Code_generator

Generated by Doxygen 1.8.13

Contents

1 Namespace Index **1**

1.1 Packages 1

2 Class Index **3**

2.1 Class List 3

3 Namespace Documentation **5**

3.1 Package common 5

3.1.1 Detailed Description 5

3.2 Package configurator 5

3.2.1 Detailed Description 6

3.3 Package framework 6

3.3.1 Detailed Description 6

3.4 Package gui 6

3.4.1 Detailed Description 6

3.5 Package microcontroller 7

3.5.1 Detailed Description 7

3.6 Package projectConfiguration 7

3.6.1 Detailed Description 7

3.7 Package xmlCreator 7

3.7.1 Detailed Description 8

3.8 Package xmlParser 8

3.8.1 Detailed Description 8

4 Class Documentation **9**

4.1 gui.AboutWindow Class Reference . . . 9

4.1.1 Constructor & Destructor Documentation . . . 9

4.1.1.1 AboutWindow() . . . 9

4.1.2 Member Function Documentation . . . 9

4.1.2.1 main() . . . 9

4.2 configurator.ConfigurationFile Class Reference . . . 10

4.2.1 Detailed Description . . . 10

4.2.2 Member Data Documentation . . . 10

4.2.2.1 STR_PROJ_CONF_FILE . . . 10

4.3 xmlCreator.ConfXmlWriter Class Reference . . . 11

4.3.1 Detailed Description . . . 11

4.3.2 Constructor & Destructor Documentation . . . 11

4.3.2.1 ConfXmlWriter() . . . 11

4.3.3 Member Function Documentation . . . 11

4.3.3.1 addPin() . . . 12

4.3.3.2 writeXml() . . . 12

4.4 common.ErrorCode Enum Reference . . . 12

4.4.1 Detailed Description . . . 13

4.4.2 Member Data Documentation . . . 13

4.4.2.1 EX_ERROR . . . 13

4.4.2.2 FILE_READ_ERROR . . . 13

4.4.2.3 FILE_WRITE_ERROR . . . 13

4.4.2.4 NO_ERROR . . . 13

4.4.2.5 STR_INVALID . . . 14

4.5 common.Features Class Reference . . . 14

4.5.1 Detailed Description . . . 14

4.5.2 Member Function Documentation . . . 14

4.5.2.1 debugPrint() . . . 14
4.5.2.2 verbosePrint() . . . 15
4.5.3 Member Data Documentation . . . 15
4.5.3.1 DEBUG . . . 15
4.5.3.2 DEBUG_STR . . . 15
4.5.3.3 SW_VERSION . . . 15
4.5.3.4 VERBOSE . . . 16
4.5.3.5 VERBOSE_STR . . . 16
4.5.3.6 VERSION_NAME . . . 16
4.5.3.7 VERSION_STATUS . . . 16
4.6 gui.GpioConfWindow Class Reference . . . 16
4.6.1 Detailed Description . . . 17
4.6.2 Constructor & Destructor Documentation . . . 17
4.6.2.1 GpioConfWindow() . . . 17
4.6.3 Member Function Documentation . . . 17
4.6.3.1 main() . . . 17
4.7 gui.MainGui Class Reference . . . 18
4.7.1 Detailed Description . . . 18
4.7.2 Member Function Documentation . . . 18
4.7.2.1 loadProjectFile() . . . 18
4.7.2.2 main() . . . 19
4.7.2.3 saveUc() . . . 19
4.7.2.4 setUC() . . . 19
4.7.2.5 showAboutWindow() . . . 19
4.7.2.6 showErrorDialog() . . . 20
4.7.2.7 showGpioConfWindow() . . . 20
4.8 gui.MainWindow Class Reference . . . 20
4.8.1 Detailed Description . . . 21

4.8.2 Constructor & Destructor Documentation . . . 21
4.8.2.1 MainWindow() . . . 21
4.8.3 Member Function Documentation . . . 21
4.8.3.1 main() . . . 21
4.8.3.2 OpenFileChooser() . . . 21
4.8.3.3 setProjectInformation() . . . 22
4.8.3.4 setVisible() . . . 22
4.9 gui.Messages Class Reference . . . 23
4.10 microcontroller.Microcontroller Class Reference . . . 23
4.10.1 Detailed Description . . . 24
4.10.2 Constructor & Destructor Documentation . . . 24
4.10.2.1 Microcontroller() . . . 24
4.10.3 Member Function Documentation . . . 24
4.10.3.1 getConfiguredPin() . . . 24
4.10.3.2 getPin() . . . 25
4.10.3.3 getUc_gpioNum() . . . 25
4.10.3.4 getUc_manufacturer() . . . 25
4.10.3.5 getUc_model() . . . 26
4.10.3.6 getUc_pinNum() . . . 26
4.10.3.7 getUc_portNum() . . . 26
4.10.3.8 isValid() . . . 26
4.10.3.9 processDocument() . . . 27
4.10.4 Member Data Documentation . . . 27
4.10.4.1 GpioCfgPin . . . 27
4.10.4.2 Ports . . . 27
4.11 configurator.GPIO.Mode Enum Reference . . . 27
4.11.1 Detailed Description . . . 28
4.11.2 Member Function Documentation . . . 28

4.11.2.1 getConfFromString() . . . 28
4.11.3 Member Data Documentation . . . 28
4.11.3.1 STR_NAME . . . 28
4.12 configurator.GPIO.OutLevel Enum Reference . . . 29
4.12.1 Detailed Description . . . 29
4.12.2 Member Function Documentation . . . 29
4.12.2.1 getConfFromString() . . . 29
4.12.3 Member Data Documentation . . . 30
4.12.3.1 STR_NAME . . . 30
4.13 configurator.GPIO.OutType Enum Reference . . . 30
4.13.1 Detailed Description . . . 31
4.13.2 Member Function Documentation . . . 31
4.13.2.1 getConfFromString() . . . 31
4.13.3 Member Data Documentation . . . 31
4.13.3.1 STR_NAME . . . 31
4.14 microcontroller.Pin Class Reference . . . 32
4.14.1 Detailed Description . . . 33
4.14.2 Constructor & Destructor Documentation . . . 34
4.14.2.1 Pin() . . . 34
4.14.3 Member Function Documentation . . . 34
4.14.3.1 getAdc() . . . 34
4.14.3.2 getClock() . . . 34
4.14.3.3 getFeat_adc() . . . 35
4.14.3.4 getFeat_clock() . . . 35
4.14.3.5 getFeat_i2c() . . . 35
4.14.3.6 getFeat_int() . . . 35
4.14.3.7 getFeat_reset() . . . 36
4.14.3.8 getFeat_spi() . . . 36

4.14.3.9 getFeat_timer() . . . 36
4.14.3.10 getFeat_uart() . . . 36
4.14.3.11 getFunc_gnd() . . . 37
4.14.3.12 getFunc_gpio() . . . 37
4.14.3.13 getFunc_vcc() . . . 37
4.14.3.14 getI2c() . . . 37
4.14.3.15 getInt() . . . 38
4.14.3.16 getName() . . . 38
4.14.3.17 getNumber() . . . 38
4.14.3.18 getPort() . . . 38
4.14.3.19 getReset() . . . 39
4.14.3.20 getSpi() . . . 39
4.14.3.21 getTimer() . . . 39
4.14.3.22 getUart() . . . 39
4.14.3.23 isValid() . . . 40
4.14.3.24 setAdc() . . . 40
4.14.3.25 setClock() . . . 40
4.14.3.26 setFeat_adc() . . . 40
4.14.3.27 setFeat_clock() . . . 41
4.14.3.28 setFeat_i2c() . . . 41
4.14.3.29 setFeat_int() . . . 41
4.14.3.30 setFeat_reset() . . . 42
4.14.3.31 setFeat_spi() . . . 42
4.14.3.32 setFeat_timer() . . . 42
4.14.3.33 setFeat_uart() . . . 42
4.14.3.34 setFunc_gnd() . . . 43
4.14.3.35 setFunc_gpio() . . . 43
4.14.3.36 setFunc_vcc() . . . 43

4.14.3.37 setI2c() . . . 44
4.14.3.38 setInt() . . . 44
4.14.3.39 setName() . . . 44
4.14.3.40 setNumber() . . . 45
4.14.3.41 setPort() . . . 45
4.14.3.42 setReset() . . . 45
4.14.3.43 setSpi() . . . 45
4.14.3.44 setTimer() . . . 46
4.14.3.45 setUart() . . . 46
4.14.4 Member Data Documentation . . . 46
4.14.4.1 DEF_FEATURE . . . 46
4.14.4.2 DEF_FEATURE_AV . . . 47
4.14.4.3 DEF_FUNCTION . . . 47
4.14.4.4 DEF_NAME . . . 47
4.14.4.5 DEF_NUMBER . . . 47
4.14.4.6 DEF_PORT . . . 47
4.14.4.7 DISABLE . . . 47
4.14.4.8 ENABLE . . . 47
4.15 configurator.PinConf Class Reference . . . 48
4.15.1 Detailed Description . . . 48
4.15.2 Constructor & Destructor Documentation . . . 48
4.15.2.1 PinConf() . . . 48
4.15.3 Member Function Documentation . . . 49
4.15.3.1 getMode() . . . 49
4.15.3.2 getOutLevel() . . . 49
4.15.3.3 getOutType() . . . 49
4.15.3.4 getPinName() . . . 50
4.15.3.5 getPort() . . . 50

4.15.3.6 getPull() . . . 50
4.15.3.7 getSpeed() . . . 50
4.15.3.8 isAv_Adc() . . . 51
4.15.3.9 isAv_altFunc() . . . 51
4.15.3.10 isValid() . . . 51
4.15.3.11 setMode() . . . 51
4.15.3.12 setOutLevel() . . . 52
4.15.3.13 setOutType() . . . 52
4.15.3.14 setPull() . . . 52
4.15.3.15 setSpeed() . . . 53
4.15.4 Member Data Documentation . . . 53
4.15.4.1 DF_MODE . . . 53
4.15.4.2 DF_OUT_LEVEL . . . 53
4.15.4.3 DF_OUTTYPE . . . 53
4.15.4.4 DF_PULL . . . 53
4.15.4.5 DF_SPEED . . . 54
4.16 projectConfiguration.ProjectSettings Class Reference . . . 54
4.16.1 Detailed Description . . . 54
4.16.2 Constructor & Destructor Documentation . . . 54
4.16.2.1 ProjectSettings() . . . 54
4.16.3 Member Function Documentation . . . 55
4.16.3.1 getConfFile() . . . 55
4.16.3.2 getProjectName() . . . 55
4.16.3.3 getUcFile() . . . 55
4.16.3.4 openProjectFile() . . . 55
4.16.3.5 processDocument() . . . 56
4.17 configurator.GPIO.Pull Enum Reference . . . 56
4.17.1 Detailed Description . . . 57

4.17.2 Member Function Documentation . . . 57
4.17.2.1 getConfFromString() . . . 57
4.17.3 Member Data Documentation . . . 57
4.17.3.1 STR_NAME . . . 57
4.18 configurator.GPIO.Speed Enum Reference . . . 58
4.18.1 Detailed Description . . . 58
4.18.2 Member Function Documentation . . . 58
4.18.2.1 getConfFromString() . . . 58
4.18.3 Member Data Documentation . . . 59
4.18.3.1 STR_NAME . . . 59
4.19 xmlParser.TestMain Class Reference . . . 59
4.19.1 Detailed Description . . . 59
4.19.2 Member Function Documentation . . . 59
4.19.2.1 main() . . . 59
4.20 xmlParser.XmlOpener Class Reference . . . 60
4.20.1 Detailed Description . . . 60
4.20.2 Constructor & Destructor Documentation . . . 60
4.20.2.1 XmlOpener() . . . 60
4.20.3 Member Function Documentation . . . 61
4.20.3.1 getElementInfo() . . . 61
4.20.3.2 getElementInfoFromDoc() . . . 61
4.20.3.3 getParsedDoc() . . . 61
4.20.3.4 OpenFile() . . . 62

Index **63**

Chapter 1

Namespace Index

1.1 Packages

Here are the packages with brief descriptions (if available):

common 5
configurator 5
framework 6
gui 6
microcontroller 7
projectConfiguration 7
xmlCreator 7
xmlParser 8

Chapter 2

Class Index

2.1 Class List

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

gui.AboutWindow . . . 9
configurator.ConfigurationFile . . . 10
xmlCreator.ConfXmlWriter . . . 11
common.ErrorCode . . . 12
common.Features . . . 14
gui.GpioConfWindow . . . 16
gui.MainGui . . . 18
gui.MainWindow . . . 20
gui.Messages . . . 23
microcontroller.Microcontroller . . . 23
configurator.GPIO.Mode . . . 27
configurator.GPIO.OutLevel . . . 29
configurator.GPIO.OutType . . . 30
microcontroller.Pin . . . 32
configurator.PinConf . . . 48
projectConfiguration.ProjectSettings . . . 54
configurator.GPIO.Pull . . . 56
configurator.GPIO.Speed . . . 58
xmlParser.TestMain . . . 59
xmlParser.XmlOpener . . . 60

Chapter 3

Namespace Documentation

3.1 Package common

Classes

- enum ErrorCode
- class Features

3.1.1 Detailed Description

Common information that needs to be accessed across all the project

Author

Miguel Diaz

Version

0.1

3.2 Package configurator

Classes

- class ConfigurationFile
- class PinConf

3.2.1 Detailed Description

Configuration classes

Author

Miguel Diaz

Version

0.1

3.3 Package framework

3.3.1 Detailed Description

Framework information

Author

H112943

Version

0.1

3.4 Package gui

Classes

- class AboutWindow
- class GpioConfWindow
- class MainGui
- class MainWindow
- class Messages

3.4.1 Detailed Description

Author

Miguel Diaz

Version

0.1

3.5 Package microcontroller

Classes

- class Microcontroller
- class Pin

3.5.1 Detailed Description

Microcontroller related classes

Author

Miguel Diaz

Version

0.1

3.6 Package projectConfiguration

Classes

- class ProjectSettings

3.6.1 Detailed Description

Project settings and configuration files

Author

Miguel Diaz

Version

0.1

3.7 Package xmlCreator

Classes

- class ConfXmlWriter

3.7.1 Detailed Description

Create configuration XML

Author

Miguel Diaz

Version

0.1

3.8 Package xmlParser

Classes

- class TestMain
- class XmlOpener

3.8.1 Detailed Description

XML parser for microcontroller information and project settings

Author

Miguel Diaz

Version

0.1

Chapter 4

Class Documentation

4.1 gui.AboutWindow Class Reference

Public Member Functions

- AboutWindow ()

Static Public Member Functions

- static void main (String[ ] args)

4.1.1 Constructor & Destructor Documentation

4.1.1.1 AboutWindow()

```
gui.AboutWindow.AboutWindow ( )
```

Create the application.

4.1.2 Member Function Documentation

4.1.2.1 main()

```
static void gui.AboutWindow.main (
            String [] args )  [static]
```

About window main

Parameters

args	Init parameters

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

- src/gui/AboutWindow.java

4.2 configurator.ConfigurationFile Class Reference

Static Public Attributes

- static final String STR_PROJ_CONF_FILE = "cgs"

4.2.1 Detailed Description

Configuration files properties

Author

Miguel Diaz

Version

0.1

4.2.2 Member Data Documentation

4.2.2.1 STR_PROJ_CONF_FILE

```
final String configurator.ConfigurationFile.STR_PROJ_CONF_FILE = "cgs"  [static]
```

Public configuration file extension

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

- src/configurator/ConfigurationFile.java

4.3 xmlCreator.ConfXmlWriter Class Reference

Public Member Functions

- ConfXmlWriter (Microcontroller uC)
- void addPin (PinConf pin, int pinNum)
- ErrorCode writeXml (String fileName)

4.3.1 Detailed Description

Write a XML file

Author

Miguel Diaz

Version

0.1

4.3.2 Constructor & Destructor Documentation

4.3.2.1 ConfXmlWriter()

```
xmlCreator.ConfXmlWriter.ConfXmlWriter (
            Microcontroller uC )
```

Constructor

Parameters

uC	Microcontroller configuration

4.3.3 Member Function Documentation

4.3.3.1 addPin()

```
void xmlCreator.ConfXmlWriter.addPin (
            PinConf pin,
            int pinNum )
```

Add a pin configuration to the file

Parameters

pin	Pin configuration
pinNum	Number of GPIO pin

4.3.3.2 writeXml()

```
ErrorCode xmlCreator.ConfXmlWriter.writeXml (
            String fileName )
```

Write the XMl file

Parameters

fileName	Name of XML configuration file

Returns

Error status

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

- src/xmlCreator/ConfXmlWriter.java

4.4 common.ErrorCode Enum Reference

Public Attributes

- NO_ERROR
- EX_ERROR
- FILE_READ_ERROR
- FILE_WRITE_ERROR

Static Public Attributes

- static final String STR_INVALID = "STR_INVALID"

4.4.1 Detailed Description

Error codes enum

Author

Miguel Diaz

Version

0.1

4.4.2 Member Data Documentation

4.4.2.1 EX_ERROR

`common.ErrorCode.EX_ERROR`

Error during execution

4.4.2.2 FILE_READ_ERROR

`common.ErrorCode.FILE_READ_ERROR`

File reading error

4.4.2.3 FILE_WRITE_ERROR

`common.ErrorCode.FILE_WRITE_ERROR`

File writing error

4.4.2.4 NO_ERROR

`common.ErrorCode.NO_ERROR`

No error message

4.4.2.5 STR_INVALID

```
static final String common.ErrorCode.STR_INVALID = "STR_INVALID"  [static]
```

Error string

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

- src/common/ErrorCode.java

4.5 common.Features Class Reference

Static Public Member Functions

- static void verbosePrint (String verboseMessage)
- static void debugPrint (String debugMessage)

Static Public Attributes

- static final boolean DEBUG = true
- static final boolean VERBOSE = true
- static final String VERBOSE_STR = "# "
- static final String DEBUG_STR = "#$ "
- static final String SW_VERSION = VERSION_MAJOR + "." + VERSION_MINOR + "." + VERSION_PATCH
- static final String VERSION_STATUS = "Alpha"
- static final String VERSION_NAME = "Alderaan"

4.5.1 Detailed Description

Class that includes all project features

Author

Miguel Diaz

Version

0.1

4.5.2 Member Function Documentation

4.5.2.1 debugPrint()

```
static void common.Features.debugPrint (
            String debugMessage )  [static]
```

Print Debug message to console

Parameters

debugMessage	Message to display

4.5.2.2 verbosePrint()

```
static void common.Features.verbosePrint (
            String verboseMessage )  [static]
```

Print Verbose message to console

Parameters

verboseMessage	Message to display

4.5.3 Member Data Documentation

4.5.3.1 DEBUG

```
final boolean common.Features.DEBUG = true  [static]
```

Enables debug functions

4.5.3.2 DEBUG_STR

```
final String common.Features.DEBUG_STR = "#$ "  [static]
```

Debug messages indicator on system console

4.5.3.3 SW_VERSION

```
final String common.Features.SW_VERSION = VERSION_MAJOR + "." + VERSION_MINOR + "." + VERSION_PA↩
TCH  [static]
```

Complete Software version

4.5.3.4 VERBOSE

```
final boolean common.Features.VERBOSE = true  [static]
```

Enables console messages

4.5.3.5 VERBOSE_STR

```
final String common.Features.VERBOSE_STR = "# "  [static]
```

Verbose messages indicator on system console

4.5.3.6 VERSION_NAME

```
final String common.Features.VERSION_NAME = "Alderaan"  [static]
```

Code name of the software version

4.5.3.7 VERSION_STATUS

```
final String common.Features.VERSION_STATUS = "Alpha"  [static]
```

Status of the software version

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

- src/common/Features.java

4.6 gui.GpioConfWindow Class Reference

Public Member Functions

- GpioConfWindow (Microcontroller uCtrl)

Static Public Member Functions

- static void main (String[ ] args)

4.6.1 Detailed Description

Window for configuring GPIO pins

Author

Miguel Diaz

Version

0.1

4.6.2 Constructor & Destructor Documentation

4.6.2.1 GpioConfWindow()

```
gui.GpioConfWindow.GpioConfWindow (
            Microcontroller uCtrl )
```

Create the GPIO configuration window and show it

Parameters

uCtrl	Microcontroller object containing all pin's information

4.6.3 Member Function Documentation

4.6.3.1 main()

```
static void gui.GpioConfWindow.main (
            String [] args )  [static]
```

Gpio configuration window main

Parameters

args	Init parameters

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

- src/gui/GpioConfWindow.java

4.7 gui.MainGui Class Reference

Static Public Member Functions

- static void main (String[ ] args)
- static ErrorCode loadProjectFile (File inFile)
- static void showErrorDialog (String message)
- static void showAboutWindow ()
- static void showGpioConfWindow ()
- static void setUC (Microcontroller uC)
- static void saveUc ()

4.7.1 Detailed Description

Main GUI state machine

Author

Miguel Diaz

Version

0.1

4.7.2 Member Function Documentation

4.7.2.1 loadProjectFile()

```
static ErrorCode gui.MainGui.loadProjectFile (
            File inFile )  [static]
```

Load the project settings file

Parameters

inFile	Settings file

Returns

Error status

4.7.2.2 main()

```
static void gui.MainGui.main (
            String [] args )  [static]
```

Main function

Parameters

args	TBD

4.7.2.3 saveUc()

```
static void gui.MainGui.saveUc ( )  [static]
```

Save the microcontroller's configuration to disk

4.7.2.4 setUC()

```
static void gui.MainGui.setUC (
            Microcontroller uC )  [static]
```

Set the project's microcontroller configuration

Parameters

uC	Microcontroller configuration

4.7.2.5 showAboutWindow()

```
static void gui.MainGui.showAboutWindow ( )  [static]
```

Show about information window

4.7.2.6 showErrorDialog()

```
static void gui.MainGui.showErrorDialog (
            String message )  [static]
```

Show an error dialog

Parameters

message	Message to display

4.7.2.7 showGpioConfWindow()

```
static void gui.MainGui.showGpioConfWindow ( )  [static]
```

Show the GPIOs configuration window

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

- src/gui/MainGui.java

4.8 gui.MainWindow Class Reference

Public Member Functions

- MainWindow ()
- void setVisible (boolean status)
- File OpenFileChooser (String initialPath, String title, FileNameExtensionFilter fileFilter)
- ErrorCode setProjectInformation (String projectName, String ucManufacturer, String ucName)

Static Public Member Functions

- static void main (String[ ] args)

Public Attributes

- JFrame **FrmCodeGenerator**

4.8.1 Detailed Description

Main application window

Author

Miguel Diaz

Version

0.1

4.8.2 Constructor & Destructor Documentation

4.8.2.1 MainWindow()

```
gui.MainWindow.MainWindow ( )
```

Create the application.

4.8.3 Member Function Documentation

4.8.3.1 main()

```
static void gui.MainWindow.main (
            String [] args )  [static]
```

Open main window

Parameters

args	To be determined

4.8.3.2 OpenFileChooser()

```
File gui.MainWindow.OpenFileChooser (
            String initialPath,
```

```
            String title,
            FileNameExtensionFilter fileFilter )
```

Open file chooser dialog and get the selected file

Parameters

initialPath	Path to search the file in
title	Dialog title
fileFilter	Extension filter

Returns

Selected file

4.8.3.3 setProjectInformation()

```
ErrorCode gui.MainWindow.setProjectInformation (
            String projectName,
            String ucManufacturer,
            String ucName )
```

Set Project's name in its label

Parameters

projectName	Project's name
ucManufacturer	Microcontroller's manufacturer
ucName	Microcontroller's model

Returns

Error status

4.8.3.4 setVisible()

```
void gui.MainWindow.setVisible (
            boolean status )
```

Set visibility of About window

Parameters

status	true if visible

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

- src/gui/MainWindow.java

4.9 gui.Messages Class Reference

Static Public Member Functions

- static String **getString** (String key)

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

- src/gui/Messages.java

4.10 microcontroller.Microcontroller Class Reference

Public Member Functions

- Microcontroller (Document ucDoc)
- ErrorCode processDocument ()
- ErrorCode **loadPinsConf** (Document confDoc)
- Pin getPin (int pinNum)
- String getUc_model ()
- String getUc_manufacturer ()
- int getUc_pinNum ()
- int getUc_gpioNum ()
- int getUc_portNum ()
- PinConf getConfiguredPin (String gpioName)
- boolean isValid ()

Public Attributes

- String [ ] Ports
- PinConf [ ] GpioCfgPin

Static Public Attributes

- static final int **MAX_NUMBER_OF_PINS_PER_PORT** = 16

4.10.1 Detailed Description

Microcontroller related methods

Author

Miguel Diaz

Version

0.1

4.10.2 Constructor & Destructor Documentation

4.10.2.1 Microcontroller()

```
microcontroller.Microcontroller.Microcontroller (
            Document ucDoc )
```

Constructor

Parameters

ucDoc	Document obtained from XML file

4.10.3 Member Function Documentation

4.10.3.1 getConfiguredPin()

```
PinConf microcontroller.Microcontroller.getConfiguredPin (
            String gpioName )
```

Get the configuration of a pin

Parameters

gpioName	Name of the pin

Returns

Pin configuration

4.10.3.2 getPin()

```
Pin microcontroller.Microcontroller.getPin (
            int pinNum )
```

Get a pin's characteristics

Parameters

pinNum	Number of pin

Returns

Pin's characteristics

4.10.3.3 getUc_gpioNum()

```
int microcontroller.Microcontroller.getUc_gpioNum ( )
```

Get the number of GPIOs in the microcontroller

Returns

Number of GPIOs

4.10.3.4 getUc_manufacturer()

```
String microcontroller.Microcontroller.getUc_manufacturer ( )
```

Get the microcontroller's manufacturer

Returns

Microcontroller's manufacturer

4.10.3.5 getUc_model()

```
String microcontroller.Microcontroller.getUc_model ( )
```

Get the microcontroller's model

Returns

Microcontroller's model

4.10.3.6 getUc_pinNum()

```
int microcontroller.Microcontroller.getUc_pinNum ( )
```

Get the microcontroller's pins number

Returns

Number of pins

4.10.3.7 getUc_portNum()

```
int microcontroller.Microcontroller.getUc_portNum ( )
```

Get the number of ports in the microcontroller

Returns

Number of ports

4.10.3.8 isValid()

```
boolean microcontroller.Microcontroller.isValid ( )
```

Check if the microcontroller configuration is valid

Returns

true if valid

4.10.3.9 processDocument()

```
ErrorCode microcontroller.Microcontroller.processDocument ( )
```

Process the document obtained from XML file

Returns

Error status

4.10.4 Member Data Documentation

4.10.4.1 GpioCfgPin

```
PinConf [] microcontroller.Microcontroller.GpioCfgPin
```

Configured pins list

4.10.4.2 Ports

```
String [] microcontroller.Microcontroller.Ports
```

Ports name list

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

- src/microcontroller/Microcontroller.java

4.11 configurator.GPIO.Mode Enum Reference

Static Public Member Functions

- static Mode getConfFromString (String conf)

Public Attributes

- **MODE_INPUT**
- **MODE_OUTPUT**
- **MODE_ALTERNATE_FUNCTION**
- **MODE_ANALOG**

Static Public Attributes

- static final String STR_NAME = "Mode"

4.11.1 Detailed Description

GPIO modes

Author

Miguel Diaz

Version

0.1

4.11.2 Member Function Documentation

4.11.2.1 getConfFromString()

```
static Mode configurator.GPIO.Mode.getConfFromString (
            String conf )  [static]
```

Get the corresponding mode from its name as String

Parameters

conf	Configuration name

Returns

Mode

4.11.3 Member Data Documentation

4.11.3.1 STR_NAME

```
static final String configurator.GPIO.Mode.STR_NAME = "Mode"  [static]
```

Name as String

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

- src/configurator/GPIO/Mode.java

4.12 configurator.GPIO.OutLevel Enum Reference

Static Public Member Functions

- static OutLevel getConfFromString (String conf)

Public Attributes

- **LOW**
- **HIGH**

Static Public Attributes

- static final String STR_NAME = "OutLevel"

4.12.1 Detailed Description

Pin's output/input level

Author

Miguel Diaz

Version

0.1

4.12.2 Member Function Documentation

4.12.2.1 getConfFromString()

```
static OutLevel configurator.GPIO.OutLevel.getConfFromString (
            String conf )  [static]
```

Get the corresponding mode from its name as String

Parameters

conf	Configuration name

Returns

level

4.12.3 Member Data Documentation

4.12.3.1 STR_NAME

```
static final String configurator.GPIO.OutLevel.STR_NAME = "OutLevel"  [static]
```

Name as String

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

- src/configurator/GPIO/OutLevel.java

4.13 configurator.GPIO.OutType Enum Reference

Static Public Member Functions

- static OutType getConfFromString (String conf)

Public Attributes

- **OTYPE_PUSH_PULL**
- **OTYPE_OPEN_DRAIN**
- **OTYPE_NOT_AVAILABLE**

Static Public Attributes

- static final String STR_NAME = "OutType"

4.13.1 Detailed Description

Pin's output type

Author

Miguel Diaz

Version

0.1

4.13.2 Member Function Documentation

4.13.2.1 getConfFromString()

```
static OutType configurator.GPIO.OutType.getConfFromString (
            String conf )  [static]
```

Get the corresponding output type from its name as String

Parameters

conf	Configuration name

Returns

Output type

4.13.3 Member Data Documentation

4.13.3.1 STR_NAME

```
static final String configurator.GPIO.OutType.STR_NAME = "OutType"  [static]
```

Name as String

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

- src/configurator/GPIO/OutType.java

4.14 microcontroller.Pin Class Reference

Public Member Functions

- Pin ()
- void setFunc_vcc (boolean funcState)
- boolean getFunc_vcc ()
- void setFunc_gnd (boolean funcState)
- boolean getFunc_gnd ()
- void setFunc_gpio (boolean funcState)
- boolean getFunc_gpio ()
- void setFeat_int (boolean featState)
- boolean getFeat_int ()
- void setFeat_adc (boolean featState)
- boolean getFeat_adc ()
- void setFeat_uart (boolean featState)
- boolean getFeat_uart ()
- void setFeat_i2c (boolean featState)
- boolean getFeat_i2c ()
- void setFeat_spi (boolean featState)
- boolean getFeat_spi ()
- void setFeat_clock (boolean featState)
- boolean getFeat_clock ()
- void setFeat_timer (boolean featState)
- boolean getFeat_timer ()
- void setFeat_reset (boolean featState)
- boolean getFeat_reset ()
- void setInt (String feature)
- String getInt ()
- void setAdc (String feature)
- String getAdc ()
- void setUart (String feature)
- String getUart ()
- void setI2c (String feature)
- String getI2c ()
- void setSpi (String feature)
- String getSpi ()
- void setClock (String feature)
- String getClock ()
- void setReset (String feature)
- String getReset ()
- void setTimer (String feature)
- String getTimer ()
- void setName (String pinName)
- String getName ()
- void setNumber (int pinNum)
- int getNumber ()
- void setPort (String pinPort)
- String getPort ()
- boolean isValid ()

Static Public Attributes

- static final boolean ENABLE = true
- static final boolean DISABLE = false
- static final boolean DEF_FUNCTION = DEF_BOOLEAN
- static final boolean DEF_FEATURE_AV = DEF_BOOLEAN
- static final String DEF_FEATURE = DEF_STRING
- static final String DEF_NAME = DEF_STRING
- static final int DEF_NUMBER = DEF_INT
- static final String DEF_PORT = DEF_STRING

4.14.1 Detailed Description

Basic pin object.

- Pin necessary characteristics:
  - Name
  - Number
- Pin optional characteristics:
  - Port
- Pin main functions:
  - VCC
  - GND
  - GPIO
- Pin features:
  - Interruption
  - ADC
  - UART
  - I2C
  - SPI
  - Clock
  - Reset

Author

Miguel Diaz

Version

0.1

4.14.2 Constructor & Destructor Documentation

4.14.2.1 Pin()

```
microcontroller.Pin.Pin ( )
```

Initialize all pin's characteristics and features to their default values

4.14.3 Member Function Documentation

4.14.3.1 getAdc()

```
String microcontroller.Pin.getAdc ( )
```

Get the pin's ADC name

Returns

Pin's ADC

4.14.3.2 getClock()

```
String microcontroller.Pin.getClock ( )
```

Get the pin's clock name

Returns

Pin's clock

4.14.3.3 getFeat_adc()

```
boolean microcontroller.Pin.getFeat_adc ( )
```

See if the pin has an ADC

Returns

Feature availability

4.14.3.4 getFeat_clock()

```
boolean microcontroller.Pin.getFeat_clock ( )
```

See if the pin supports a clock

Returns

Feature availability

4.14.3.5 getFeat_i2c()

```
boolean microcontroller.Pin.getFeat_i2c ( )
```

See if the pin has I2C

Returns

Feature availability

4.14.3.6 getFeat_int()

```
boolean microcontroller.Pin.getFeat_int ( )
```

See if the pin has an interruption

Returns

Feature availability

4.14.3.7 getFeat_reset()

```
boolean microcontroller.Pin.getFeat_reset ( )
```

See if the pin has a reset feature

Returns

Feature availability

4.14.3.8 getFeat_spi()

```
boolean microcontroller.Pin.getFeat_spi ( )
```

See if the pin has SPI

Returns

Feature availability

4.14.3.9 getFeat_timer()

```
boolean microcontroller.Pin.getFeat_timer ( )
```

See if the pin supports a timer

Returns

Feature availability

4.14.3.10 getFeat_uart()

```
boolean microcontroller.Pin.getFeat_uart ( )
```

See if the pin has a UART

Returns

Feature availability

4.14.3.11 getFunc_gnd()

```
boolean microcontroller.Pin.getFunc_gnd ( )
```

See if the pin is GND

Returns

Function availability

4.14.3.12 getFunc_gpio()

```
boolean microcontroller.Pin.getFunc_gpio ( )
```

See if the pin is GPIO

Returns

Function availability

4.14.3.13 getFunc_vcc()

```
boolean microcontroller.Pin.getFunc_vcc ( )
```

See if the pin is Vcc

Returns

Function availability

4.14.3.14 getI2c()

```
String microcontroller.Pin.getI2c ( )
```

Get the pin's I2C name

Returns

Pin's I2C

4.14.3.15 getInt()

```
String microcontroller.Pin.getInt ( )
```

Get the pin's interruption name

Returns

Pin's interruption

4.14.3.16 getName()

```
String microcontroller.Pin.getName ( )
```

Get the pin's name

Returns

Pin's name

4.14.3.17 getNumber()

```
int microcontroller.Pin.getNumber ( )
```

Get the pin's number

Returns

Pin's number

4.14.3.18 getPort()

```
String microcontroller.Pin.getPort ( )
```

Get the pin's port

Returns

Pin's port

4.14.3.19 getReset()

```
String microcontroller.Pin.getReset ( )
```

Get the pin's reset name

Returns

Pin's reset

4.14.3.20 getSpi()

```
String microcontroller.Pin.getSpi ( )
```

Get the pin's SPI name

Returns

Pin's SPI

4.14.3.21 getTimer()

```
String microcontroller.Pin.getTimer ( )
```

Get the pin's timer name

Returns

Pin's timer

4.14.3.22 getUart()

```
String microcontroller.Pin.getUart ( )
```

Get the pin's UART name

Returns

Pin's UART

4.14.3.23 isValid()

```
boolean microcontroller.Pin.isValid ( )
```

Check if the pin is correctly initialized

Returns

True if the pin is correctly initialized

4.14.3.24 setAdc()

```
void microcontroller.Pin.setAdc (
            String feature )
```

Set the pin's ADC

Parameters

feature	Pin's ADC

4.14.3.25 setClock()

```
void microcontroller.Pin.setClock (
            String feature )
```

Set the pin's clock

Parameters

feature	Pin's clock

4.14.3.26 setFeat_adc()

```
void microcontroller.Pin.setFeat_adc (
            boolean featState )
```

Set the pin's ADC feature

Parameters

featState	Feature availability

4.14.3.27 setFeat_clock()

```
void microcontroller.Pin.setFeat_clock (
            boolean featState )
```

Set the pin's Clock feature

Parameters

featState	Feature availability

4.14.3.28 setFeat_i2c()

```
void microcontroller.Pin.setFeat_i2c (
            boolean featState )
```

Set the pin's I2C feature

Parameters

featState	Feature availability

4.14.3.29 setFeat_int()

```
void microcontroller.Pin.setFeat_int (
            boolean featState )
```

Set the pin's interruption feature

Parameters

featState	Feature availability

4.14.3.30 setFeat_reset()

```
void microcontroller.Pin.setFeat_reset (
            boolean featState )
```

Set the pin's reset feature

Parameters

featState	Feature availability

4.14.3.31 setFeat_spi()

```
void microcontroller.Pin.setFeat_spi (
            boolean featState )
```

Set the pin's SPI feature

Parameters

featState	Feature availability

4.14.3.32 setFeat_timer()

```
void microcontroller.Pin.setFeat_timer (
            boolean featState )
```

Set the pin's timer feature

Parameters

featState	Feature availability

4.14.3.33 setFeat_uart()

```
void microcontroller.Pin.setFeat_uart (
```

```
            boolean featState )
```

Set the pin's UART feature

Parameters

featState	Feature availability

4.14.3.34 setFunc_gnd()

```
void microcontroller.Pin.setFunc_gnd (
            boolean funcState )
```

Set the pin to GND status

Parameters

funcState	Function availability

4.14.3.35 setFunc_gpio()

```
void microcontroller.Pin.setFunc_gpio (
            boolean funcState )
```

Set the pin to GPIO status

Parameters

funcState	Function availability

4.14.3.36 setFunc_vcc()

```
void microcontroller.Pin.setFunc_vcc (
            boolean funcState )
```

Set the pin to Vcc status

Parameters

funcState	Function availability

4.14.3.37 setI2c()

```
void microcontroller.Pin.setI2c (
            String feature )
```

Set the pin's I2C

Parameters

feature	Pin's I2C

4.14.3.38 setInt()

```
void microcontroller.Pin.setInt (
            String feature )
```

Set the pin's interruption

Parameters

feature	Pin's interruption

4.14.3.39 setName()

```
void microcontroller.Pin.setName (
            String pinName )
```

Set the pin's name

Parameters

pinName	Pin's name

4.14.3.40 setNumber()

```
void microcontroller.Pin.setNumber (
            int pinNum )
```

Set the pin's number

Parameters

pinNum	Pin's number

4.14.3.41 setPort()

```
void microcontroller.Pin.setPort (
            String pinPort )
```

Set the pin's port

Parameters

pinPort	Pin's port

4.14.3.42 setReset()

```
void microcontroller.Pin.setReset (
            String feature )
```

Set the pin's reset

Parameters

feature	Pin's reset

4.14.3.43 setSpi()

```
void microcontroller.Pin.setSpi (
```

```
            String feature )
```

Set the pin's SPI

Parameters

feature	Pin's SPI

4.14.3.44 setTimer()

```
void microcontroller.Pin.setTimer (
            String feature )
```

Set the pin's timer

Parameters

feature	Pin's timer

4.14.3.45 setUart()

```
void microcontroller.Pin.setUart (
            String feature )
```

Set the pin's UART

Parameters

feature	Pin's UART

4.14.4 Member Data Documentation

4.14.4.1 DEF_FEATURE

```
final String microcontroller.Pin.DEF_FEATURE = DEF_STRING  [static]
```

Default value for pin's feature as not available

4.14.4.2 DEF_FEATURE_AV

```
final boolean microcontroller.Pin.DEF_FEATURE_AV = DEF_BOOLEAN  [static]
```

Default value for pin's feature availability as not available

4.14.4.3 DEF_FUNCTION

```
final boolean microcontroller.Pin.DEF_FUNCTION = DEF_BOOLEAN  [static]
```

Default value for pin's function as not enabled

4.14.4.4 DEF_NAME

```
final String microcontroller.Pin.DEF_NAME = DEF_STRING  [static]
```

Default value for pin's name

4.14.4.5 DEF_NUMBER

```
final int microcontroller.Pin.DEF_NUMBER = DEF_INT  [static]
```

Default value for pin's number

4.14.4.6 DEF_PORT

```
final String microcontroller.Pin.DEF_PORT = DEF_STRING  [static]
```

Default value for pin's port

4.14.4.7 DISABLE

```
final boolean microcontroller.Pin.DISABLE = false  [static]
```

Disable value for features and functions

4.14.4.8 ENABLE

```
final boolean microcontroller.Pin.ENABLE = true  [static]
```

Enable value for features and functions

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

- src/microcontroller/Pin.java

4.15 configurator.PinConf Class Reference

Public Member Functions

- PinConf (Pin gpioPin)
- boolean isValid ()
- String getPort ()
- String getPinName ()
- Mode getMode ()
- void setMode (Mode mode)
- OutType getOutType ()
- void setOutType (OutType outType)
- OutLevel getOutLevel ()
- void setOutLevel (OutLevel level)
- Speed getSpeed ()
- void setSpeed (Speed speed)
- Pull getPull ()
- void setPull (Pull pull)
- boolean isAv_Adc ()
- boolean isAv_altFunc ()

Static Public Attributes

- static final Mode DF_MODE = Mode.MODE_INPUT
- static final Speed DF_SPEED = Speed.SPEED_FAST
- static final OutType DF_OUTTYPE = OutType.OTYPE_PUSH_PULL
- static final OutLevel DF_OUT_LEVEL = OutLevel.LOW
- static final Pull DF_PULL = Pull.PULL_NOT_AVAILABLE

4.15.1 Detailed Description

GPIO pin configuration

Author

Miguel Diaz

Version

0.1

4.15.2 Constructor & Destructor Documentation

4.15.2.1 PinConf()

```
configurator.PinConf.PinConf (
            Pin gpioPin )
```

Constructor

Parameters

gpioPin	Pin information

4.15.3 Member Function Documentation

4.15.3.1 getMode()

```
Mode configurator.PinConf.getMode ( )
```

Get the pin's mode configuration

Returns

Mode

4.15.3.2 getOutLevel()

```
OutLevel configurator.PinConf.getOutLevel ( )
```

Get the pin's output level

Returns

Pin's output level

4.15.3.3 getOutType()

```
OutType configurator.PinConf.getOutType ( )
```

Get the pin's output configuration

Returns

Output configuration

4.15.3.4 getPinName()

```
String configurator.PinConf.getPinName ( )
```

Get the pin's number

Returns

Pin's number

4.15.3.5 getPort()

```
String configurator.PinConf.getPort ( )
```

Get the pin's port

Returns

Port

4.15.3.6 getPull()

```
Pull configurator.PinConf.getPull ( )
```

Get the pin's pull resistor configuration

Returns

Pull Resistor configuration

4.15.3.7 getSpeed()

```
Speed configurator.PinConf.getSpeed ( )
```

Get the pin's speed

Returns

Speed

4.15.3.8 isAv_Adc()

```
boolean configurator.PinConf.isAv_Adc ( )
```

Check availability of ADC

Returns

True if ADC is available

4.15.3.9 isAv_altFunc()

```
boolean configurator.PinConf.isAv_altFunc ( )
```

Check the availability of alternate function

Returns

True if alternate function is available

4.15.3.10 isValid()

```
boolean configurator.PinConf.isValid ( )
```

Check if the GPIO pin is valid

Returns

True if valid

4.15.3.11 setMode()

```
void configurator.PinConf.setMode (
            Mode mode )
```

Set the pin's mode configuration

Parameters

mode	Mode

4.15.3.12 setOutLevel()

```
void configurator.PinConf.setOutLevel (
            OutLevel level )
```

Set the pin's output level

Parameters

level	Pin's output level

4.15.3.13 setOutType()

```
void configurator.PinConf.setOutType (
            OutType outType )
```

Set the pin's output configuration

Parameters

outType	Output configuration

4.15.3.14 setPull()

```
void configurator.PinConf.setPull (
            Pull pull )
```

Set the pull resistor configuration

Parameters

pull	Resistor configuration

4.15.3.15 setSpeed()

```
void configurator.PinConf.setSpeed (
            Speed speed )
```

Set the pin's speed

Parameters

speed	Speed

4.15.4 Member Data Documentation

4.15.4.1 DF_MODE

```
final Mode configurator.PinConf.DF_MODE = Mode.MODE_INPUT  [static]
```

Default Pin mode

4.15.4.2 DF_OUT_LEVEL

```
final OutLevel configurator.PinConf.DF_OUT_LEVEL = OutLevel.LOW  [static]
```

Default pin's output level

4.15.4.3 DF_OUTTYPE

```
final OutType configurator.PinConf.DF_OUTTYPE = OutType.OTYPE_PUSH_PULL  [static]
```

Default pin's output type

4.15.4.4 DF_PULL

```
final Pull configurator.PinConf.DF_PULL = Pull.PULL_NOT_AVAILABLE  [static]
```

Default pin'r pull resistor

4.15.4.5 DF_SPEED

```
final Speed configurator.PinConf.DF_SPEED = Speed.SPEED_FAST  [static]
```

Default pin's speed

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

- src/configurator/PinConf.java

4.16 projectConfiguration.ProjectSettings Class Reference

Public Member Functions

- ProjectSettings ()
- ErrorCode processDocument ()
- ErrorCode openProjectFile (File inFile)
- File getConfFile ()
- File getUcFile ()
- String getProjectName ()

4.16.1 Detailed Description

Project settings class

Author

Miguel Diaz

Version

0.1

4.16.2 Constructor & Destructor Documentation

4.16.2.1 ProjectSettings()

```
projectConfiguration.ProjectSettings.ProjectSettings ( )
```

Constructor

4.16.3 Member Function Documentation

4.16.3.1 getConfFile()

```
File projectConfiguration.ProjectSettings.getConfFile ( )
```

Get the project configuration file

Returns

Project configuration file

4.16.3.2 getProjectName()

```
String projectConfiguration.ProjectSettings.getProjectName ( )
```

Get the project's name

Returns

Project's name

4.16.3.3 getUcFile()

```
File projectConfiguration.ProjectSettings.getUcFile ( )
```

Get the project microcontroller file

Returns

Project microcontroller file

4.16.3.4 openProjectFile()

```
ErrorCode projectConfiguration.ProjectSettings.openProjectFile (
            File inFile )
```

Open the project settings file

Parameters

inFile	Project file

Returns

Error Status

4.16.3.5 processDocument()

```
ErrorCode projectConfiguration.ProjectSettings.processDocument ( )
```

Process the document obtained from the XML file

Returns

Error Status

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

- src/projectConfiguration/ProjectSettings.java

4.17 configurator.GPIO.Pull Enum Reference

Static Public Member Functions

- static Pull getConfFromString (String conf)

Public Attributes

- **PULL_UP**
- **PULL_DOWN**
- **PULL_NOT_AVAILABLE**

Static Public Attributes

- static final String STR_NAME = "Pull"

4.17.1 Detailed Description

Pin's pull resistor

Author

Miguel Diaz

Version

0.1

4.17.2 Member Function Documentation

4.17.2.1 getConfFromString()

```
static Pull configurator.GPIO.Pull.getConfFromString (
            String conf )  [static]
```

Get the corresponding Pull configuration from its name as String

Parameters

conf	Configuration name

Returns

Pull configuration

4.17.3 Member Data Documentation

4.17.3.1 STR_NAME

```
static final String configurator.GPIO.Pull.STR_NAME = "Pull"  [static]
```

Name as String

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

- src/configurator/GPIO/Pull.java

4.18 configurator.GPIO.Speed Enum Reference

Static Public Member Functions

- static Speed getConfFromString (String conf)

Public Attributes

- **SPEED_FAST**
- **SPEED_MEDIUM**
- **SPEED_HIGH**
- **SPEED_NOT_AVAILABLE**

Static Public Attributes

- static final String STR_NAME = "Speed"

4.18.1 Detailed Description

Pin's speed

Author

Miguel Diaz

Version

0.1

4.18.2 Member Function Documentation

4.18.2.1 getConfFromString()

```
static Speed configurator.GPIO.Speed.getConfFromString (
            String conf )  [static]
```

Get the corresponding Speed configuration from its name as String

Parameters

conf	Configuration name

Returns

Speed

4.18.3 Member Data Documentation

4.18.3.1 STR_NAME

```
static final String configurator.GPIO.Speed.STR_NAME = "Speed"  [static]
```

Name as String

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

- src/configurator/GPIO/Speed.java

4.19 xmlParser.TestMain Class Reference

Static Public Member Functions

- static void main (String[ ] openOption)

4.19.1 Detailed Description

Dummy main class for testing the other classes

Author

Miguel Diaz

4.19.2 Member Function Documentation

4.19.2.1 main()

```
static void xmlParser.TestMain.main (
            String [] openOption )  [static]
```

Main without GUI

Parameters

openOption	Options include:

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

- src/xmlParser/TestMain.java

4.20 xmlParser.XmlOpener Class Reference

Public Member Functions

- XmlOpener ()
- ErrorCode OpenFile (File inFile)
- Document getParsedDoc ()

Static Public Member Functions

- static String getElementInfoFromDoc (Document doc, String elementName)
- static String getElementInfo (Element element, String elementName)

4.20.1 Detailed Description

Open and process XML files

Author

H112943

Version

0.1

4.20.2 Constructor & Destructor Documentation

4.20.2.1 XmlOpener()

```
xmlParser.XmlOpener.XmlOpener ( )
```

Constructor

4.20.3 Member Function Documentation

4.20.3.1 getElementInfo()

```
static String xmlParser.XmlOpener.getElementInfo (
            Element element,
            String elementName )  [static]
```

Get an XML sub element information

Parameters

element	XML main element
elementName	Sub element's name

Returns

Sub elemen't information

4.20.3.2 getElementInfoFromDoc()

```
static String xmlParser.XmlOpener.getElementInfoFromDoc (
            Document doc,
            String elementName )  [static]
```

Get an XML element information

Parameters

doc	Document from XML file
elementName	Element's name

Returns

Element's information

4.20.3.3 getParsedDoc()

```
Document xmlParser.XmlOpener.getParsedDoc ( )
```

Get the parsed document AFTER opening the file

Returns

Parsed document

4.20.3.4 OpenFile()

```
ErrorCode xmlParser.XmlOpener.OpenFile (
            File inFile )
```

Open the XML file

Parameters

inFile	XML file

Returns

Error code

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

- src/xmlParser/XmlOpener.java

Index

AboutWindow
    gui::AboutWindow, 9
addPin
    xmlCreator::ConfXmlWriter, 11

common, 5
common.ErrorCode, 12
common.Features, 14
common::ErrorCode
    EX_ERROR, 13
    FILE_READ_ERROR, 13
    FILE_WRITE_ERROR, 13
    NO_ERROR, 13
    STR_INVALID, 13
common::Features
    DEBUG_STR, 15
    DEBUG, 15
    debugPrint, 14
    SW_VERSION, 15
    VERBOSE_STR, 16
    VERBOSE, 15
    VERSION_NAME, 16
    VERSION_STATUS, 16
    verbosePrint, 15
ConfXmlWriter
    xmlCreator::ConfXmlWriter, 11
configurator, 5
configurator.ConfigurationFile, 10
configurator.GPIO.Mode, 27
configurator.GPIO.OutLevel, 29
configurator.GPIO.OutType, 30
configurator.GPIO.Pull, 56
configurator.GPIO.Speed, 58
configurator.PinConf, 48
configurator::ConfigurationFile
    STR_PROJ_CONF_FILE, 10
configurator::GPIO::Mode
    getConfFromString, 28
    STR_NAME, 28
configurator::GPIO::OutLevel
    getConfFromString, 29
    STR_NAME, 30
configurator::GPIO::OutType
    getConfFromString, 31
    STR_NAME, 31
configurator::GPIO::Pull
    getConfFromString, 57
    STR_NAME, 57
configurator::GPIO::Speed
    getConfFromString, 58
    STR_NAME, 59
configurator::PinConf
    DF_MODE, 53
    DF_OUT_LEVEL, 53
    DF_OUTTYPE, 53
    DF_PULL, 53
    DF_SPEED, 53
    getMode, 49
    getOutLevel, 49
    getOutType, 49
    getPinName, 49
    getPort, 50
    getPull, 50
    getSpeed, 50
    isAv_Adc, 50
    isAv_altFunc, 51
    isValid, 51
    PinConf, 48
    setMode, 51
    setOutLevel, 52
    setOutType, 52
    setPull, 52
    setSpeed, 53

DEBUG_STR
    common::Features, 15
DEBUG
    common::Features, 15
DEF_FEATURE_AV
    microcontroller::Pin, 46
DEF_FEATURE
    microcontroller::Pin, 46
DEF_FUNCTION
    microcontroller::Pin, 47
DEF_NAME
    microcontroller::Pin, 47
DEF_NUMBER
    microcontroller::Pin, 47
DEF_PORT
    microcontroller::Pin, 47
DF_MODE
    configurator::PinConf, 53

DF_OUT_LEVEL
configurator::PinConf, 53
DF_OUTTYPE
configurator::PinConf, 53
DF_PULL
configurator::PinConf, 53
DF_SPEED
configurator::PinConf, 53
DISABLE
microcontroller::Pin, 47
debugPrint
common::Features, 14

ENABLE
microcontroller::Pin, 47
EX_ERROR
common::ErrorCode, 13

FILE_READ_ERROR
common::ErrorCode, 13
FILE_WRITE_ERROR
common::ErrorCode, 13
framework, 6

getAdc
microcontroller::Pin, 34
getClock
microcontroller::Pin, 34
getConfFile
projectConfiguration::ProjectSettings, 55
getConfFromString
configurator::GPIO::Mode, 28
configurator::GPIO::OutLevel, 29
configurator::GPIO::OutType, 31
configurator::GPIO::Pull, 57
configurator::GPIO::Speed, 58
getConfiguredPin
microcontroller::Microcontroller, 24
getElementInfo
xmlParser::XmlOpener, 61
getElementInfoFromDoc
xmlParser::XmlOpener, 61
getFeat_adc
microcontroller::Pin, 34
getFeat_clock
microcontroller::Pin, 35
getFeat_i2c
microcontroller::Pin, 35
getFeat_int
microcontroller::Pin, 35
getFeat_reset
microcontroller::Pin, 35
getFeat_spi
microcontroller::Pin, 36
getFeat_timer
microcontroller::Pin, 36
getFeat_uart
microcontroller::Pin, 36
getFunc_gnd
microcontroller::Pin, 36
getFunc_gpio
microcontroller::Pin, 37
getFunc_vcc
microcontroller::Pin, 37
getI2c
microcontroller::Pin, 37
getInt
microcontroller::Pin, 37
getMode
configurator::PinConf, 49
getName
microcontroller::Pin, 38
getNumber
microcontroller::Pin, 38
getOutLevel
configurator::PinConf, 49
getOutType
configurator::PinConf, 49
getParsedDoc
xmlParser::XmlOpener, 61
getPin
microcontroller::Microcontroller, 25
getPinName
configurator::PinConf, 49
getPort
configurator::PinConf, 50
microcontroller::Pin, 38
getProjectName
projectConfiguration::ProjectSettings, 55
getPull
configurator::PinConf, 50
getReset
microcontroller::Pin, 38
getSpeed
configurator::PinConf, 50
getSpi
microcontroller::Pin, 39
getTimer
microcontroller::Pin, 39
getUart
microcontroller::Pin, 39
getUc_gpioNum
microcontroller::Microcontroller, 25
getUc_manufacturer
microcontroller::Microcontroller, 25
getUc_model
microcontroller::Microcontroller, 25
getUc_pinNum
microcontroller::Microcontroller, 26

getUc_portNum
microcontroller::Microcontroller, 26
getUcFile
projectConfiguration::ProjectSettings, 55
GpioCfgPin
microcontroller::Microcontroller, 27
GpioConfWindow
gui::GpioConfWindow, 17
gui, 6
gui.AboutWindow, 9
gui.GpioConfWindow, 16
gui.MainGui, 18
gui.MainWindow, 20
gui.Messages, 23
gui::AboutWindow
AboutWindow, 9
main, 9
gui::GpioConfWindow
GpioConfWindow, 17
main, 17
gui::MainGui
loadProjectFile, 18
main, 19
saveUc, 19
setUC, 19
showAboutWindow, 19
showErrorDialog, 19
showGpioConfWindow, 20
gui::MainWindow
main, 21
MainWindow, 21
OpenFileChooser, 21
setProjectInformation, 22
setVisible, 22

isAv_Adc
configurator::PinConf, 50
isAv_altFunc
configurator::PinConf, 51
isValid
configurator::PinConf, 51
microcontroller::Microcontroller, 26
microcontroller::Pin, 39

loadProjectFile
gui::MainGui, 18

main
gui::AboutWindow, 9
gui::GpioConfWindow, 17
gui::MainGui, 19
gui::MainWindow, 21
xmlParser::TestMain, 59
MainWindow
gui::MainWindow, 21

Microcontroller
microcontroller::Microcontroller, 24
microcontroller, 7
microcontroller.Microcontroller, 23
microcontroller.Pin, 32
microcontroller::Microcontroller
getConfiguredPin, 24
getPin, 25
getUc_gpioNum, 25
getUc_manufacturer, 25
getUc_model, 25
getUc_pinNum, 26
getUc_portNum, 26
GpioCfgPin, 27
isValid, 26
Microcontroller, 24
Ports, 27
processDocument, 26
microcontroller::Pin
DEF_FEATURE_AV, 46
DEF_FEATURE, 46
DEF_FUNCTION, 47
DEF_NAME, 47
DEF_NUMBER, 47
DEF_PORT, 47
DISABLE, 47
ENABLE, 47
getAdc, 34
getClock, 34
getFeat_adc, 34
getFeat_clock, 35
getFeat_i2c, 35
getFeat_int, 35
getFeat_reset, 35
getFeat_spi, 36
getFeat_timer, 36
getFeat_uart, 36
getFunc_gnd, 36
getFunc_gpio, 37
getFunc_vcc, 37
getI2c, 37
getInt, 37
getName, 38
getNumber, 38
getPort, 38
getReset, 38
getSpi, 39
getTimer, 39
getUart, 39
isValid, 39
Pin, 34
setAdc, 40
setClock, 40
setFeat_adc, 40

setFeat_clock, 41
setFeat_i2c, 41
setFeat_int, 41
setFeat_reset, 42
setFeat_spi, 42
setFeat_timer, 42
setFeat_uart, 42
setFunc_gnd, 43
setFunc_gpio, 43
setFunc_vcc, 43
setI2c, 44
setInt, 44
setName, 44
setNumber, 45
setPort, 45
setReset, 45
setSpi, 45
setTimer, 46
setUart, 46

NO_ERROR
common::ErrorCode, 13

OpenFile
xmlParser::XmlOpener, 62
OpenFileChooser
gui::MainWindow, 21
openProjectFile
projectConfiguration::ProjectSettings, 55

Pin
microcontroller::Pin, 34
PinConf
configurator::PinConf, 48
Ports
microcontroller::Microcontroller, 27
processDocument
microcontroller::Microcontroller, 26
projectConfiguration::ProjectSettings, 56
projectConfiguration, 7
projectConfiguration.ProjectSettings, 54
projectConfiguration::ProjectSettings
getConfFile, 55
getProjectName, 55
getUcFile, 55
openProjectFile, 55
processDocument, 56
ProjectSettings, 54
ProjectSettings
projectConfiguration::ProjectSettings, 54

STR_INVALID
common::ErrorCode, 13
STR_NAME
configurator::GPIO::Mode, 28
configurator::GPIO::OutLevel, 30
configurator::GPIO::OutType, 31
configurator::GPIO::Pull, 57
configurator::GPIO::Speed, 59
STR_PROJ_CONF_FILE
configurator::ConfigurationFile, 10
SW_VERSION
common::Features, 15
saveUc
gui::MainGui, 19
setAdc
microcontroller::Pin, 40
setClock
microcontroller::Pin, 40
setFeat_adc
microcontroller::Pin, 40
setFeat_clock
microcontroller::Pin, 41
setFeat_i2c
microcontroller::Pin, 41
setFeat_int
microcontroller::Pin, 41
setFeat_reset
microcontroller::Pin, 42
setFeat_spi
microcontroller::Pin, 42
setFeat_timer
microcontroller::Pin, 42
setFeat_uart
microcontroller::Pin, 42
setFunc_gnd
microcontroller::Pin, 43
setFunc_gpio
microcontroller::Pin, 43
setFunc_vcc
microcontroller::Pin, 43
setI2c
microcontroller::Pin, 44
setInt
microcontroller::Pin, 44
setMode
configurator::PinConf, 51
setName
microcontroller::Pin, 44
setNumber
microcontroller::Pin, 45
setOutLevel
configurator::PinConf, 52
setOutType
configurator::PinConf, 52
setPort
microcontroller::Pin, 45
setProjectInformation
gui::MainWindow, 22

setPull
configurator::PinConf, 52
setReset
microcontroller::Pin, 45
setSpeed
configurator::PinConf, 53
setSpi
microcontroller::Pin, 45
setTimer
microcontroller::Pin, 46
setUart
microcontroller::Pin, 46
setUC
gui::MainGui, 19
setVisible
gui::MainWindow, 22
showAboutWindow
gui::MainGui, 19
showErrorDialog
gui::MainGui, 19
showGpioConfWindow
gui::MainGui, 20

VERBOSE_STR
common::Features, 16
VERBOSE
common::Features, 15
VERSION_NAME
common::Features, 16
VERSION_STATUS
common::Features, 16
verbosePrint
common::Features, 15

writeXml
xmlCreator::ConfXmlWriter, 12

xmlCreator, 7
xmlCreator.ConfXmlWriter, 11
xmlCreator::ConfXmlWriter
addPin, 11
ConfXmlWriter, 11
writeXml, 12
XmlOpener
xmlParser::XmlOpener, 60
xmlParser, 8
xmlParser.TestMain, 59
xmlParser.XmlOpener, 60
xmlParser::TestMain
main, 59
xmlParser::XmlOpener
getElementInfo, 61
getElementInfoFromDoc, 61
getParsedDoc, 61
OpenFile, 62
XmlOpener, 60