SmartHomeDomotic

Generated by Doxygen 1.8.16

Chapter 1

Main Page

This cpp library is based on the bosch driver in C.

Theren't any warranties about the function and the working. Everery dommage will be applies to the developper or user of this library

File bme280.h Date 21.07.2018 Version 0.0.1

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 4

File Index

4.1 File List

Here is a list of all documented files with brief descriptions:

Chapter 5

Class Documentation

5.1 ADS1115 Class Reference

Public Member Functions

- **ADS1115** (quint8 device_I2C_Adress=ADS1115_DEFAULT_ADDRESS)
- quint8 **ads_i2cAddress** () const
- void **setAds_i2cAddress** (const quint8 &ads_i2cAddress)
- quint8 **ads_fd** () const
- void **setAds_fd** (const quint8 &ads_fd)
- quint64 **ads_conversionDelay** () const
- void **setAds_conversionDelay** (const quint64 &ads_conversionDelay)
- adsOSMode_t **ads_osmode** () const
- void **setAds_osmode** (const adsOSMode_t &ads_osmode)
- adsGain_t **ads_gain** () const
- void **setAds_gain** (const adsGain_t &ads_gain)
- adsMode_t **ads_mode** () const
- void **setAds_mode** (const adsMode_t &ads_mode)
- adsRate_t **ads_rate** () const
- void **setAds_rate** (const adsRate_t &ads_rate)
- adsCompMode_t **ads_compmode** () const
- void **setAds_compmode** (const adsCompMode_t &ads_compmode)
- adsCompPol_t **ads_comppol** () const
- void **setAds_comppol** (const adsCompPol_t &ads_comppol)
- adsCompLat_t **ads_complat** () const
- void **setAds_complat** (const adsCompLat_t &ads_complat)
- adsCompQue_t **ads_compque** () const
- void **setAds_compque** (const adsCompQue_t &ads_compque)
- quint16 **Measure_SingleEnded_OnlyPositiveValue** (quint8 channel)
- float **convertValueToVolt** (quint16 regValue)
- quint16 **ads_config_register** () const
- void **setRegister** (bool forFirstInit)
- qint16 **readConfigRegister** ()

Private Member Functions

- void **_writeRegister** (quint16 regValue)
- qint16 **_swapRegister** (qint16 regValue)
- qint16 **_readRegisterOnlyPositiveValue** ()
- void **_waitDelay** (quint64 delayInMiliSeconde)
- void **_waitConvertionFinished** ()

Private Attributes

- quint8 **_ads_i2cAddress**
- quint8 **_ads_fd**
- quint64 **_ads_conversionDelay**
- quint16 **_ads_config_register**
- quint16 **_ads_reading_value**
- qint16 **_ads_lowthreshold**
- qint16 **_ads_highthreshold**
- adsOSMode_t **_ads_osmode**
- adsGain_t **_ads_gain**
- adsMode_t **_ads_mode**
- adsRate_t **_ads_rate**
- adsCompMode_t **_ads_compmode**
- adsCompPol_t **_ads_comppol**
- adsCompLat_t **_ads_complat**
- adsCompQue_t **_ads_compque**

The documentation for this class was generated from the following files:

- SmartHomeDomotic/ADS1115/ads1115.h
- SmartHomeDomotic/ADS1115/ads1115.cpp

5.2 ADS1115Item Class Reference

Inheritance diagram for ADS1115Item:

Collaboration diagram for ADS1115Item:

Signals

- void **sendTankActualVolumeChanged** (int objectID, int actualVolume)

Public Member Functions

- **ADS1115Item** (QString deviceName, quint8 deviceI2CAdress, QObject *ADS1115Display=nullptr, QObject *roomDataPlot=nullptr, timerthread *I2CThread=nullptr, QObject *homeViewer=nullptr)
- adsRate_t **ads_rate** () const
- void **setAds_rate** (const adsRate_t &ads_rate)
- bool **deviceIsReady** () const
- void **setTankChan0VolumeMax** (const quint16 &tankChan0VolumeMax)
- void **setTankChan1VolumeMax** (const quint16 &tankChan1VolumeMax)
- void **setTankChan2VolumeMax** (const quint16 &tankChan2VolumeMax)
- void **setTankChan3VolumeMax** (const quint16 &tankChan3VolumeMax)
- void **setTankChan0LiquideInside** (const GlobalEnumerate::E_TankLiquidInside &tankChan0LiquideInside)
- void **setTankChan1LiquideInside** (const GlobalEnumerate::E_TankLiquidInside &tankChan1LiquideInside)
- void **setTankChan2LiquideInside** (const GlobalEnumerate::E_TankLiquidInside &tankChan2LiquideInside)
- void **setTankChan3LiquideInside** (const GlobalEnumerate::E_TankLiquidInside &tankChan3LiquideInside)
- void **setTankIDchan0** (const quint8 &tankIDchan0)
- void **setTankIDchan1** (const quint8 &tankIDchan1)
- void **setTankIDchan2** (const quint8 &tankIDchan2)
- void **setTankIDchan3** (const quint8 &tankIDchan3)
- void **setTankChan0VolumeMaxHeightInMilimeter** (const quint16 &tankChan0VolumeMaxHeightIn↩ Milimeter)
- void **setTankChan1VolumeMaxHeightInMilimeter** (const quint16 &tankChan1VolumeMaxHeightIn↩ Milimeter)
- void **setTankChan2VolumeMaxHeightInMilimeter** (const quint16 &tankChan2VolumeMaxHeightIn↩ Milimeter)
- void **setTankChan3VolumeMaxHeightInMilimeter** (const quint16 &tankChan3VolumeMaxHeightIn↩ Milimeter)
- bool **onReadingData** () const
- void **readSavedData** ()
- DataFrame * **dataFrame** () const
- void **setStartToReadOnData** (bool startToReadOnData)
- bool **startToReadOnData** () const
- void **setOnCalibration** (bool onCalibration)
- void **setHighMaxValueInPuls** (const quint64 &highMaxValueInPuls)

Protected Member Functions

- void run ()

  called function when the thread start

Private Member Functions

- void **_initDevice** ()
- void **_insertTextAtHomePage** (QString textToInsert)
- void **_checkStateOfDevice** ()
- void **_initConfigDevice** ()
- bool **_checkRegisterConfiguration** ()
- void **_readDataI2C** (DataFrame *dataFrame=nullptr)
- quint16 **_convertToVolumeInLiter** (qint16 valueIn, quint16 tankolumeMax, quint16 tankVolumeMMax↩ HeightInMilimeter, GlobalEnumerate::E_TankLiquidInside liquide)
- void **_continueReadingAllValue** ()
- void **_waitDelay** (quint64 delaySeconde)
- void **_waitDelayMili** (quint64 delayInMiliSeconde)
- void **_waitDelayMicro** (quint64 delayInMicroSeconde)
- void **_goToNextState** ()
- quint16 **_meanList** (QList< quint16 > &listToMean)

Private Attributes

- QObject * **_tanksDataPlot**
- QObject * **_homeViewer**
- timerthread * **_I2CThread**
- QString **_deviceName**
- quint8 **_deviceI2CAdress**
- quint8 **_fd**
- ADS1115 * **_ads1115**
- DataFrame * **_dataFrame**
- adsRate_t **_ads_rate**
- bool **_deviceIsReady**
- bool **_onReadingData**
- bool **_startToReadOnData**
- bool **_onCalibration**
- quint64 **_highMaxValueInPuls**
- quint8 **_tankIDchan0**
- quint8 **_tankIDchan1**
- quint8 **_tankIDchan2**
- quint8 **_tankIDchan3**
- quint16 **_tankChan0VolumeMax**
- quint16 **_tankChan1VolumeMax**
- quint16 **_tankChan2VolumeMax**
- quint16 **_tankChan3VolumeMax**
- quint16 **_tankChan0VolumeMaxHeightInMilimeter**
- quint16 **_tankChan1VolumeMaxHeightInMilimeter**
- quint16 **_tankChan2VolumeMaxHeightInMilimeter**
- quint16 **_tankChan3VolumeMaxHeightInMilimeter**
- GlobalEnumerate::E_TankLiquidInside **_tankChan0LiquideInside**
- GlobalEnumerate::E_TankLiquidInside **_tankChan1LiquideInside**
- GlobalEnumerate::E_TankLiquidInside **_tankChan2LiquideInside**
- GlobalEnumerate::E_TankLiquidInside **_tankChan3LiquideInside**
- QList< quint16 > **_filterListeChan0**
- QList< quint16 > **_filterListeChan1**
- QList< quint16 > **_filterListeChan2**
- QList< quint16 > **_filterListeChan3**
- qint16 **_chan0**
- qint16 **_chan1**
- qint16 **_chan2**
- qint16 **_chan3**
- GlobalEnumerate::E_StateMachine **_stateMachine**

5.2.1 Member Function Documentation

5.2.1.1 run()

```
void ADS1115Item::run ( )  [protected]
```

called function when the thread start

Returns

void : nothing

The documentation for this class was generated from the following files:

- SmartHomeDomotic/ADS1115/ads1115item.h
- SmartHomeDomotic/ADS1115/ads1115item.cpp

5.3 BME280 Class Reference

Public Member Functions

- **BME280** (quint8 device_I2C_Adress)
- void **init_sbme280_calib_data** (psbme280_calib_data pCalib_data)
- void **init_sbme280_uncomp_data** (psbme280_uncomp_data pUncomp_data)
- void **init_sbme280_data** (psbme280_data pComp_data)
- void **init_sbme280_setting** (psbme280_setting pBME280_setting)
- void **init_sbme280_device** (psbme280_dev pBME280_device)
- quint8 **readChipID** (int fd)
- quint8 **readRegister** (quint8 registerValue)
- void **readCalibrationData** (int fd, sbme280_calib_data ∗data)
- void **readUncompensatedValue** (int fd, psbme280_uncomp_data pUncomp_data)
- void **writBME280configuration** (psbme280_dev pBME280_device)
- void **wakeupDevice** (psbme280_dev pBME280_device)
- float **getAltitude** (double pressure)
- quint8 **getBME280_fd** () const

Static Public Member Functions

- static double compensate_pressure (const sbme280_uncomp_data ∗uncomp_data, sbme280_calib_data ∗calib_data)

  This internal API is used to compensate the raw pressure data and return the compensated pressure data in double data type.
- static double compensate_temperature (const sbme280_uncomp_data ∗uncomp_data, sbme280_calib_data ∗calib_data)

  This internal API is used to compensate the raw temperature data and return the compensated temperature data in double data type.
- static double compensate_humidity (const sbme280_uncomp_data ∗uncomp_data, sbme280_calib_data ∗calib_data)

  This internal API is used to compensate the raw humidity data and return the compensated humidity data in double data type.

Private Attributes

- quint8 **_BME280_i2cAddress**
- quint8 **_BME280_fd**

5.3.1 Member Function Documentation

5.3.1.1 compensate_humidity()

```
static double BME280::compensate_humidity (
            const sbme280_uncomp_data * uncomp_data,
            sbme280_calib_data * calib_data )  [static]
```

This internal API is used to compensate the raw humidity data and return the compensated humidity data in double data type.

Parameters

in	*uncomp_data*	: Contains the uncompensated humidity data.
in	*calib_data*	: Pointer to the calibration data ure.

Returns

Compensated humidity data.

Return values

Compensated	humidity data in double.

5.3.1.2 compensate_pressure()

```
static double BME280::compensate_pressure (
            const sbme280_uncomp_data * uncomp_data,
            sbme280_calib_data * calib_data )  [static]
```

This internal API is used to compensate the raw pressure data and return the compensated pressure data in double data type.

Parameters

in	*uncomp_data*	: Contains the uncompensated pressure data.
in	*calib_data*	: Pointer to the calibration data ure.

Returns

Compensated pressure data.

Return values

Compensated	pressure data in double.

5.3.1.3 compensate_temperature()

```
double BME280::compensate_temperature (
            const sbme280_uncomp_data * uncomp_data,
            sbme280_calib_data * calib_data )  [static]
```

This internal API is used to compensate the raw temperature data and return the compensated temperature data in double data type.

Parameters

in	*uncomp_data*	: Contains the uncompensated temperature data.
in	*calib_data*	: Pointer to calibration data ure.

Returns

Compensated temperature data.

Return values

Compensated	temperature data in double.

The documentation for this class was generated from the following files:

- SmartHomeDomotic/BME280/bme280.h
- SmartHomeDomotic/BME280/bme280.cpp

5.4 BME280Item Class Reference

Inheritance diagram for BME280Item:

Collaboration diagram for BME280Item:

Signals

- void **jumpToNextState** ()

Public Member Functions

- **BME280Item** (quint8 deviceI2CAdress, QObject ∗bme280Display=nullptr, QObject ∗roomDataPlot=nullptr, QObject ∗homeViewer=nullptr)
- void **readSavedData** ()
- bool **onReadingData** () const
- bool **deviceIsReady** () const
- void **setReadData** (bool readData)
- DataFrame ∗ **dataFrame** () const
- void **setOnReadingData** (bool onReadingData)
- void **setStartToReadOnData** (bool startToReadOnData)
- bool **startToReadOnData** () const

Protected Member Functions

- void run ()

  called function when the thread start

Private Member Functions

- void **_initDevice** ()
- void **_insertTextAtHomePage** (QString textToInsert)
- void **_checkStateOfDevice** ()
- void **_initRegisterDevice** ()
- bool **_checkRegisterConfiguration** ()
- void **_readDataI2C** ()
- void **_waitDelay** (quint64 delayInSeconde)
- void **_waitDelayMili** (quint64 delayInMiliSeconde)
- void **_waitDelayMicro** (quint64 delayInMicroSeconde)
- void **_goToNextState** ()

Private Attributes

- quint8 **_deviceI2CAdress**
- quint8 **_fd**
- BME280 ∗ **_bme280**
- sbme280_dev **_bme280Device**
- psbme280_dev **_pbme280Device**
- bool **_deviceIsReady**
- bool **_onReadingData**
- bool **_startToReadOnData**
- QObject ∗ **_bme280Display**
- QObject ∗ **_roomDataPlot**
- QObject ∗ **_homeViewer**
- DataFrame ∗ **_dataFrame**
- double **_temperature**
- double **_humidity**
- double **_pressure**
- GlobalEnumerate::E_StateMachine **_stateMachine**

5.4.1 Member Function Documentation

5.4.1.1 run()

```
void BME280Item::run ( )  [protected]
```

called function when the thread start

Returns

void : nothing

The documentation for this class was generated from the following files:

- SmartHomeDomotic/BME280/bme280item.h
- SmartHomeDomotic/BME280/bme280item.cpp

5.5 CustomPlotItem Class Reference

Inheritance diagram for CustomPlotItem:

Collaboration diagram for CustomPlotItem:

Public Member Functions

- **CustomPlotItem** (QQuickItem *parent=nullptr, QObject *plotView=nullptr)
- void **paint** (QPainter *painter)
- Q_INVOKABLE void **setupStyle** (GlobalEnumerate::E_PlotStyle plotstyle, quint8 nbOfTrace)
- Q_INVOKABLE void **setupGraphLabel** (quint8 traceNumber, QString titleText)
- Q_INVOKABLE void **setupTraceIsSelected** (quint8 traceNumber, bool isVisible)
- Q_INVOKABLE void **addPoint** (const int graphNumber, const double x, const double y)
- Q_INVOKABLE void **addYValue** (qreal valueGraph0, qreal valueGraph1, qreal valueGraph2, qreal value↩ Graph3=0, qreal valueGraph4=0, qreal valueGraph5=0, qreal settingTriggerValue=0, bool tickAsDate=true, quint8 tickNumber=0, bool isTheFirstData=false)
- Q_INVOKABLE void **clearGraphAndValues** ()
- Q_INVOKABLE void **replot** (bool resize)
- Q_INVOKABLE void **replotWithSavedData** (quint16 year, quint8 month, quint8 day)
- Q_INVOKABLE void **setRange** (const quint64 &range)
- void **setDrawRightToLeft** (bool drawRightToLeft)
- void **setNbPixels** (const quint16 &nbPixels)
- void **setSettingTriggerValue** (const quint8 &settingTriggerValue)
- void **setGraph0Label** (const QString &graph0Label)
- void **setGraph1Label** (const QString &graph1Label)
- void **setGraph2Label** (const QString &graph2Label)
- void **setGraph3Label** (const QString &graph3Label)
- void **setGraph4Label** (const QString &graph4Label)
- void **setGraph5Label** (const QString &graph5Label)

Protected Member Functions

- void **routeMouseEvents** (QMouseEvent ∗event)
- virtual void **mousePressEvent** (QMouseEvent ∗event)
- virtual void **mouseReleaseEvent** (QMouseEvent ∗event)
- virtual void **mouseMoveEvent** (QMouseEvent ∗event)
- virtual void **mouseDoubleClickEvent** (QMouseEvent ∗event)

Private Slots

- void **graphClicked** (QCPAbstractPlottable ∗plottable)
- void **onCustomReplot** ()
- void **updateCustomPlotSize** ()
- void **_recievedRefreshDataTemperaturePlot** ()
- void **updatePlot** ()

Private Member Functions

- void **setupTraceWatherStation** ()
- void **setupTraceAnalogTrace** (quint8 nbOfTrace)
- void **setupTraceStatisticTrace** (GlobalEnumerate::E_PlotStyle plotstyle)

Private Attributes

- QDateTime **_dateTime**
- QObject ∗ **_plotView**
- QObject ∗ **_qobjectStatisticViewer**
- QCustomPlot ∗ **_customPlot**
- QCPGraph ∗ **_graph0**
- QCPGraph ∗ **_graph1**
- QCPGraph ∗ **_graph2**
- QCPGraph ∗ **_graph3**
- QCPGraph ∗ **_graph4**
- QCPGraph ∗ **_graph5**
- QCPBars ∗ **_bar0**
- QCPBars ∗ **_bar1**
- QCPBars ∗ **_bar2**
- QString **_graph0Label**
- QString **_graph1Label**
- QString **_graph2Label**
- QString **_graph3Label**
- QString **_graph4Label**
- QString **_graph5Label**
- QCPItemStraightLine ∗ **_line**
- QColor **_axisTickPlot**
- quint8 **_nbOfTrace**
- quint64 **_nbPixels**
- quint64 **_range**
- quint64 **_CPT**
- double **_CPTMin**
- double **_CPTMax**
- quint8 **_yValue**

- quint16 **_yValueMin**
- quint16 **_yValueMax**
- qreal **_settingTriggerValue**
- bool **_plotWithYBorderGap**
- int **_objectInstance**
- QColor **_traceSettingColor**
- QVector< double > **_YData**
- QVector< double > **_minusYData**
- QVector< double > **_XData**
- QVector< int > **_XDataInt**
- QVector< int > **_Y1DataInt**
- QVector< int > **_Y2DataInt**
- GlobalEnumerate::E_PlotStyle **_myPlotStyle**
- QSharedPointer< QCPGraphDataContainer > **_arrayPlotContainerPointerGraph0**
- QSharedPointer< QCPGraphDataContainer > **_arrayPlotContainerPointerGraph1**
- QSharedPointer< QCPGraphDataContainer > **_arrayPlotContainerPointerGraph2**
- QSharedPointer< QCPGraphDataContainer > **_arrayPlotContainerPointerGraph3**
- QSharedPointer< QCPGraphDataContainer > **_arrayPlotContainerPointerGraph4**
- QSharedPointer< QCPGraphDataContainer > **_arrayPlotContainerPointerGraph5**
- QCPGraphDataContainer::const_iterator **_itBegin**
- QCPGraphDataContainer::const_iterator **_itEnd**

The documentation for this class was generated from the following files:

- SmartHomeDomotic/customplotitem.h
- SmartHomeDomotic/customplotitem.cpp

5.6 DataAnalyser Class Reference

Inheritance diagram for DataAnalyser:

Collaboration diagram for DataAnalyser:

Public Slots

- void **ReceivedreplotWithSavedData** (int year, int month, int day)

Public Member Functions

- **DataAnalyser** (quint16 nbDataFramToTempSave, QObject *statisticValueViewer, QObject *statisticViewer)
- void **saveDataFile** ()
- void **setBuffer** (QVector< DataFrame > *buffer)
- void **saveTempData** (DataFrame *dataFrame)
- void **setSaveTempFile** (bool saveTempFile)
- void **setSaveFile** (bool saveFile)
- void **setDataFrame** (DataFrame *dataFrame)
- void **setItdataFrameEnd** (const QVector< DataFrame >::iterator &itdataFrameEnd)
- void **setNbOfSavedDataInBuffer** (const quint16 &nbOfSavedDataInBuffer)
- void **setResetTempFile** (bool resetTempFile)
- bool **saveFinished** () const
- void **setDateTime** (const QDateTime &dateTime)
- bool **saveTempFileFinished** () const
- bool **saveFileFinished** () const

Static Public Member Functions

- static void msleep (unsigned long msecs)

  waiting delay

Protected Member Functions

- void run ()

  called function when the thread start

Private Member Functions

- void **_updateDataForTheHour** (quint8 minuteToUpdate)
- void **_updateDataForTheDay** (QDateTime ∗dateToUpdate)
- void **_updateDataForTheMonth** (QDateTime ∗dateToUpdate)
- void **_createDirectory** (QDateTime ∗dateTimeToCheck)

Private Attributes

- QVector< DataFrame > ∗ **_buffer**
- QVector< DataFrame >::iterator **_itdataFrameEnd**
- quint16 **_nbOfSavedDataInBuffer**
- QList< DataFrame > **_bufferTempData**
- QFile **_fileTempData**
- quint16 **_nbDataFramToTempSave**
- bool **_saveTempFile**
- bool **_saveTempFileFinished**
- bool **_saveFile**
- bool **_saveFileFinished**
- bool **_resetTempFile**
- bool **_updateDayData**
- bool **_updateMonthData**
- bool **_saveFinished**
- DataFrame ∗ **_dataFrame**
- QString **_directoryDataMain**
- QString **_directoryFileNameYear**
- QString **_directoryFileNameMonth**
- QString **_directoryFileNameDay**
- QString **_directoryFileNameHour**
- QString **_directoryFileNameMinute**
- quint16 **_waitDelayInMili**
- QDateTime **_dateTime**
- double **_tempMin**
- double **_tempMax**
- double **_humMin**
- double **_humMax**
- double **_pressMin**
- double **_pressMax**
- qint16 **_consoChan0**
- qint16 **_consoChan1**
- qint16 **_consoChan2**
- qint16 **_consoChan3**
- QObject ∗ **_qobjectStastisticValueViewer**
- QObject ∗ **_statisticViewer**

5.6.1 Member Function Documentation

5.6.1.1 msleep()

```
static void DataAnalyser::msleep (
            unsigned long msecs )  [static]
```

waiting delay

Parameters

in	*msleep*	is the time in miliseconds

Returns

void : nothing

Here is the caller graph for this function:

5.6.1.2 run()

```
void DataAnalyser::run ( )  [protected]
```

called function when the thread start

Returns

void : nothing

Here is the call graph for this function:

The documentation for this class was generated from the following files:

- SmartHomeDomotic/DataManager/dataanalyser.h
- SmartHomeDomotic/DataManager/dataanalyser.cpp

5.7 DataFrame Class Reference

Public Member Functions

- DataFrame ()

  constructor for DataFrame
- quint8 msbCPT () const

  Getter for msbCPT attribute.
- void setMsbCPT (const quint8 &msbCPT)

Setter for msbCPT attribute.

- double BME280_temperature () const

  Getter for BME280_temperature attribute.

- void setBME280_temperature (double BME280_temperature)

  Setter for BME280_temperature attribute.

- double BME280_humidity () const

  Getter for BME280_humidity attribute.

- void setBME280_humidity (double BME280_humidity)

  Setter for BME280_humidity attribute.

- double BME280_pressure () const

  Getter for BME280_pressure attribute.

- void setBME280_pressure (double BME280_pressure)

  Setter for BME280_pressure attribute.

- qint16 ADS115_1_chan0 () const

  Getter for ADS115_1_chan0 attribute.

- void setADS115_1_chan0 (const qint16 &ADS115_1_chan0)

  Setter for ADS115_1_chan0 attribute.

- qint16 ADS115_1_chan1 () const

  Getter for ADS115_1_chan1 attribute.

- void setADS115_1_chan1 (const qint16 &ADS115_1_chan1)

  Setter for ADS115_1_chan1 attribute.

- qint16 ADS115_1_chan2 () const

  Getter for ADS115_1_chan2 attribute.

- void setADS115_1_chan2 (const qint16 &ADS115_1_chan2)

  Setter for ADS115_1_chan2 attribute.

- qint16 ADS115_1_chan3 () const

  Getter for ADS115_1_chan3 attribute.

- void setADS115_1_chan3 (const qint16 &setADS115_1_chan3)

  Setter for setADS115_1_chan3 attribute.

- qint16 ADS115_2_chan0 () const

  Getter for ADS115_2_chan0 attribute.

- void setADS115_2_chan0 (const qint16 &ADS115_2_chan0)

  Setter for ADS115_2_chan0 attribute.

- qint16 ADS115_2_chan1 () const

  Getter for ADS115_2_chan1 attribute.

- void setADS115_2_chan1 (const qint16 &ADS115_2_chan1)

  Setter for ADS115_2_chan1 attribute.

- qint16 ADS115_2_chan2 () const

  Getter for ADS115_2_chan2 attribute.

- void setADS115_2_chan2 (const qint16 &ADS115_2_chan2)

  Setter for ADS115_2_chan2 attribute.

- qint16 ADS115_2_chan3 () const

  Getter for ADS115_2_chan3 attribute.

- void setADS115_2_chan3 (const qint16 &ADS115_2_chan3)

  Setter for ADS115_2_chan3 attribute.

Private Attributes

- double **_BME280_temperature**
- double **_BME280_humidity**
- double **_BME280_pressure**
- qint16 **_ADS115_1_chan0**
- qint16 **_ADS115_1_chan1**
- qint16 **_ADS115_1_chan2**
- qint16 **_ADS115_1_chan3**
- qint16 **_ADS115_2_chan0**
- qint16 **_ADS115_2_chan1**
- qint16 **_ADS115_2_chan2**
- qint16 **_ADS115_2_chan3**

5.7.1 Member Function Documentation

5.7.1.1 ADS115_1_chan0()

```
qint16 DataFrame::ADS115_1_chan0 ( ) const
```

Getter for ADS115_1_chan0 attribute.

Returns

ADS115_1_chan0 : qint16

Here is the caller graph for this function:

5.7.1.2 ADS115_1_chan1()

```
qint16 DataFrame::ADS115_1_chan1 ( ) const
```

Getter for ADS115_1_chan1 attribute.

Returns

ADS115_1_chan1 : qint16

Here is the caller graph for this function:

5.7.1.3 ADS115_1_chan2()

```
qint16 DataFrame::ADS115_1_chan2 ( ) const
```

Getter for ADS115_1_chan2 attribute.

Returns

ADS115_1_chan2 : qint16

Here is the caller graph for this function:

5.7.1.4 ADS115_1_chan3()

```
qint16 DataFrame::ADS115_1_chan3 ( ) const
```

Getter for ADS115_1_chan3 attribute.

Returns

ADS115_1_chan3 : qint16

Here is the caller graph for this function:

5.7.1.5 ADS115_2_chan0()

```
qint16 DataFrame::ADS115_2_chan0 ( ) const
```

Getter for ADS115_2_chan0 attribute.

Returns

ADS115_2_chan0 : qint16

Here is the caller graph for this function:

5.7.1.6 ADS115_2_chan1()

```
qint16 DataFrame::ADS115_2_chan1 ( ) const
```

Getter for ADS115_2_chan1 attribute.

Returns

ADS115_2_chan1 : qint16

Here is the caller graph for this function:

5.7.1.7 ADS115_2_chan2()

```
qint16 DataFrame::ADS115_2_chan2 ( ) const
```

Getter for ADS115_2_chan2 attribute.

Returns

ADS115_2_chan2 : qint16

Here is the caller graph for this function:

5.7.1.8 ADS115_2_chan3()

```
qint16 DataFrame::ADS115_2_chan3 ( ) const
```

Getter for ADS115_2_chan3 attribute.

Returns

ADS115_2_chan3 : qint16

Here is the caller graph for this function:

5.7.1.9 BME280_humidity()

```
double DataFrame::BME280_humidity ( ) const
```

Getter for BME280_humidity attribute.

Returns

BME280_humidity : double

Here is the caller graph for this function:

5.7.1.10 BME280_pressure()

```
double DataFrame::BME280_pressure ( ) const
```

Getter for BME280_pressure attribute.

Returns

BME280_pressure : double

Here is the caller graph for this function:

5.7.1.11 BME280_temperature()

```
double DataFrame::BME280_temperature ( ) const
```

Getter for BME280_temperature attribute.

Returns

BME280_temperature : double

Here is the caller graph for this function:

5.7.1.12 msbCPT()

```
quint8 DataFrame::msbCPT ( ) const
```

Getter for msbCPT attribute.

Returns

msbCPT : quint8

5.7.1.13 setADS115_1_chan0()

```
void DataFrame::setADS115_1_chan0 (
            const qint16 & ADS115_1_chan0 )
```

Setter for ADS115_1_chan0 attribute.

Parameters

in	*ADS115_1_chan0*	is volume value on channel 0 of ADS1115_1.

Returns

void : nothing

Here is the call graph for this function:

5.7.1.14 setADS115_1_chan1()

```
void DataFrame::setADS115_1_chan1 (
            const qint16 & ADS115_1_chan0 )
```

Setter for ADS115_1_chan1 attribute.

Parameters

in	*ADS115_1_chan1*	is volume value on channel 1 of ADS1115_1.

Returns

void : nothing

Here is the call graph for this function:

5.7.1.15 setADS115_1_chan2()

```
void DataFrame::setADS115_1_chan2 (
            const qint16 & ADS115_1_chan0 )
```

Setter for ADS115_1_chan2 attribute.

Parameters

in	*ADS115_1_chan2*	is volume value on channel 2 of ADS1115_1.

Returns

void : nothing

Here is the call graph for this function:

5.7.1.16 setADS115_1_chan3()

```
void DataFrame::setADS115_1_chan3 (
            const qint16 & ADS115_1_chan0 )
```

Setter for setADS115_1_chan3 attribute.

Parameters

in	*setADS115_1_chan3*	is volume value on channel 3 of ADS1115_1.

Returns

void : nothing

Here is the call graph for this function:

5.7.1.17 setADS115_2_chan0()

```
void DataFrame::setADS115_2_chan0 (
            const qint16 & ADS115_1_chan0 )
```

Setter for ADS115_2_chan0 attribute.

Parameters

in	*ADS115_1_chan0*	is volume value on channel 0. of ADS1115_2.

Returns

void : nothing

Here is the call graph for this function:

5.7.1.18 setADS115_2_chan1()

```
void DataFrame::setADS115_2_chan1 (
            const qint16 & ADS115_1_chan0 )
```

Setter for ADS115_2_chan1 attribute.

Parameters

in	*ADS115_2_chan1*	is volume value on channel 1. of ADS1115_2.

Returns

void : nothing

Here is the call graph for this function:

5.7.1.19 setADS115_2_chan2()

```
void DataFrame::setADS115_2_chan2 (
            const qint16 & ADS115_1_chan0 )
```

Setter for ADS115_2_chan2 attribute.

Parameters

in	*ADS115_2_chan2*	is volume value on channel 2. of ADS1115_2.

Returns

void : nothing

Here is the call graph for this function:

5.7.1.20 setADS115_2_chan3()

```
void DataFrame::setADS115_2_chan3 (
            const qint16 & ADS115_1_chan0 )
```

Setter for ADS115_2_chan3 attribute.

Parameters

in	*ADS115_2_chan3*	is volume value on channel 2 of ADS1115_2.

Returns

void : nothing

Here is the call graph for this function:

5.7.1.21 setBME280_humidity()

```
void DataFrame::setBME280_humidity (
            double BME280_temperature )
```

Setter for BME280_humidity attribute.

Parameters

in	*BME280_humidity*	is room relative humidity.

Returns

void : nothing

Here is the call graph for this function:

5.7.1.22 setBME280_pressure()

```
void DataFrame::setBME280_pressure (
            double BME280_temperature )
```

Setter for BME280_pressure attribute.

Parameters

in	*BME280_pressure*	is atospheric pressure.

Returns

void : nothing

Here is the call graph for this function:

5.7.1.23 setBME280_temperature()

```
void DataFrame::setBME280_temperature (
            double BME280_temperature )
```

Setter for BME280_temperature attribute.

Parameters

in	*BME280_temperature*	is room temperature .

Returns

void : nothing

Here is the call graph for this function:

5.7.1.24 setMsbCPT()

```
void DataFrame::setMsbCPT (
            const quint8 & msbCPT )
```

Setter for msbCPT attribute.

Parameters

in	*msbCPT*	is highest byte counter .

Returns

void : nothing

The documentation for this class was generated from the following files:

- SmartHomeDomotic/DataManager/dataFrame.h
- SmartHomeDomotic/DataManager/dataFrame.cpp

5.8 DataManager Class Reference

Inheritance diagram for DataManager:

Collaboration diagram for DataManager:

Public Slots

- void **ReceivedreplotWithSavedData** (int year, int month, int day)

Signals

- void **dataFrameWasSent** (int itProducerAdress)

Public Member Functions

- DataManager (QObject ∗stastisticViewer, QObject ∗bme280Display, QString name, quint32 nbFrame↩ ReadForEverySavedFile, quint16 delayInMili, QObject ∗statisticValueViewer, DataAnalyser ∗dataAnalyser↩ Object=nullptr)

  constructor for DataFrameLiveReading
- void startReading ()

  start reading operation
- void **stopReading** ()
- ADS1115Item ∗ ADS1115_1 () const

  Getter of the ADS1115_1.
- void setADS1115_1 (ADS1115Item ∗ADS1115_1)

  Getter for ADS1115_1 attribute.
- ADS1115Item ∗ ADS1115_2 () const

  Getter of the ADS1115_1.
- void setADS1115_2 (ADS1115Item ∗ADS1115_2)

  Getter for ADS1115_2 attribute.
- BME280Item ∗ BME280 () const

  Getter of the BME280.
- void setBME280 (BME280Item ∗BME280)

  Getter for BME280 attribute.
- void **setDelay** (const quint16 &delay)
- void **setDirectoryDatafileName** (const QString &directoryDatafileName)
- QString **directoryDatafileName** () const

Static Public Member Functions

- static void msleep (unsigned long msecs)

  waiting delay

Protected Member Functions

- void run ()

  called function when the thread start

Private Member Functions

- void **_waitDelay** (int delayInSeconde)
- void **_waitDelayMili** (quint64 delayInMiliSeconde)

Private Attributes

- QObject * **_stastisticViewer**
- QObject * **_bme280Display**
- quint16 **_delay**
- bool **_askForStartReading**
- bool **_askForStopReading**
- ADS1115Item * **_ADS1115_1**
- ADS1115Item * **_ADS1115_2**
- BME280Item * **_BME280**
- QVector< DataFrame > **_buffer1**
- QVector< DataFrame >::iterator **_itdataFrameBuffer1**
- QVector< DataFrame > **_buffer2**
- QVector< DataFrame >::iterator **_itdataFrameBuffer2**
- quint32 **_nbFrameReadForEverySavedFile**
- QDateTime **_dateTime**
- DataAnalyser * **_dataAnalyerObject**
- QString **_time_format**
- QString **_directoryDatafileName**

5.8.1 Constructor & Destructor Documentation

5.8.1.1 DataManager()

```
DataManager::DataManager (
            QObject * stastisticViewer,
            QObject * bme280Display,
            QString name,
            quint32 nbFrameReadForEverySavedFile,
            quint16 delayInMili,
            QObject * statisticValueViewer,
            DataAnalyser * dataAnalyserObject = nullptr )  [explicit]
```

constructor for DataFrameLiveReading

Parameters

in	*name*	is the name of the object
in	*nbFrameReadForEverySavedFile*	is the amont of reading data saved per file
in	*delay*	is the cycle time delay in miliseconds

5.8.2 Member Function Documentation

5.8.2.1 ADS1115_1()

```
ADS1115Item * DataManager::ADS1115_1 ( ) const
```

Getter of the ADS1115_1.

Returns

ADS1115_1 : ADS1115_1 object pointer

Here is the caller graph for this function:

5.8.2.2 ADS1115_2()

```
ADS1115Item * DataManager::ADS1115_2 ( ) const
```

Getter of the ADS1115_1.

Returns

ADS1115_2 : ADS1115_2 object pointer

Here is the caller graph for this function:

5.8.2.3 BME280()

```
BME280Item * DataManager::BME280 ( ) const
```

Getter of the BME280.

Returns

BME280 : BME280 object pointer

Here is the caller graph for this function:

5.8.2.4 msleep()

```
static void DataManager::msleep (
            unsigned long msecs )  [static]
```

waiting delay

Parameters

in	*msleep*	is the time in miliseconds

Returns

void : nothing

Here is the caller graph for this function:

5.8.2.5 run()

```
void DataManager::run ( )  [protected]
```

called function when the thread start

Returns

void : nothing

Here is the call graph for this function:

5.8.2.6 setADS1115_1()

```
void DataManager::setADS1115_1 (
            ADS1115Item * ADS1115_1 )
```

Getter for ADS1115_1 attribute.

Returns

void : nothing

Here is the call graph for this function:

5.8.2.7 setADS1115_2()

```
void DataManager::setADS1115_2 (
            ADS1115Item * ADS1115_2 )
```

Getter for ADS1115_2 attribute.

Returns

void : nothing

Here is the call graph for this function:

5.8.2.8 setBME280()

```
DataManager::setBME280 (
            BME280Item * BME280 )
```

Getter for BME280 attribute.

Returns

void : nothing

Here is the call graph for this function:

5.8.2.9 startReading()

```
DataManager::startReading ( )
```

start reading operation

Returns

void : nothing

The documentation for this class was generated from the following files:

- SmartHomeDomotic/DataManager/datamanager.h
- SmartHomeDomotic/DataManager/datamanager.cpp

5.9 E_PlotStyle Struct Reference

liste of the different mode of the plots

```
#include <globalenumerate.h>
```

5.9.1 Detailed Description

liste of the different mode of the plots

Is use to set trace shape and limite for warning

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalenumerate.h

5.10 E_TankLiquidInside Struct Reference

liste of the product can be fill

`#include <globalenumerate.h>`

5.10.1 Detailed Description

liste of the product can be fill

Is use to set the color of the tank level and the liquide density

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalenumerate.h

5.11 E_TankLiquidInside Struct Reference

liste of the product can be fill

`#include <globalenumerate.h>`

5.11.1 Detailed Description

liste of the product can be fill

Is use to set the color of the tank level and the liquide density

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalenumerate.h

5.12 E_TankObjectName Struct Reference

structure of all tank possible

`#include <globalenumerate.h>`

5.12.1 Detailed Description

structure of all tank possible

Use to manage the link between the custom name and the object

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalenumerate.h

5.13 E_TankObjectName Struct Reference

structure of all tank possible

`#include <globalenumerate.h>`

5.13.1 Detailed Description

structure of all tank possible

Use to manage the link between the custom name and the object

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalenumerate.h

5.14 E_TankObjectName Struct Reference

structure of all tank possible

`#include <globalenumerate.h>`

5.14.1 Detailed Description

structure of all tank possible

Use to manage the link between the custom name and the object

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalenumerate.h

5.15 E_TankObjectName Struct Reference

structure of all tank possible

`#include <globalenumerate.h>`

5.15.1 Detailed Description

structure of all tank possible

Use to manage the link between the custom name and the object

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalenumerate.h

5.16 eBPStartStopState Struct Reference

structure of the main button state

`#include <globalEnumatedAndExtern.h>`

5.16.1 Detailed Description

structure of the main button state

Is for the text display in on the main push button / typedef enum { stop, /∗!< Stop display∗/ start, /∗!< Start display∗/ hold /∗!< Hold display∗/ }eBPStartStopState;

QString BPStartStopStateStartTxt; QString BPStartStopStateStopTxt; QString BPStartStopStateHoldTxt;

//Error Possible // from the Highest priority is at the top after noError /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.17 eEdge Struct Reference

structure of all possible edge possible

`#include <globalEnumatedAndExtern.h>`

5.17.1 Detailed Description

structure of all possible edge possible

Can be selected in trigger setting window / typedef enum { noEdge = 0, /∗!< no edge / *fallingEdge,* /!< falling edge / *risingEdge* /!< rising edge ∗/ }eEdge;

//Equation operator possible /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.18 eError Struct Reference

structure of all error possible

`#include <globalenumerate.h>`

5.18.1 Detailed Description

structure of all error possible

The Highest priority message will be displaying and it's at the top after noError

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalenumerate.h

5.19 eError Struct Reference

structure of all error possible

`#include <globalenumerate.h>`

5.19.1 Detailed Description

structure of all error possible

The Highest priority message will be displaying and it's at the top after noError

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalenumerate.h

5.20 eFTDIReturnCharacter Struct Reference

structure of return character possible from the PIC

`#include <globalEnumatedAndExtern.h>`

5.20.1 Detailed Description

structure of return character possible from the PIC

Use to converte the character to string for displaying / typedef enum { endOfTransmission = 0x04, /∗!< 0x04 end of tranmsission / *transmissionEnquiry = 0x05,* /!< 0x05 start of tranmsission / *positiveAcknoledge = 0x06,* /!< 0x06 acknoledgement / *negativeAcknoledge = 0x15* /!< 0x015 none acknoledgement ∗/ }eFTDIReturnCharacter;

//all static variables static QMap<int, QString> TriggerTracePossible; static QMap<int, QString> FTDIReturn↩ CharPossible; static QMap<int, QString> FTDIStatePossible;

//init array for external use static QMap<int, QString> initTriggerTracePossible(); static QMap<int, QString> init↩ FTDIReturnCharPossibleTxt(); static QMap<int, QString> initFTDIStatePossibleTXT();

static QMap<int, double> initPeridePossible(); static QMap<int, QString> initPeridePossibleTxt();

static QMap<int, QString> initMainStateDisplayPossibleTxt();

new declaration

liquide insiade the tank /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.21 eFTDIStatePossible Struct Reference

structure of all FTDI state possible

`#include <globalEnumatedAndExtern.h>`

5.21.1 Detailed Description

structure of all FTDI state possible

Use to display the status as message and check the FTDI status / typedef enum { FTDInotConnected = 0, /∗!< FTDI not conneted / *FTDIDeviceFound,* /!< FTDI not found / *FTDIopened,* /!< FTDI not opened / *FTDIUSBparameterSetted,* /!< FTDI USB parameter setting was failed / *FTDIBaudRateSetted,* /!< FTDI baudrate parameter setting was failed / *FTDIDataCaracteristiqueSetted,* /!< FTDI data characteristic setting was failed / *FTDIFlowControlSetted,* /!< FTDI flow control setting was failed / *FTDITxRxBufferFree,* /!< FTDI Rx and Tx buffer cleaned was failed / *FTDIready* /!< FTDI ready to use ∗/ }eFTDIStatePossible;

/∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.22 eLogicOperator Struct Reference

structure of all logical operator possible

`#include <globalEnumatedAndExtern.h>`

5.22.1 Detailed Description

structure of all logical operator possible

Can be selected in trigger function window / typedef enum { opNone = 0, /∗!< no operator / *opAnd,* /!< logical operator AND / *opOr,* /!< logical operator OR / *opAndNot,* /!< logical operator AND NOT / *opOrNot* /!< logical operator OR NOT ∗/ }eLogicOperator;

QString opNoneTxt; QString opOrTxt; QString opAndTxt; QString opNotOrTxt; QString opNoTAnd;

//button in setting windows /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.23 eMainStateApplication Struct Reference

structure of the main application states

`#include <globalEnumatedAndExtern.h>`

5.23.1 Detailed Description

structure of the main application states

```
 \fn GlobalEnumatedAndExtern();
 \brief constructor for GlobalEnumatedAndExtern
&zwj;/
```

GlobalEnumatedAndExtern();

//application main state possible /∗∗

Is for the main state graph / typedef enum { mainStateInit = 0, /∗!< initialisation status / *mainStateStop,* /!< stop status / *mainStateReady,* /!< ready status / *mainStateSet,* /!< set status / *mainStateTrig,* /!< trig status / *mainStateRoll,* /!< roll status / *mainStateDebug* /!< debug status ∗/ }eMainStateApplication;

//application trig state possible /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.24 eMainStateDisplay Struct Reference

structure of the display status possible

`#include <globalEnumatedAndExtern.h>`

5.24.1 Detailed Description

structure of the display status possible

Is for the status display / typedef enum { init = 0, /∗!< Init display∗/ stopped, /∗!< Stopped display∗/ ready, /∗!< Ready display∗/ runTrig, /∗!< Run trig display∗/ trigged, /∗!< Trigged display∗/ rollOn, /∗!< Roll on display∗/ paused /∗!< Paused display∗/ }eMainStateDisplay;

QString BPMenuHomeTxt; QString BPMenuSetTxt; QString BPMenuTrigTxt; QString BPMenuRollTxt; QString BPMenuDebugTxt;

//startStop button state possible /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.25 ePeriodePossible Struct Reference

structure of all periode possible

`#include <globalEnumatedAndExtern.h>`

5.25.1 Detailed Description

structure of all periode possible

Can be selected in Time scale factor window / typedef enum { periode0_5_microsec = 0, /∗!< 0,5 microseconds / *periode1_microsec,* /!< 1 microseconds / *periode50_microsec,* /!< 50 microseconds / *periode100_microsec,* /!< 100 microseconds / *periode1_ms,* /!< 1 miliseconds / *periode5_ms,* /!< 5 miliseconds / *periode10_ms,* /!< 10 miliseconds / *periode50_ms,* /!< 50 miliseconds / *periode100_ms,* /!< 100 miliseconds / *periode500_ms,* /!< 500 miliseconds / *periode1_s,* /!< 1 second / *periode5_s,* /!< 5 second / *periode10_s* /!< 10 second ∗/ }ePeriodePossible;

//FTDI state possible /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.26 eRangeValue Struct Reference

structure of all voltage range possible

`#include <globalEnumatedAndExtern.h>`

5.26.1 Detailed Description

structure of all voltage range possible

This is the possible range for the signal / typedef enum { range0_24 = 0, /∗!< range 0 to 24Vdc / *range0_30,* /!< range 0 to 40Vdc / *range15_15* /!< range -15Vdc to 15Vdc ∗/ }eRangeValue;

QString range0_24Txt; QString range0_30Txt; QString range15_15Txt;

//edge type /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.27 eRollState Struct Reference

structure of the roll states

`#include <globalEnumatedAndExtern.h>`

5.27.1 Detailed Description

structure of the roll states

Is for the roll state graph / typedef enum { rollNotReady = 0, /∗!< not ready status∗/ rollReady, /∗!< ready status∗/ rollRollOn, /∗!< roll on status∗/ rollPaused, /∗!< paused status∗/ }eRollState;

//display state possible /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.28 ErrorManager Class Reference

Inheritance diagram for ErrorManager:

Collaboration diagram for ErrorManager:

Public Member Functions

- **ErrorManager** (QWidget ∗parent=nullptr, QObject ∗objectDisplayMessage=nullptr)

Private Slots

- void **_reveived_Error** (QString objectName, QString objectTitle, int errorNumber, bool active)

Private Member Functions

- void _setColor (bool inTrouble)

  Use to change the color of the message display. Red in case of errors messages, grey no error message at all.
- bool **_checkMessageAllreadyExiste** (ErrorMessage ∗errorMessage)
- int **_findIdToRemove** (ErrorMessage ∗errorMessage)
- void _displayMessage ()

  Use to display the message in the dedicated frame.

Private Attributes

- QObject ∗ **_objectDisplayMessage**
- ErrorMessage ∗ **_errorMessage**
- QMap< int, QString > **_errorListPossible**
- QMap< int, ErrorMessage ∗ > **_errorListNow**

5.28.1 Member Function Documentation

5.28.1.1 _displayMessage()

```
void ErrorManager::_displayMessage ( )  [private]
```

Use to display the message in the dedicated frame.

Returns

void : nothing

5.28.1.2 _setColor()

```
void ErrorManager::_setColor (
            bool inTrouble )  [private]
```

Use to change the color of the message display. Red in case of errors messages, grey no error message at all.

Parameters

in	*inTrouble*	is the status of the message

Returns

void : nothing

The documentation for this class was generated from the following files:

- SmartHomeDomotic/errormanager.h
- SmartHomeDomotic/errormanager.cpp

5.29 ErrorMessage Class Reference

Inheritance diagram for ErrorMessage:

Collaboration diagram for ErrorMessage:

Public Member Functions

- **ErrorMessage** (QObject ∗parent=nullptr)
- QString **objectName** () const
- void **setObjectName** (const QString &objectName)
- QString **objectTitle** () const
- void **setObjectTitle** (const QString &objectTitle)
- int **errorNumber** () const
- void **setErrorNumber** (int errorNumber)
- bool **active** () const
- void **setActive** (bool active)

Private Attributes

- QString **_objectName**
- QString **_objectTitle**
- int **_errorNumber**
- bool **_active**

The documentation for this class was generated from the following files:

- SmartHomeDomotic/errormessage.h
- SmartHomeDomotic/errormessage.cpp

5.30 eTracePossible Struct Reference

structure of all trace possible

`#include <globalEnumatedAndExtern.h>`

5.30.1 Detailed Description

structure of all trace possible

Can be selected in channels setting window / typedef enum { btNone = 0, /∗!< no trace / *btDI1,* /!< trace DI1 / *btDI2,* /!< trace DI2 / *btDI3,* /!< trace DI3 / *btDI4,* /!< trace DI4 / *btDI5,* /!< trace DI5 / *btDI6,* /!< trace DI6 / *btDI7,* /!< trace DI7 / *btDI8,* /!< trace DI8 / *btDI9,* /!< trace DI9 / *btDI10,* /!< trace DI10 / *btDI11,* /!< trace DI11 / *btDI12,* /!< trace DI12 / *btDI13,* /!< trace DI13 / *btDI14,* /!< trace DI14 / *btDI15,* /!< trace DI15 / *btDI16,* /!< trace DI16 / *btAI1,* /!< trace AI1 / *btAI2,* /!< trace AI2 / *btAI3,* /!< trace AI3 / *btAI4,* /!< trace AI4 / *functionResult* /!< trigger trace TR1∗/ }eTracePossible;

//periode possible for saved time /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.31 eTrigState Struct Reference

structure of the trigger states

`#include <globalEnumatedAndExtern.h>`

5.31.1 Detailed Description

structure of the trigger states

Is for the trigger state graph / typedef enum { trigNotReady = 0, /∗!< not ready status∗/ trigReady, /∗!< ready status∗/ trigRunTrig, /∗!< run trig status∗/ trigTrigged, /∗!< trigged status∗/ }eTrigState;

//application Roll state possible /∗∗

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.32 GlobalEnumatedAndExtern Class Reference

Inheritance diagram for GlobalEnumatedAndExtern:

Collaboration diagram for GlobalEnumatedAndExtern:

Public Types

- enum E_TankObjectName {
  TANK1 = 1, TANK2, TANK3, TANK4,
  TANK5, TANK6 }

5.32.1 Member Enumeration Documentation

5.32.1.1 E_TankObjectName

`enum GlobalEnumatedAndExtern::E_TankObjectName`

Enumerator

TANK1	tank on the 1 row 1 column
TANK2	tank on the 1 row 2 column
TANK3	tank on the 1 row 3 column
TANK4	tank on the 2 row 1 column
TANK5	tank on the 2 row 2 column
TANK6	tank on the 2 row 3 column

The documentation for this class was generated from the following file:

- SmartHomeDomotic/globalEnumatedAndExtern.h

5.33 GlobalEnumerate Class Reference

Inheritance diagram for GlobalEnumerate:

Collaboration diagram for GlobalEnumerate:

Public Types

- enum E_PlotStyle {
  PLOT_STYLE_WEATHER_STATION = 0, PLOT_STYLE_ANANLOG_TRACE, PLOT_STYLE_STATISTIC_TRACE,
  PLOT_STYLE_TEMPERATURE_TRACE,
  PLOT_STYLE_HUMIDITY_TRACE, PLOT_STYLE_PRESSURE_TRACE, PLOT_STYLE_CONSO_TRACE
  }

- enum E_TankLiquidInside { WATER = 0, OIL, ECO_OIL }
- enum E_TankObjectName {
  TANK1 = 1, TANK2, TANK3, TANK4,
  TANK5, TANK6 }
- enum E_HomePageObject {
  HOMEBME280 = 0, HOMETANK1, HOMETANK2, HOMETANK3,
  HOMETANK4, HOMETANK5, HOMETANK6, HOMESENSOR1,
  HOMESENSOR2, HOMESENSOR3, HOMESENSOR4, HOMESENSOR5,
  HOMESENSOR6, HOMEAD1115_1, HOMEAD1115_2 }
- enum E_ErrorMesseage { ERR_NO_ERROR, ERR_LOW_LEVEL_REACHED }
- enum E_StateMachine {
  STATE_NOT_FOUNDED = 0, STATE_FOUNDED, STATE_INIT, STATE_ON_READING,
  STATE_READY }

Static Public Member Functions

- static void **initClass** ()

5.33.1 Member Enumeration Documentation

5.33.1.1 E_ErrorMesseage

`enum GlobalEnumerate::E_ErrorMesseage`

Enumerator

ERR_NO_ERROR	no Error
ERR_LOW_LEVEL_REACHED	on of the tank reach the low level warning

5.33.1.2 E_HomePageObject

`enum GlobalEnumerate::E_HomePageObject`

Enumerator

HOMEBME280	BME280 object
HOMETANK1	Tank 1 object
HOMETANK2	Tank 2 object
HOMETANK3	Tank 3 object
HOMETANK4	Tank 4 object
HOMETANK5	Tank 5 object
HOMETANK6	Tank 6 object
HOMESENSOR1	Sensor 1 object
HOMESENSOR2	Sensor 2 object

Enumerator

HOMESENSOR3	Sensor 3 object
HOMESENSOR4	Sensor 4 object
HOMESENSOR5	Sensor 5 object
HOMESENSOR6	Sensor 6 object
HOMEAD1115_1	converter AD1115 number 1 object
HOMEAD1115_2	converter AD1115 number 2 object

5.33.1.3 E_PlotStyle

`enum GlobalEnumerate::E_PlotStyle`

Enumerator

PLOT_STYLE_WEATHER_STATION	weather station style, 1x temp, 1x humidity, 1x pressur and 1x horizontal limite line
PLOT_STYLE_ANANLOG_TRACE	line traces, 6x traces and 1x horizontal limite line
PLOT_STYLE_STATISTIC_TRACE	line traces, 6x traces and 1x horizontal limite line
PLOT_STYLE_TEMPERATURE_TRACE	line traces, 2x traces and 1x horizontal limite line
PLOT_STYLE_HUMIDITY_TRACE	line traces, 2x traces and 1x horizontal limite line
PLOT_STYLE_PRESSURE_TRACE	line traces, 2x traces and 1x horizontal limite line
PLOT_STYLE_CONSO_TRACE	line traces, 2x traces and 1x horizontal limite line

5.33.1.4 E_StateMachine

`enum GlobalEnumerate::E_StateMachine`

Enumerator

STATE_NOT_FOUNDED	state not founded
STATE_FOUNDED	state founded
STATE_INIT	state in init
STATE_ON_READING	state on reading
STATE_READY	state ready to use

5.33.1.5 E_TankLiquidInside

`enum GlobalEnumerate::E_TankLiquidInside`

Enumerator

WATER	water inside tank
OIL	oil inside tank
ECO_OIL	ecoOil inside tank

5.33.1.6 E_TankObjectName

`enum GlobalEnumerate::E_TankObjectName`

Enumerator

TANK1	tank on the 1 row 1 column
TANK2	tank on the 1 row 2 column
TANK3	tank on the 1 row 3 column
TANK4	tank on the 2 row 1 column
TANK5	tank on the 2 row 2 column
TANK6	tank on the 2 row 3 column

The documentation for this class was generated from the following files:

- SmartHomeDomotic/globalenumerate.h
- SmartHomeDomotic/globalenumerate.cpp

5.34 GlobaleStaticValue Class Reference

Static Public Member Functions

- static QMap< int, QString > initTankObjectName ()

  init the array for all tank object name possible
- static QMap< int, QString > initErrorPossible ()

  init the array for all possible error on application
- static QMap< int, QString > initHomeViewObject ()

  init the array for all home view object

Static Public Attributes

- static QString **welcomeText**
- static QString **errorCounterTxt** = "nb of active error"
- static quint16 **delaiToReadValue** = 10000
- static QString **saveGroupeNameApplicationSettingTxt** = "APP_SETTING"
- static QString **ADS115_5V_ValueInPlus** = "ADS115_5V_InPlus"
- static QString **saveIDTxt** = "ID"
- static QString **saveObjectNameTxt** = "ObjectName"

- static QString **saveTitleTxt** = "Title"
- static QString **saveVisibleTxt** = "Visible"
- static QString **saveLiquideInsideTxt** = "LiquideInside"
- static QString **saveVolumeMaxTxt** = "VolumeMax"
- static QString **saveLowLevelWarningTxt** = "LowLevelWarning"
- static QString **saveHeightVMaxValueTxt** = "HeightVMax"
- static QString **saveTimeFormatMinuteTXT** = "yyyy-MM-dd_HH-mm-00"
- static QString **saveTimeFormatHourTXT** = "yyyy-MM-dd_HH"
- static QString **saveTimeFormatDayTXT** = "yyyy-MM-dd"
- static QString **saveTimeFormatMonthTXT** = "yyyy-MM"
- static QString **saveDataMainTxt** = "Data_Path_folder"
- static QString **saveDataMain** = "./Data/"
- static QString **saveTempFileTxt** = "Save_Temp_File_Name_and_Path"
- static QString **saveTempFile** = "./Data/tempData.csv"
- static QString **settingFileTxt** = "Setting_File_Name_and_Path"
- static QString **settingFile** = "./Setting/settings.ini"
- static QString **stateNotFounded** = "NOT FOUNDED"
- static QString **stateFounded** = "FOUNDED"
- static QString **stateOnProgramming** = "on programming..."
- static QString **stateCheckProgramming** = "check programming..."
- static QString **stateProgrammingSuccessful** = "programming successful"
- static QString **stateInit** = "INIT"
- static QString **stateOnReading** = "ON READING"
- static QString **stateReady** = "READY"
- static QString **ADS1115_1Title** = "ADS1115_1"
- static QString **ADS1115_2Title** = "ADS1115_2"
- static QString **ADS1115_Chan0** = "chan 0"
- static QString **ADS1115_Chan1** = "chan 1"
- static QString **ADS1115_Chan2** = "chan 2"
- static QString **ADS1115_Chan3** = "chan 3"
- static QString **ADS1115_Liter** = "lt"
- static QString **ADS1115_Volt** = " V"
- static QString **bme280Title** = "BME_280"
- static QString **bme280Temperature** = "Temp"
- static QString **bme280Humidity** = "Hum"
- static QString **bme280Pressure** = "Press"
- static QString **bme280DegCelcuis** = "℃"
- static QString **bme280PerCent** = "%"
- static QString **bme280Milibar** = "mb"
- static quint16 **pressureCapteurRangeMaxInPlus** = 26500
- static quint16 **pressureCapteurHeightMaxWater** = 5000
- static double **densityWater** = 1
- static double **densityOil** = 0.84
- static double **densityOilECO** = 0.84
- static QMap< int, QString > **TankObjectName**
- static QMap< int, QString > **HomeViewObject**

5.34.1 Member Function Documentation

5.34.1.1 initErrorPossible()

```
QMap< int, QString > GlobaleStaticValue::initErrorPossible ( )  [static]
```

init the array for all possible error on application

\func initErrorPossible static function to init the array for all tank object name possible

5.34.1.2 initHomeViewObject()

```
QMap< int, QString > GlobaleStaticValue::initHomeViewObject ( )  [static]
```

init the array for all home view object

\func initHomeViewObject static function to init the array for all tank object name possible

5.34.1.3 initTankObjectName()

```
QMap< int, QString > GlobaleStaticValue::initTankObjectName ( )  [static]
```

init the array for all tank object name possible

\func initTankObjectName static function to init the array for all tank object name possible

5.34.2 Member Data Documentation

5.34.2.1 welcomeText

```
QString GlobaleStaticValue::welcomeText  [static]
```

Initial value:

```
= "****************************************\n"
                                    "   Welcom on the Smart Home Domotic\n"
                                    "****************************************\n"
```

The documentation for this class was generated from the following files:

- SmartHomeDomotic/globalestaticvalue.h
- SmartHomeDomotic/globalestaticvalue.cpp

5.35 GlobalStyle Class Reference

Static Public Member Functions

- static void **setBackGroundColor** (QCustomPlot ∗customPlot)
- static void **setStylePlot** (QCustomPlot ∗customPlot, bool tickAsTime)
- static void **setStyleStatisticPlot** (QCustomPlot ∗customPlot, bool tickAsTime)
- static void **setTraceColorTemperaturePlot** (QCPGraph ∗graph)
- static void **setTraceColorTemperatureMinPlot** (QCPGraph ∗graph, QCPGraph ∗graphAbove)
- static void **setTraceColorHumidityPlot** (QCPGraph ∗graph)
- static void **setTraceColorHumidityMaxPlot** (QCPGraph ∗graph)
- static void **setTraceColorHumidityMinPlot** (QCPGraph ∗graph, QCPGraph ∗graphAbove)
- static void **setTraceColorPressurePlot** (QCPGraph ∗graph)
- static void **setTraceColorPressureMinPlot** (QCPGraph ∗graph, QCPGraph ∗graphAbove)
- static void **setTraceColorConsoPlot** (QCPGraph ∗graph)
- static void **setTraceColorConsoMinPlot** (QCPGraph ∗graph, QCPGraph ∗graphAbove)
- static void **setTraceColorTankTrace1** (QCPGraph ∗graph)
- static void **setTraceColorTankTrace2** (QCPGraph ∗graph)
- static void **setTraceColorTankTrace3** (QCPGraph ∗graph)
- static void **setTraceColorTankTrace4** (QCPGraph ∗graph)
- static void **setTraceColorTankTrace5** (QCPGraph ∗graph)
- static void **setTraceColorTankTrace6** (QCPGraph ∗graph)
- static QColor **traceColorTemperatureMaxPlot** ()
- static void **setTraceColorTemperatureMaxPlot** (const QColor &traceColorTemperatureMaxPlot)

Static Public Attributes

- static QColor **_backGroundColor**
- static QColor **_gridColorPlot**
- static QColor **_axisColorPlot**
- static QColor **_axisTickPlot**
- static QColor **_traceColorTemperaturePlot**
- static QColor **_traceColorTemperatureMinPlot**
- static QColor **_traceColorHumidityPlot**
- static QColor **_traceColorPressurePlot**
- static QColor **_traceColorConsoPlot**
- static QColor **_traceColortank1**
- static QColor **_traceColortank2**
- static QColor **_traceColortank3**
- static QColor **_traceColortank4**
- static QColor **_traceColortank5**
- static QColor **_traceColortank6**

The documentation for this class was generated from the following files:

- SmartHomeDomotic/globalstyle.h
- SmartHomeDomotic/globalstyle.cpp

5.36 HomeViewObject Struct Reference

Array for all home view object.

`#include <globalestaticvalue.h>`

5.36.1 Detailed Description

Array for all home view object.

Linked the E_TankObjectName to the objectName Use the objectName as groupe for saving the data

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalestaticvalue.h

5.37 Main Class Reference

The documentation for this class was generated from the following file:

- SmartHomeDomotic/main.h

5.38 sbme280_calib_data Struct Reference

Public Attributes

- quint16 **dig_T1**
- qint16 **dig_T2**
- qint16 **dig_T3**
- quint16 **dig_P1**
- qint16 **dig_P2**
- qint16 **dig_P3**
- qint16 **dig_P4**
- qint16 **dig_P5**
- qint16 **dig_P6**
- qint16 **dig_P7**
- qint16 **dig_P8**
- qint16 **dig_P9**
- quint8 **dig_H1**
- qint16 **dig_H2**
- quint8 **dig_H3**
- qint16 **dig_H4**
- qint16 **dig_H5**
- qint8 **dig_H6**
- qint32 **t_fine**

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/BME280/bme280.h

5.39 sbme280_data Struct Reference

bme280 sensor which comprises of temperature, pressure and humidity data

`#include <bme280.h>`

Public Attributes

- double pressure
- double temperature
- double humidity

5.39.1 Detailed Description

bme280 sensor which comprises of temperature, pressure and humidity data

\ sbme280_data

5.39.2 Member Data Documentation

5.39.2.1 humidity

`double sbme280_data::humidity`

Compensated humidity

5.39.2.2 pressure

`double sbme280_data::pressure`

Compensated pressure

5.39.2.3 temperature

`double sbme280_data::temperature`

Compensated temperature

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/BME280/bme280.h

5.40 sbme280_dev Struct Reference

bme280 device ure

`#include <bme280.h>`

Collaboration diagram for sbme280_dev:

Public Attributes

- quint8 **chip_id**
- quint8 dev_id
- sbme280_calib_data calib_data
- sbme280_uncomp_data uncomp_data
- sbme280_data comp_data
- sbme280_setting settings

5.40.1 Detailed Description

bme280 device ure

\ sbme280_dev

5.40.2 Member Data Documentation

5.40.2.1 calib_data

`sbme280_calib_data sbme280_dev::calib_data`

Device Id

5.40.2.2 comp_data

`sbme280_data sbme280_dev::comp_data`

Uncompensated data

5.40.2.3 dev_id

`quint8 sbme280_dev::dev_id`

Chip Id

5.40.2.4 settings

```
sbme280_setting sbme280_dev::settings
```

Compensated data

5.40.2.5 uncomp_data

```
sbme280_uncomp_data sbme280_dev::uncomp_data
```

Trim data

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/BME280/bme280.h

5.41 sbme280_setting Struct Reference

bme280 sensor settings ure which comprises of mode, oversampling and filter settings.

```
#include <bme280.h>
```

Public Attributes

- quint8 **osr_p**
- quint8 osr_t
- quint8 osr_h
- quint8 filter
- quint8 power_mode
- quint8 standby_time

5.41.1 Detailed Description

bme280 sensor settings ure which comprises of mode, oversampling and filter settings.

\ sbme280_setting

5.41.2 Member Data Documentation

5.41.2.1 filter

```
quint8 sbme280_setting::filter
```

humidity oversampling

5.41.2.2 osr_h

```
quint8 sbme280_setting::osr_h
```

temperature oversampling

5.41.2.3 osr_t

```
quint8 sbme280_setting::osr_t
```

pressure oversampling

5.41.2.4 power_mode

```
quint8 sbme280_setting::power_mode
```

filter coefficient

5.41.2.5 standby_time

```
quint8 sbme280_setting::standby_time
```

Power mode

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/BME280/bme280.h

5.42 sbme280_uncomp_data Struct Reference

Public Attributes

- quint8 **pmsb**
- quint8 **plsb**
- quint8 **pxsb**
- quint8 **tmsb**
- quint8 **tlsb**
- quint8 **txsb**
- quint8 **hmsb**
- quint8 **hlsb**
- quint32 **temperature**
- quint32 **pressure**
- quint32 **humidity**

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/BME280/bme280.h

5.43 Setting Class Reference

Inheritance diagram for Setting:

Collaboration diagram for Setting:

Public Slots

- void **receivedTankIsVisible** (const int objectID, const bool isVisible)
- void **receivedTankTitleChanged** (const int objectID, const QString titleText)
- void **receivedTankVolumeMaxChanged** (const QString objectName, const int volumeMax)
- void **receivedWarningLowLevelFromTank** (const QString objectName, const bool isActive)
- void **receivedTankWarningLowLevelChanged** (const QString objectName, const int lowLevel)
- void **receivedTankLiquideFillupChanged** (const QString objectName, const int liquideFillup)
- void **receivedTankHeightMaxLevelChanged** (const QString objectName, const int heightVMax)
- void **receivedTankActualVolumeChanged** (const int objectID, const int volumeActual)
- void **receivedGraphReccordTimesChanged** (const int reccordTime)
- void **receivedOnCalibrationMode** (const bool onCalibration)

Public Member Functions

- **Setting** (QObject ∗parent=nullptr, QObject ∗homeViewer=nullptr, QObject ∗tankViewer=nullptr, QObject ∗settingViewer=nullptr, QObject ∗statisticViewer=nullptr, BME280Item ∗bme280=nullptr, ADS1115Item ∗ads1115_1=nullptr, ADS1115Item ∗ads1115_2=nullptr, DataManager ∗dataManager=nullptr)

Private Member Functions

- void **initSetting** ()
- void **initTankObjectName** (int objectID, QString objectName)
- void **initTankColorInHomePage** (int objectID)
- void **initTankTitleText** (int objectID, QString isVisible)
- void **initHomeViewObject** (int objectID, QString obbjectName)
- void **initTankIsVisible** (int objectID, bool isVisible)
- void **initTankVolumeMax** (int objectID, int volumeMax)
- void **initTankWarningLowLevel** (int objectID, int warningLowLevel)
- void **initTankLiquideInside** (int objectID, int tankLiquideInside)
- void **initHeightVMaxValue** (int objectID, int HeightVMaxValue)
- quint8 **calculNbTraceInPlot** ()
- void **saveSettings** ()
- void **saveTankSetting** (Tank ∗tank)
- void **loadSettings** ()
- void **loadTankSetting** (Tank ∗tank)

Private Attributes

- QMap< int, QString > **_tankObjectNameArray**
- QMap< int, QString > **_homeViewObject**
- QString **_settingFileName**
- QSettings * **_setting**
- Tank * **_Tank1**
- Tank * **_Tank2**
- Tank * **_Tank3**
- Tank * **_Tank4**
- Tank * **_Tank5**
- Tank * **_Tank6**
- bool **_tankIsVisible**
- quint8 **_nbTrace**
- QObject * **_homeViewer**
- QObject * **_tankViewer**
- QObject * **_settingViewer**
- QObject * **_statisticViewer**
- BME280Item * **_bme280**
- ADS1115Item * **_ads1115_1**
- ADS1115Item * **_ads1115_2**
- DataManager * **_dataManager**

The documentation for this class was generated from the following files:

- SmartHomeDomotic/setting.h
- SmartHomeDomotic/setting.cpp

5.44 Tank Class Reference

Inheritance diagram for Tank:

Collaboration diagram for Tank:

Public Member Functions

- Tank (int objectID, QString objectName, QObject *parent=nullptr)
  constructor for Tank
- QString objectName () const
  getter for _objecName property
- QString title () const
  getter for _title property
- void setTitle (const QString &title)
  setter for _title property
- GlobalEnumerate::E_TankLiquidInside LiquideFillup () const
  getter for _liquideFillup property
- void **setLiquideFillup** (const GlobalEnumerate::E_TankLiquidInside &LiquideFillup)
- void **setLiquideFillup** (const int &LiquideFillup)
- bool isVisible () const
  getter for _isVisible property

- void **setIsVisible** (const bool isVisible)
- int volumeMax () const

  getter for _volumeMax property
- void setVolumeMax (const int &volumeMax)

  setter for _setVolumeMax property
- int lowLevelValue () const

  getter for _lowLevelValue property
- void setLowLevelValue (const int &lowLevelValue)

  setter for _setLowLevelValue property
- int objectID () const

  getter for _objectID property
- void setObjectID (int objectID)

  setter for _setObjectID property
- int **volumeMaxHeightInMilimeter** () const
- void **setVolumeMaxHeightInMilimeter** (int volumeMaxHeightInMilimeter)

Private Attributes

- int **_objectID**
- QString **_objectName**
- QString **_title**
- GlobalEnumerate::E_TankLiquidInside **_LiquideFillup**
- bool **_isVisible**
- int **_volumeMax**
- int **_lowLevelValue**
- int **_volumeMaxHeightInMilimeter**

5.44.1 Constructor & Destructor Documentation

5.44.1.1 Tank()

```
Tank::Tank (
            int objectID,
            QString objectName,
            QObject * parent = nullptr )  [explicit]
```

constructor for Tank

Parameters

in	*objectID*	is the unique ID for this object type.
in	*objectName*	is the unique name for this object type.
in	*parent*	is the parent of the new widget. If it is nullptr (the default), the new widget will be a window. If not, it will be a child of parent, and be constrained by parent's geometry

The documentation for this class was generated from the following files:

- SmartHomeDomotic/tank.h
- SmartHomeDomotic/tank.cpp

5.45 TankObjectName Struct Reference

Array for all tank object name possible.

`#include <globalestaticvalue.h>`

5.45.1 Detailed Description

Array for all tank object name possible.

Linked the E_TankObjectName to the objectName Use the objectName as groupe for saving the data

The documentation for this struct was generated from the following file:

- SmartHomeDomotic/globalestaticvalue.h

5.46 timerthread Class Reference

Inheritance diagram for timerthread:

Collaboration diagram for timerthread:

Signals

- void **delayFinished** ()

Public Member Functions

- **timerthread** (bool isWorking, QString name, quint16 delay)
- void startWorking ()

  start working operation
- void stopWorking ()

  stop working operation
- bool **isWorking** () const

Static Public Member Functions

- static void usleep (unsigned long usecs)

  waiting delay
- static void msleep (unsigned long msecs)

  waiting delay
- static void sleep (unsigned long secs)

  waiting delay

Protected Member Functions

- void run ()

  called function when the thread start

Private Attributes

- quint16 **_delay**
- bool **_isWorking**

5.46.1 Member Function Documentation

5.46.1.1 msleep()

```
static void timerthread::msleep (
            unsigned long msecs )  [static]
```

waiting delay

Parameters

in	*msleep*	is the time in miliseconds

Returns

void : nothing

Here is the caller graph for this function:

5.46.1.2 run()

```
void timerthread::run ( )  [protected]
```

called function when the thread start

Returns

void : nothing

Here is the call graph for this function:

5.46.1.3 sleep()

```
static void timerthread::sleep (
            unsigned long secs )  [static]
```

waiting delay

Parameters

in	*secs*	is the time in seconds

Returns

void : nothing

5.46.1.4 startWorking()

```
timerthread::startWorking ( )
```

start working operation

Returns

void : nothing

5.46.1.5 stopWorking()

```
timerthread::stopWorking ( )
```

stop working operation

Returns

void : nothing

5.46.1.6 usleep()

```
static void timerthread::usleep (
            unsigned long usecs )  [static]
```

waiting delay

Parameters

in	*msleep*	is the time in microseconds

Returns

void : nothing

The documentation for this class was generated from the following files:

- SmartHomeDomotic/TimerThread.h
- SmartHomeDomotic/TimerThread.cpp

Chapter 6

File Documentation

6.1 SmartHomeDomotic/DataManager/dataFrame.h File Reference

Structure of the data.

```
#include <QDebug>
```
Include dependency graph for dataFrame.h:

6.2 SmartHomeDomotic/DataManager/datamanager.h File Reference

thread to create the tick to read the data from BME 280, ADS1115_1, ADS1115_2

```
#include <QThread>
#include <QObject>
#include <QDebug>
#include <QTime>
#include <DataManager/dataFrame.h>
#include <DataManager/dataanalyser.h>
#include <BME280/bme280item.h>
#include <ADS1115/ads1115item.h>
```
Include dependency graph for datamanager.h: This graph shows which files directly or indirectly include this file:

Classes

- class DataManager

Macros

- #define **DEBUG_SAVE_DATE_TIME** 0

6.2.1 Detailed Description

thread to create the tick to read the data from BME 280, ADS1115_1, ADS1115_2

Author

Sébastien Blessemaille

Version

1.0

Date

21 november 2018

6.3 SmartHomeDomotic/errormanager.h File Reference

Management of the error messages.

```
#include <QWidget>
#include <QDebug>
#include <globalenumerate.h>
#include <globalestaticvalue.h>
#include <errormessage.h>
```

Include dependency graph for errormanager.h: This graph shows which files directly or indirectly include this file:

Classes

- class ErrorManager

6.3.1 Detailed Description

Management of the error messages.

Author

Sébastien Blessemaille

Version

1.0

Date

21 August 2017

6.4 SmartHomeDomotic/globalEnumatedAndExtern.h File Reference

All enumarate and externe variables.

```
#include <QObject>
#include <QString>
#include <QMap>
#include <QMetaType>
#include <QQmlEngine>
```

Include dependency graph for globalEnumatedAndExtern.h:

Classes

- class GlobalEnumatedAndExtern

6.4.1 Detailed Description

All enumarate and externe variables.

Author

Sébastien Blessemaille

Version

1.0

Date

17 septembre 2017

6.5 SmartHomeDomotic/tank.h File Reference

tank object class, use to link them with the QML object

```
#include <QObject>
#include <globalenumerate.h>
```

Include dependency graph for tank.h: This graph shows which files directly or indirectly include this file:

Classes

- class Tank

6.5.1 Detailed Description

tank object class, use to link them with the QML object

Author

Sébastien Blessemaille

Version

1.0

Date

09 september 2018

6.6 SmartHomeDomotic/TimerThread.h File Reference

generic thread to create a tick

```
#include <QtDebug>
#include <QThread>
```

Include dependency graph for TimerThread.h: This graph shows which files directly or indirectly include this file:

Classes

- class timerthread

6.6.1 Detailed Description

generic thread to create a tick

Author

Sébastien Blessemaille

Version

1.0

Date

17 septembre 2017

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