APDCAM 10G Linux API   
Change Log

**2015.04.15.**

* APD10GLib.h changed
  + APDCAM\_Trigger changed
    - unsigned short preTriggerSampleCount parameter added
  + APDCAM\_SWTrigger commented out
* HighLevelFunctions.cpp
  + APDCAM\_Trigger changed
    - unsigned short preTriggerSampleCount parameter added
    - added triggerDelay setting when external trigger is used and added  
      preTriggerSampleCount settings via setRingBufferSize function
  + APDCAM\_SWTrigger commented out

**2015.04.17.**

* APD10GLib.h changed
  + added openMode parameter to APDCAM\_Open function but yet it is not used
* InternalFunctions.h changed
  + defined FlashConfigData structure
  + defined ADCFactoryData structure
  + defined CCFactoryData structure
  + defined GetFlashConfigData
* InternalFunctions.cpp changed
  + declared GetFlashConfigData

**2015.07.06**.

* InternalFunctions.h
  + defined GetADCFactoryData function
* InternalFunctions.cpp
  + declared GetADCFactoryData
* ADCRegs.h
  + defined ADC factory table registers.

**2015.07.07**

* Added new UtilityFunctions class to be able to assemble char buffers.
* Defined register addresses in ADCRegs.h for factory registers
* Implemented functions in InternalFunctions to read those registers
* Modified register addresses in PCRegs.h for control card factory table
* InternalFunctions.h
  + Defined GetPCFactorydata function

**2015.07.08.**

* Implemented GetPCFactory functions
  + Implemented sub functions to be able to read factory registers individually

**2015.07.09**

* InternalFunctions changed
  + Partly implemented Flash config read from C&C card
  + Implement Control units missing functions
  + Defined GetInfo and GetStatus functions
  + Defined GetPCBoardVersion function
  + Defined GetPeltierOut function
  + Defined Set/GetPIDP functions
  + Defined Set/GetPIDI functions
  + Defined Set/GetPIDD functions
  + Defined Set/GetDetTempSet functions
  + Defined GetFanHead function
  + Defined GetFanADC function
  + Defined GetFanElectronics function
* TypeDefs.h changed
  + Defined APD10GInfo structure in TypeDef.h
  + Defined APD10GStatus structure in TypeDef.h
* HighLevelFunctions changed
  + implemented GetInfo
  + implemented GetStatus
* PCRegs.h changed
  + deleted multiple definitions of registers
* ADP10GLib.h changed
  + changed parameter list of APDCAM\_GetInfo
  + changed parameter list of APDCAM\_GetStatus
  + APDCAM\_Control name changed to APDCAM\_SetAnalogPower
  + defined ADPCAM\_GetAnalogPower

**2015.07.10.**

* GECCommands.h changed
  + defined OP\_PROGRAMSERIALPLL instruction code according to the C&C card documentation
  + defined OP\_SETSATACONTROL instruction code according to the C&C card documentation
  + defined Cam Timer instructions according to the C&C card documentation
* InternalFunctions changed
  + Defined PCFactoryReset function
  + Minor changes in PC functions parameters lists(adjusted variable types)
  + Implemented ADC missing functions, checked until CONTROL register

**2015.07.14.**

* PCRegs.h changed
  + Deleted multiple definitions of registers
* InternalFunctions changed
  + Defined GetPCErrorCode function
  + Defined GetPCBiasMax functions

**2015.07.15.**

* InternalFunctions changed
  + Continue to check ADC functions
  + Implemented missing ADC functions, done until BPSCH1 register

**2015.07.19.**

* InternalFunctions changed
  + Continue to check ADC functions
  + All ADC functions were successfully implemented
  + Implementing ADC Factory table writer functions
  + Implemented SetADCFactoryData function
  + Defined SetFlashConfigData
  + Defined SetPCFactoryData function
  + Implemeting low level PCFactoryData writer functions
  + Defined Flashbusy function
  + Defined FlashChipErase function
* UtilityFunctions changed
  + Implemented data splitter routines

**2015.08.31**

* Minor modofications were made in the type definitions of some functions, now Debug and Release versions are working and behaving the same way.

**2015.09.01**

* APD10GLib.h changed
  + APDCAM\_Gain was changed to APDCAM\_SetHV
* HighLevelFunctions.cpp changed
  + APDCAM\_Gain was changed to APDCAM\_SetHV
  + APDCAM\_SetHV
    - reimplementing HV function to be able handle HV switch for APDCAM 10G
* APDTest.cpp changed
  + minor modifications were made in functions name, etc.
  + Setting HV from APDTest were defined
* Implemented APDCAM factory data file encryptor, it is tested, working
* Partly impleneted an APDCAM factory data setter, which is capable to decrypt and set factory calibration tables of APDCAM 10G

**2015.09.02**

* APD10GLib.h changed
  + APDCAM\_HVMonitor was defined
* HighLevelFunctions.cpp changed
  + APDCAM\_HVMonitor was created
  + APDCAM\_SetHV
    - fixed bug in the funtion now high voltage settings are working from this function
* GUI application for APDCAM 10G was created in Qt

**2016.06.15**

* Moved the project to Ubuntu 16.04 LTS
  + Installed Qt 5.6.1
  + Intalled Capabilities library, *sudo apt-get install libcap-dev*
  + Setted up APDCAM-10G according User manual
* There was a bug in measurements with not all channels enabled
  + DataEvaluation class
    - the data was sorted wrongly, channel mask was not used
  + HighLevelFunctions
    - APDCAM\_Save
      * The fuctions wrongly determined channels that were used in the last measurement

**2016.06.16**

* Trying to compile APDCAMControl on Ubunt but APD10GLib and APDLib has same class, struct and enum names which are conflicted, have to rename every one of those in APD10GLib.

**2016.06.17**

* There is still a bug in Dataevaluation

**2016.07.01**

* Helpers class changed
  + There was a bug in calculating block size
* DataEvaluation class changed
  + ProcessBlock function changed
    - The byte boundaries was wrongly handled

**2016.07.04**

* DataEvaluation class changed
  + ProcessBlock function changed
    - ADC block loop was wrongly counted
* There was a bug in APDCAM\_Save
  + Channels were wrongly indexed

**2016.07.05**

* Helpers class changed
  + GetBlockSize changed
    - bitspersample was wrongly calculated
* DataEvaluation class changed
  + in Handler function wrong member variable passed to GetBlockSize
* HighLevelFunctions class
  + Allocate, Arm
    - GetBlockSize was called with wrong parameter
* Helpers class
  + Implemented ReverseBits function to be able to reverse channel mask bits before writing them and after reading them back
* It seems channel enabling issue was solved

**2016.07.06**

* Made a new projekt called APD10GLib\_New, this is now the trunk
* Renaming every conflicting names in APD10GLib to be able to include both APDLIB and APD10GLib in ADPCAMControl
* ADT\_RESULT was changes to ADT10G\_RESULT, projekt compiles
* ADT\_MEASUREMENT\_MODE was changes to ADT\_10G\_MEASUREMENT\_MODE, projekt compiles
* ADT\_CALIB\_MODE was changes to ADT\_10G\_CALIB\_MODE, projekt compiles
* ADT\_TRIGGER was changes to ADT\_10G\_TRIGGER, projekt compiles
* ADT\_TRIGGER\_MODE was changes to ADT\_10G\_TRIGGER\_MODE, projekt compiles
* ADT\_TRIGGER\_EDGE was changes to ADT\_10G\_TRIGGER\_EDGE, projekt compiles
* ADT\_STATE was changes to ADT\_10G\_STATE, projekt compiles
* All APD10GLib funtion were renamed, the projekt still compiling

**2016.07.07**

* Renamed APDCAM\_10G\_Filter to APDCAM\_10G\_SetFilter
* ADPCAM\_10G\_HVMonitor was deleted
* Renamed APDCAM\_10G\_Caliblight to APDCAM\_10G\_SetCaliblight
* Renamed APDCAM\_10G\_SetOffsets to APDCAM\_10G\_SetADCOffsets
* TypedDefs.h
  + Defined APD10GConfig structure
* APD10GLib.h
  + Defined APDCAM10G\_GetConfig
  + Removed Set and Get ring buffersize
* HighLevelFunctions.cpp
  + Implemented APDCAM10G\_GetConfig
  + Removed Set and Get ring buffersize
  + Renamed GetIndex to Get10GIndex
  + g\_WorkingSet was renamed to m\_WorkingSet
* InternalFunctions class
  + Defined GetConfig function
* g\_pFactory was renamed to m\_pFactory
* CDataEvaluation class was renamed to C10GDataEvaluation
* CTriggerManeger class was renamed to C10GTriggerManager

**2016.07.11**

* Renamed a few function to be able to use APDCAM and APDCAM-10G in APDCAMControl as well
* Rename memcpy\_s to memcpy\_s10g in helpers class
* Renamed Sleep to mSleep in helpers class
* Renamed SetTestMode to Set10GTestMode in InternalFunctions class
* Renamed GetTestMode to Get10GTestMode in InternalFunctions class
* Renamed SetInternalTriggerLevels to Set10nternalTriggerLevels in InternalFunctions class
* Renamed GetnternalTriggerLevels to Get10nternalTriggerLevels in InternalFunctions class
* Renamed CAPDFactory class to CAPD10GFactory in InterfaceDefs.h

**2016.07.12**

* APDCAM\_10G\_Find
  + removed delete client call from the end of the function because it crashed APDCAMControl

**2016.07.13**

* Implementng APD10GLib functions
  + APDCAM10G\_OpenDevice
    - Added openMode parameter
* Implemented APDCAM10G\_Shutter
* Implemented APDCAM10G\_SetShutterMode
* Implemented APDCAM10G\_GetShutterMode
* Implemented APDCAM10G\_SetCalibLight
* Implemented APDCAM10G\_GetCalibLight
* InternalFunctions class
  + Defined APD10GADC struct
  + Defined Status1, Status2, Control structures for APD10GStatus structure

**2016.07.21**

* Added ADPCAM\_10G\_GetADCOffsets

**2016.08.02**

* It seems stream port was wrongly handled, now it works under Ubuntu for 2 ADC and for different channels masks as well.

**2017.04.11**

* Changed Status1,2 names in TypeDefs.h because of naming collision in APDLib APDCAM\_Control did not compiled
* APD10GLib compiled
* **version number is now 0.7.1**
* Changed Set/GetShutterMode to Set/Get10GShutter mode because of multiple definitions error
* **version number is now 0.7.2**

**2017.06.02**

* started to implement element necessary to APDCAM10G factory write
  + InternalFunction
    - Implemented GetFactoryData