This document does not include the complete instructions for the safe use of the described equipment. Make sure that you have read and understood the safety instructions in the user documentation for the described equipment before proceeding.

Using Ixxat Interfaces with 3S CODESYS

Requirements

Ixxat interfaces are supported by CODESYS runtimes for Windows only. Support of the Ixxat VCI V4 API is implemented for CODESYS Control Win V3 and CODESYS Gateway V3. The Codesys component CmpIxxatCANDrv is based on the VCI V4 API that supports all Ixxat CAN interfaces. Make sure to install a CODESYS runtime V3.5 SP14 or newer.

Restrictions for IXXAT Interfaces

The current implementation does not support:	
Plug&play	If the Ixxat interface is plugged off and in again: ► Restart the PLC. ► Observe, that the CAN network number of the interface may change if several Ixxat interfaces are used. ► Check the CAN network number after restart.
LIN	The Ixxat interface is shown in the PLC log with a CAN network number but is not initialized and cannot be used with CODESYS.
CAN FD	CAN FD channels of Ixxat interfaces can be used as Classic CAN channels with CODESYS.

Integrating Ixxat Interfaces

► Download VCI V4 driver from www.ixxat.com and install the driver (for more information see Installation Guide *VCI Driver*).

► Install the Ixxat interface (for more information see User Manual of the interface in use).

► In the installation folder of CODESYS open directory `\GatewayPLC`.

► Open the PLC configuration file *CODESYSControl.cfg* in a text editor and use the path to the cfg file.

► To use the CODESYS Gateway V3, open the PLC configuration file *Gateway.cfg* in a text editor and use the path to the cfg file.

► Open the cfg file in a text editor and in section `[ComponentManager]` add the following line:

```
Component.X=CmpIxxatCANDrv
```

► Make sure, that the component number X (X = 1, 2, 3...) is numbered consecutively and without gaps.

```
[ComponentManager]
Component.1=CmpTargetVisuStub
Component.2=CmpWebServer
Component.3=CmpWebServerHandlerV3
Component.4=SysCpuMultiCore
Component.5=SysReadWriteLock
Component.6=SysCpuBreakpoints
Component.7=CmpIxxatCANDrv
;Component.8=Cmp
;Component.9=Cmp
;Component.10=Cmp
;Component.11=Cmp
;Component.12=Cmp
```

Fig. 1   cfg file

► Save the changes and close the editor.

► Start the runtime.

► Open CODESYS IDE and connect to the device (CODESYS runtime).

► To display the identified Ixxat interfaces and the corresponding CAN network number (NetID) open tab **Log**.
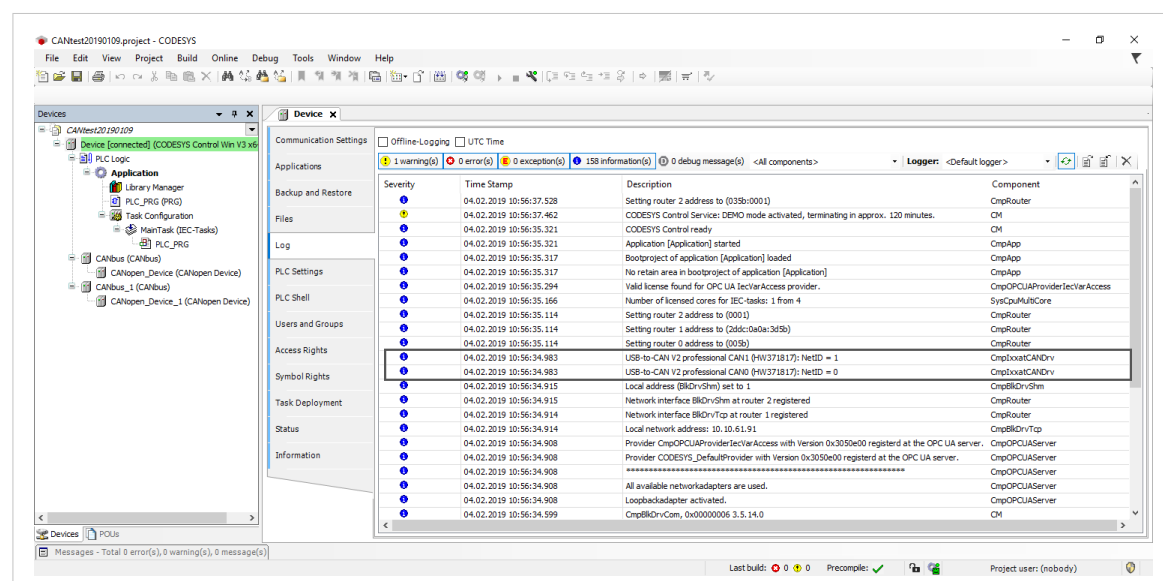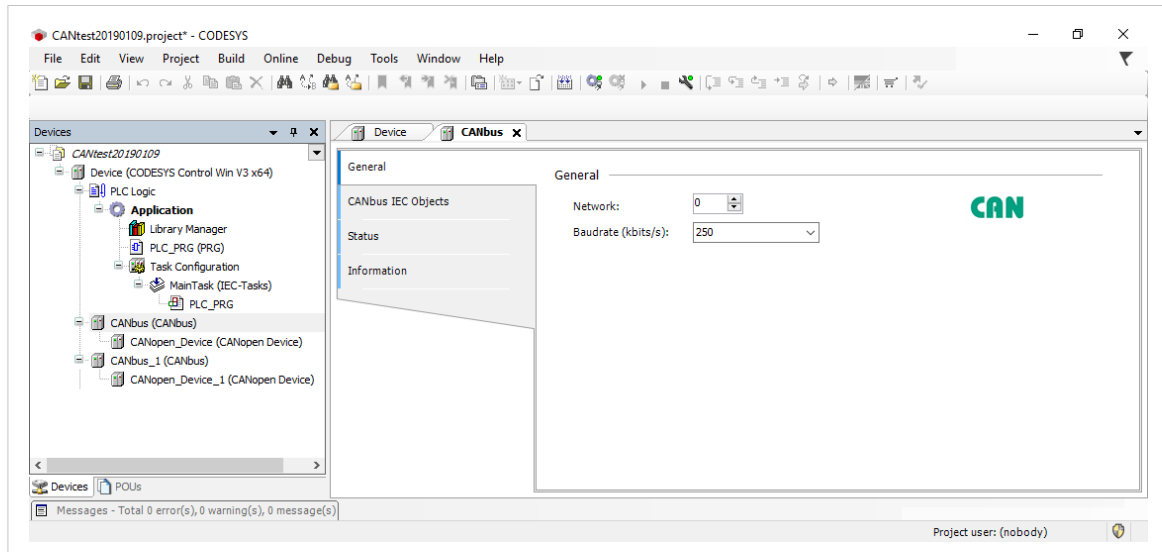

Fig. 2   PLC log with Ixxat interfaces

► Add a CANbus and in tab **General** enter the CAN network number (NetID) in the field **Network**.

Fig. 3   CANbus

> **!** Observe that the CAN network number of a connected Ixxat interface may change if the PLC is restarted or if the interface is plugged off and in again.

► If the PLC is restarted or if the Ixxat interface is plugged off and in again, check the current CAN network number in the PLC log again.

> **i** *When using more than one CAN channel, HMS recommends to use an Ixxat interface with several CAN channels. Only one interface then needs to be registered with CODESYS which reduces issues with the allocation of the CAN network number.*