Revision: A

chroma+scan 3x00 Release Notes
Version 4.11.11.50 (previous version: 4.11.11.31)

New Features:

10Gbps Link Speed	Previously, the maximum number of sensors connected to a single station was limited by a maximum 1Gbps bandwidth. We now support 10Gbps link speeds between the sensors and the station (provided that the system is using 10Gbps ports and switches). 10Gbps link speed can be enabled by editing the field '*Link Capacity*' in the file *kServer.xml* located in the FireSync station storage (*FireSyncStation\Host\Storage*). This parameter is the link capacity in Mbps. By default, it is set to 1000 (1Gbps). For speeds up to 10Gbps, this should be changed to 10000.

Changes:

Calibration Obstructions	Previously, the system calibration would automatically detect chain regions and disregard this data when determining the profile offsets. In this release, the user has the option to use user-defined obstructions instead of auto chain detection. This is configured via the "*Use Obstructions*" parameter on the Calibration page in FireSync Client. By default, it is disabled. Enabling this option will first mask data with user obstructions (defined for each sensor) before processing calibration data. The calibration in the obstructed regions will still be calculated by extrapolating the neighbouring data. Hence, if you remove or modify an obstruction, you may still use the existing calibration, but note that the calibrated offsets in the previously-obstructed region may not be precise. Additionally, if large regions of the sensor's field of view are obstructed, the calibration will complete but with a warning that those regions had insufficient data.
Vision Calibration	Previously, the vision calibration would use all available data to calculate the vision y-axis offsets, even if the profile calibration had detected a chain in the data. Some smoothing of that data was performed, but the inclusion of the chain would have slightly affected the offsets. This has been modified so that the chain region (or a user obstruction) will be ignored for all vision calculations.
Calibration CPU usage	Previously, on weaker stations, the system calibration may max out the station CPU usage on a single core. When this occurs, the system calibration would fail with errors about lost sensor data. To work around this issue, we have provided a field in the server settings (*Settings.xml*) which allows the y-axis density of data collected during system calibration to be lowered. The field is named *'DataCollectionDensityLevel*' and is located in the *Calibration* section of *Settings.xml*. The default density level is set to 8,

	which is what was used in previous releases. In our testing, on standard chain speeds, lowering this value to 4 improved CPU usage on weaker systems without any loss in calibration accuracy. We suggest changing this density only when the system calibration is failing due to high CPU usage. To edit this value, please do the following: If the server does not contain a settings file, a new file containing this parameter will be created immediately after FireSync Client connects to the server(s). If the server already contains a settings file, this parameter will be created if the following procedure is done: 1. Run FireSync Client and connect to the server(s) 2. Change any field in the System Setup tab, and run Detection or Web mode. *Settings.xml* should now contain the field *'DataCollectionDensityLevel'*. If the settings file is being edited manually and not through the Zen API, it is best to disconnect from Client before making any edits. Otherwise, these edits may be overwritten. Additionally, ensure the settings on all stations in the system are edited.
Camera Diagnostic Logging	To provide more diagnostics when sensor camera errors and desyncs occur, we now log additional debug information locally on the sensors. These logs are transferred from the affected sensors to the folder *FireSyncStation\Host\log* when the station processes are restarted.
Station Start Delay	The default base start delay in *kServer.xml* has been increased to 3 seconds (from a default of 2.2 seconds for non-vision sensors and 2.5 seconds for vision sensors).
CPU Health Indicators	Station CPU health indicators are now documented in the FireSync Host Protocol references included in the Client installer.

Fixes:

Sensor Firmware Crash	Previously, erroneous camera data would cause the sensor firmware to fail, which resulted in the sensor losing communication and only recovering after a powercycle. This has been fixed.
Camera Desync Recovery	Previously, cameras producing profile data would not recover after a desync and would produce noisy data or no data. This has been fixed.
Windows 7 64-bit Embedded Upgrade Failure	Previously, upgrades would fail on certain Windows 7 64-bit embedded systems when the commit manager was enabled. This has been fixed.