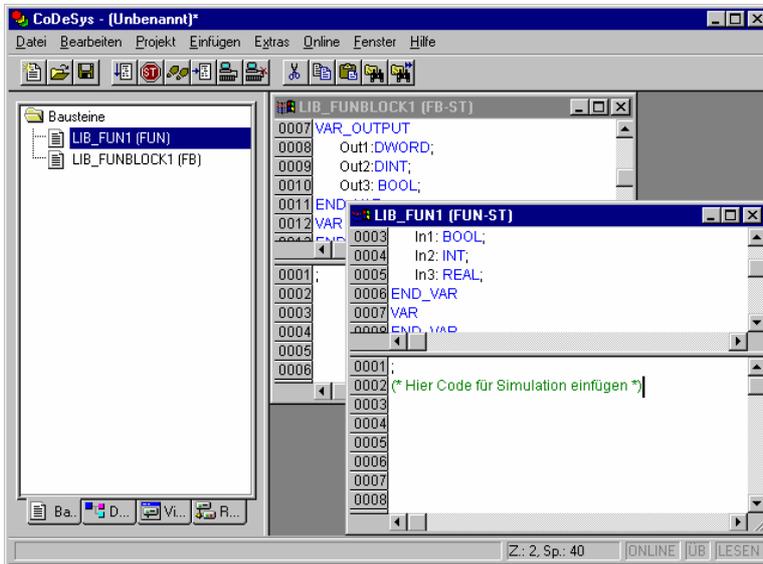
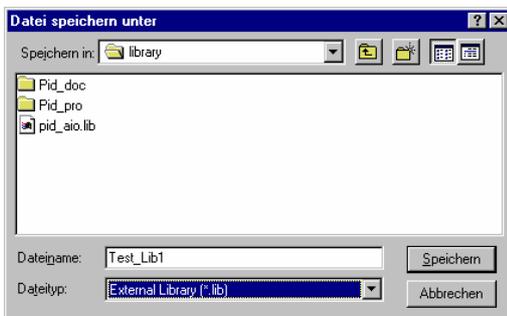


C-Code in CoDeSys

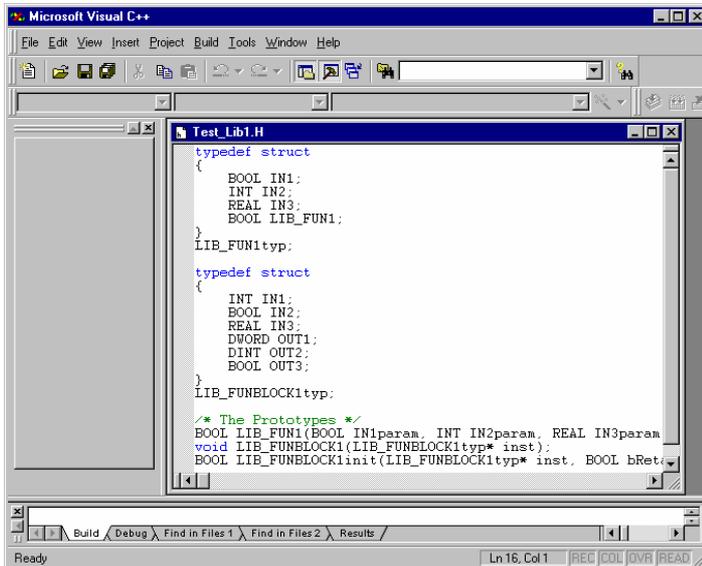
1. Generate a project with POU's within CoDeSys, in which you declare the necessary input and output variables for your C functions or function blocks. This declaration is used as the interface for the IEC 61131-3 development system.



2. Save the project as an external library. Choose the menu 'File' and use the command 'Save as'. Take the file type 'External library'.



3. When saving the external library an additional header file is generated with the file name of the external library and the extension *.h. This header file is the basis for the development of the C function.



```

Microsoft Visual C++
File Edit View Insert Project Build Tools Window Help

Test_Lib1.H
typedef struct
{
    BOOL IN1;
    INT IN2;
    REAL IN3;
    BOOL LIB_FUN1;
}
LIB_FUN1typ;

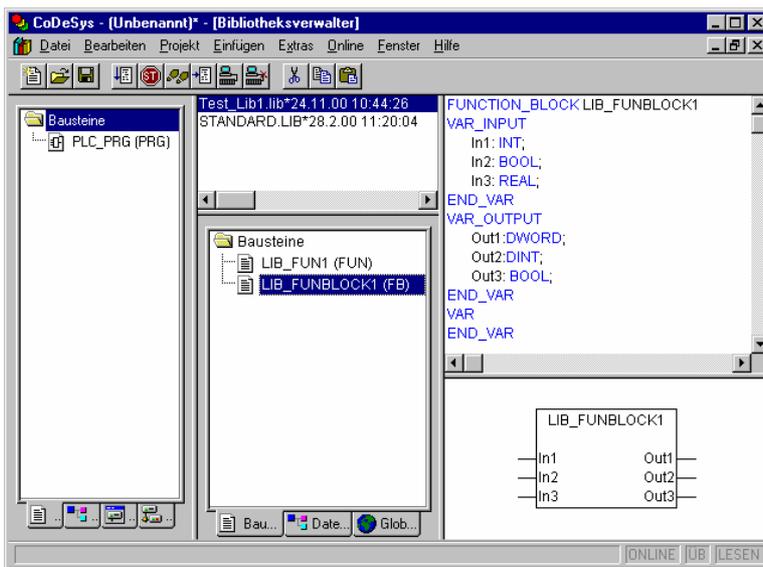
typedef struct
{
    INT IN1;
    BOOL IN2;
    REAL IN3;
    DWORD OUT1;
    DINT OUT2;
    BOOL OUT3;
}
LIB_FUNBLOCK1typ;

/* The Prototypes */
BOOL LIB_FUN1(BOOL IN1param, INT IN2param, REAL IN3param);
void LIB_FUNBLOCK1(LIB_FUNBLOCK1typ* inst);
BOOL LIB_FUNBLOCK1init(LIB_FUNBLOCK1typ* inst, BOOL bRet);
  
```

In what way the C function is developed and implemented depends on the CPU platform. More details are available in special documents.

4.

In a new CoDeSys project you can insert external libraries like an internal IEC 61131-3 library within the library manager in the menu 'Window'. This is possible even if the C function has not yet been developed. The function / function block name, the declaration part and the appearance in FBD will be displayed (on the basis of the entries in the declaration part).



5. The new libraries will be displayed in the Help-Manager (Input assistand dialogue) in the category standard functions / function blocks and can be called from the IEC 61131-3 code.

