

# Manual for Framework example with C# Wrapper



## EASY-ROB™ Framework Example

Thank you for your interest in the EASY-ROB™ Product Suite.

### Goal of this manual

This guide explains the first steps in the example of the EASY-ROB Framework with C# Wrapper.

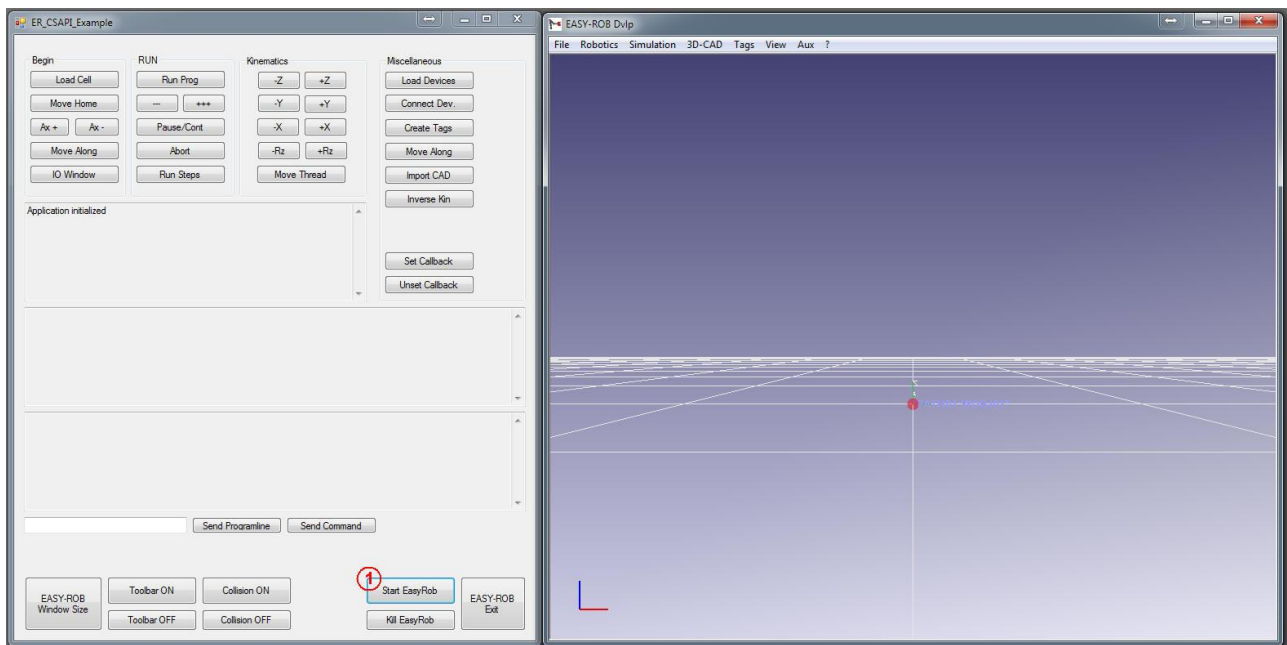
### EASY-ROB™ Framework with C# Wrapper

The current version can be downloaded here:

[https://easy-rob.com/fileadmin/Userfiles/dll\\_v80/x64/er-erosa-v8003.zip](https://easy-rob.com/fileadmin/Userfiles/dll_v80/x64/er-erosa-v8003.zip)

### What to do?

- Please copy the file "license.dat" to  
.\EASY-ROB-V80\ER\_CSAPI\_Example\ER\_CSAPI\_Example\bin\  
and overwrite the old one.
- To check the license, go to the directory  
.\bin\Releasex64  
and start the CS App "ER\_CSAPI\_Examplex64.exe"
- Start the EASY-ROB Framework out of the CS App,  
1. Button "Start EasyRob". It should look like this:



Subject to change or improve without prior notice

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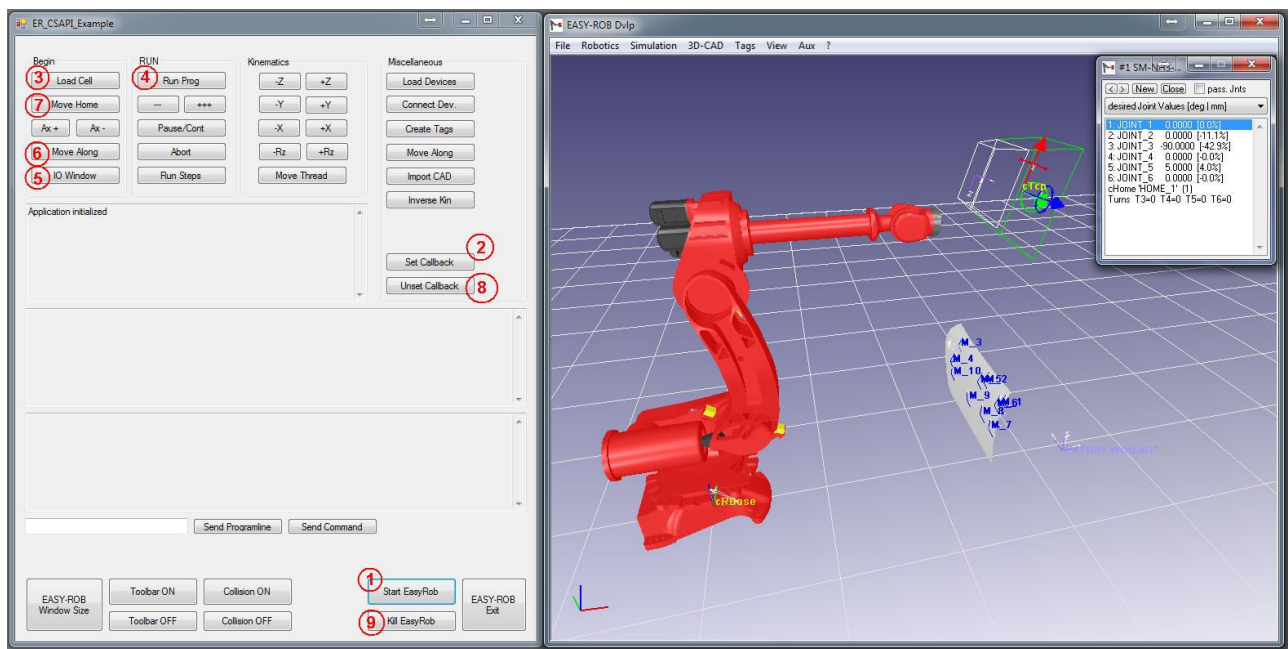
## Important note:

The redistributables of VS 2017 x64 must be installed.  
If the EASY-ROB Framework still does not start, please contact us, because it could also point to a faulty license.

- Follow the other steps to try some functions:
  2. Set Callback in order for the CS App to receive feedback messages from EASY-ROB. Confirmation of collision, exceeding travel ranges, etc
  3. Load cell file from ER\_API\_01.cel" aus .\proj\
  4. Program execution, please see "ER\_API\_01\_SM-NH3-165-3,0.prg"
  5. „I/O Window“ open to watch the axes angles
  6. „Move Along“, let the robot move along the current path (blue Tag points M\_1 .. M\_10, the axes values of the robot will be displayed
  7. Move Home

Please check more functionality by using other buttons!  
Do not worry, nothing can go wrong...

- Quit job
  8. Unset Callback
  9. Kill EASY-ROB Framework
- Please confirm the question "Save modified Cell file?" with NO  
CS App end by using the button " Kill EasyRob ". All buttons in the overview:





## The CS App controls the EASY-ROB Framework completely.

Create the CS App:

- Please open the CS project "ER\_CSAPI\_Example.sln" in .\EASY-ROB-V80\ER\_CSAPI\_Example
- Select e.g. the "ER\_CSAPI\_Example64" Solution and create the Release x64 Version, please set in advance the configuration to "Release", Debug is also suitable.
- Re- create the CS App "ER\_CSAPI\_Example64.exe", which will be copied to .\EASY-ROB-V80\ER\_CSAPI\_Example\ER\_CSAPI\_Example\bin\Release64 Here will be the CS Wrapper "ER\_CSAPIx64.dll" used
- You can now familiarize yourself with the implementation of the class ER\_CSAPI, please see "ER\_CSAPI\_Example.cs"

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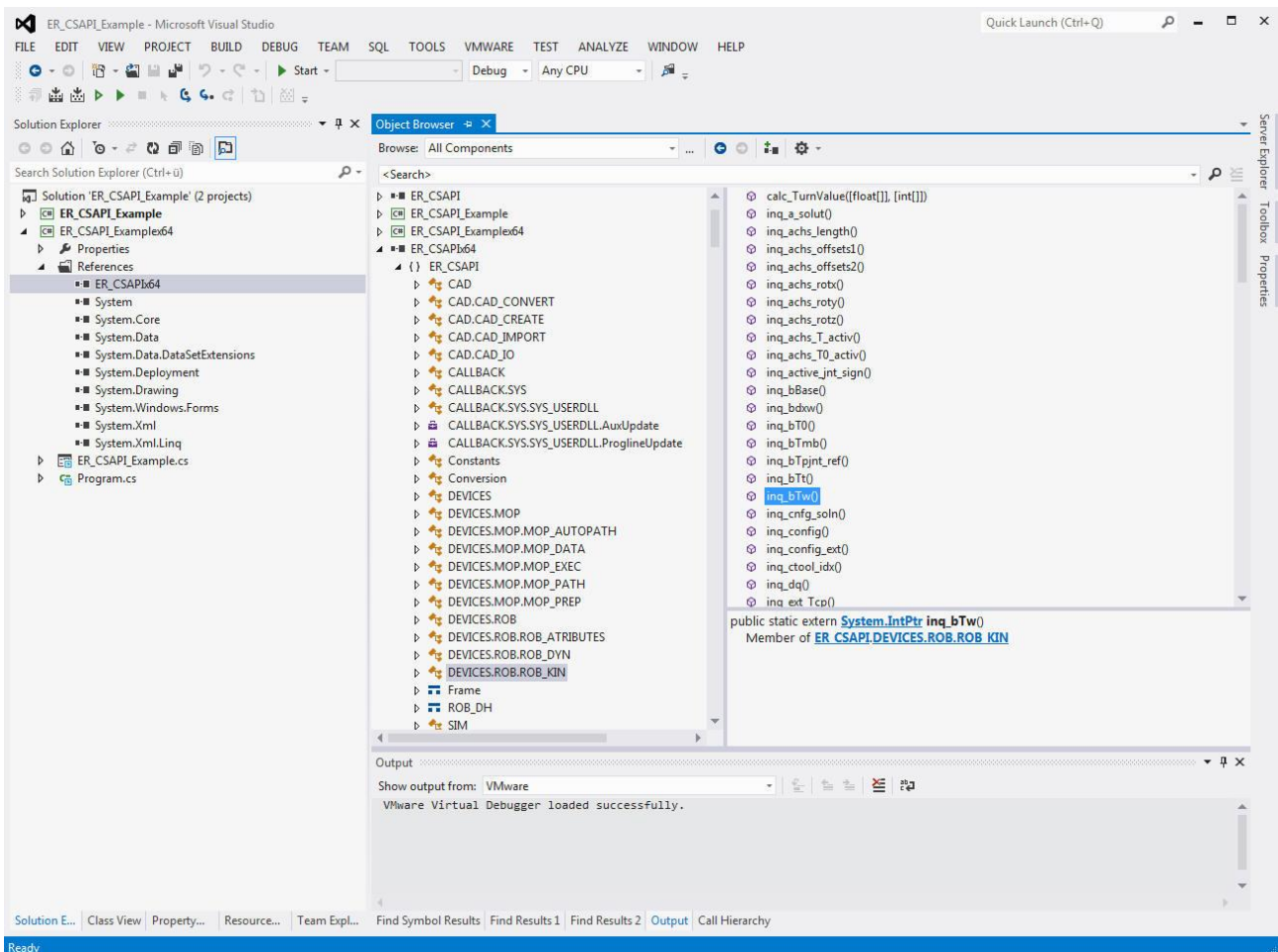
## Classification of the example

This CS App is just a basic example to explain the integration of the EASY-ROB™ Framework into your own applications.

We use this example for the training, the C ++ Example is identical in functionality, the class ER\_CAPI is used. Only the API methods are called here which is most frequently used, but this is of course only a small fraction.

A detailed doxygen documentation you can study here [. \EASY-ROB-V80\er\\_dvlp\](#). Here the individual methods of the class ER\_CAPI are explained.

These methods are nearly identical to those from the CS class ER\_CSAPI, as far as they can be transferred in the C# wrapper:





## EASY-ROB™

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## EASY-ROB customer area

Content: Program updates and robot libraries

Web: <https://easy-rob.com/en/downloads-2/client-area/>

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Password: \*\*\*\*\*