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Matrox AltiZ Firmware Version 1.2

Release Notes

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Version : 1.2

Description: Matrox AltiZ Firmware update  
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Standards compliance:

- Compliant GigE Vision version 2.2.
- Compliant GenICam SFNC version 2.6.
- Compliant GenICam GenDC version 1.1.

Matrox AltiZ version 1.2 changes:  
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- Added a mechanism to insert a dummy profile whenever a line trigger missed event (EventLineTriggerMissed) happens to maintain linearity of the scan length. These dummy profiles only contain invalid data values.
  - Added a new chunk data type (ChunkTimestampLatchValue) that returns the timestamp, in ns, for each profile.
  - Fixed an issue where 3D point clouds would have an incorrect scale when using subsampling (DecimationHorizontal or DecimationVertical) in CalibratedABC\_Grid output mode.
  - Fixed issue where the ID value of Scatter component was wrong. This caused the Scatter component to be interpreted as a Disparity when interfacing with MIL/MIL-Lite X (Version 22H1 and later) and third-party software.
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Matrox AltiZ version 1.0 changes:  
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- Added a feature (Object Detect) to trigger acquisition on a detection of an object. See Object Detect Control in the feature browser for details.
- Added a feature (Chunk Data) that allows you to include supplementary information to the acquisition (Frame, Scan 3D, and encoder information). See Chunk Data Control in the feature browser for details.

- Fixed an issue where the camera could not be discovered when connected to a network without a DHCP server.
- Fixed an issue that could cause invalid 3D peaks when the object is very close to the top of the field of view.
- Fixed an issue with FileAccess where the downloaded or uploaded user sets could be corrupted.
- Fixed an issue where the camera could become unresponsive when the Range component is acquired on each head with Source Synchronization Mode feature set to Alternating.

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Matrox AltiZ version 0.8 changes:

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- Optimized performance (profiles/sec) in all output modes. When using the RectifiedC output mode with SourceSynchronizationMode set to Alternating, these optimizations allow the sensor to achieve maximum sensor speeds.
- Added features that allow horizontal and vertical discrete sub-sampling (DecimationHorizontal, DecimationVertical). These can increase the profile rate by up to a factor of 3, but will result in a reduced resolution in the respective direction.
- Added a feature (FileAccess) that allows you to download and upload user sets between Matrox AltiZ 3D sensors. FileAccess is only accessible by versions of Matrox Capture Works (10.41.2984), or third-party software, that supports this feature.
- Added a new trigger type feature (FrameActive) that allows you to control the number of profiles acquired in a Surface scan by using the logic level of the external signal.
- Added more custom user sets (UserSet2, UserSet3) and deprecated the QuickSetup user set.
- Added new features to the QuickSetup category: Laser Brightness, Encoder, and UserSet controls.
- User sets are no longer overwritten when updating the firmware.

- Better support for multi-AltiZ configuration:
  - The EncoderDivider is now writtable when it is not used as a line trigger.
  - The ExposureActive output signal is now a logic OR of the exposure of both heads,
    - instead of only outputting the exposure of the primary head.
- Fixed an issue with the logic blocks not properly loading when used with user sets or
  - the Matrox AltiZ Setup in Capture Works.

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Matrox AltiZ version 0.6 changes:

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- Added controls and inquires to set the pose of the Transformed coordinate systems with respect to the Anchor coordinate system (Scan3dCoordinateTransformSelector, Scan3dTransformValue).
- Added controls and inquires to retrieve the pose of the Anchor and Transformed coordinate systems with respect to the Reference coordinate system (Scan3dCoordinateReferenceSelector, Scan3dCoordinateReferenceValue).
- Added support for motion pitch and motion yaw (Scan3dMotionPitch, Scan3dMotionYaw).
- Added inquires for the minimum and maximum value of the selected coordinate axis (Scan3dAxisMin, Scan3dAxisMax).
- Added support for the acquisition error and missed line trigger GigE Vision events (AcquisitionError, LineTriggerMissed). Use with Matrox Capture Works requires the latter to be Version 10.41.2926 or later.
- Added an inquire for the current encoder divider.
- Added the ability to redirect a line input to a line output (LineSource).
- Added support for the GigE Vision manifest table.
- Added the ability to set a persistent static IP.
- Added an inquire for the current GigE Vision IP configuration (LLA, DHCP or persistent IP).
- Added inquires for the current GigE Vision subnet mask and default gateway.
- Improved the accuracy of GigE Vision timestamps.
- Improved support of dynamic changes in network configurations.
- Changed the maximum exposure time to 1 second.
- Changed the default value of Scan3dPeakFusionDistanceMax (which now depends of the device model).
- Changed the device version numbering format (DeviceVersion).
- Changed the return type of the device clock frequency to float (DeviceClockFrequency).
- Fixed an issue with the counter value being off (CounterValue).

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Matrox AltiZ version 0.4 changes:

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- Added new userset: Intensity.
- Added support for timestamps in GigE Vision GVSP and GenDC headers.
- Added Test Payload Format Mode.
- Added new features under the Device Control category:
  - Device Clock Frequency.
  - Timestamp Reset command.
  - Timestamp Latch command.
  - Timestamp Latch Value.
- Added new features under the Transport Layer Control category:
  - GenDC Streaming Status.
  - GenDC Streaming Mode.
  - GEV SCPD for setting interpacket delays.
- Fixed the camera connection issue when the network is not present (when the camera boots up or when the network configuration changes).
- Fixed issue when grabbing Intensity and the Synchronization Mode is set to Alternating.
- Fixed issue when setting UserSet values after a power cycle.