

Release Notes

January 2022

Firmware Update for Camera Model: V2002D-PTZ

General Description

Vicon has released firmware for production for the camera listed below. The accompanying IP Toolbox discovery tool version 1.9.2.5 is available on Vicon's website

This camera and firmware version have been tested and validated with Vicon's Valerus VMS and with ViconNet V8.x.

Camera	Older Firmware	New Firmware
V2002D-PTZ	VCAM3LM.01.02.1.13.4214	VCAM3LM.01.02.1.13.4709

Vicon Production

The latest firmware and discovery tool are available on Vicon's website. A link is provided in the installation section of this document. Manufacturing will start using the new firmware for new camera production and update all existing inventory.

Updating is recommended for cameras intended to work with Vicon's Valerus VMS or other ONVIF-based VMS systems. For other applications, please review the release notes to help determine if the fixes included are relevant to your environment.

Please review the upgrade instructions described at the end of this document.

Important notes:

- It is **strongly recommended** to update cameras to the latest firmware to avoid the issue described below, under "Flash Memory."
- To save camera settings, and restore them after a reset, the "Export Settings" and "Import Settings" options can be used to temporarily save the settings to a file. These options can be found under Configuration>System>Initialization in the camera's web interface.



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New Features

[Stream without audio](#)

An option has been added in audio capable cameras to request an H.264/H.265 video stream from the camera, but *without* the audio channel, regardless of the audio setting in the camera. The URL is `rtsp://<camera-ip>/stream1_noAudio` for the primary stream and `rtsp://<camera-ip>/stream2_noAudio` for the secondary stream.

Known Issues

[H.264/H.265](#)

Under certain circumstances, when the camera is added in Valerus, it is possible that the H.265 option is not presented in Valerus. This is a timing issue, where the VMS does not receive information about the camera's codec capabilities. When this happens, the camera needs to be removed from Valerus and re-added after the camera is reset.

[Audio in exacqVision VMS](#)

When the camera is used in exacqVision VMS, and the camera is set to enable audio, then the camera will not stream to the VMS. When audio is disabled, the camera will work properly in the VMS.

[Museum Search and Analytics Bounding Boxes](#)

When Museum Search is disabled in the camera, it will also no longer show the bounding boxes in Valerus that are associated with camera edge analytics.

Fixed Issues

[ONVIF compliance](#)

Some changes have been made to pass the current ONVIF compliance tests.

[Flash memory](#)

In certain very specific network configurations, the internal logging mechanism could write an excessive number of messages in the flash memory, which could cause the flash memory to fail. The new firmware avoids writing repetitive messages.

[Internal SD card recording](#)

Some improvements have been made in the user interface for the SD recording playback function.

[Audio recording in Milestone VMS](#)

There was an issue with audio recording in Milestone VMS. This has been corrected.

[Quality setting](#)

An issue was fixed where the H.264 quality setting range was not properly represented in Vicon Valerus VMS.

[Video compression](#)

Some improvements have been implemented in the video compression that improve the images and make the streaming smoother.



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[Line Counter](#)

An issue was fixed where the video analytics line counter values were not properly updated in the user interface in Chrome. Also, counting has been made more accurate.

[Camera discovery](#)

An issue was fixed where in some cases the camera was not discovered over the network and must be added manually.

[Pull Point support](#)

An issue was fixed where not all connected clients get a Pull Point feed if there are many clients. This is specifically an issue with the legacy ViconNet VMS.

[Video stutter](#)

An issue was fixed where a slight stutter in the video stream was noticeable when large parts of the scene were changing. Also, excessive compression artifacts were visible when only a very small part of the scene changes.

[Playback events](#)

In the playback event list, other events than just "motion" are visible.

[Default after upgrade](#)

An issue was fixed where the camera needs to be factory-defaulted after a firmware update.

[Vicon branding](#)

An issue was fixed where, in the network setting, if the camera network name was changed, the camera would no longer be recognized as a Vicon camera, and thus would need a 3rd party device license in Valerus.

[Memory leaks](#)

An issue was fixed where if many clients were connected simultaneously for a long time, a memory leak can occur, and the camera can run out of memory and become unresponsive.

[Maximum gain level](#)

An issue was fixed where the camera would apply too much gain to the exposure in dark scenes, so that the image would look too grainy.

[NTP server](#)

Under certain situations, the camera would not get a new date and time from a configured NTP server. This has been fixed.

[Red LED](#)

In applicable models: The camera has a red LED that can be seen when the dome is removed. The LED would not behave according to the description in the manual (it stayed on, while it should go off once the camera is started and ready.) This has been corrected.

[TV Format](#)

The TV-Format option has been removed from models where this is not relevant.

[Exposure setting in Valerus](#)

The Valerus VMS now shows correct exposure settings that correspond with the camera setting.

[True WDR vs. digital WDR](#)

The user interface has been improved so that True WDR control is more prominent in the UI, so it can't

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be confused with digital WDR.

False Tamper alarm

An issue has been corrected where the camera would generate a Tamper alarm every time it switches from day mode to night mode and vice-versa.

TLS vulnerability.

Older TLS protocols would appear in security scans as vulnerability. These older versions have been removed.

ViconNet and microphones.

An issue was corrected where the microphones (of relevant camera models) would not appear in ViconNet.

WDR and BLC

Some improvements were implemented in the UI in the combination of WDR (Wide Dynamic Range) and BLC (Backlight Compensation).

WDR levels in Valerus.

An issue was fixed where the WDR levels in Valerus would not match the WDR levels in the camera itself.

Analytics rules

An issue was fixed where too many video analytics rules can be enabled simultaneously, which caused inaccuracy in these rules.

Reboot mechanism

If for some reason the imager would stop sending images, there is now a mechanism that would detect and restart the camera. Also, an issue was fixed where the ONVIF service can get in a loop.

Presets and Analytics

Some improvements have been implemented in the layout of the user interface, related to the analytics functions and the preset assignment.

Presets tour

A problem was solved, where the preset tour step time was incorrect.

Tilt limit

In certain situations, the camera would not correctly implement tilt limits. This has been corrected.

Auto-return

The camera would not automatically return to the home position after the configured time.

Privacy masks

A problem was solved where the privacy mask would not work or would not be applied relative to the PTZ motion.

PTZ after power on.

After power-on, the message that says the PTZ head is initializing would sometimes not go away, when the PTZ head is ready. This is corrected.

PTZ initialization

After power up, the camera would be fully operational, but the PTZ mechanism is still initializing, and



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not moving yet. To avoid confusion, a message is added in the video saying "PTZ initializing, please wait."

Microphone vs. Line-in.

In the audio setting, the phrase "microphone" has been changed to "line-in" as the camera has no built-in microphone. This is corrected.

PTZ tour stops inadvertently

If a PTZ tour is running, and the PTZ tour page in the web interface was opened in another browser, the tour would stop. This has been corrected.

Analytics configuration

In analytics configuration, when drawing detection areas in the image, the mouse clicks could easily move the PTZ a bit, making the configuration no longer apply to the selected preset. This has been corrected.

PTZ speed and VN-KEYPAD

Some adjustments have been made in the speed of the PTZ mechanism. Especially with the VN-Keypad, the smallest joystick movement would move the PTZ too fast. Also, the speed steps of the VN-KEYPAD would cause a momentary stop of the PTZ head. This has been corrected, and the PTZ movements are now much smoother.

PTZ presets after firmware update

A situation has been solved where after a firmware update, the PTZ absolute positions were lost. They would be correct again when the PTZ mechanism is moved to its far extreme. This is no longer needed.

PTZ tour playing

When a PTZ tour was stopped in a VMS or another browser, the user interface would still say "Playing." This has been corrected.

Configuring analytics

When the user starts configuring analytics, the camera now first moves to the selected preset. This prevents invalid configuration in a scene that is not the actual preset position.

Nighttime performance

Some improvements have been implemented in the IR mechanism (Smart IR) to improve night-time performance.

Museum Search accuracy

Some improvements have been implemented in the Museum Search feature to make it more accurate.

Tour vs. Patrol

The "Patrol" functionality in the camera has been renamed to "Tour" to be consistent with the terminology in Valerus VMS.

Motion detection setting in PTZ

Instead of a global setting for Motion detection, there is now a setting for object size and sensitivity for each individual PTZ preset.

User interface in Internet Explorer.

An issue was fixed where the user interface would not properly display in Internet Explorer.

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Installing the Updated Firmware

The latest firmware is available on Vicon's website from the Software Downloads page. A link is provided below.

<http://www.vicon-security.com/software-downloads-library/vicon-camera-software/>

Download the firmware to your PC.

There are two options to install the new firmware in the camera:

- Using web interface of the camera, uploading the firmware directly into the device.
- With the camera discovery utility IP Toolbox installed on a PC.

Camera web interface

In the camera web interface, under Configuration > System > Firmware, press "Choose File" and select the downloaded firmware file. Then press "Upgrade" to start the update. The camera will install the update and reboot with the new firmware version:

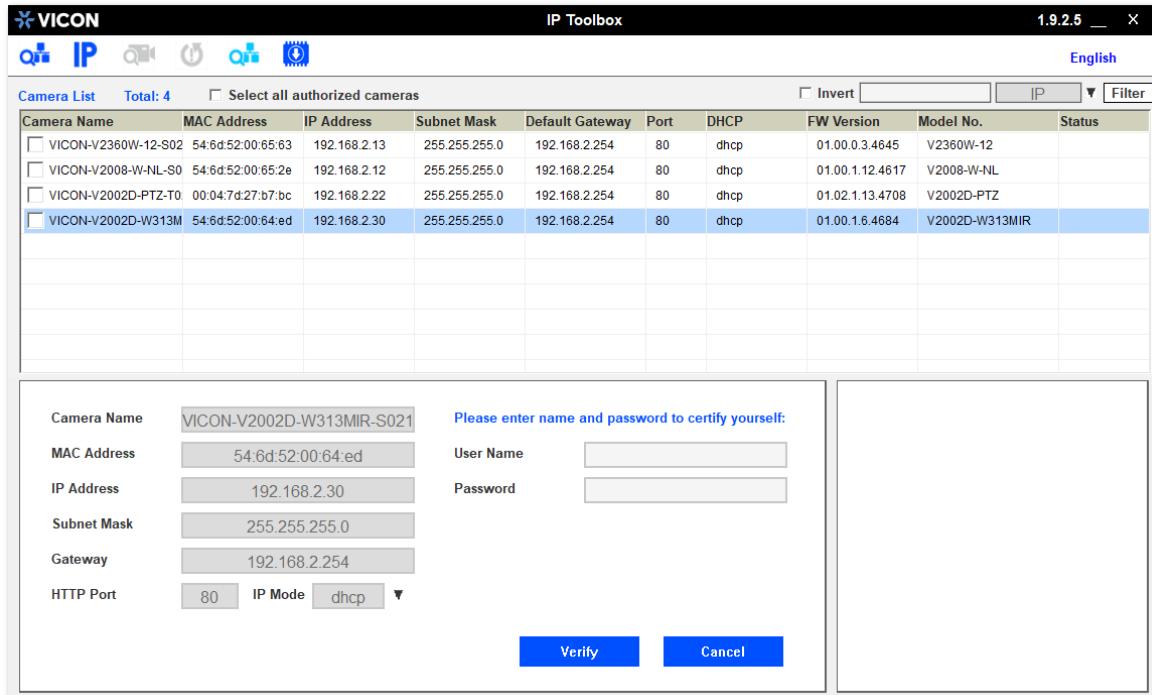
The screenshot shows the VICON Network Camera configuration interface. The top navigation bar includes links for Live View, Playback, Configuration, and a language dropdown set to English. The main menu on the left has sections for Advanced Configuration (selected), Encode, Image, Video, Network, System (selected), Account, Event Source, Video Analytics, Event Setting, and PTZ Settings. A small control panel at the bottom features a circular arrow with directional arrows and a central 'Up' button. The central content area has tabs for Date & Time, Audio, Firmware, Initialization, Advanced Security, OSD, and Events. The Firmware tab is active, displaying 'System Information' with fields for Firmware Version (01.02.1.13.4709), Hardware Version (0000-A1.1-01119), Main MCU Firmware Version (3.5), Product Name (V2002D-PTZ), Serial Number (T02502707), and MAC Address (00:04:7d:27:b7:bc). Below this is a 'Firmware Upload' section with 'Choose File' and 'Upgrade' buttons.

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Using the IP Toolbox utility

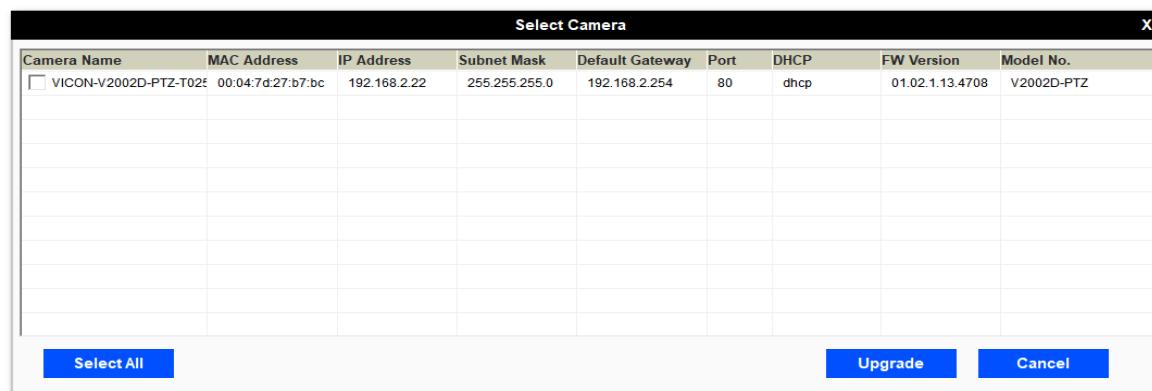
Download and install the IP Toolbox utility from the Vicon webpage:

<http://www.vicon-security.com/software-downloads-library/vicon-camera-software/>



Scan the network to discover the applicable cameras on the local network. Press the firmware update button, select the downloaded firmware and fill in the camera credentials.

Press the "+" button, and the list of cameras will appear that are suitable for the selected firmware. (Note that the cameras must have the same credentials, if more than one camera is updated.)



Select the cameras to be updated or just press "Select All" to update all cameras.

Now press "Update." The camera will install the update and reboot with the new firmware version.