



# Acqiris MD3 Software for Signal Acquisition Cards - Release Notes

## 1. Version Information: MD3 3.4

Released Date:	June 2019
Operating systems:	Windows 7, Windows 10
Required Software:	For SA2xxx products: No additional required software For U53xxA products: Keysight IO Libraries Suite
Supported Products	SA220P, SA220E, SA230P, U5303A, U5310A, U5309A
File Name(s):	MD3Software-3.4.150.5.exe

### 1.1. New Features

- Added support of SA230P.
- Added support of SA220E.
- SA220: Added support of AVG+CST mode.
- SA220: Increased maximum acquisition length in AVG mode to 1MSample in single channel mode.
- SA220: Added support of Zero Suppress (product with option ZS1 required).
- SA220: Added support of SmartCalibration.
- SA220: Added support of 1 GSample variant (product with option LSR).
- New API: Added support of user-provided time reference and time reset mode. New properties, functions, attributes and time reset modes:
  - AqMD3 IVI.NET
    - IAqMD3TimeReference.Time
    - IAqMD3TimeReference.ResetMode
    - TimeResetMode.Immediate
    - TimeResetMode.OnFirstTrigger
    - TimeResetMode.OnTriggerEnable
  - AqMD3 IVI-C
    - AqMD3\_SetTime
    - AQMD3\_ATTR\_TIME\_REFERENCE\_RESET\_MODE
    - AQMD3\_VAL\_TIME\_RESET\_MODE\_IMMEDIATE
    - AQMD3\_VAL\_TIME\_RESET\_MODE\_ON\_FIRST\_TRIGGER
    - AQMD3\_VAL\_TIME\_RESET\_MODE\_ON\_TRIGGER\_ENABLE

### 1.2. Corrected issues

- U5309A: Corrected intermittent calibration failure.



## 1.3. Known issues and solutions

- **Install Repair** not supported.
- SAxxx: Acquisitions might timeout if the trigger delay is greater than 67.109 ms. This issue impacts acquisitions in averager mode, or acquisitions with baseline correction, zero suppress, noise suppress and data inversion.
- SAxxx: In average mode with streaming (CST+AVG), the very first record might contain incorrect data if the previous streaming session is abnormally terminated (acquisition not properly aborted). As a workaround, user can initiate and abort a dummy acquisition before starting actual streaming session.
- U5303A, U5309A: In average mode with simultaneous Acquisition and readout, with triggers (TSR+AVG), and in AVG mode on the U5303A, the card is no longer operational after an Abort. To restart an acquisition, user must first Close and re-Initialize the card.
- U5303A: Noise Suppress Accumulation (NSA) not supported in average mode with simultaneous Acquisition and readout, with triggers (TSR+AVG).

## 2. Version Information: MD3 3.2

Released Date:	December 2018
Operating systems:	Windows 7, Windows 10
Required Software:	For SA2xxx products: No additional required software For U53xxA products: Keysight IO Libraries Suite
Supported Products	SA220P, U5303A, U5310A, U5309A
File Name(s):	MD3Software-3.2.5562.9.exe

### 2.1. New Features

- Added support of SA220P.
- AqMD3 LogicDevice Interface: Changed the signature of the following methods (IVI.NET driver) and functions (IVI-C driver). Size and register address parameters are now 64-bit integers (instead of 32-bit integers) which allows representation of memory areas located beyond 4Gbyte limit. This change breaks binary compatibility of programs using previous driver versions. Projects needs to be adapted (argument type) and recompiled.
  - AqMD3 IVI.NET methods:
    - IAqMD3LogicDevice.ReadIndirectInt32
    - IAqMD3LogicDevice.ReadRegisterInt32
    - IAqMD3LogicDevice.WriteRegisterInt32
    - IAqMD3LogicDevice.WriteIndirectInt32
  - AqMD3 IVI-C functions:
    - AqMD3\_LogicDeviceWriteStreamWaveformInt8
    - AqMD3\_LogicDeviceWriteStreamWaveformInt16
    - AqMD3\_LogicDeviceWriteIndirectInt32
    - AqMD3\_LogicDeviceWriteRegisterInt32



- AqMD3\_LogicDeviceReadIndirectInt32

## 2.2. Known issues and solutions

- **Install Repair** not supported.
- U5303A, U5309A: In average mode with simultaneous Acquisition and readout, with triggers (TSR+AVG), and in AVG mode on the U5303A, the card is no longer operational after an Abort. To restart an acquisition, user must first Close and re-Initialize the card.
- U5303A: Noise Suppress Accumulation (NSA) not supported in average mode with simultaneous Acquisition and readout, with triggers (TSR+AVG).

## 3. Version Information: MD3 3.1

Released Date:	August 2018
Operating systems:	Windows 7, Windows 10
Required Software:	For SA2xxx products: No additional required software For U53xxA products: Keysight IO Libraries Suite
Supported Products	U5303A, U5310A, U5309A
File Name(s):	MD3Software-3.1.8850.4.exe

### 3.1. New Features

- Initial release of the new IVI.NET API and IVI-C API for Acqiris Signal Acquisition Cards. These new native interfaces enhance ease of use and performance over the previous driver package version (MD2) which was using an Interop Assembly calling a COM server for .NET environments, and an IVI-C wrapper over the same COM server for C environments.
- U5303A: Added support of real-time averaging with simultaneous acquisition and readout (AVG+TSR) - support in single channel (INT) on SR1 variants.
- U5303A-AVG: Remove constraint of multiples of 8 for the number of averages.
- U5309A: Added dual channel support of real-time averaging with simultaneous acquisition and readout (AVG+TSR).
- U5309A: Added CST support (evaluation).

### 3.2. Corrected issues

- U5309A-CH1: Corrected potential "bipolar fraction" error on SelfCalibrate.

### 3.3. Known issues

- U5303A, U5309A: In average mode with simultaneous Acquisition and readout, with triggers (TSR+AVG), and in AVG mode on the U5303A, the card is no longer operational after an Abort. To restart an acquisition, user must first Close and re-Initialize the card.



- U5303A: Noise Suppress Accumulation (NSA) not supported in average mode with simultaneous Acquisition and readout, with triggers (TSR+AVG).

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