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## Documentation Beckhoff Terminal Standard 1.2

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This document describes the usage and installation of the EtherCAT Framework driver library “Beckhoff Terminal Standard” version 1.2.

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## **1 General Information**

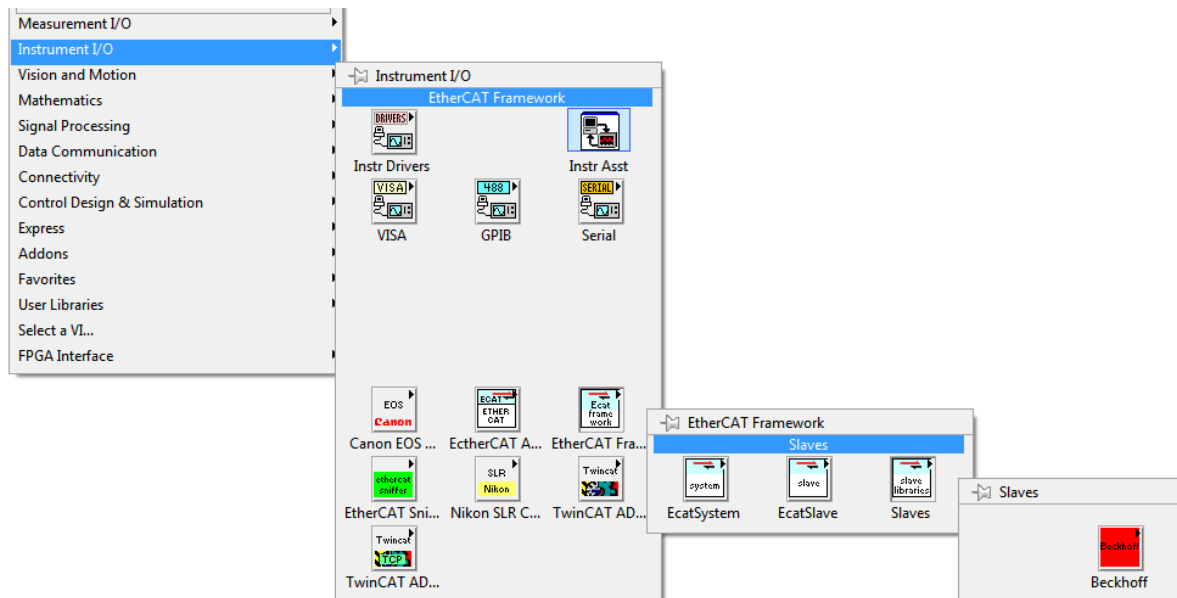
The Beckhoff Terminal Standard driver library is based on the EtherCAT Framework and covers a broad range of digital and analog input and output Beckhoff EtherCAT terminals. It consists of different classes for terminal types and provides VIs for the specific functionality and configuration of the corresponding terminals.

## 2 Installation

### 2.1 LabVIEW Library

The installer installs files directly to the LabVIEW folder (..\program files\National Instruments\LabVIEW xx\..)

The functions palette is installed in Instrument Drivers.



### 2.2 LabVIEW Examples

The examples are installed in the LabVIEW examples folder “..\Program Files\National Instruments\LabVIEW xx\examples\Ackermann Automation\EtherCAT Framework “.

### 2.3 Documentation

All further documents can be found in:

“..\Program Files\Ackermann Automation\EtherCAT Framework\Docs“

The VI documentation can be found in the help chm files of the VI libraries.

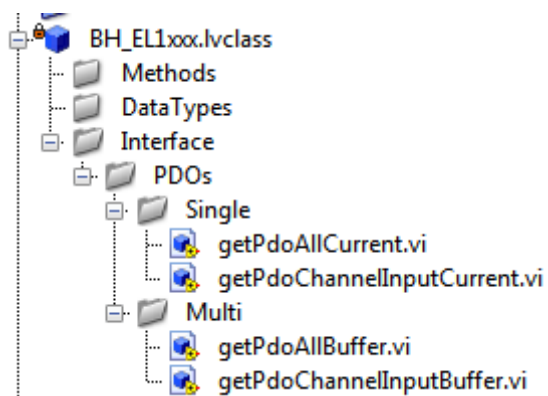
## 3 Slave Classes

### 3.1 EL1xxx

This class covers the following digital input terminals

EL1002, EL1004, EL1008, EL1012, EL1014, EL1018,  
EL1024, EL1034, EL1084, EL1088, EL1094, EL1098,  
EL1104, EL1114, EL1124, EL1134, EL1144,  
EL1702, EL1712, EL1722,  
EL1804, EL1814, EL1808, EL1809, EL1819,

These following VIs are included in the library:

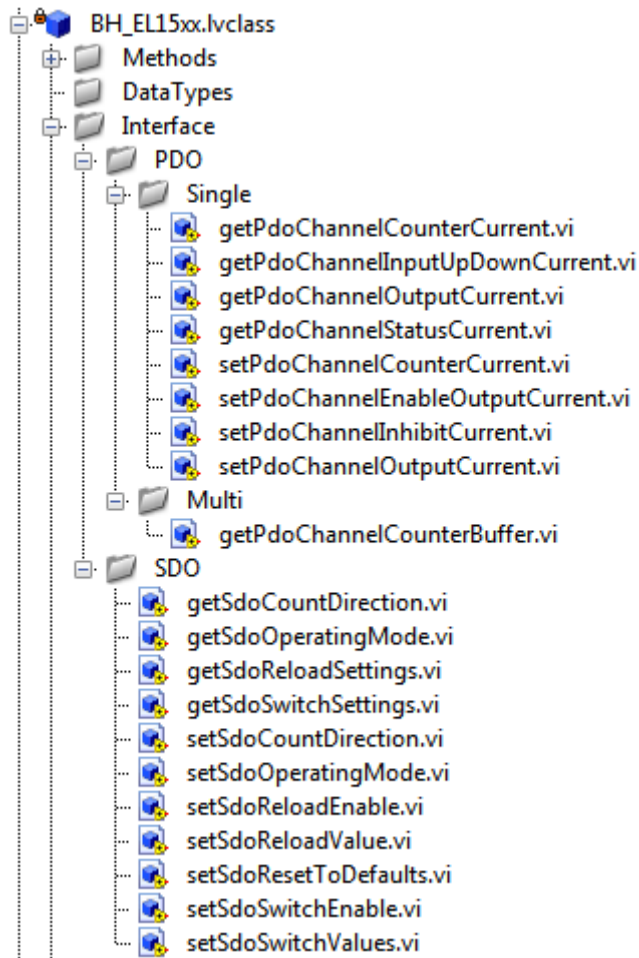


## 3.2 EL15xx

This class covers the following counter terminals

EL1502, EL1512,

These following VIs are included in the library:

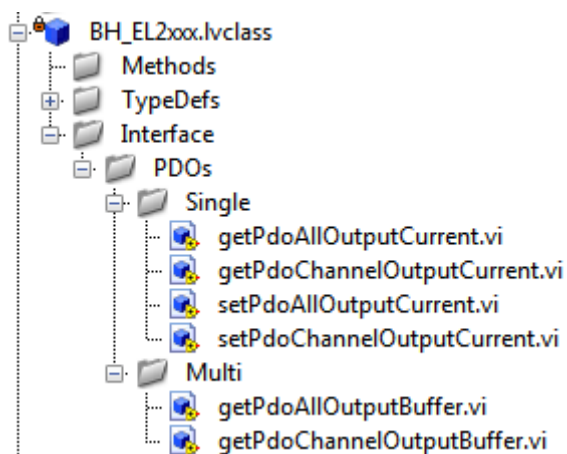


### 3.3 EL2xxx

This class covers the following digital output terminals

EL2002, EL2004, EL2008, EL2022, EL2032,  
EL2024, EL2034, EL2042, EL2084, EL2088,  
EL2124,  
EL2602, EL2612, EL2622, EL2624, EL2652,  
EL2602, EL2612, EL2622,  
EL2712, EL2722, EL2732, EL2798,  
EL2808, EL2809, EL2828, EL2872, EL2889,

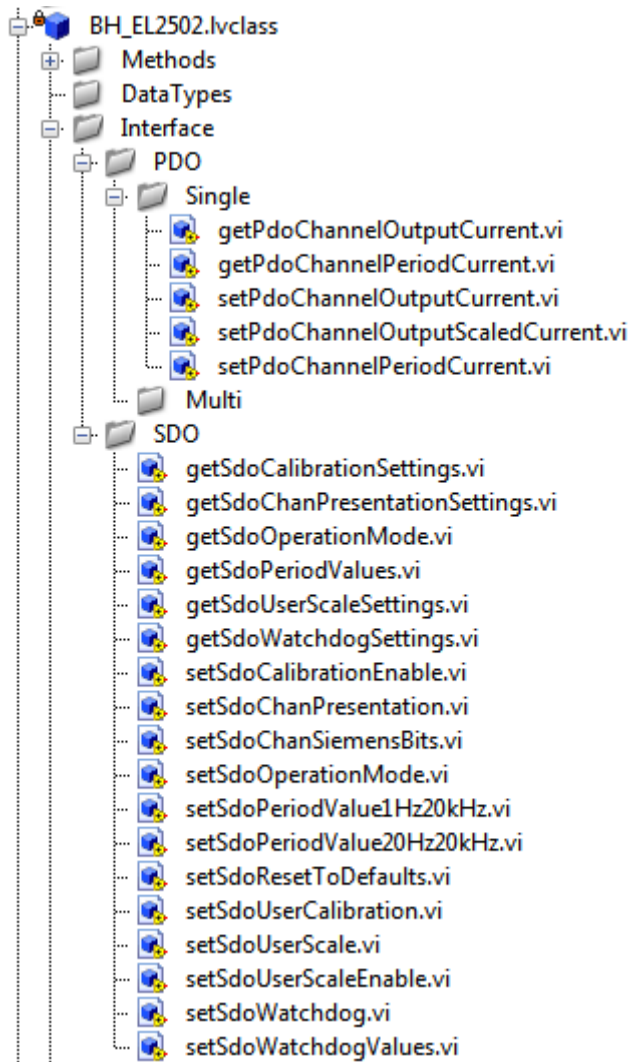
These following VIs are included in the library:



### 3.4 EL2502

This class covers the pulse width output terminal EL2502

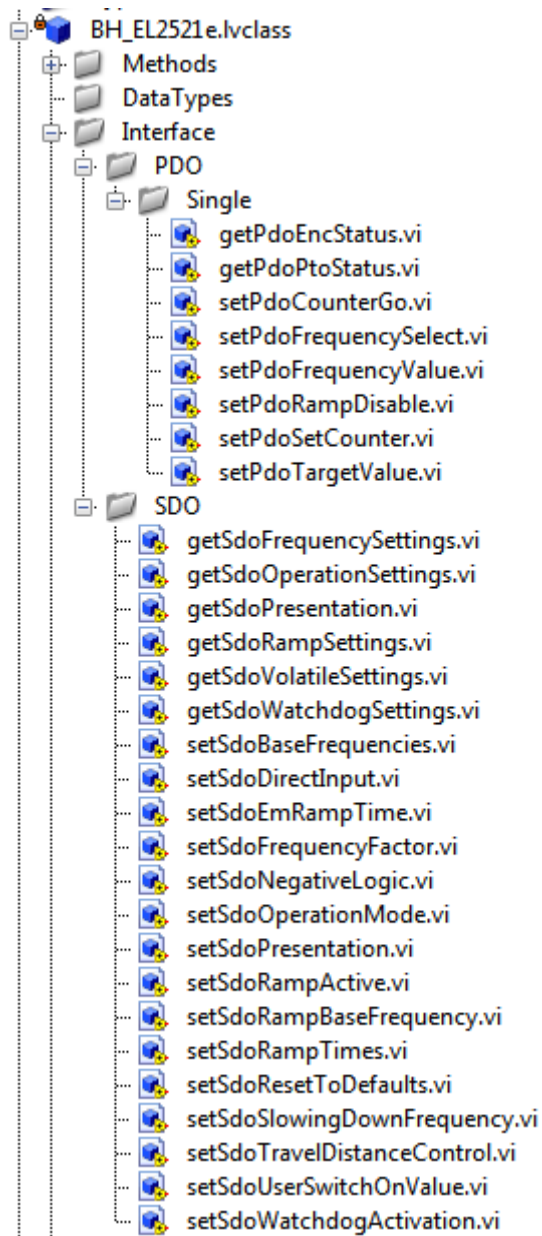
These following VIs are included in the library:



### 3.5 EL2521

This class covers the pulse train output terminal EL2521

These following VIs are included in the library:



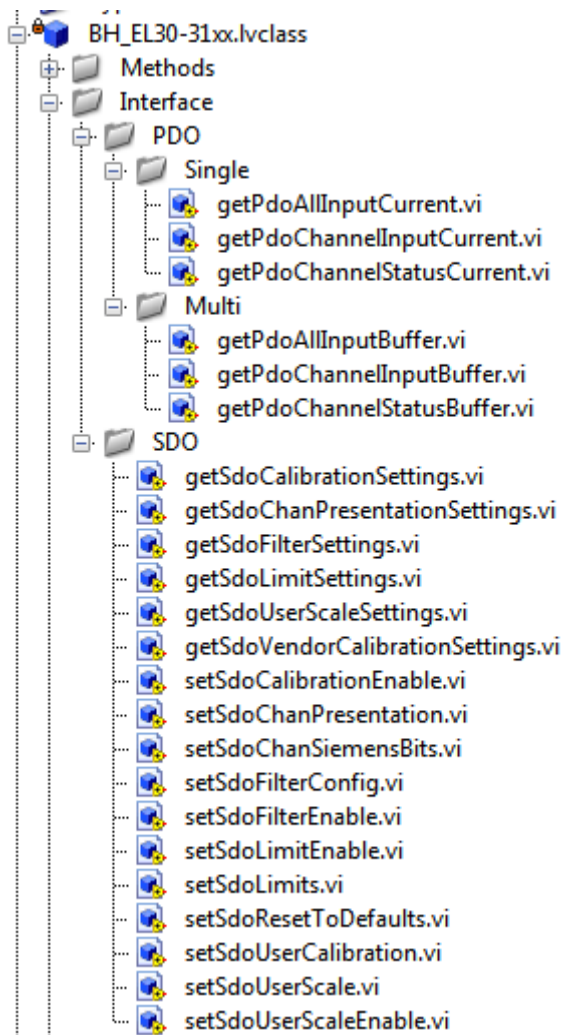


### 3.6 EL30-31xx

This class covers the following 12 and 16 bit analog input terminals for voltage and current signals

EL3001, EL3002, EL3004, EL3008,  
EL3011, EL3012, EL3014,  
EL3021, EL3022, EL3024,  
EL3041, EL3042, EL3044, EL3048,  
EL3051, EL3052, EL3054, EL3058,  
EL3061, EL3062, EL3064, EL3068,  
EL3101, EL3102, EL3104,  
EL3111, EL3112, EL3114,  
EL3121, EL3122, EL3124,  
EL3141, EL3142, EL3144,  
EL3151, EL3152, EL3154,  
EL3161, EL3162, EL3164,

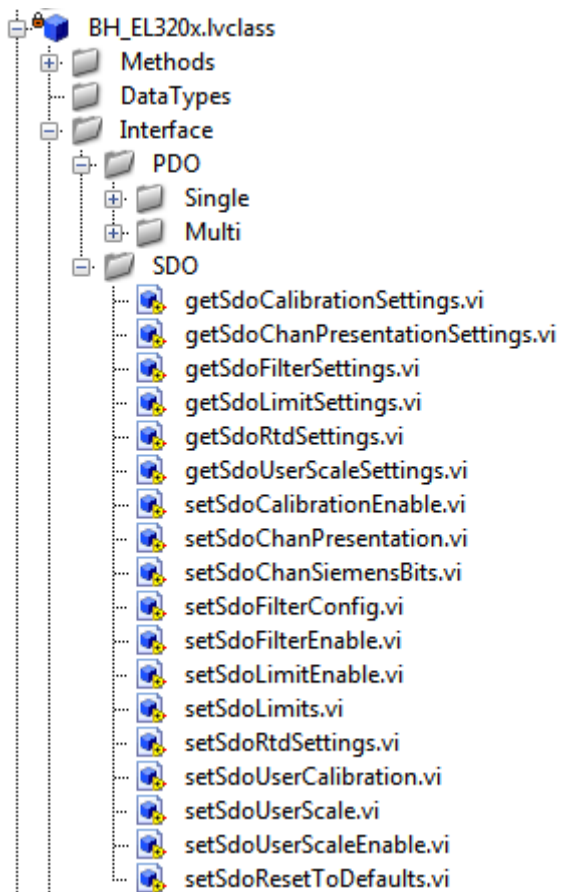
These following VIs are included in the library:



### 3.7 EL320x

This class covers the following PT100 (RTD) input terminals  
EL3202, EL3204, EL3208,

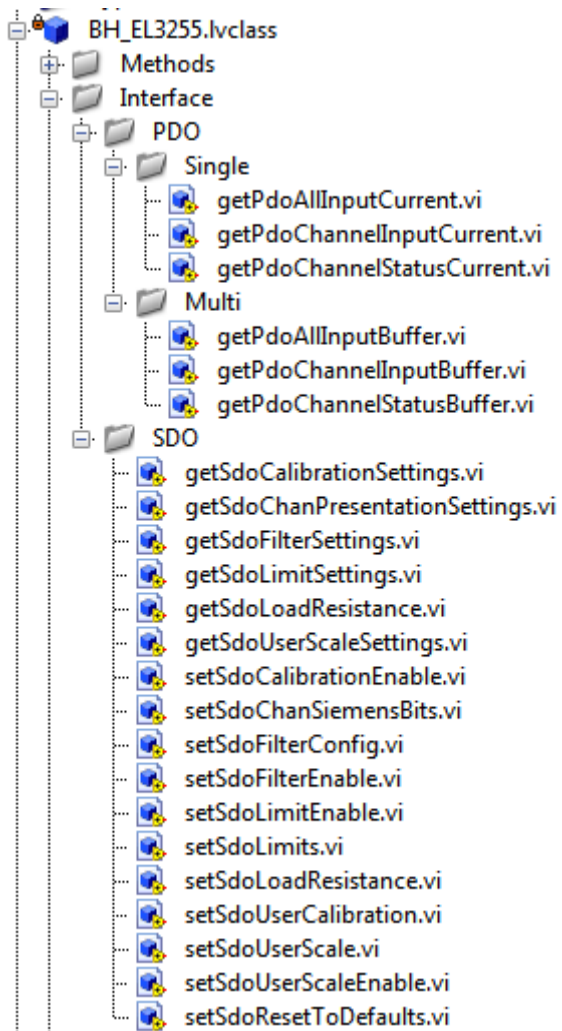
These following VIs are included in the library:



### 3.8 EL3255

This class covers the potentiometer measurement terminal EL3255

These following VIs are included in the library:

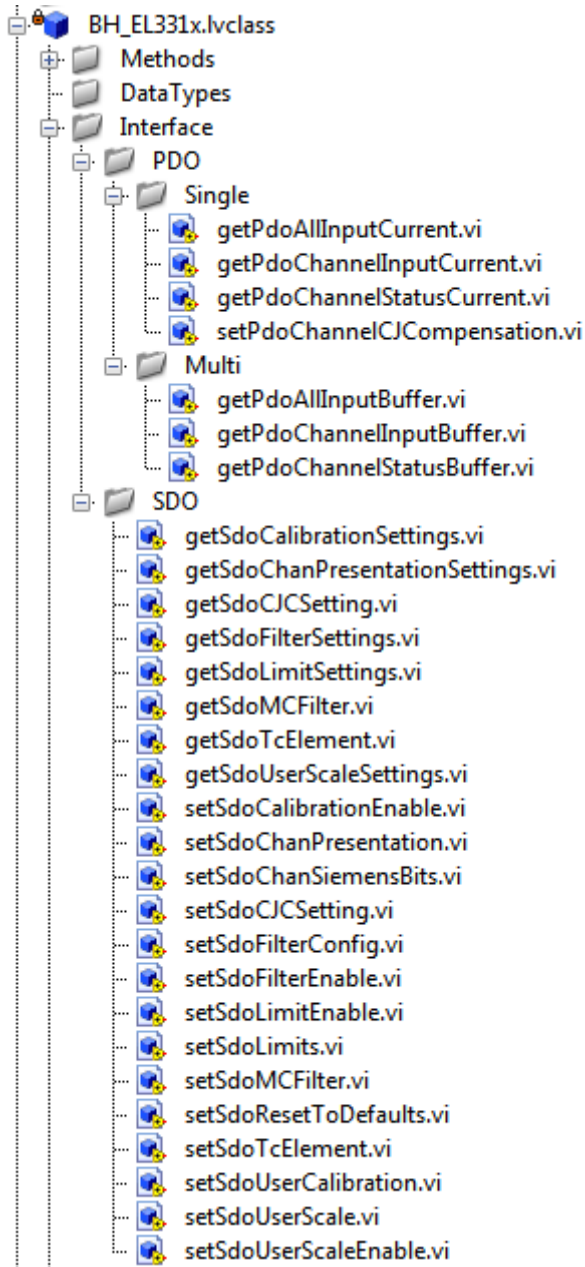


### 3.9 EL331x

This class covers the following thermocouple input terminals

EL3311, EL3312, EL3314, EL3318

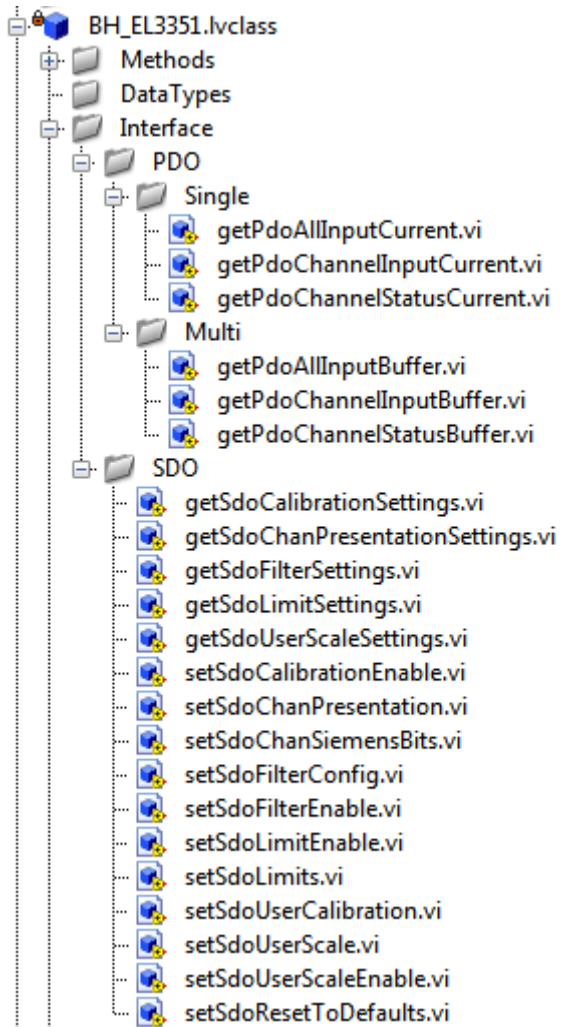
These following VIs are included in the library:



### 3.10 EL3351

This class covers the resistor bridge terminal (strain gauge) terminal EL3351

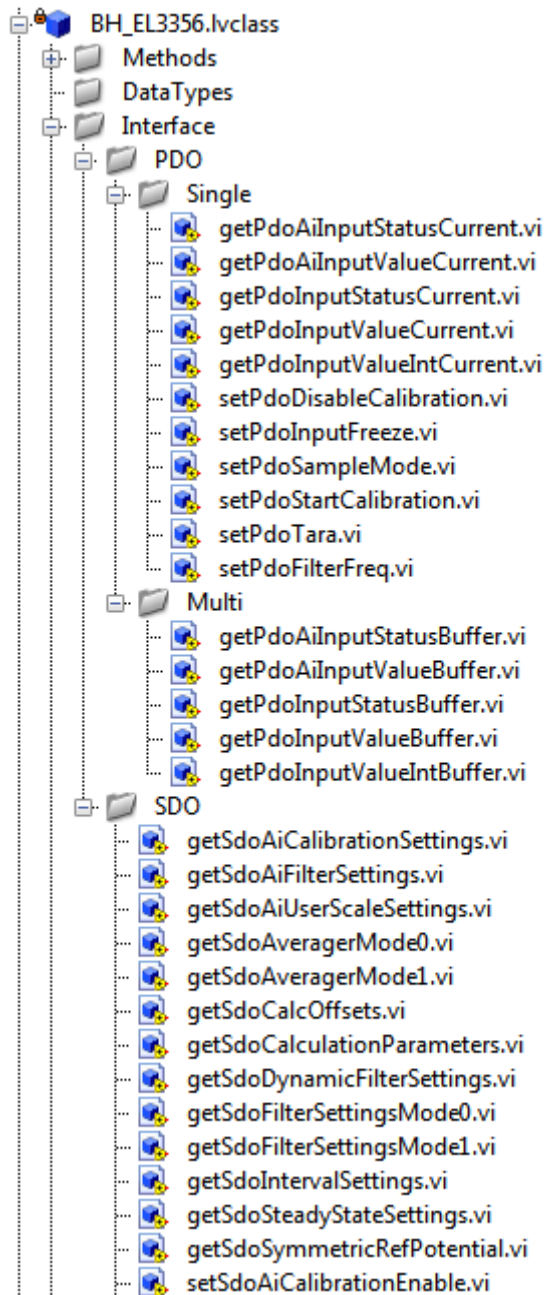
These following VIs are included in the library:























### 3.11 EL3356

This class covers the precise load cell analysis (resistor bridge) terminal EL3356

These following VIs are included in the library:

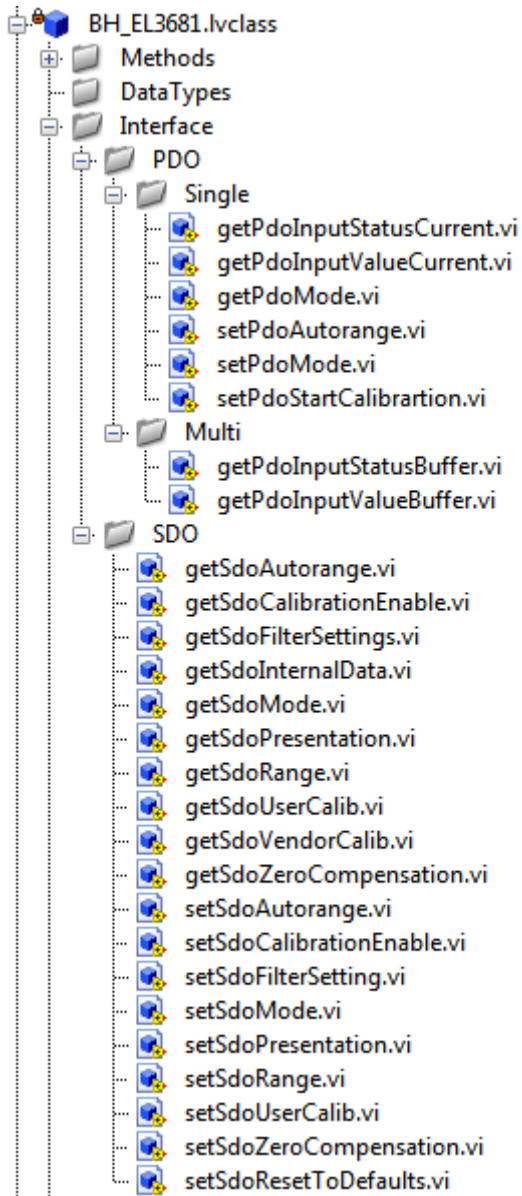


- ...  setSdoAiFilterConfig.vi
- ...  setSdoAiFilterEnable.vi
- ...  setSdoAiUserCalibration.vi
- ...  setSdoAiUserScale.vi
- ...  setSdoAiUserScaleEnable.vi
- ...  setSdoAveragerMode0.vi
- ...  setSdoAveragerMode1.vi
- ...  setSdoCalculationParameters.vi
- ...  setSdoDynamicFilterSetting.vi
- ...  setSdoFilterSettingMode0.vi
- ...  setSdoFilterSettingMode1.vi
- ...  setSdoGainValue.vi
- ...  setSdoIntervalSetting.vi
- ...  setSdoReferenceLoadValue.vi
- ...  setSdoSensorSetting.vi
- ...  setSdoSteadyStateSetting.vi
- ...  setSdoSymmetricRefPotential.vi
- ...  setSdoTaraValue.vi
- ...  setSdoZeroBalanceValue.vi
- ...  setSdoResetToDefaults.vi

## 3.12 EL3681

This class covers the digital multimeter terminal EL3681

These following VIs are included in the library:

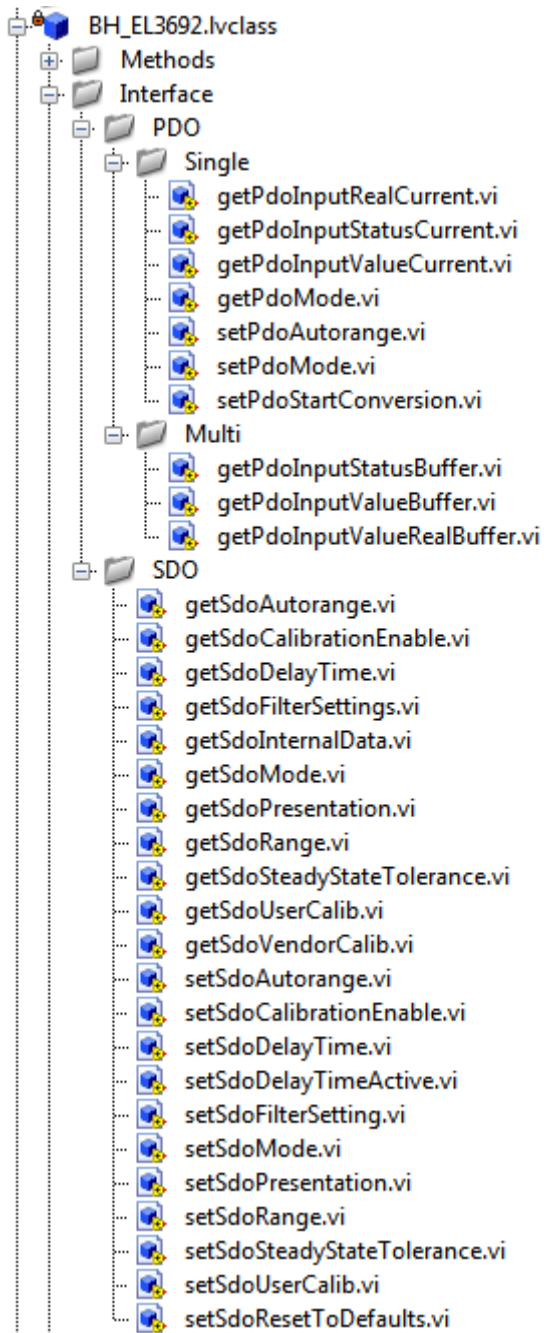




### 3.13 EL3692

This class covers the resistance measurement terminal EL3692

These following VIs are included in the library:

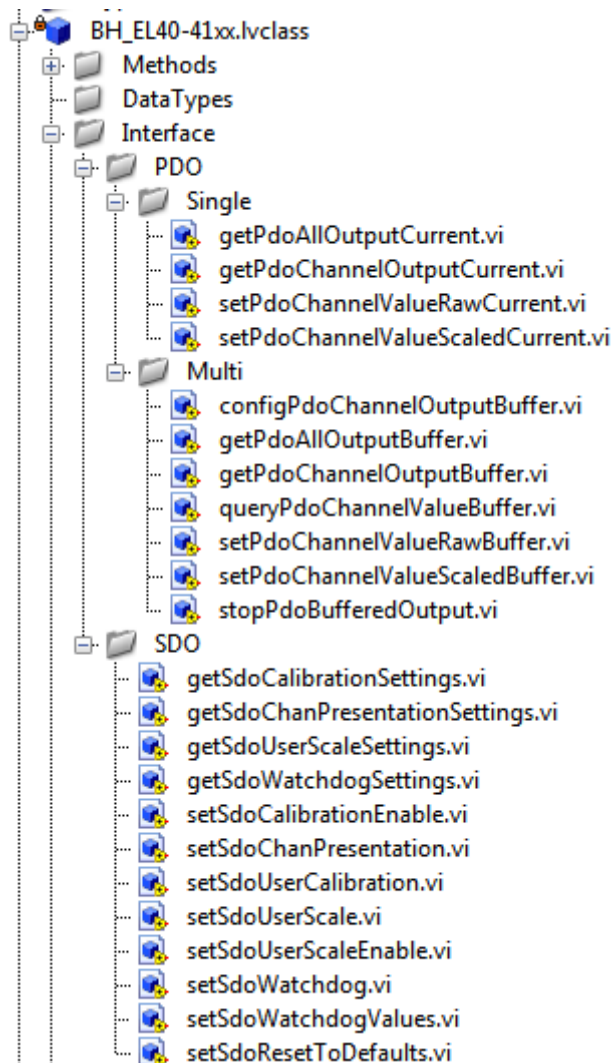


### 3.14 EL40-41xx

This class covers the following 12 and 16 bit analog output terminals for voltage and current signals

EL4001, EL4002, EL4004, EL4008,  
EL4011, EL4012, EL4014, EL4018,  
EL4021, EL4022, EL4024, EL4028,  
EL4031, EL4032, EL4034, EL4038,  
EL4102, EL4104,  
EL4112, EL4114,  
EL4122, EL4124,  
EL4132, EL4134,

These following VIs are included in the library:



## 4 Support

For support contact:

**Ackermann Automation GmbH**

Kelsterbacher Strasse 15-19

60528 Frankfurt am Main

[www.ackermann-automation.de](http://www.ackermann-automation.de)

Tel.: +49(0)69-40562742

Fax: +49(0)69-40562816

[info@ackermann-automation.de](mailto:info@ackermann-automation.de)