

	<b>Application Note</b>  <b>CAN(FD) for IXXAT</b>	Abteilung: SW
		Bearbeiter: Martin
		Erstellt: 25.07.23
		Aktualisiert: -

This application note gives an overview of all basic steps required to setup CAN communication. It contains a set of testplans and dll providing a demonstration of output and input of data via CAN.

For additional information refer to the software manual:

'**Open software interface (OSI)**' and '**Appendix: BaSyTec CAN driver (CAN\_IXXAT.dll OSI driver dll)**'

## 1. Requirements

Ixxat VCI4 (tested using vci-v4.0.1133.0-windows-11-10)

Ixxat USB CAN(FD optional) compatible device

*CanDefine\_VCI4\_FD.exe* (to generate Can Definition File / \*.cdf )

*MyCan\_IXXAT\_VCI4\_FD.dll* (One DLL per CAN physical can interface/output)

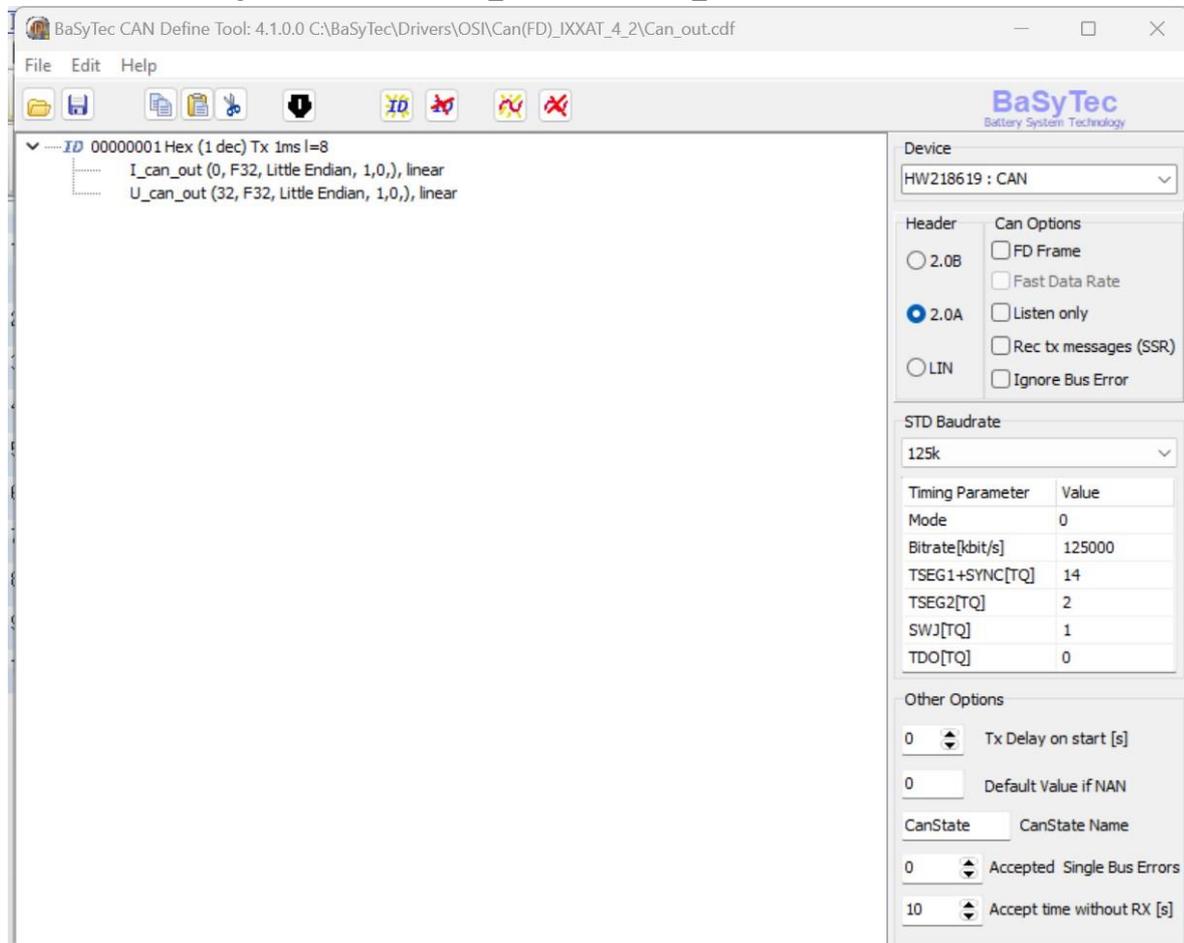
*MyCan\_IXXAT\_VCI4\_FD.cdf* (File must be located at same location and have the same Filename as the \*.dll)

To carry out the demo completely 2 CAN Devices are required.

## 2. Can Definition File (CanDefine\_VCI4\_FD.exe)

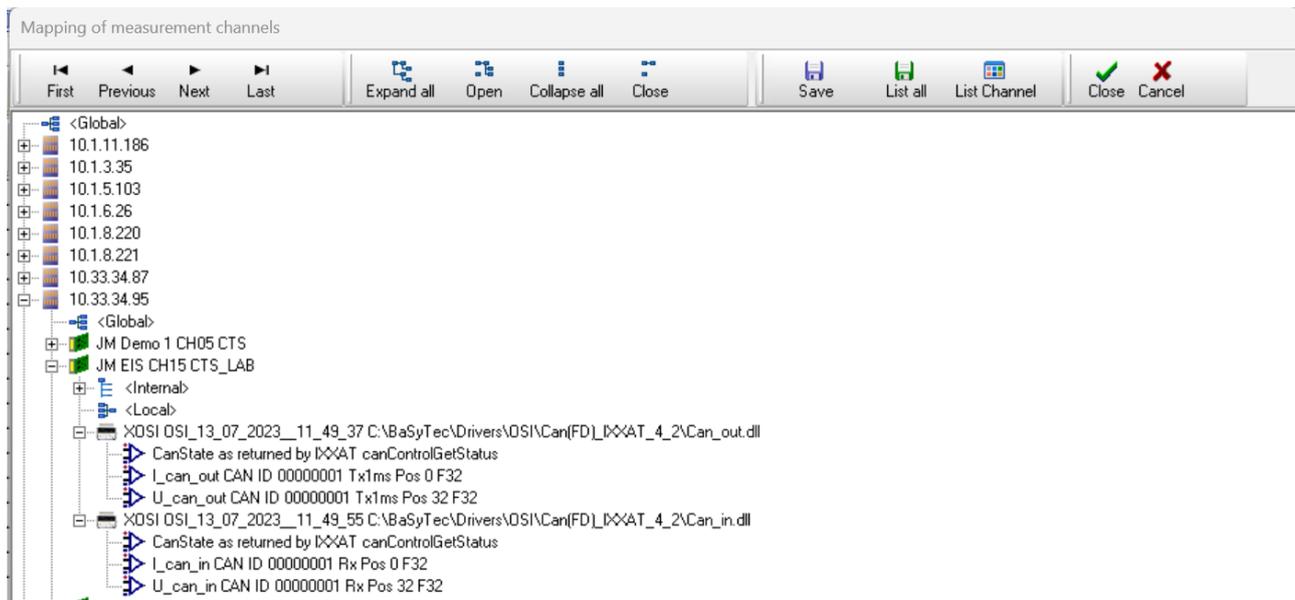
The inifile defines all settings for the CAN-Bus and the variables available in Basytest Software.

For the demo change the Device for Can\_out.cdf and Can\_in.cdf



### 3. Mapping

For each channel the DLL must be added separately in mapping. Inputs will be listed according to the can definition file. This example shows both DLLs loaded for channel "JM EIS CH15CTS\_LAB"



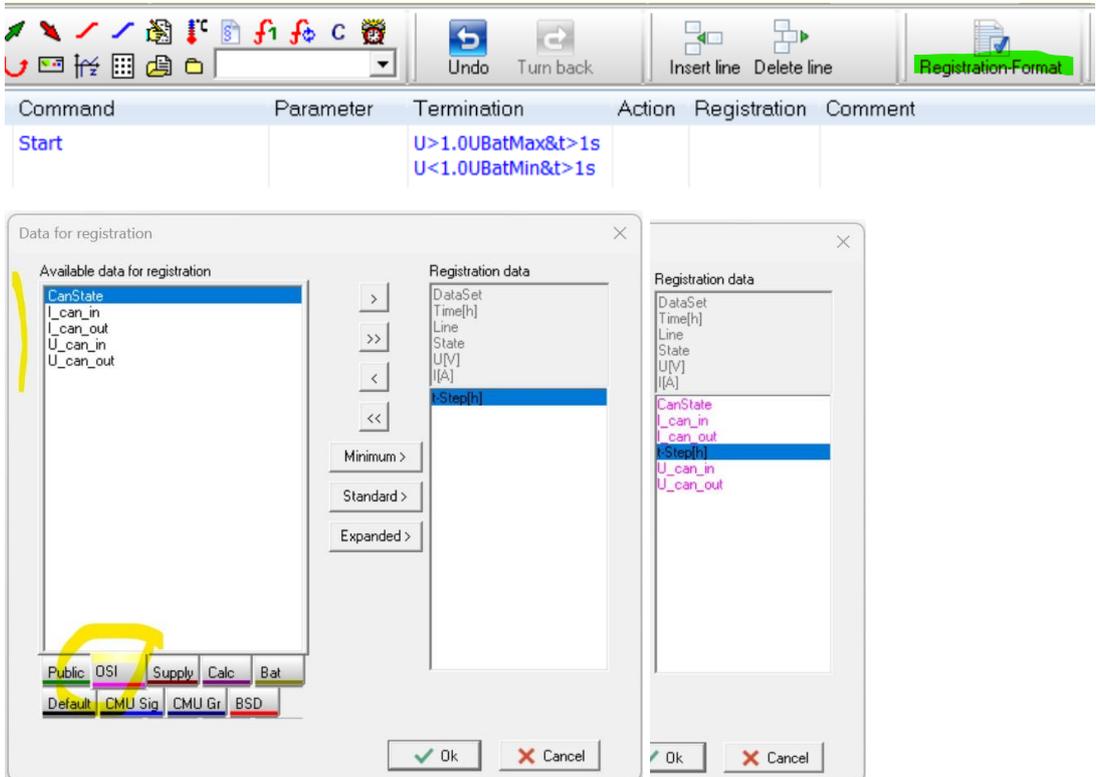
### 4. Test Plan

This Plan shows the assignment of can output variables with current data for current[I] and voltage[U].

Level	Label	Command	Parameter	Termination	Action	Registration	Comment
1		Start		U>1.0UBatMax&t>1s U<1.0UBatMin&t>1s			
2		Calculate	I_can_out=I				Send Current to Can
3		Calculate	U_can_out=U				Send Voltage to Can
4		Pause		t>1s		t=1ms	
5		Cycle-start		t>180s			
6		Charge	I=0A	t>1s		t=1ms	
7		Charge	I=1A	t>1s		t=1ms	
8		Cycle-end	Count=0				
9		Pause		t>1s		t=1ms	
10		Stop					

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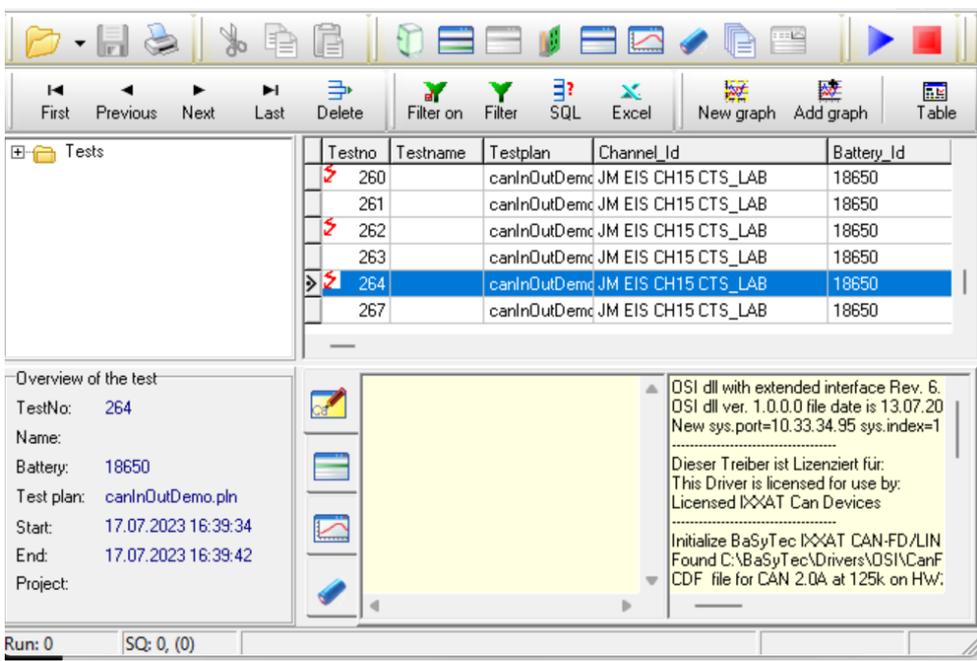
All can signal used in calculation and all signals of interest must be added to registration.



Command	Parameter	Termination	Action	Registration	Comment
Start		U>1.0UBatMax&t>1s U<1.0UBatMin&t>1s			

## 5. Run the Test

Start the test as usual for a channel with DLLs loaded. All DLL-information (Settings, Errors,...) will be displayed in the information window of the database of tests.



Testno	Testname	Testplan	Channel_Id	Battery_Id
260	canInOutDemo	JM EIS CH15 CTS_LAB	18650	
261	canInOutDemo	JM EIS CH15 CTS_LAB	18650	
262	canInOutDemo	JM EIS CH15 CTS_LAB	18650	
263	canInOutDemo	JM EIS CH15 CTS_LAB	18650	
264	canInOutDemo	JM EIS CH15 CTS_LAB	18650	
267	canInOutDemo	JM EIS CH15 CTS_LAB	18650	

Overview of the test

TestNo: 264  
Name:  
Battery: 18650  
Test plan: canInOutDemo.pln  
Start: 17.07.2023 16:39:34  
End: 17.07.2023 16:39:42  
Project:

OSI dll with extended interface Rev. 6.  
OSI dll ver. 1.0.0.0 file date is 13.07.20  
New sys.port=10.33.34.95 sys.index=1

Dieser Treiber ist lizenziert für:  
This Driver is licensed for use by:  
Licensed IXXAT Can Devices

Initialize BaSyTec IXXAT CAN-FD/LIN  
Found C:\BaSyTec\Drivers\OSI\CanF  
CDF file for CAN 2.0A at 125k on HW: