

Photron FASTCAM Viewer

for High Speed Digital Imaging

Release Notes
Ver. 4.0.6.2 E

Photron

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Chapter 1. Release Summary

1.1. PFV4 Release Notes

1.1.1. PFV Version

- PFV Ver. 4.0.6.2
- SDK (PDCLIB.DLL) Ver. 4.0.6.2

1.1.2. Contents of the folder in DVD

- | | |
|-----------------------|---|
| - PFV Setup64: | PFV installer for 64bit Windows |
| - PFA: | PFA (Photron FASTCAM Analysis) installer |
| - SDK: | SDK components, documents, and samples |
| - LabVIEW and MATLAB: | SDK for LabVIEW and MATLAB, documents, and samples |
| - Doc: | Manuals of PFV, cameras, and others |
| - CheckerBoard: | Image data of checkerboard for lens distortion correction |
| - ReleaseNotes: | Release notes of PFV |
| - ReportSample: | Sample data for Report output function |
| - Driver: | Device drivers |

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Chapter 2. New Functions

2.1. PFV4.0.6.2 New Functions

2.1.1. New Camera Support

FASTCAM Nova S/R NV model is supported.

FASTCAM MH6 type LT is supported.

2.1.2. Additional Function

LIVE mode		
Command / Modified Item		Fixed / Modified Item
[Function panel]	[Shading]	Shading function is now available when Mini CX or MH6 is connected. The default shading data in the camera is applied normally, so you can record without performing this function. Use this function when you want to improve the image quality.
Other		
Faster image acquisition for sensors with many missing pixels when connected to Mini AX.		

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Chapter 3. Bug Fix and Other Changes

3.1. PFV4.0.6.2 Fixed Bugs and Changes

LIVE mode		
Command / Modified Item		Fixed / Modified Item
[MENU]	[Configuration] – [Record]	If the communication between the camera and PFV4 was lost during recording or waiting for recording with the “Record while saving” function enabled, PFV4 crashed after displaying a camera control-related error message. This bug is fixed.
	[Configuration] – [I/O]	When “IRIG Sync” was checked on the following cameras, “External Sync” could be set on the display, even though it could not actually be set. This bug is fixed. <ul style="list-style-type: none"> • Mini AX • Mini UX • Mini WX • Nova S/R
[Function panel]	[Variable]	Rectangle size could not be changed by mouse dragging. This bug is fixed.
	[Low light]	With Nova R5/3, when low light was enabled and the shutter speed was set to “1/60 sec” or “1/100 sec”, the shutter speed display in the shutter speed setting and information display column was forced to “1/200sec”. This bug is fixed.
	[Keyboard Shortcut]	Keyboard shortcut for changing shutter speed ([Shift] key + [Left/Right] key) did not work when shutter speed display unit was set to [Seconds]. This bug is fixed.
Assistance	[S/W image trigger]	Changed so that “Test mode” cannot be checked during recording.
Other	When “Record while saving” was enabled and the number of partitions was “2” or more, if the camera was disconnected while the [Recording...] button or [Ready] button was displayed, PFV4 had to be closed after the disconnect process. This bug is fixed.	

MEMORY mode		
Command / Modified Item		Fixed / Modified Item
[Save]	–	There was a problem with the following models not being able to save to FAST Drive. This bug is fixed. <ul style="list-style-type: none"> • Nova S12/9/6: CPU version is less than 13 • Nova S16: CPU version is less than 4 • Nova R2: CPU version is less than 4
		Once a camera that does not support the data name conversion function of FAST Drive was displayed on the save screen, the [Convert data name] button did not appear even if the display was subsequently switched to a data name conversion function supported camera. This bug is fixed.
[Special Effects]	[Cycle View]	If the “Cycle View Monitoring” window was opened and shifting PFV4 to the LIVE mode, the Recording/playback panel could not be operated and recording operations could not be performed. This bug is fixed.

MEMORY/FILE mode		
Command / Modified Item		Fixed / Modified Item
[MENU]	[Configuration] – [Save]	After checking the “Save INF file” checkbox and saving the file, PFV4 crashed when grouping display with no AVI file present. This bug is fixed.
[Save]	–	When saving in AVI format with the codec “MPEG2”, if the resolution was a multiple of “4,096” for width or height, the saving progress was not proceed. In such cases, an error message is now displayed. If the resolution is a multiple of “4,096”, please select a codec other than “MPEG2”.
[Recording / playback panel]	–	When selecting columns in the “Cycle View” and clicking the [Play selected area] button to perform multi-skip playback, the skip function in the Recording/playback panel could be disabled. This bug is fixed.
[Graph Settings]	–	The display of channel names in the graph setting window was different from the previous version. This bug is fixed.

FILE mode		
Command / Modified Item		Fixed / Modified Item
[Function panel]		“Apply current trigger frame” did not appear in the menu when right-clicking in the file list of an AVI file opened from a grouped INF file. This bug is fixed.
[Recording / playback panel]		For files saved in AVI format with the codec “MPEG2”, the image was not updated on the first operation of a single frame feed (back one frame, forward one frame, spin button operation for start and end frame). This bug is fixed.
[Open]		Waveform data recorded by PhotoCam Detector could not be loaded. This bug is fixed.
[Open (folder/SD/FD/CF)]		When opening data from FAST Drive, waveform data might not be linked to the data. This bug is fixed.

Other		
When ST Cam is connected, errors of other heads may be displayed. This bug is fixed.		

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Chapter 4. The Contents of SDK

4.1. The Contents of SDK

4.1.1. New Camera Support

FASTCAM Nova S/R NV model is supported.

FASTCAM MH6 type LT is supported.

4.1.2. Additional Function / Improvement

N/A

A

A. Appendix

A.1. Cache Storing Specification Change

Starting with PFV4.0.6.0, cache data is stored in the PC to speed up the startup process.

■ Target model

PFV (SDK): Ver. 4.0.6.0 or later

Camera: Nova S/R series, MH6, and cameras to be released in the future

■ Expected Benefits

Faster connection between PFV and camera

When connecting to a camera, correction data was loaded from the camera.

This loading process took a long time for the connection.

By storing the cache data in the PC, the data loading time from the camera can be reduced and the connection speed can be improved.

■ Storing Location

Cache data is stored in the following folder.

C:\Users\User Name\AppData\Roaming\Photron\PDCLIB\Devices\Camera Name\XXXXXXXX

* “User Name” is the user’s local folder name.

* “XXXXXXXX” is a non-duplicate alphanumeric string based on camera and head information.

e.g. C:\Users\User Name\AppData\Roaming\Photron\PDCLIB\Devices\Nova
S12\978C95093DC3BC7EDAEAFEAB771CA6F2

■ Contents of Data

Cached data includes camera correction data (pixel gain, shading, and missing pixel).

■ Details

The camera’s MAC address (Serial number) is used to link to the cached data.

As long as there is no camera with the same MAC address (Serial number), incorrect (from another camera) data will not be linked.



CAUTION

When a camera is returned to Photron for maintenance or repair and the camera’s image quality is readjusted, the cache data remaining on the PC must be deleted so that the old cache data is not referenced.

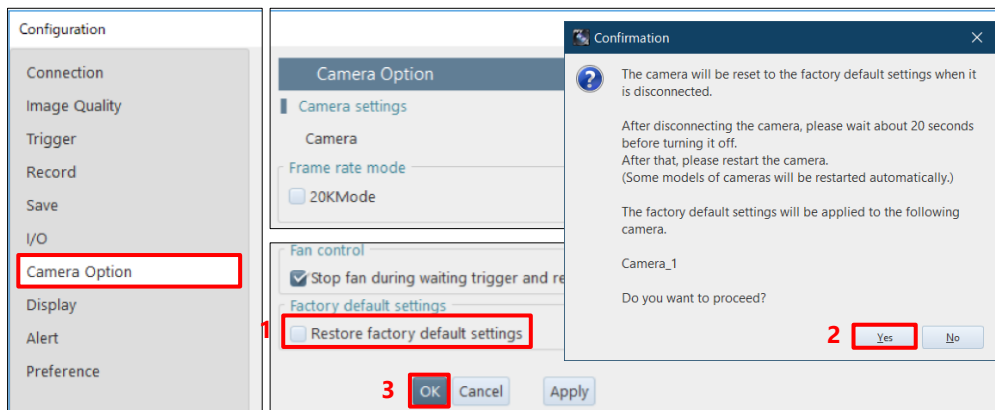
See “How to Delete Cache Data” on page 12 for detailed instructions.

* If the camera is connected without deleting the old cache data, the camera will use the old correction data before image quality readjustment for its operation. In this case, the correction data inside the camera will not be overwritten.

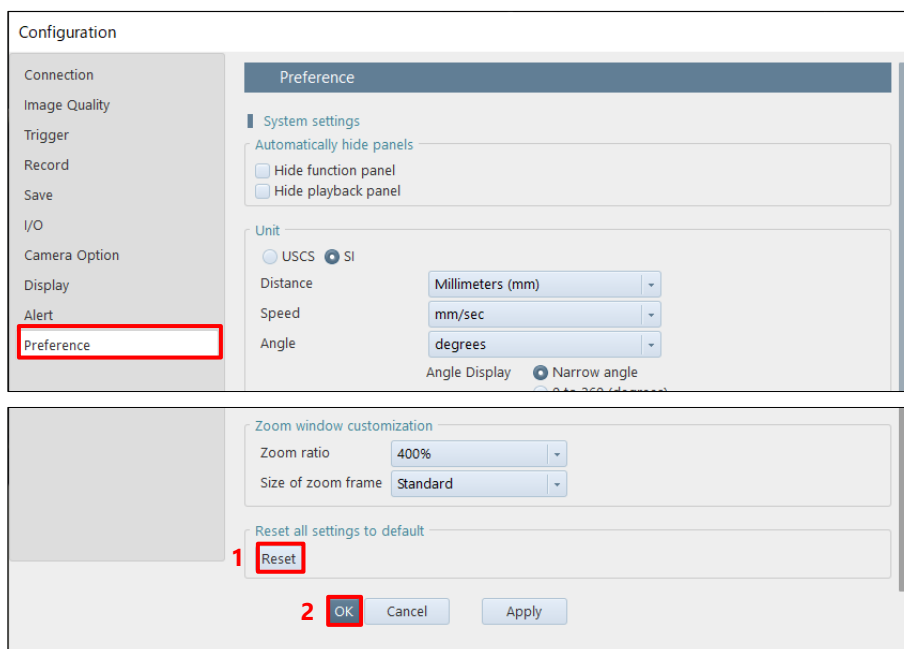
■ How to Delete Cache Data

- If using PFV4, do A), B), or C).
- If using SDK, do C).

A) Initialize the camera from PFV4 to factory settings.



B) Perform PFV4 reset.



C) Delete cache data directly in the AppData folder.

C:\Users\User Name\AppData\Roaming\Photron\PDCLIB\Devices\Camera Name\XXXXXXXX

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Issued date October 2022
Issued by PHOTRON LIMITED
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