

CPC-Series Runtime Kit for MS-Windows Environment

User manual

User manual for CPC-Series Runtime Kit for MS-Windows Environment.

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WARNING: EMS hardware and software may not be used in applications where damage to life, health or private property may result from failures in or caused by these components.

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1 Introduction

This document describes the MS-WINDOWS Runtime Kit for EMS CAN Interfaces.

The following chapter describes the installation and configuration of the CPC-Series Runtime Kit for MS-WINDOWS Environment.

1.1 Driver Overview

The following table shows which operating systems are supported by EMS interfaces:

Windows Runtime Kit	WRK 5.xx	WRK 6.xx
Operating System	Windows 7, Windows 8, Windows 8.1, Windows 10	Windows 7, Windows 8, Windows 8.1, Windows 10
EMS CAN Interfaces	all CPC-USB/ARM7 versions, CPC-USB/embedded, CPC-USB/FD*, EtherCAN CI-ARM9/RMD EtherCAN CI-ARM7/RMD all CPC-PCI/SJA1000 boards all CPC-PCIe/SJA1000 boards, all CPC-104P/SJA1000 boards	all CPC-USB/ARM7 versions, CPC-USB/embedded, CPC-USB/FD EtherCAN CI-ARM9/RMD EtherCAN CI-ARM7/RMD all CPC-PCI/SJA1000 boards, all CPC-PCIe/SJA1000 boards, all CPC-104P/SJA1000 boards,

* only for CAN 2.0A and 2.0B messages

2 Installation

2.1 Installation Hints

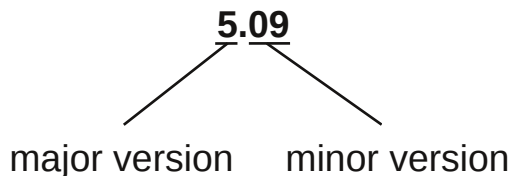
Depending on the interface you are installing the driver for, there are some supplementary steps to be done during and after the installation.

All interfaces not mentioned below do not require further installation steps.

We recommend to plugin the interface before installing the runtime kit and to skip the Microsoft hardware wizard when it appears. During the installation process a 'cpcconf.ini' will be created, if it is not already present, containing entries for the actually connected interfaces.

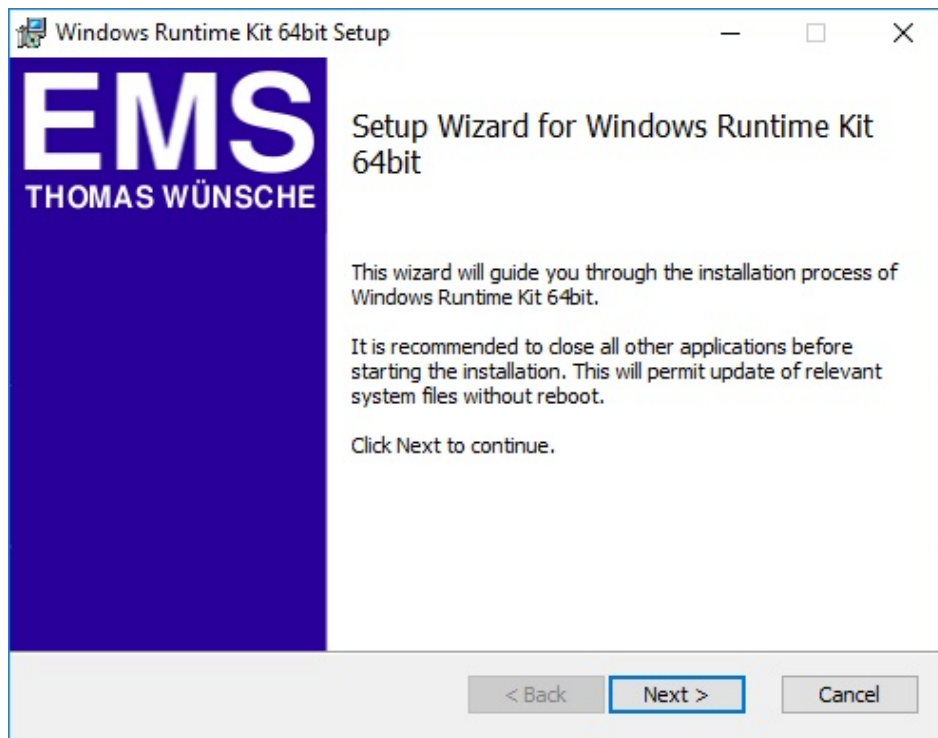
When you are installing an update for the Windows Runtime Kit, it is recommended to uninstall the previous version first to avoid a version conflict.

Example for the version number of our Windows Runtime Kit:

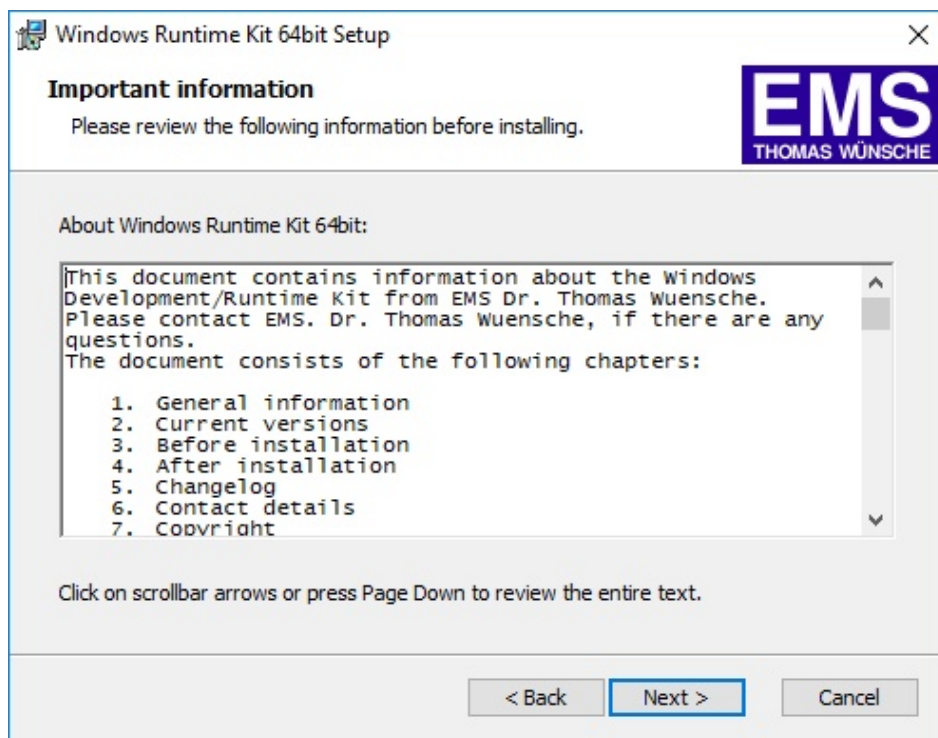


2.2 Installation Process

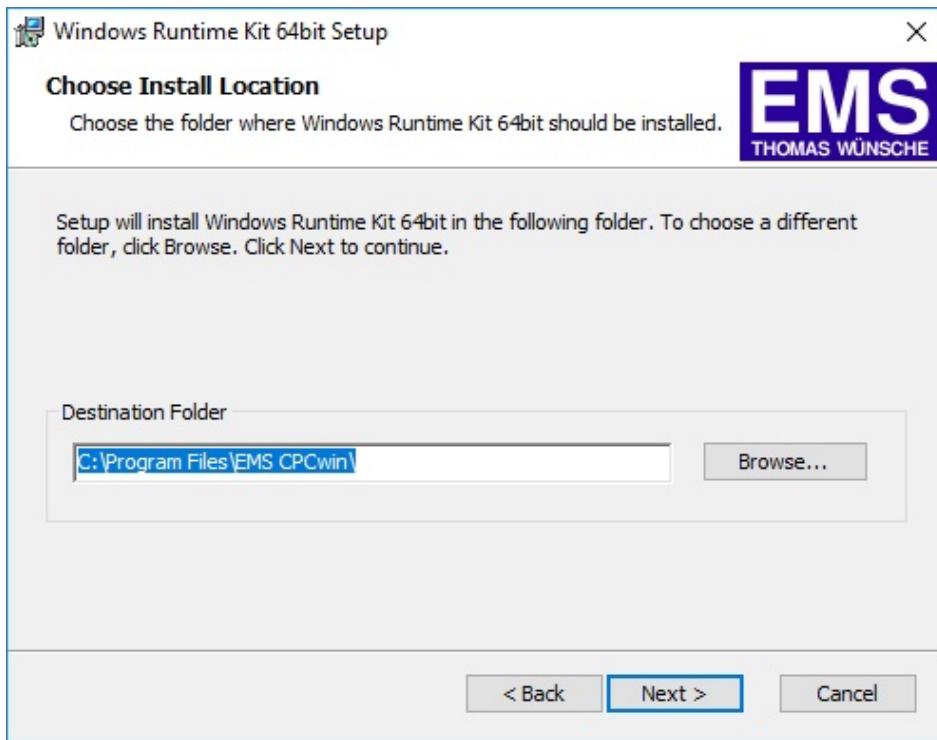
Doubleclick wrkxxxx.exe to see the following screen appear:



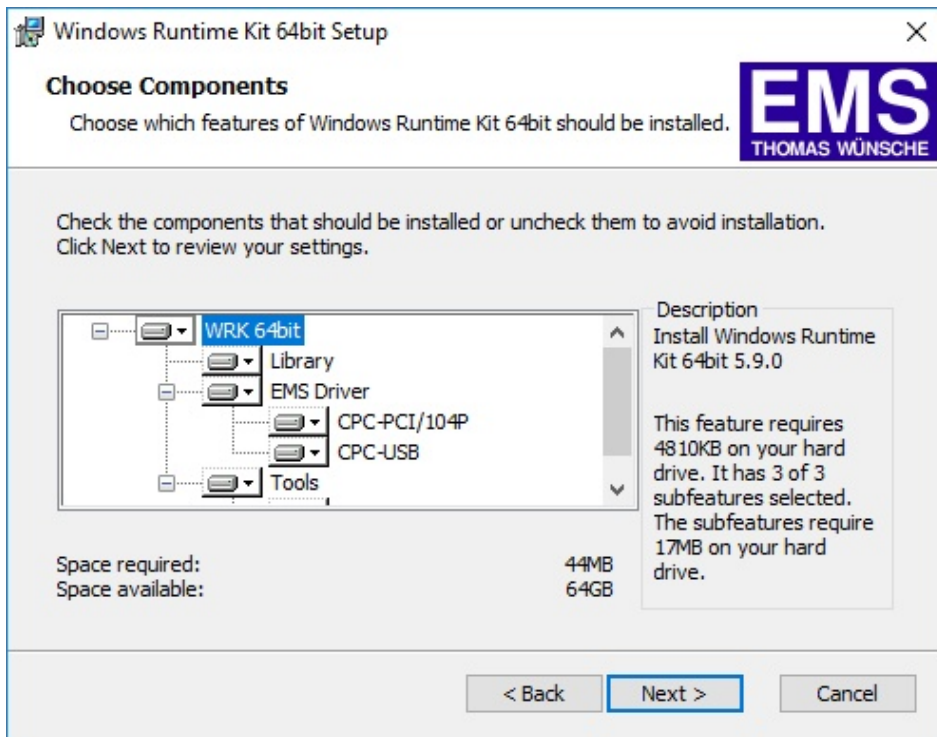
Click 'Next' and you see the important information:



Click 'Next' and choose your destination directory. Please note it is recommended to accept the suggestion:

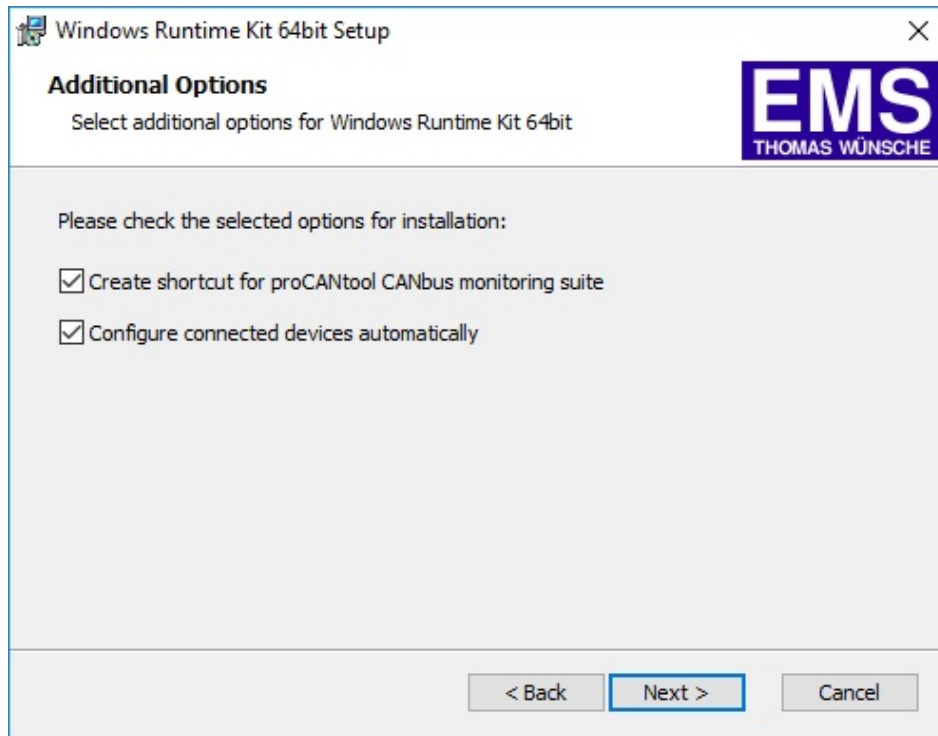


Click 'Next' and choose the components that will be installed.

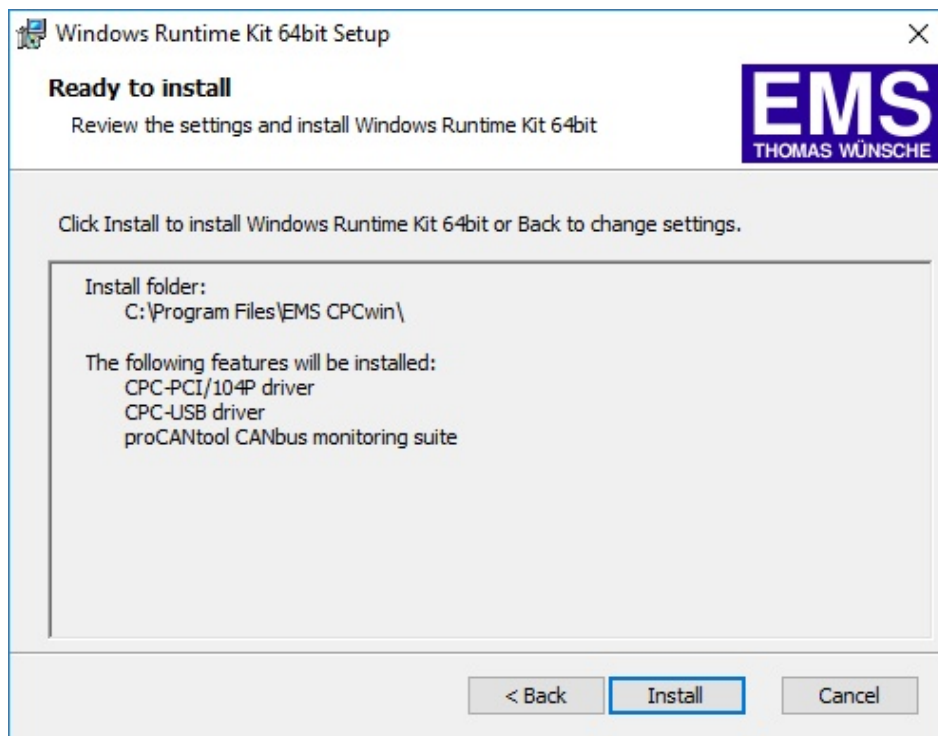


If this is the first installation, it is recommended to check all boxes.

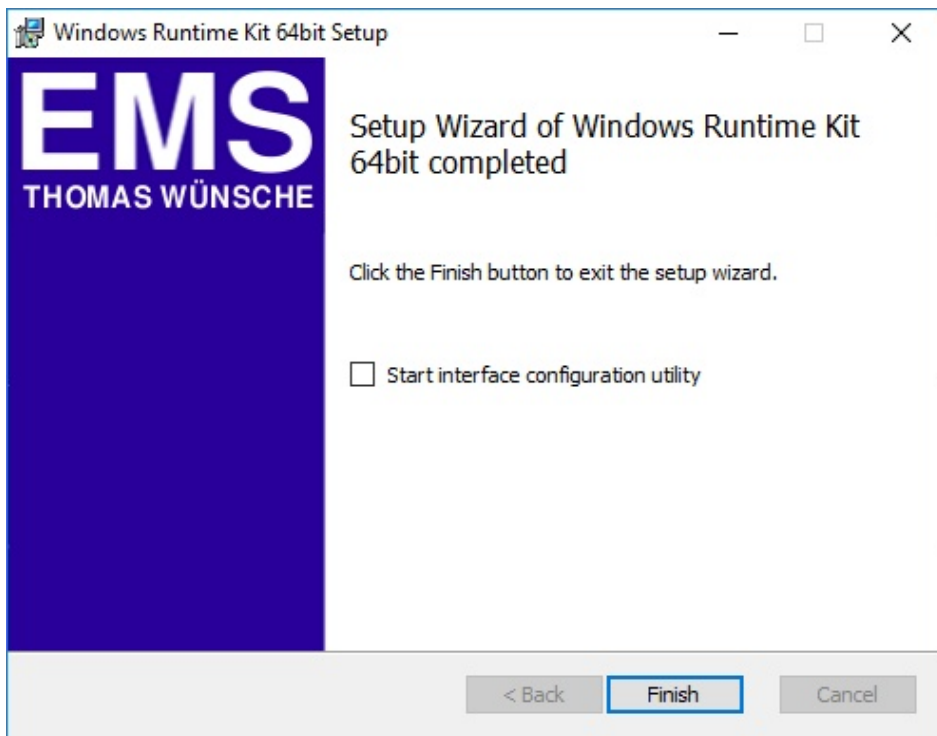
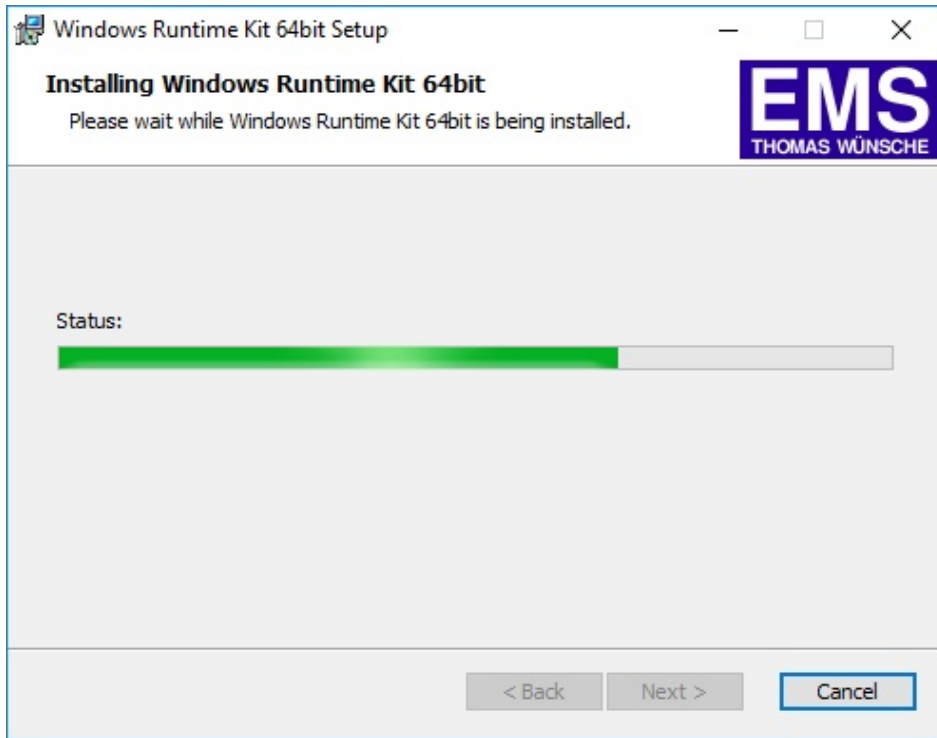
Click 'Next' and select your additional options:



Click 'Next' and you see a review of the installing settings:



Click 'Install' to begin with the installation process.



After the installation click 'Finish' to exit the setup program.

3 CAN Channel Configuration

3.1 The file 'cpconf.ini'

The configuration of the different CAN channels used by the application is done within the file 'cpconf.ini' that is copied to the Windows root directory at installation time.

The file contains different sections named [CHANXX] where 'XX' is a number between 00 and 99.

Example for a section:

```
; Entry created on Wednesday, 17. April 2019 09:39:36
[CHAN00]
InterfaceType=CPC-PCI
BusNr=0
SlotNr=11
ChannelNr=1
```

The parameters within the sections depend on the type of the interface. The parameter 'InterfaceType' is mandatory. The following Interfaces are supported at this time:

```
CPC-PCI *
CPC-USB **
ETHERCAN
```

* represents CPC-PCIe and CPC-104P interfaces also

** represents CPC-USB/embedded and CPC-USB/FD interfaces also

Additional parameters:**CPC-PCI**

BusNr=X (the PCI bus number)

SlotNr=X (the PCI slot number)

ChannelNr=X (0, 1, 2, 3: the channel on the board)

The values for the bus number and slot number can be retrieved by using the 'pcidetector.exe' tool that is located within the 'tools\pci' path of your installation. The values can be entered as HEX (0x10) or DECIMAL (16) numbers.

ETHERCAN

IpAddress=XXX.XXX.XXX.XXX (IP address)

IpPort=XXXX (the server port)

CPC-USB

SerialNumber=XXXXXXXX (the devices serial number)

Note: if only one device is connected, the serial number may be set to '9999999'. However, if you use more than one interface or plan to connect and disconnect the device upon operation, the correct serial number must be entered.

Upon installation of an interface modifications are made to 'cpccconf.ini'. If no file exists a new file is created and the interface parameters are inserted. If a file already exists, the user has to decide if the file should be overwritten by a new one or if the new parameters should be appended to the existing file. Please notice that if the latter is chosen, the installation program will create commented sections with section numbers XX. An appended section could look like this:

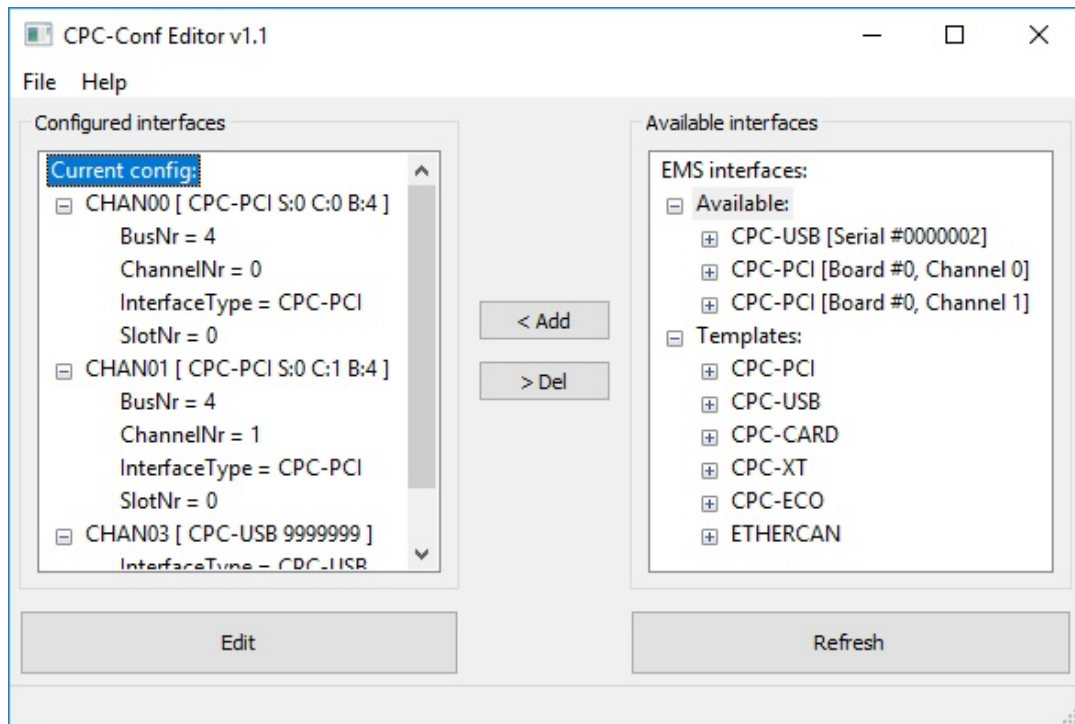
```
; Entry created on Wednesday, 17. April 2019 09:24:43  
;[CHANXX]  
;InterfaceType=CPC-PCI  
;BusNr=0  
;SlotNr=11  
;ChannelNr=1
```

The customer then has to modify 'cpconf.ini' to reflect his current environment by deleting the semicolon at the beginning of each line as well as assigning a correct section number.

The 'cpconf.ini' file allows the changing of interfaces and CAN channels without having to modify the application.

3.2 Using CPC-Conf Editor

CPC-Conf Editor (Start->Programs->EMS CPCwin->CPC-Conf Editor) is used to edit the file cpcconf.ini in a more convenient way. CPC-Conf Editor needs admin rights to be started.



The left side shows channels which are actually configured and the right side shows a list of interfaces which may be configured. The right side shows also our legacy products which are no longer supported by WRK version 5.00 or later.