

## **SOFTWARE DEVELOPMENT KIT**

#### LASERTUNE & EXTERNAL DETECTOR

## Release Notes

### v4.0 2019-04-23

C++ Proxy added, New Proxies, Bug fixes

- SweepTune sample is now more robust
- Added GetFactorySettings to the list of built sample apps
- New C++ Proxy (about 75% coverage, probably 95% coverage of what matters)
- Scripted maintenance of component versions from VERSION file
- WSDL Changes
  - Definitions for ACU\_01\_04 & CCU\_00\_52
  - https://blockeng.atlassian.net/browse/QCL-32: added to WSDL and all proxies support for StrongID member of Tuners;
  - https://blockeng.atlassian.net/browse/QCL-410 document better (in reference docs) some alarms; and remove alarms
    - Critical\_LowVoltageFromPowerBoard
    - o Critical\_MirrorOverCurrent
    - o Critical MirrorNoCurrent
    - Error\_DetectorTemperatureNotLocked
    - Error\_LaserTemperatureNotSettled
    - Warning\_AmbientTemperatureTooHigh
    - Warning\_LaserImpedenceTooHigh
    - Warning MirrorImpedenceTooHigh
    - Warning CalibrationTooHigh
    - Warning\_VibrationTooHigh
  - lose ReferenceNormalizationParameters from factory settings
  - lose ReferenceMirrorPosition/ReferenceLaserVoltage
  - lose ReadbackStrategy configuration from WSDL and lose CurrentToWaveNumberCalibrationTable since we no longer support ReadbackMirrorCurrent
  - rename WaveNumberToDriveVoltageCalibrationTable to WaveNumberToMirrorDriveCalibrationTable
  - · Lots of changes for locking feature
  - new factory settings LaserTemperatureVariationAllowed LaserTemperatureWarmupTimeout

Each of these WSDL changes included changes to all proxies, and related data model support, as well as reference documentation.

- JS Proxy
  - fix getScanData
  - o fix LowerBound/UpperBound in writeRange code



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- fix MirrorResonantFrequency
- o fix parsing of a duration range;
- new Proxy constructor to support custom SendTimeout (s);
- o Make PersistanceClear promise compliant

#### .Net Proxy

- o fix CCU Peek/Poke bug
- o added division operator for Spetra
- fixed bug reported by customer reading GetFactorySettings from system release v2 system (2.63) (exception mapping obsolete features)

#### Python Proxy

- Added 3 new Scan Persistence Proxy Methods:
  ScanPersistenceGetFolderSummary, ScanPersistenceExport &
  ScanPersistenceClear
- New project file for inclusion in VS2k17 solution files

#### v3.0 New BLKQCL-v2016-05.wsdl supported;

2016-06-24 BLKQCL-App-v2016-05.xsd app support (app configuration);

Lose obsolete External Controller WSDL;

Many WSDL changes, especially to factory settings, including ACU/I2C/CCU board object

C#.net proxies and samples improved (e.g. SweepTune bug fixed); JS Proxy improvements, including better duration support;

Removed incomplete C++/Python proxies;

#### v1.1

2015-07-14 Enormous changes since v1.0.1

Proxies all support BLK-15-v2014-04.wsdl (system 0.00), BLKQCL-v2014-07.wsdl (system 0.01), and BLKQCL-v2015-05.wsdl (System 0.02)

Simplified laser operations (no repeat count).

Added Analyze support, and External Controller API.

New networking APIs (Get/Set NetworkConfiguration), tons of new User Settings and factory settings. Removed obsolete APIs like GetCurrentToWaveNumberCalibrationTable.

Renamed GetSolenoidState/SetSolenoidState -> GetToggleSwitchState/ SetToggleSwitchState

New IBasicPersistence and IScanPersistence APIs (to store data on device).

Much improved C#.net proxy support (including pipelining); some new python proxy support, and improved JS proxy support; Draft (unusable) C++ proxy support



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v1.0.1 Public release.

2014-09-02 Renamed BLK15 to BLKQCL.

.Net, JS, and Python proxies now auto-detect target WS namespace (protocol version).

Proxies take options constructor arguments, including AUTH info, url, and other options.

Tons of new WSDL APIs supported, including supported features, solenoids, GetMajorOperationStatus, GetNetworkAdpaterStatus(), etc.

New WatchCurrentOperation HTML sample.

Major revisions to ReadSensors() WS API, including support for staleness.

Serveral UserSettings/FactorySettings field changes, like CCU -> Detector, etc.

Major python proxy performance improvements, including limited support for pipelining (this makes sequences of interleaved scans run with less than 10ms latency between scans).

.Net proxy far more complete.

Deprecated older APIs like RunLasers() and instead use StepTune, ExternallyControlledTune(), StepScan(), etc.

Scan() APIs now return a single scan, not array.

Improved documentation (including documentation on factory settings).

v1.0a4 Public release.

2014-04-17 Created C#.net proxies, and many more C# examples.

Improved Python samples, proxies, and documentation.

SDK (API) documentation clarifications.

Distribute as .zip (as .tar.gz)

Overall documentation/structure improvements.

Non-public review release. Incomplete.

BLK-15-v2014-04.wsdl

Draft proxies for JS, Python.

Sample for manual import WSDL into C#.Net