

Photron *FASTCAM* Viewer

for High Speed Digital Imaging



Release Notes

(Ver.3.6.6)

Photron

Table of Contents

Photron FASTCAM Viewer Release Notes (Ver.3.6.6)

Chapter.1	Release Summary	1
1.1.	PFV Ver.3.6.6 Summary	2
Chapter.2	New Function and Operation	3
2.1.	PFV Ver.3.6.6 Added Functions.....	4
2.1.1.	Addition of IRIG synchronized recording to FASTCAM Mini AX.....	4
2.1.2.	Addition of low frame rate mode to FASTCAM Mini UX/WX/AX.....	4
2.1.3.	Change in the maximum number of recordings in trigger modes of FASTCAM SA-X2.....	5
2.1.4.	Addition of Auto Exposure to FASTCAM SA-X2.....	5
2.1.5.	Addition of 128GB version to FASTCAM SA-X2.....	5
2.1.6.	Addition of Sample Timing of IRIG Time Code to FASTCAM SA-X2.....	6
Chapter.3	Bug Fix and Other Changes	7
3.1.	PFV Ver.3.6.6 Fixed bugs and other changes	8
Chapter.4	The Contents of SDK	9
4.1.	The Contents of SDK.....	10
4.1.1.	Addition of function to accelerate data transfer	10
4.1.2.	Addition of functions to read data from SD card.....	10
4.1.3.	Addition of functions to read data from FAST Drive.....	10

Chapter.1 Release Summary

The following describes the release summary.

1.1. PFV Ver.3.6.6 Summary

PFV Ver. 3.6.6 supports burst data transfer on FASTCAM SA-Z, FASTCAM SA-X2, FASTCAM Mini AX200/AX100/AX50. As a result, the saving speed of a large amount of recording data is improved. It will contribute to shortening testing and experimenting times in your lab.

Also, the firmware Ver. 310 onwards on FASTCAM SA-X2 has several new features as follows.

- 128GB is supported, so the data amount gained per test is increased.
- IRIG Time Stamp information can be obtained at the end of the exposure. This is a useful feature to grasp the location of a flying object in the image.
- The exposure time per frame can be captured and displayed while Auto Exposure is in use. This helps understand more accurate shooting conditions.
- Limit on the number of Random Reset is increased to 32767. More efficient testings are now possible in applications like engine burning.

Low frame rate modes, 5fps, 10fps, 20fps and 30fps, are supported on FASTCAM Mini series.

For the applications like automotive crash tests, where the light source needs to be switched off prior to the testing, an extremely dark area which could not be detected by the existing low light mode (1/50sec) can now be detected. These low frame rate modes can also be used for coupling with microscope and CSU (confocal scanner).

- On FASTCAM Mini UX50 and UX100, Only firmware ver. 2.02 onwards supports the above new features.
- Image quality lowers in the low frame rate modes due to dark currents.

IRIG synchronization is supported from the firmware Ver. 9.03 onwards on FASTCAM Mini AX50/AX100/AX200. The outstanding features of Mini AX series such as extreme sensitivity and high image quality can now be further utilized in the military applications.

Some other bugs have also been fixed for more comfortable operations.

We hope that you enjoy the latest version of PFV together with the high speed camera "FASTCAM" series in various kinds of applications.

Chapter.2 New Function and Operation

The following describes the new function and the operation.

2.1. PFV Ver.3.6.6 Added Functions

2.1.1. Addition of IRIG synchronized recording to FASTCAM Mini AX

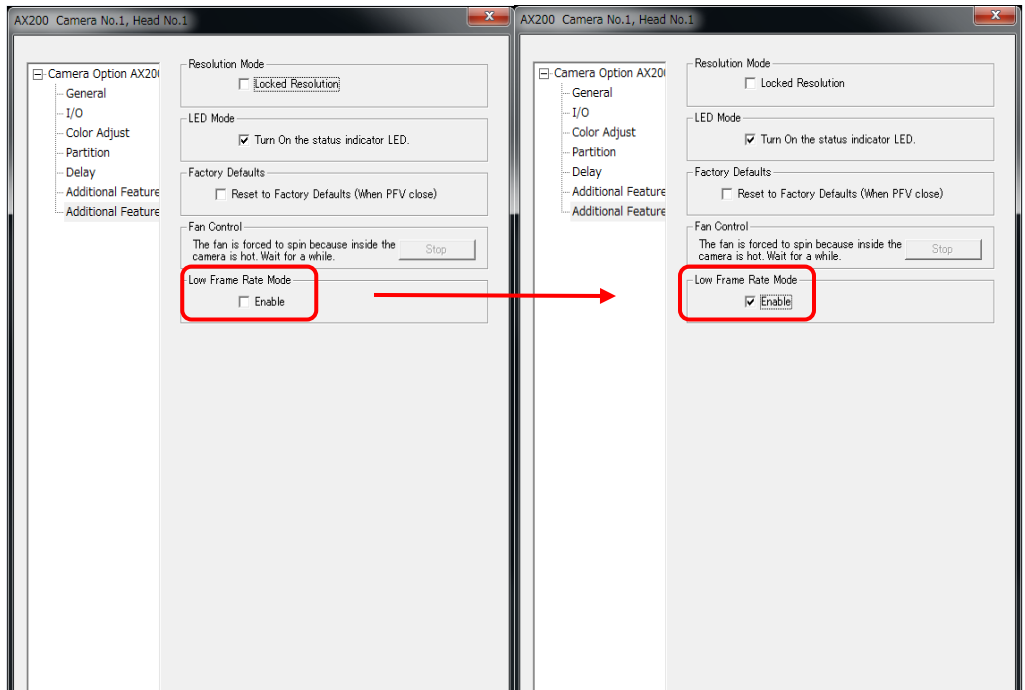
IRIG synchronized recording is added to AX.

2.1.2. Addition of low frame rate mode to FASTCAM Mini UX/WX/AX

5, 10, 20 and 30fps are added to UX/WX/AX.

Please beware that the image quality lowers when the low frame rate mode is used.

- Enabling low frame rate mode
 1. Choose “Control Panel (Camera Option)” – “Additional Feature 2”
Enable “Low Frame Rate Mode”. This mode is disabled as a default setting.



2. When enabled, a warning message about the image quality is shown.
After clicking OK, “5, 10, 20, 30fps” is added to the frame rate list.



Caution

- Please beware that the image quality lowers when the low frame rate mode is chosen.
- The shutter speed of 1/frame and 1/50sec or more can be chosen if the low frame rate mode is enabled.
- The slowest shutter speed when the low light mode is used is 1/50sec.
- Low frame rates cannot be chosen in “Variable” setting.
- The shutter speed is limited to 1ms on AX. This limitation is removed when a low frame rate is chosen.

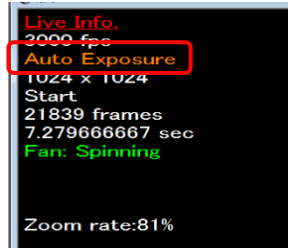
2.1.3. Change in the maximum number of recordings in trigger modes of FASTCAM SA-X2

On SA-X2, the maximum number of recordings in Random and Random Reset modes is now changed to 32767.

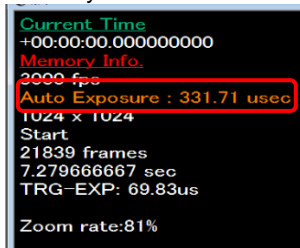
2.1.4. Addition of Auto Exposure to FASTCAM SA-X2

When Auto Exposure is used, the exposure time per frame can be shown in the memory mode. The exposure time per frame is indicated by μsec .

LIVE mode



Memory mode



When the shutter speed is changed



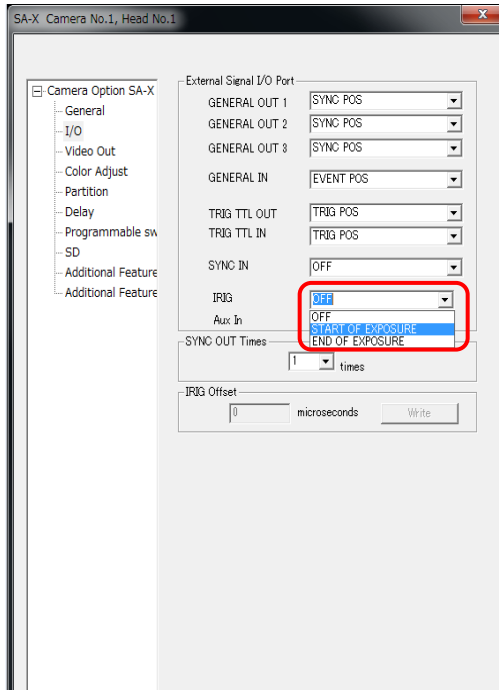
2.1.5. Addition of 128GB version to FASTCAM SA-X2

128GB version is added to SA-X2.

2.1.6. Addition of Sample Timing of IRIG Time Code to FASTCAM SA-X2

It is now possible to choose the sample timing of IRIG data. (start of exposure or end of exposure)

- Control Panel "Camera Option"—"I/O" — "IRIG"
Choose "START OF EXPOSURE" or "END OF EXPOSURE".



Chapter.3 Bug Fix and Other Changes

The following describes the contents of a bug fix.

3.1. PFV Ver.3.6.6 Fixed bugs and other changes

The following bugs have been fixed in the PFV Ver.3.6.6:

1. On WX, it was slow to show the frame rate list if the resolution was prioritized in Variable setting when multiple cameras were connected. This has been improved.
2. On WX/AX, it has been fixed that the mechanical shutter mode setting (enabled or not) is saved when PFV is closed.
3. On SA-X2/SA-Z, when images were recorded in Random Center or Random Manual modes and all partitions were used up, the last frame was not correctly saved. This has been fixed.
4. On AX50/100, if the shutter speed was shown in "Seconds", and if the shutter speed was changed when the frame rate was between 50 to 750fps, one level lower shutter speed was mistakenly set. This has been fixed.
5. If a data was saved to SD card or FAST Drive while the recorded images were played, saving failed. This has been fixed.
6. At the time of parallel saving, the saving speed was halved. This has been fixed.
7. Driver folder name of FAST Drive in DVD has been changed to "FAST Drive Driver".
8. FAST Drive driver name in Device Manager has been changed to "Photron FAST Drive Reader".
9. Indication of FAST Drive reading dialog is changed to "Photron FAST Drive Reader".

Chapter.4 The Contents of SDK

The following describes the contents of SDK.

4.1. The Contents of SDK

4.1.1. Addition of function to accelerate data transfer

A look-ahead parallel transfer function to further accelerate look-ahead and burst transfer is added.

4.1.2. Addition of functions to read data from SD card

Functions to read the recorded images saved in SD card are added.

4.1.3. Addition of functions to read data from FAST Drive

Functions to read the recorded images saved in FAST Drive are added.

Photron *FASTCAM Viewer*

for High Speed Digital Imaging

Release Notes, Ver.3.6.6 Revision 2016-8E

Publication Date November, 2016
Publisher PHOTRON LIMITED
21F, Jimbocho Mitsui Bldg.,
1-105 Kandajimbocho, Chiyoda-Ku, Tokyo 101-0051