PyAbacus Documentation

Release 1.0.5

Tausand Electronica

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CONTENTS

pyAbacus was build to simplify the usage of Tausands tools.

CHAPTER

ONE

CONTENTS

1.1 pyAbacus.core

class pyAbacus.core.**AbacusSerial**(*port*, *bounce_timeout=20*)

Builds a serial port from pyserial.

flush()

getIdn()

readSerial()

writeSerial(*command*, *address*, *data_u16*)

class pyAbacus.core.**CountersValues**(*n_channels*)

getCountersID()

getTimeLeft()

getValue(*channel*)

setValueFromArray(*address*, *value*)

class pyAbacus.core.**Settings2Ch**

getAddressAndValue(*timer*)

getSetting(*timer*)

setSetting(*setting*, *value*)

setValueFromArray(*address*, *value*)

pyAbacus.core.**close**(*abacus_port*)

pyAbacus.core.**dataArraysToCounters**(*addresses*, *data*)

pyAbacus.core.**dataArraysToSettings**(*addresses*, *data*)

pyAbacus.core.**dataStreamToDataArrays**(*input_string*)

pyAbacus.core.**findDevices**()

pyAbacus.core.**getAllCounters**(*abacus_port*)

pyAbacus.core.**getAllSettings**(*abacus_port*)

pyAbacus.core.**getCountersID**(*abacus_port*)

pyAbacus.core.**getIdn**(*abacus_port*)

pyAbacus.core.**getSetting**(*abacus_port*, *setting*)

pyAbacus.core.**getTimeLeft**(*abacus_port*)

pyAbacus.core.**open**(*abacus_port*)

pyAbacus.core.**readSerial**(*abacus_port*)

pyAbacus.core.**setAllSettings**(*abacus_port*, *new_settings*)

pyAbacus.core.**setSetting**(*abacus_port*, *setting*, *value*)

pyAbacus.core.**writeSerial**(*abacus_port*, *command*, *address*, *data_u16*)

1.2 pyAbacus.exceptions

exception pyAbacus.exceptions.**AbacusError**(*message=''*)
An unexpected error ocurred.

exception pyAbacus.exceptions.**BaseError**(*message*)

exception pyAbacus.exceptions.**CheckSumError**
An error ocurred while doing check sum.

exception pyAbacus.exceptions.**TimeOutError**(*message=''*)
A time out error ocurred

1.3 pyAbacus.constants

pyAbacus.constants.**ADDRESS_DIRECTORY_2CH = {'coincidence_window_ms': 22, 'coincidence_win**
Memory addresses

pyAbacus.constants.**BAUDRATE = 115200**
Default baudrate for the serial port communication

pyAbacus.constants.**BOUNCE_TIMEOUT = 20**
Number of times a specific transmition is tried

pyAbacus.constants.**COINCIDENCE_WINDOW_DEFAULT_VALUE = 5**
Default coincidence window time value (ns).

pyAbacus.constants.**COINCIDENCE_WINDOW_MAXIMUM_VALUE = 50000**
Maximum coincidence window time value (ns).

pyAbacus.constants.**COINCIDENCE_WINDOW_MINIMUM_VALUE = 5**
Minimum coincidence window time value (ns).

pyAbacus.constants.**COINCIDENCE_WINDOW_STEP_VALUE = 5**
Increase ratio on the coincidence window time value (ns).

pyAbacus.constants.**COUNTERS_VALUES = None**
Global counters values variable

pyAbacus.constants.**CURRENT_OS = 'linux'**
Current operative system

pyAbacus.constants.**DELAY_DEFAULT_VALUE = 100**
Default delay time value (ns).

pyAbacus.constants.**DELAY_MAXIMUM_VALUE = 100**
Maximum delay time value (ns).

pyAbacus.constants.**DELAY_MINIMUM_VALUE = 0**
Minimum delay time value (ns).

pyAbacus.constants.**DELAY_STEP_VALUE = 5**
Increase ratio on the delay time value (ns).

pyAbacus.constants.**END_COMMUNICATION = 4**
End of message

pyAbacus.constants.**MAXIMUM_WRITING_TRIES = 20**
Number of tries done to write a value

pyAbacus.constants.**READ_VALUE = 14**
Reading operation signal

pyAbacus.constants.**SAMPLING_DEFAULT_VALUE = 100**
Default sampling time value (ms)

pyAbacus.constants.**SAMPLING_VALUES = [1, 2, 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000,**
From (1, 2, 5) ms to 1000 s

pyAbacus.constants.**SETTINGS = None**
Global settings variable

pyAbacus.constants.**SLEEP_DEFAULT_VALUE = 25**
Default sleep time value (ns).

pyAbacus.constants.**SLEEP_MAXIMUM_VALUE = 100**
Maximum sleep time value (ns).

pyAbacus.constants.**SLEEP_MINIMUM_VALUE = 0**
Minimum sleep time value (ns).

pyAbacus.constants.**SLEEP_STEP_VALUE = 5**
Increase ratio on the sleep time value (ns).

pyAbacus.constants.**START_COMMUNICATION = 2**
Begin message signal

pyAbacus.constants.**TIMEOUT = 0.04**
Maximum time without answer from the serial port

pyAbacus.constants.**WRITE_VALUE = 15**
Writing operation signal

CHAPTER

TWO

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- modindex
- search

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