

IQEye Cameras Firmware

General Description

Vicon engineering has released the latest firmware for a list of IQeye cameras. The accompanying IQfinder and IQmanager discovery and setup tools do not change.

The updated firmware is relevant to camera models as listed below:

Camera	Older Firmware	Newest Firmware
IQM5xx – Alliance-mx older model	V4.1 / 284	V4.1 / 374
IQM6xx – Alliance-mx current model	V4.1 / 284	V4.1 / 374
IQD5xx – Alliance-mini older model	V4.1 / 284	V4.1 / 374
IQD6xx – Alliance-mini current model	V4.1 / 284	V4.1 / 374
IQ76xx – 7 series box camera	V4.1 / 284	V4.1 / 374
IQ86xx – Sentinel cameras	V4.1 / 284	V4.1 / 374
IQA3xx – Alliance-pro older model	V4.1/ 284	V4.1 / 374
IQR5xx – Bullet camera	V4.1 / 252	V4.1 / 374

Vicon Production

The latest firmware and discovery tool are available on Vicon's web site. A link is provided in the installation section of this document. Production will switch over to the new firmware for new cameras. A link to the latest analytics application is also provided on the web site.

Vicon considers it "best practice to update cameras to the latest firmware and receive the most stable and secure solution. Please review the upgrade instructions described at the end of this document.

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Firmware Updates

Auto-Recovery on Flash Failure

An auto-recovery mechanism is introduced, allowing the camera to run from a protected area in case of flash memory corruption. This mechanism now allows holding a “last known good” firmware in a protected area of the flash and in case of corruption in the main firmware area the camera will switch to it.

Updating to this specific firmware should be done twice (update once and then update again) to allow the protected firmware area to be created and then have it updated with the latest version!

Updated Edge-Based Analytics

The IQanalytics edge application has been re-named Vicon Analytics and the basic analytics behaviors are provided for free (no need to license). It is still required to start the Vicon Analytics application in order to use the edge behaviors.

New cameras shipping from Vicon will have the new analytics application already loaded. If an existing camera is being upgraded to this new firmware, the Vicon Analytics application also needs to be updated; this can be found on the Vicon web site along with the main firmware.

Note: Running the Vicon Analytics application on the camera utilizes the same processor that handles video streaming. There are two operating options (Vicon recommends option 1):

1. Reduce the stream frame rate (all streams) to half of their maximum. For example, on the 1080P camera use 15fps instead of its maximum 30fps. This will ensure both streaming and analytics have plenty of processing power.
2. Keep the frame rates at their maximum. The analytics will still work but will be somewhat less sensitive.

Bounding Boxed for Analytics

When using the Edge-Based Vicon Analytics, bounding boxes have been added and are sent to the VMS to allow identifying and tracking of detected objects. This feature requires the ViconNet VMS to be running **version 8.1** or higher.

ViconNet VMS* Museum Search

With this firmware the IQeye cameras now support sending “Museum Search” metadata to the ViconNet VMS and allow utilizing it for fast pixel-level searches. This feature requires ViconNet VMS to be running **version 8.1** or higher.

Note: The ViconNet museum search feature needs to be turned on in the camera. This is done automatically when the camera is added to the VMS (first configuration). If firmware is updated on an existing camera in the ViconNet VMS, the feature should be turned on from the camera web interface under the setup – basic tab.

* This feature is supported only on the ViconNet VMS at this time

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MFZ Performance

Faster auto-focus and better zoom control when using the motorized lens.

General Protection Fix

When the general protection mode is enabled, the camera will now properly manage the user and password request. This also works with RTSP streaming and corrects possible memory leaks related to this feature.

General Improvements

The following items have been fine-tuned to offer better image quality: Day / night threshold; improved gain calculations; 1fps steps for all streams; reduced noise in WDR mode.

ONVIF Improvements

Audio Encoding

Added audio encoding in ONVIF that now allows the audio in from built-in or external microphone to stream to any VMS supporting ONVIF.

Incremental 1FPS Steps

Now allows FPS to be set from 1 to the maximum supported by the camera in steps of 1fps instead of the larger steps previously supported

Better CPU Utilization

Updated the ONVIF server in the camera, fixing an issue where after running many hours it would over use CPU resources.

Support Back-Focus

Added support for back-focus ONVIF command in the Sentinel IQ86xx cameras.

Known Issues

Edge Recording NTP

When using Exacq Edge (or any Edge client) or when configuring standalone recording to the camera's SD card, be sure to configure a network accessible NTP time server for IQD5xx and IQM5xx cameras, as they do not have a real-time clock. Alternatively, you can use IQeye cameras from the IQD6xx, IQM6xx, IQ76xx, IQA3xx and IQR5xx families, as these models include a battery backed up real-time clock.

Restore Default Issue

Restoring defaults on the advanced image setup web page doesn't restore the day/night threshold value.

60 FPS on WDR

There is no ability to select 60 frames per second on one megapixel WDR cameras.

Analog Out Issue

In certain network environments, the analog video output of the IQD6xx/IQM6xx will not work unless the camera has just been factory reset.

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Edge Recording NTP

Selecting the Lightgrabber "4X" setting on the IQD5xx, IQM5xx and IQR5xx families of cameras could cause a brightness issue in the camera that results in a washed out image. The "4X" setting has been disabled.

IQRecorder Application

IQRecorder functionality is no longer supported.

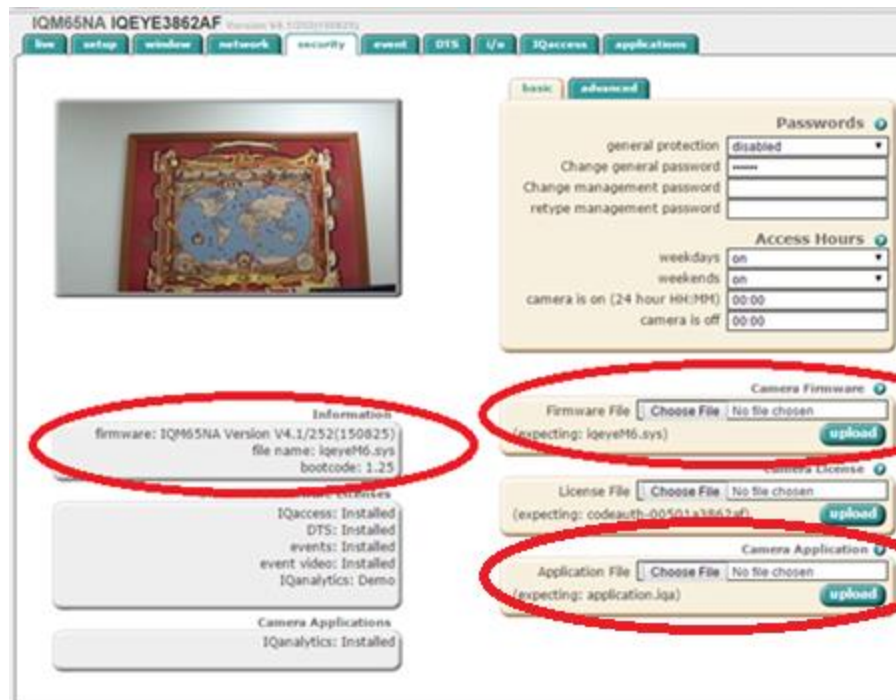
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Installing the Updated Firmware

All new production cameras have the latest firmware. For upgrades the latest firmware is available on Vicon's website from the Learn-and-Support tab – Software Downloads – IQeye-camera-software; a link is provided below.

Note! Updating to this specific firmware should be done twice (update once and then update again) to allow the protected firmware area to be created and then have it updated with the latest version!

<http://www.vicon-security.com/learn-and-support/software-downloads#iqeye-camera-software> Download the firmware to your PC. Go to the camera's security tab.



Go to the camera firmware section and use the "Choose File" button to locate the firmware on your PC. Press the upload button. During the upgrade process, do not turn off the power to the camera. The new firmware should be installed. This can be verified on the information window on the left side.

The latest Vicon Analytics application is also available in the same location and should be updated as an application file after the new firmware has been successfully updated (only once)

Upgrading the firmware can be also done using the IQfinder / IQmanager software without browsing to the cameras and for batch upgrades.