DvG_QDeviceIO.py

v0.0.10

Dependencies:
 numpy
 PyQt5
 DvG_debug_functions

<<PyQt5.QtCore.QObject>>

QDeviceIO

<<PyQt5.QtCore.pyqtSignal>>
signal_DAQ_updated()
signal_send_updated()
signal_DAQ_paused()
signal_connection_lost()

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__init__()
attach_device(dev)
create_worker_DAQ(**kwargs)
create_worker_send(**kwargs)
start(
    DAQ_priority : PyQt5.QtCore.QThread.Priority,
    send_priority: PyQt5.QtCore.QThread.Priority)
quit()
pause_DAQ()
unpause_DAQ()
wake_up_DAQ()
send(instruction, pass_args)
add_to_send_queue(instruction, pass_args)
process_send_queue()

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dev   : {user supplied device class}
  .name   : str
  .mutex   : PyQt5.QtCore.QMutex()
  .is_alive : bool
worker_DAQ   : Worker_DAQ()
worker_send : Worker_send()
update_counter_DAQ
update_counter_send
not_alive_counter_DAQ
obtained_DAQ_interval_ms
obtained_DAQ_rate_Hz

<<PyQt5.QtCore.QObject>>

Worker_send

__init__(
    qdev   : QDeviceIO()
    jobs_function : function,
    DEBUG   : bool)
send(instruction, pass_args)
add_to_queue(instruction, pass_args)
process_queue()

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qdev   : QDeviceIO()
dev   : {user supplied device class}
jobs_function : None | function
DEBUG   : bool
DEBUG_color   : None | str

<<PyQt5.QtCore.QObject>>

Worker_DAQ

__init__(
    qdev   : QDeviceIO()
    DAQ_trigger   : DAQ_trigger,
    DAQ_function   : function,
    DAQ_interval_ms   : int,
    DAQ_timer_type   : PyQt5.QtCore.Qt.TimerType,
    critical_not_alive_count   : int,
    calc_DAQ_rate_every_N_iter : int | str,
    DEBUG   : bool)
pause()
unpause()
wake_up()

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qdev   : QDeviceIO()
dev   : {user supplied device class}
DAQ_function : function
critical_not_alive_count   : int
calc_DAQ_rate_every_N_iter : int
DEBUG   : bool
DEBUG_color   : None | str

<<enum.IntEnum>>

DAQ_trigger

INTERNAL_TIMER
SINGLE_SHOT_WAKE_UP
CONTINUOUS

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1
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