```
    channels

    homogenous

    curr_block

    types_ordered

- types_input
block_info

    samples

+ SampleBlock()
+ ~SampleBlock()
+ getNrOfBlocks()
+ getNrOfChannels()
+ getNrOfSamples()
+ getNrOfSignalTypes()
+ deleteSamples()
+ reset()
+ at()
+ operator[]()
+ init()
+ getTypes()
+ getSamples()
+ getFlagByNr()
+ getSignalByFlag()
+ getSignalByNr()
+ appendBlock()
+ setSamples()
- sort()
checkBlockIntegrity()
            < double >
                                      Constants
                               + tobi
                               + subject
                               + s_id
                               + s_name
                               + s_sex
                               + s_birthday
                               + SS
                               + ss_tcp
                               + ss_udp
                               + hardware
                               + hardware_name
                               + hardware_version
                               + hardware_serial
                               + hw_mode
                               + hw_ds
                               + hw_fs
                               + hw_channels
                               + hw_ch_nr
SampleBlock< double >
                               + hw_ch_names
                               + hw_ch_type

    blocks

                               + hw_buffer
- channels
- homogenous
                               + hw_fil

    curr_block

                               + hw_fil_type
- types_ordered
                               + hw_fil_order
                               + hw_fil_low
types_input
                               + hw_fil_high
block_info
                               + hw_not
- samples
                               + hw_not_center
+ SampleBlock()
                               + hw_opmode
+ ~SampleBlock()
                               + hw_sc
+ getNrOfBlocks()
                               + hw_usbampmaster
+ getNrOfChannels()
                               + hw_comgnd
+ getNrOfSamples()
                               + hw_gnd
+ getNrOfSignalTypes()
                               + hw_gnd_block
+ deleteSamples()
                               + hw_gnd_value
+ reset()
                               + hw_comref
+ at()
                               + hw_cr
+ operator[]()
                               + hw_cr_block
+ init()
                               + hw_cr_value
+ getTypes()
                               + hw_cs
+ getSamples()
                               + hw_sel
+ getFlagByNr()
                               + hw_cs_ch
+ getSignalByFlag()
                               + hw_cs_nr
+ getSignalByNr()
                               + hw_cs_name
+ appendBlock()
                               + hw_bip
+ setSamples()
                               + hw_bip_with
- sort()
                               + hw_drl
- checkBlockIntegrity()
                               + hw_drl_value

    supported_hardware

    signaltypes

                               usbamp_filterTypes
                               usbamp_opModes

    usbamp_blockNames

                               + Constants()
                               + ~Constants()
                               + isSupportedHardware()
                               + isSineGen()
                               + isUSBamp()
                               + isMobilab()
                               + equalsOnOrOff()
                        ١
                               + equalsMaster()
                        ١
                               + equalsSlave()
                         ١
                               + getUSBampFilter()
                               + getUSBampOpMode()
                          ١
                               + getUSBampBlockNr()
                          ١
                               + getSignalFlag()
                           data
                                         cst
                                   HWThread
                       # nr_ch
                       # samples_available
                       # blocks
                       # master
                       # cond
                       # rw
                       # sync_mut
                       # channel_info
                       # homogenous_signal_type
                       # channel_types
                       # m
                       # m_gs
                       # m_cs
                       # cst
                       # data
                       + HWThread()
                       + HWThread()
             buffer
                       + ~HWThread()
                       + getName()
                       + isMaster()
                       + hasHomogenousSignalType()
                       + getNrOfBlocks()
                       + getSamplingRate()
                       + getNrOfChannels()
                       + getChannelTypes()
                       + getChannelInfoMap()
                       + samplesAvailable()
                       + checkMandatoryHardwareTags()
                       + getSyncData()
                       + getAsyncData()
                       + run()
                       # setSamplingRate()
                       # setDeviceChannels()
                       # setBlocks()
                       # setChannelSelection()
                       # setChannelTypes()
                       # isNumber()
             SineGenerator

    initialized

         - t

    step

         cycle_dur
         current_block
         - samples
         - buffer
         + SineGenerator()
         + SineGenerator()
         + ~SineGenerator()
         + getSyncData()
         + getAsyncData()
         + run()
         setHardware()
         genSine()
         setDeviceSettings()
```

setChannelSettings()

SampleBlock< T >

blocks