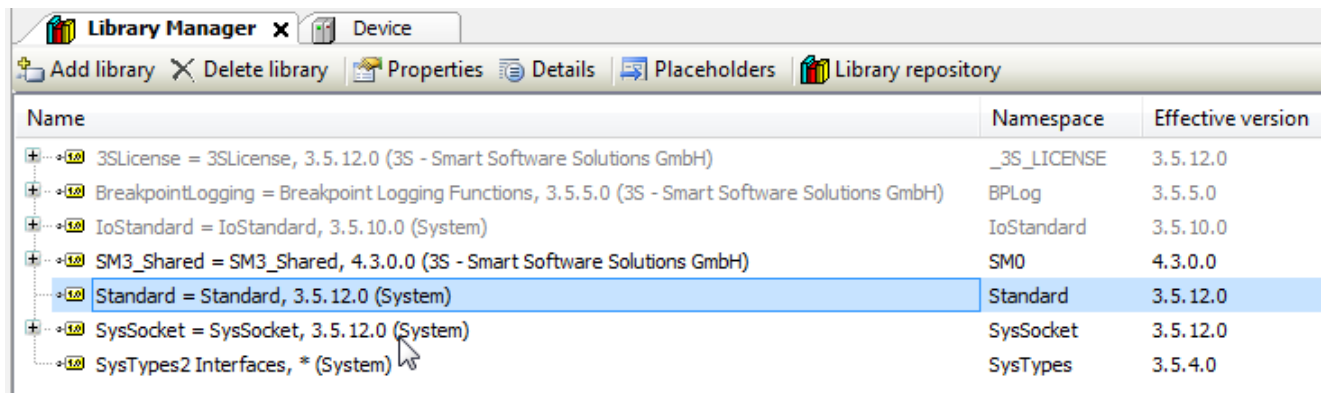


# Reading the IP and MAC Addresses from AdapterInfo

- Create a "Standard project" and select *CODESYS Control Win V3* as the device.
- Define the target system by means of the *Network scan*.



- Open the *Library Manager* and add the following libraries:
  - SysSocket
  - SM3\_Shared
  - SysTypes2 Interfaces



- Adapt the POU *PLC\_PRG* as follows:

## Declaration

```
VAR
    AdapterInfo      : SOCK_ADAPTER_INFORMATION;
    hAdapter         : RTS_IEC_HANDLE;
    udiStructSize    : UDINT := SIZEOF(AdapterInfo);
    rResult          : RTS_IEC_RESULT;
    sIpAddr          : STRING(15);
    sMacAddr         : STRING(17);
    xFirstAdapter    : BOOL;
    xReadInfo        : BOOL;
END_VAR
```

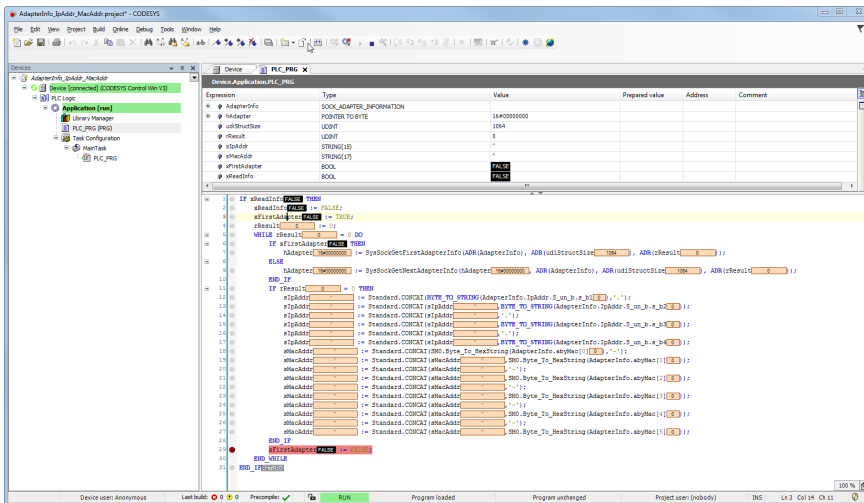
## Implemen tation

```

IF xReadInfo THEN
    xReadInfo := FALSE;
    xFirstAdapter := TRUE;
    rResult := 0;
    WHILE rResult = 0 DO
        IF xFirstAdapter THEN
            hAdapter := SysSockGetFirstAdapterInfo(ADR(AdapterInfo), ADR(udiStructSize), ADR
(rResult));
        ELSE
            hAdapter := SysSockGetNextAdapterInfo(hAdapter, ADR(AdapterInfo), ADR(udiStructSize),
ADR(rResult));
        END_IF
        IF rResult = 0 THEN
            sIpAddr := Standard.CONCAT(BYTE_TO_STRING(AdapterInfo.IpAddr.S_un_b.s_b1), '.');
            sIpAddr := Standard.CONCAT(sIpAddr, BYTE_TO_STRING(AdapterInfo.IpAddr.S_un_b.s_b2));
            sIpAddr := Standard.CONCAT(sIpAddr, '.');
            sIpAddr := Standard.CONCAT(sIpAddr, BYTE_TO_STRING(AdapterInfo.IpAddr.S_un_b.s_b3));
            sIpAddr := Standard.CONCAT(sIpAddr, '.');
            sIpAddr := Standard.CONCAT(sIpAddr, BYTE_TO_STRING(AdapterInfo.IpAddr.S_un_b.s_b4));
            sMacAddr := Standard.CONCAT(SM0.Byte_To_HexString(AdapterInfo.abMac[0]), '-');
            sMacAddr := Standard.CONCAT(sMacAddr, SM0.Byte_To_HexString(AdapterInfo.abMac[1]));
            sMacAddr := Standard.CONCAT(sMacAddr, '-');
            sMacAddr := Standard.CONCAT(sMacAddr, SM0.Byte_To_HexString(AdapterInfo.abMac[2]));
            sMacAddr := Standard.CONCAT(sMacAddr, '-');
            sMacAddr := Standard.CONCAT(sMacAddr, SM0.Byte_To_HexString(AdapterInfo.abMac[3]));
            sMacAddr := Standard.CONCAT(sMacAddr, '-');
            sMacAddr := Standard.CONCAT(sMacAddr, SM0.Byte_To_HexString(AdapterInfo.abMac[4]));
            sMacAddr := Standard.CONCAT(sMacAddr, '-');
            sMacAddr := Standard.CONCAT(sMacAddr, SM0.Byte_To_HexString(AdapterInfo.abMac[5]));
        END_IF
        xFirstAdapter := FALSE;
    END_WHILE
END_IF

```

- Start the project and set a breakpoint in line 6 of the POU `PLC_PRG`.



- After setting the *xReadInfo* variable, the variables are read for each adapter:

The screenshot shows the CODESYS IDE interface. The top window is titled "Device Application: PLC\_PRG". It contains a "Variable Declaration" table and a "Program" window.

Expression	Type	Value	Prepared value	Address	Comment
AdapterInfo	SOCK_ADAPTER_INFORMATION				
Adapter	POINTER TO BYTE	1840000000			
AdapterInfo	UDINT	1004			
AdapterInfo	UDINT	1			
AdapterInfo	STRING(15)	102.108.86.74			
AdapterInfo	STRING(17)	102.108.86.74			
AdapterInfo	BOOL	True			
AdapterInfo	BOOL	True			

The "Program" window shows the following code:

```

1 IF xReadInfo THEN
2   xReadInfo := TRUE;
3   AdapterInfo := TRUE;
4   AdapterInfo := TRUE;
5   AdapterInfo := TRUE;
6   AdapterInfo := TRUE;
7   AdapterInfo := TRUE;
8   AdapterInfo := TRUE;
9   AdapterInfo := TRUE;
10  AdapterInfo := TRUE;
11  AdapterInfo := TRUE;
12  AdapterInfo := TRUE;
13  AdapterInfo := TRUE;
14  AdapterInfo := TRUE;
15  AdapterInfo := TRUE;
16  AdapterInfo := TRUE;
17  AdapterInfo := TRUE;
18  AdapterInfo := TRUE;
19  AdapterInfo := TRUE;
20  AdapterInfo := TRUE;
21  AdapterInfo := TRUE;
22  AdapterInfo := TRUE;
23  AdapterInfo := TRUE;
24  AdapterInfo := TRUE;
25  AdapterInfo := TRUE;
26  AdapterInfo := TRUE;
27  AdapterInfo := TRUE;
28  AdapterInfo := TRUE;
29  AdapterInfo := TRUE;
30  AdapterInfo := TRUE;
31  AdapterInfo := TRUE;
32  AdapterInfo := TRUE;
33  AdapterInfo := TRUE;
34  AdapterInfo := TRUE;
35  AdapterInfo := TRUE;
36  AdapterInfo := TRUE;
37  AdapterInfo := TRUE;
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87  AdapterInfo := TRUE;
88  AdapterInfo := TRUE;
89  AdapterInfo := TRUE;
90  AdapterInfo := TRUE;
91  AdapterInfo := TRUE;
92  AdapterInfo := TRUE;
93  AdapterInfo := TRUE;
94  AdapterInfo := TRUE;
95  AdapterInfo := TRUE;
96  AdapterInfo := TRUE;
97  AdapterInfo := TRUE;
98  AdapterInfo := TRUE;
99  AdapterInfo := TRUE;
100 AdapterInfo := TRUE;

```