

# **Photron *FASTCAM* Viewer**

*for High Speed Digital Imaging*



## **Release Notes**

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**(Ver.3.5.4.1)**

**Photron**

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## Photron FASTCAM Viewer Release Notes (Ver. 3.5.4.1 and 3.5.4)

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# Chapter.1 Release Summary

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The following describes the release summary.

## **1.1. PFV Ver.3.5.4.1 Summary**

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Several bugs have been fixed.

Photron hopes that the users will enjoy using the latest version of the PFV in conjunction with the FASTCAM high-speed cameras introduced in varied application fields.

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## 1.2. PFV Ver.3.5.4 Summary

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The PFV Ver. 3.5.4 has been compatible with the latest model of the “FASTCAM Multi”. At the same time a new function, which is available only with the FASTCAM Multi, has been added.

Also, the system is now compatible with the latest firmware for the FASTCAM Models SA-X2 and SA-Z (ver.3.07 and ver.1.05, respectively).

In addition to all the above, several known bugs were fixed, which will make the users feel more comfortable operating the system.

Photron hopes that the users will enjoy using the latest version of the PFV in conjunction with the FASTCAM high-speed cameras introduced in varied application fields.



# Chapter.2 New Function and Operation

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The following describes the new function and the operation.

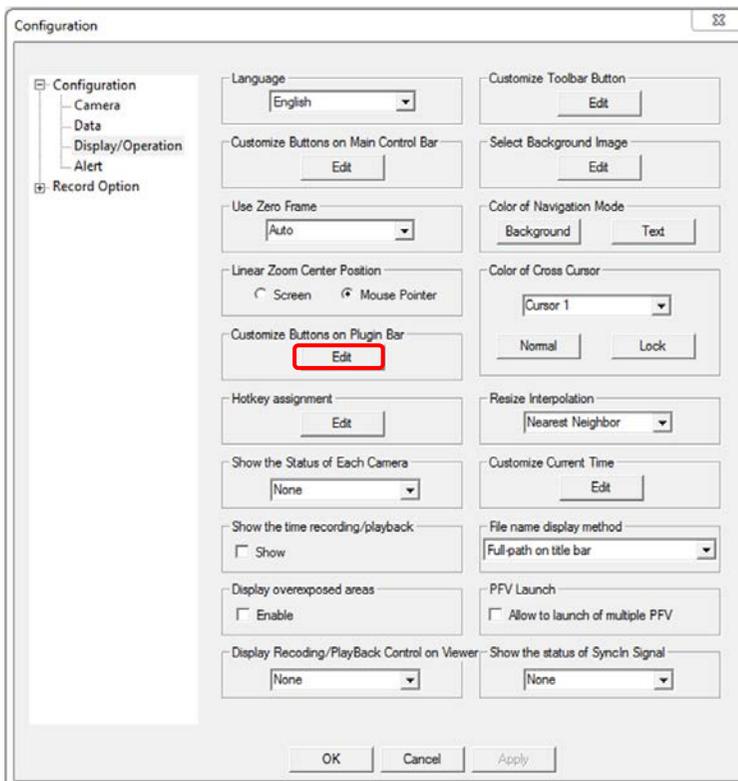
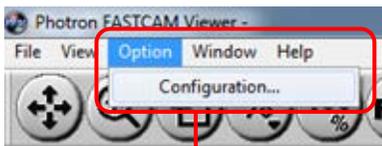
## 2.1. PFV Ver.3.5.4 Additional Function

### 2.1.1. LED/Laser control

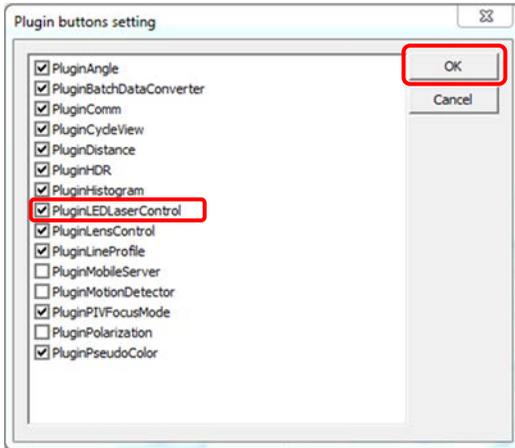
The LED light and laser pointer are now directly controlled from the PFV.

For controlling the LED light and laser, the following configurations should be made in advance.

1. From the menu bar, go to [Option] → [Set environment] to display “Set environment” dialog box.
2. From the tree display in the left pane, click “Display/operate setting” below “Set environment” and then click [Set] button of “Customize plugin bar”.



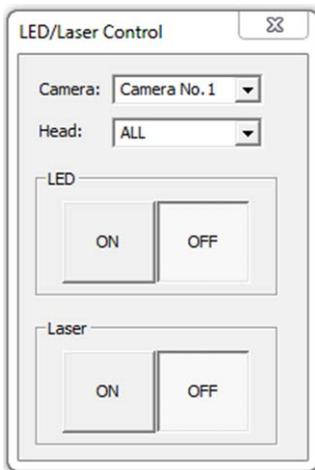
3. Check [PluginLEDLaserControl] checkbox, and click [OK].



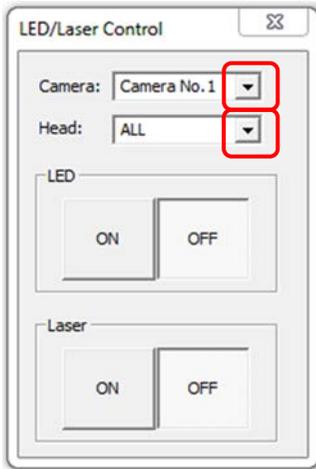
4. In the plugin bar, click [LED Light/Laser Control] button.



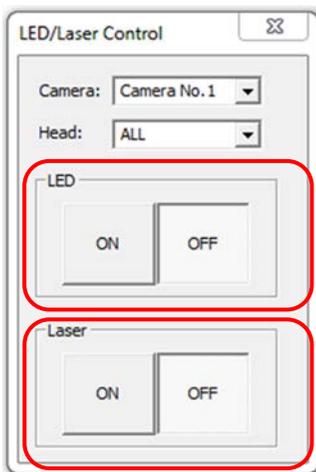
5. LED/Laser control dialog appears.



6. Select a camera and head that you wish to use from the pulldown menu.



7. Make a necessary setting of ON or OFF for LED and Laser, respectively.



**Important**

Before start using the Laser, be sure to look into the Warning page of the FASTCAM Multi LED Light Option Hardware Manual, and be careful while using it.

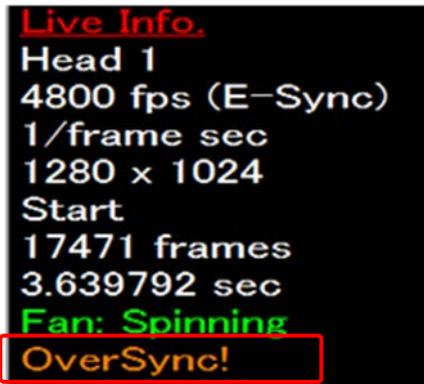
- Do not look at the laser beam directly, or look into the laser beam exit.
- Do not point the laser beam to a person. It may damage the eyesight.

**Caution**

- "LED/Laser Control" is a function that is only available with FASTCAM Multi.
- "LED/Laser Control" is a function that can only be controlled when the dedicated built-in LED (optional) is installed.

### 2.1.2. View window display

In the upper left corner of the view window, information on various camera settings (view window information) is displayed.



Display Sample	Description
OverSync! (Applicable to slave camera only)	<p>Indication of an over-synchronization status.</p> <p>*Note: "OverSync!" is displayed when a frequency higher than the preset frequency enters the camera. It is displayed in Framing and Saving tab modes.</p> <ol style="list-style-type: none"> <li>When an OverSync status comes up, an indication of "OverSync!" appears in orange color.</li> </ol>  <ol style="list-style-type: none"> <li>When no OverSync status is present, nothing is indicated.</li> </ol>

<p>Ignore Trg 3 (0)</p>	<p>In Random Reset mode, the number of triggers that are not recognized (ignored triggers) as such is displayed.                  If the number of ignored trigger is zero, "Ignore Trg 0" is displayed.                  It is displayed in Framing and Saving tab modes.                  The number of ignored triggers(example: when 3)</p>  <p>When all triggers are recognized.(example: when ignored trigger is 0)                  When no failure of trigger recognition has happened.</p> 
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**! Caution**

Indication of "OverSync" and "Ignore Trg" is a function only available with FASTCAM Multi.

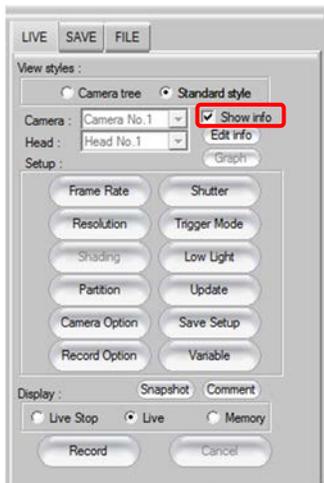
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To configure the system for view window information display, the following presettings are needed:

\*Example: Display of OverSync

### 1. Switching between display/hidden

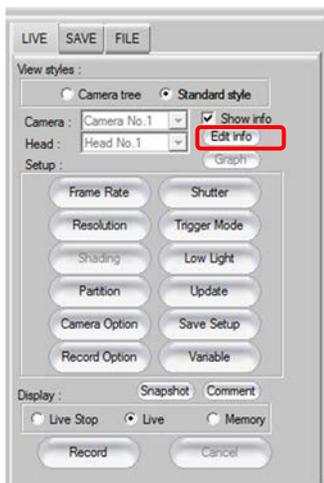
Display of view window information is switched on or off by checking or unchecking the “Display information” checkbox on each tab.



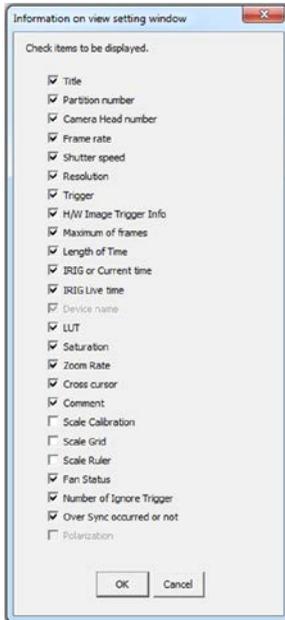
### 2. Customizing displayed information

Displayed information can be customized in the following manner:

- ① Click “Edit information” button on each tab of the control panel.



- ② Check [OverSync ON when using external sync] checkbox, and click [OK] button.

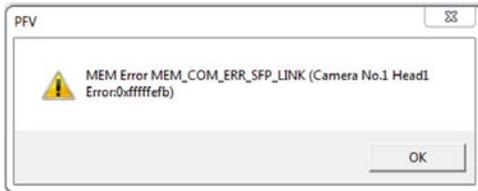


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### 2.1.3. Error messages during operation (at startup)

The below popup box appears when an error comes up when starting up and operating PFV. A popup window, something like below, comes up:

\* Example: An error at startup



#### ! Caution

- "Error message" is a function only available with FASTCAM Multi.

#### Reference

- When an error is displayed, refer to the FASTCAM Multi Hardware Manual for instructions.

### 2.1.4. Improvement of PFV startup by double-clicking PCS file

Being actuated by double-clicking the file, the PFV searches for cameras, and then configures them with the framing conditions saved in the PCS file.

Normally, when the PCS file is read after the PFV has started, the system does not read the PCS file if there are changes in the order and the number of cameras. But, when the system is actuated from the PCS, the system works in the following manner (Note when reading the PCS file after the PFV's startup, the system now works in the same manner as before):

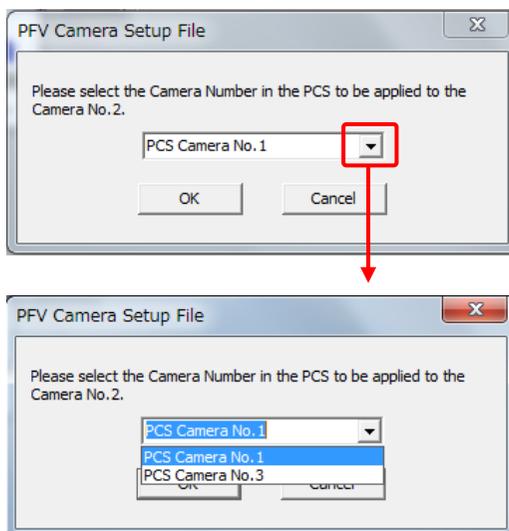
- If more cameras are found than the number of cameras saved in the PCS file, the system recognizes only the number of those cameras saved in the PCS file.
- If fewer cameras are found, the system recognizes such cameras.
- If any camera is found having a different camera model name and/or type from what is saved in the PCS file, such a camera is not recognized.
- When settings for multiple cameras are saved in a PCS file, and when the connection order of the cameras are changed at the startup of the system, a dialog window for camera setting selection such as which of the camera settings saved in the PCS file should be used, or should NOT be used, for a camera being connected to the system for the next framing session. The selected setting is configured on the camera now being connected.

For example, if settings for three cameras – SA-X2, SA1.1 and SA-X2 - are saved in the PCS file, and for the next framing session, the order of the cameras is changed to SA1.1 SA-X2 and SA-X2, the first and second cameras are now different from what is saved in the PCS file.

Then, the following dialog is displayed:

The following example is a dialog window asking which settings, Camera 1 or Camera 3, saved in the PCS file should be applied to the second camera being connected now.

If you click "Cancel", neither one is applied, but the cameras are recognized.



To make a PCS file, the following procedure is required:

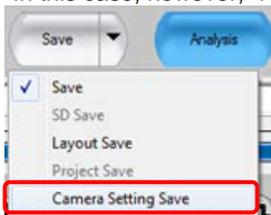
1. After setting necessary conditions, click “Framing” tab on the control panel, and click [Save settings] button.



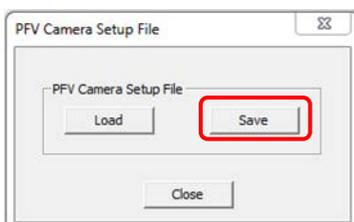
### Supplement

- Settings can also be saved if you click [▼] on the right of [Normal saving] button, and then click [Save camera setting file] button.

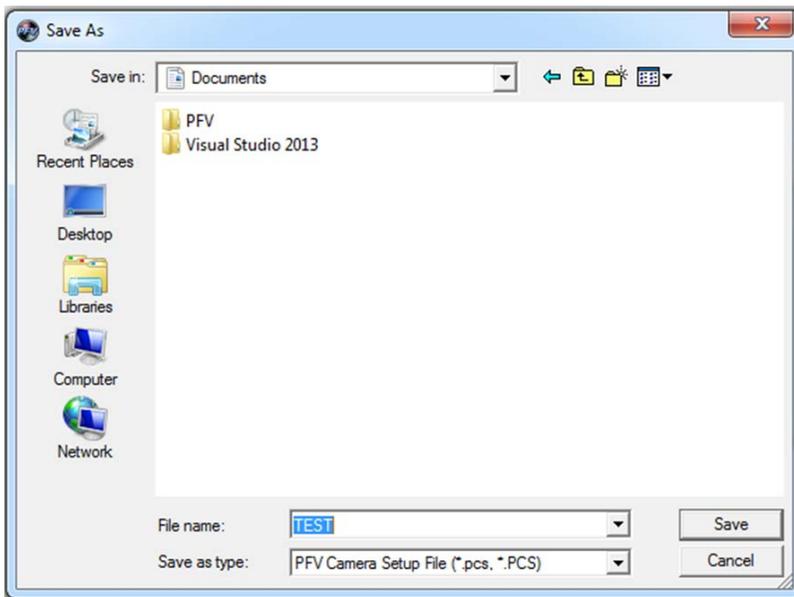
In this case, however, “PFV camera setup file” dialog will not appear.



2. Click [Save] button.



3. After assigning a place for storage, enter a name in "File Name" box and click [Save] button.  
The file is saved with a .pcs extension.



# Chapter.3 The Contents of Bug Fix

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The following describes the contents of a bug fix.

### **3.1. PFV Ver.3.5.4.1 Contents of Bug Fix**

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The following faults have been fixed;

1. The bundled PFA (Ver. 1.2.2) could not read AVI file.
2. PFV crashed when an image is saved as other than AVI2.0 at the layout save function of images and wave form.
3. "Ignore Trg" was displayed as double on SAVE tab with FASTCAM Multi.
4. "Ignore Trg" was displayed at Random Trigger Mode with FASTCAM Multi. It should be displayed only at Random Reset Trigger Mode.
5. "IRIG Allocate Error" message is displayed even if IRIG function is disabled when the total recording frame number exceeds 20,000,000 at PFV3.5.4 32bit version.

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## 3.2. PFV Ver.3.5.4 Contents of Bug Fix

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The following faults have been fixed;

6. The bug with HP Z440 Workstation, which prevented the IDP-Express driver from being installed.
7. The bug with the IDP-Express, which caused a blue screen display, once in a while, at the finish of an FPGA writing.
8. The bug with the IDP-Express, which caused a black screen display, once in a while, right after startup or setting a sensor gain.
9. The bug that caused a failure in recognizing all the cameras, when searching a Gigabit IF camera by specifying the IP address and if no device is connected to the network card to be assigned to the camera to be searched last of all.

Example:

When IP address is assigned to Camera 1 and Camera 2 as shown below, and if a camera is connected only to the network card corresponding to Camera 1, the system could not recognize any camera.

Camera 1: 192.168.0.10

Camera 2: 192.168.1.11

10. The bug that caused the [Date & time] checkbox erroneously retaining a check mark in it even after it is unchecked when the PFV is restarted in the "Snapshot setting" dialog that is displayed by finally clicking [Set] button in the setting flow for Snapshot: [Environment set] → [Data set] → [Snapshot set].
11. PFV Ver.3.5.4 is compatible with the new models, FASTCAM Multi and FASTCAM Mini WX.
12. A bug has been fixed; at LabVIEW and MATLAB 32bit SDK, the installer in the SDK Setup32 folder did not set up UX50 function. Therefore UX50 could not be controlled from LabVIEW and MATLAB.
13. A bug has been fixed; PFA was crashed when PFA is launched by PFV at PFV3.5.2 and PFV3.5.3.



# **Photron *FASTCAM Viewer***

***for High Speed Digital Imaging***

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