

# **Photron FASTCAM Viewer**

***for High Speed Digital Imaging***

*PDCLIB for MATLAB*

 ***Demo Module Manual***

***Revision 1.01E***

**Photron**

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## Introduction






Thank you for your purchasing a Photron high-speed camera system.

This manual contains the operating instructions for the sample demonstration software to use a Photron high-speed camera system on MATLAB from MathWorks, Inc.

Before operating the unit, please read this manual thoroughly, and retain it for future reference. If any content remains unclear after reading this manual, please contact us.

## Manual Notation

The following icons and symbols are used in the explanations in this manual.

Icon/Symbol	Description
 Supplement	This symbol indicates supplementary items to be aware of when using the software.
 Reference	This symbol indicates the location of a reference.
 Important	This symbol indicates content that should always be read.
 Caution	This symbol indicates instructions that should always be followed when using the software, or things to be careful of when using the software.
 MEMO	This symbol indicates a space for you to use for making notes.
“ ”	This symbol is used to indicate the names of items on a screen, references, dialog names, and keyboard keys.
[ ]	This symbol is used to indicate screen names, button names, and menu names.
< >	This symbol is used to explain operating procedures in diagrams and supplementary items.



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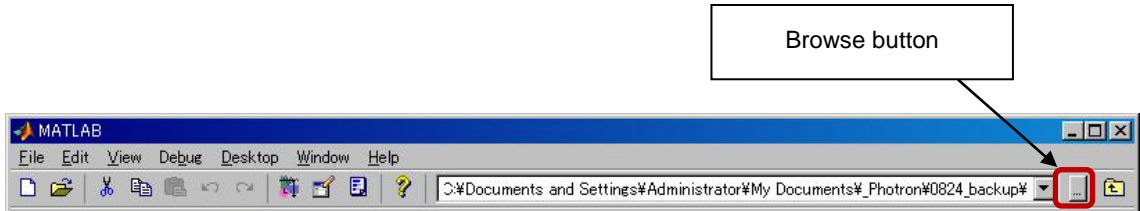
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# **Chapter.1    How to run the Demo module**

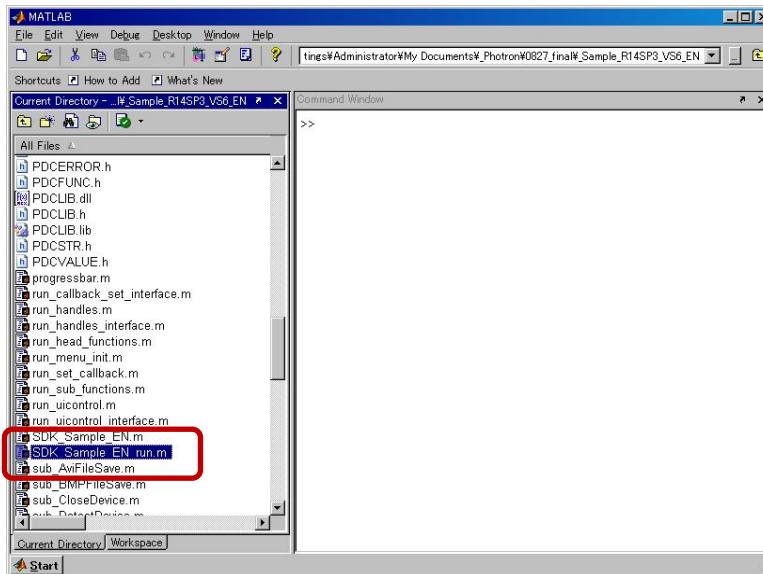
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## 1. How to run the Demo module

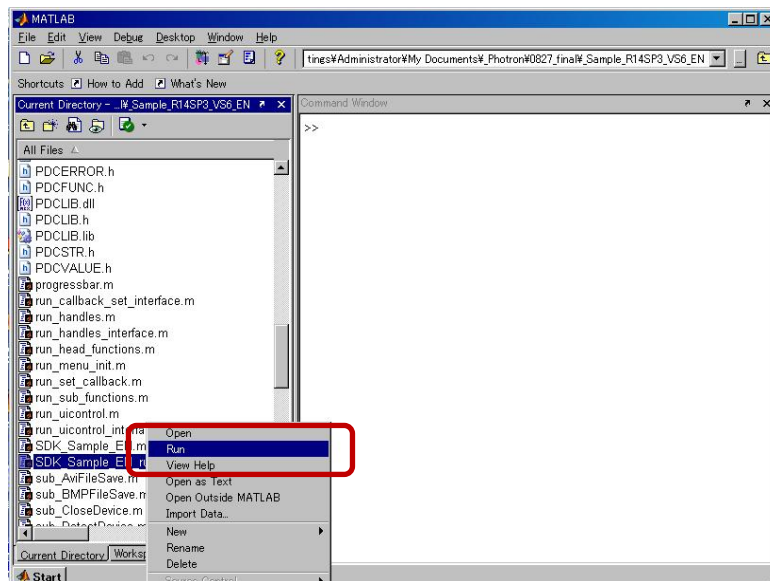
- ① Before you run the demo module, Copy camera system DLLs (PDCLIB.DLL etc.) to the folder which contains the demo module.
- ② Firstly, run MATLAB. Please browse to the GUI folder by clicking on the browse button in the current directory.



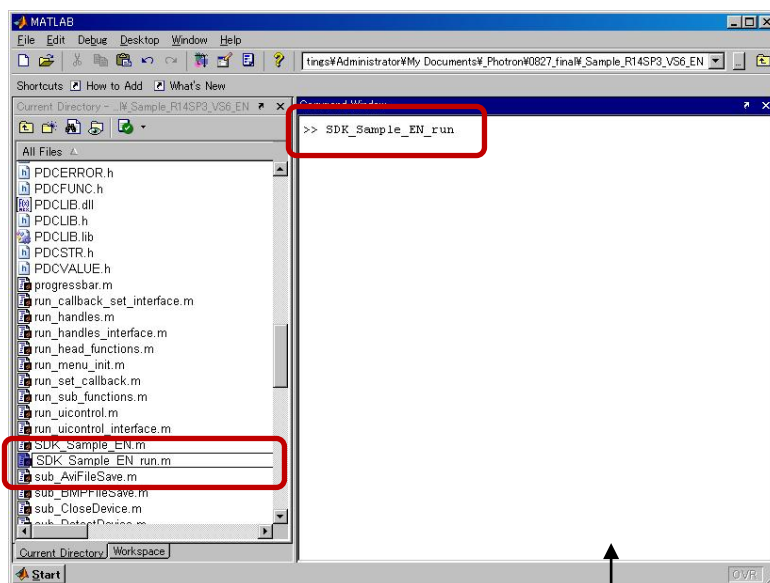
- ③ After the folder selection, the files from this folder will appear.



- ④ Right-Click on the file “SDK\_Sample\_EN\_run.m” and choose to run the file.



- ⑤ Instead of ④, Please enter SDK\_Sample\_EN\_run (without the extension), then click “Enter” to run.



Left click on the command window to select it.

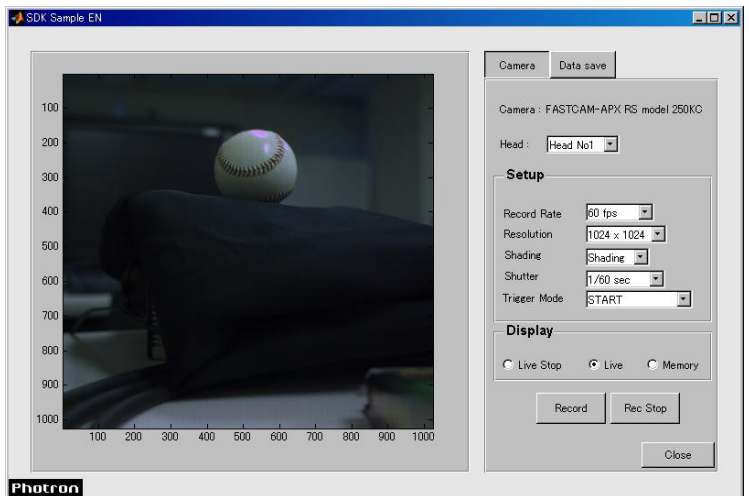
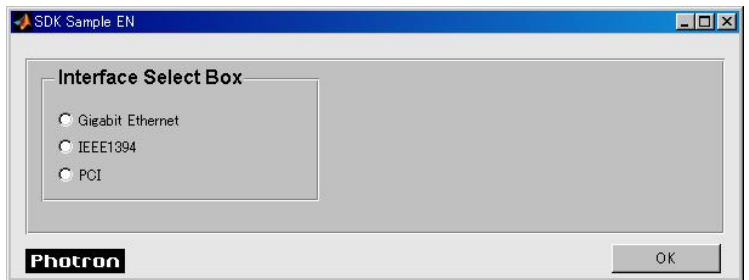
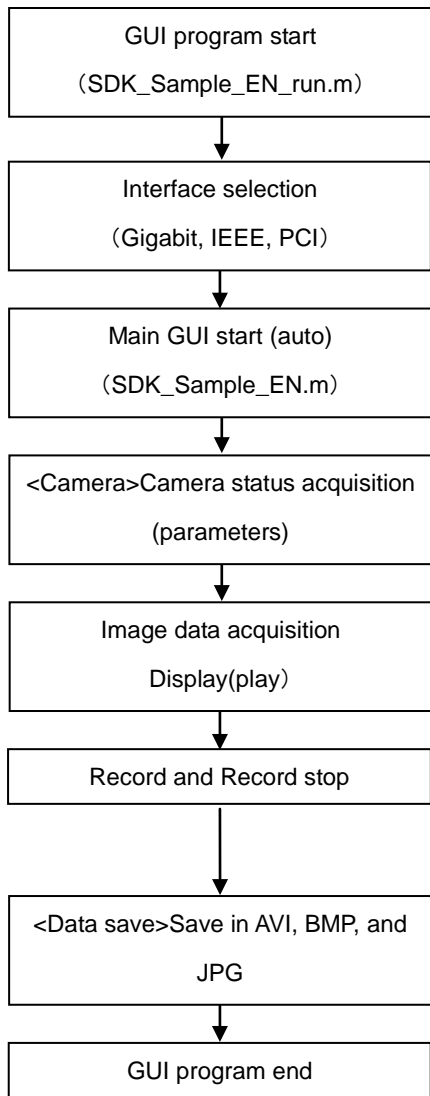


## Chapter.2 Flow chart

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## 2. Flow chart

The following figure shows the Demo module flow chart.



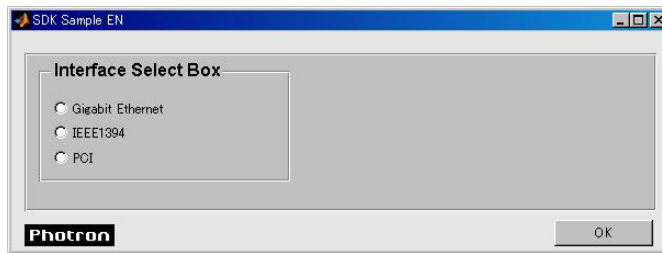
## Chapter.3 Basic operation

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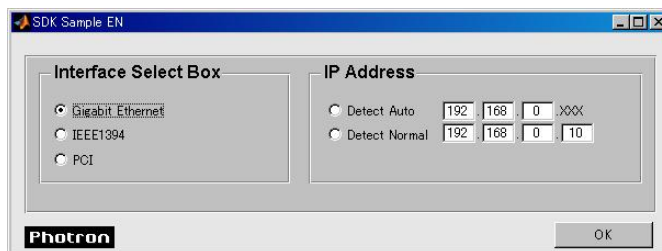
### 3. Basic operation

#### 3.1. Interface selection

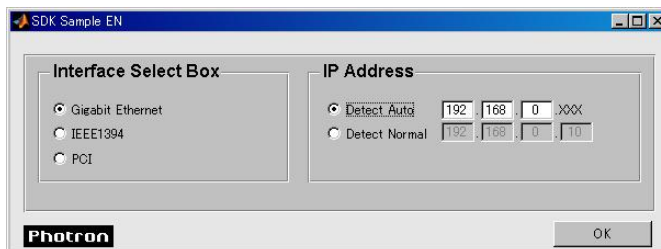
- ① By running the file “SDK\_Sample\_EN\_run.m”, the interface selection GUI will be launched. Please select from the 3 available interface options: Gigabit Ethernet, IEEE1394, and PCI.



- ② If you choose the Gigabit Ethernet interface, the IP address sub windows will appear. Please choose an IP address detection method (Detect Auto or Detect Normal).

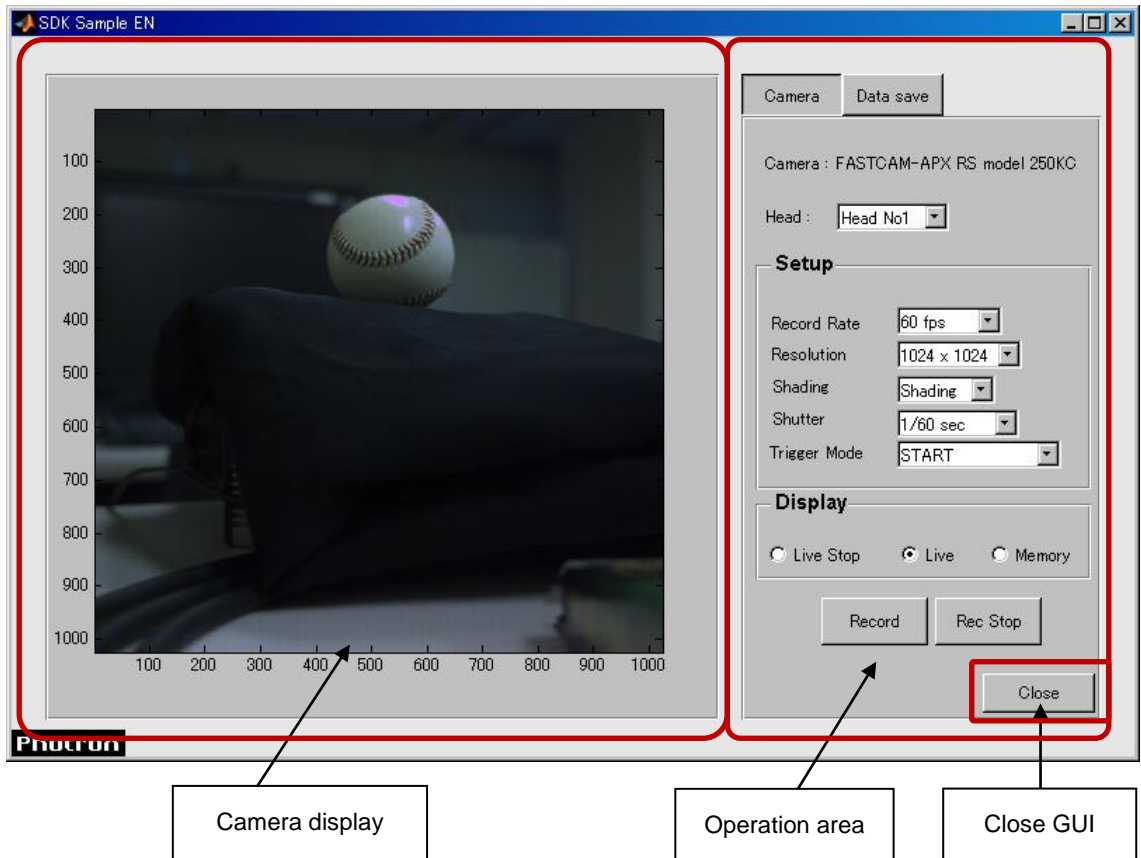


- ③ After entering the IP address, please press the OK button.  
For the other interfaces, there is no need to set the IP address, just press the OK button.

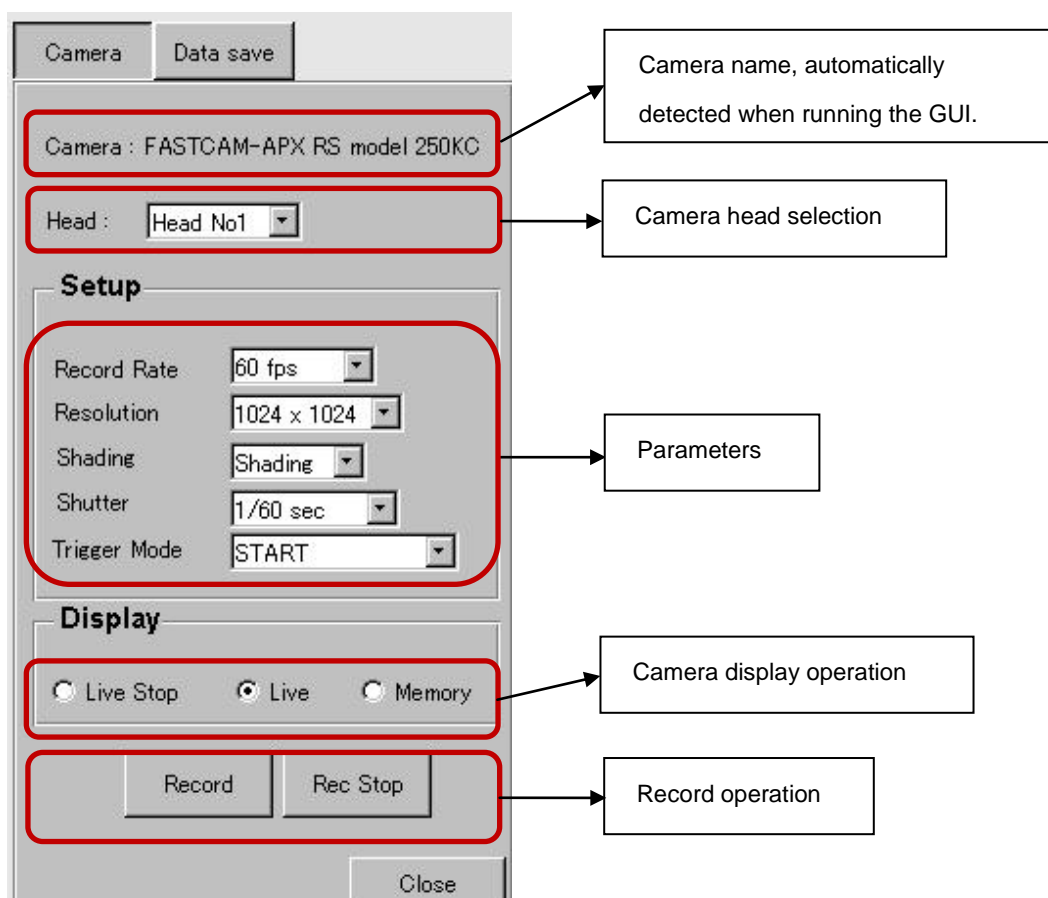


### 3.2. Main GUI

- ◆ The GUI displays the camera connected to the selected interface. Additionally, it is possible to set camera parameters and save different data with the GUI.

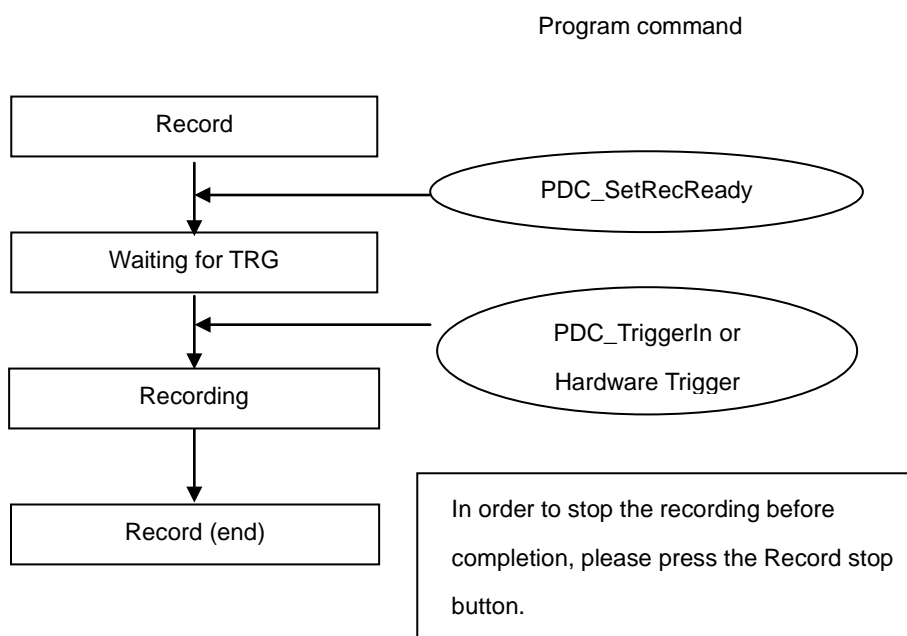


### 3.3. Camera tab

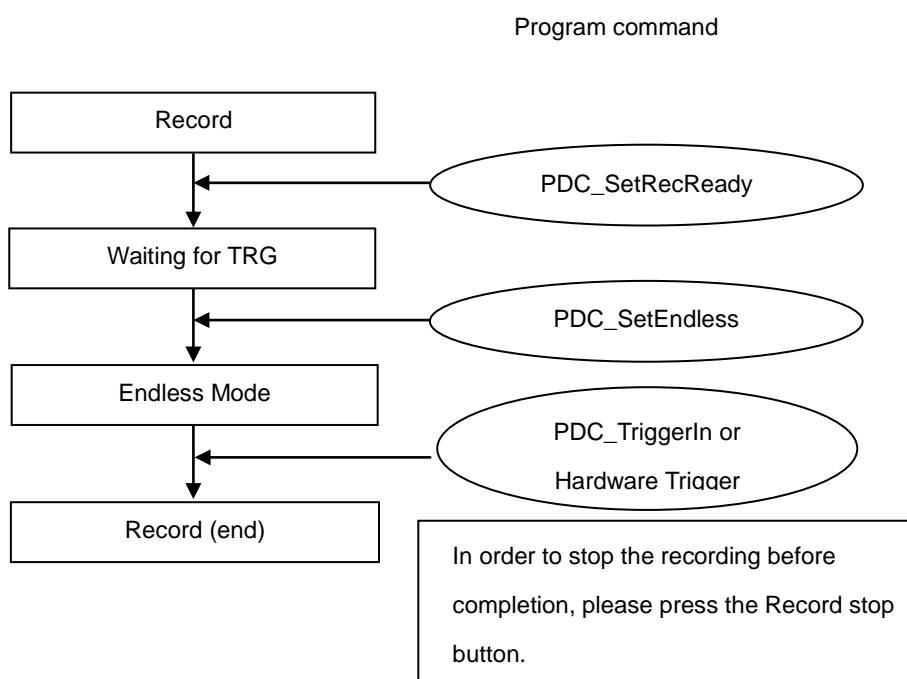


◆ Record button

① Start trigger

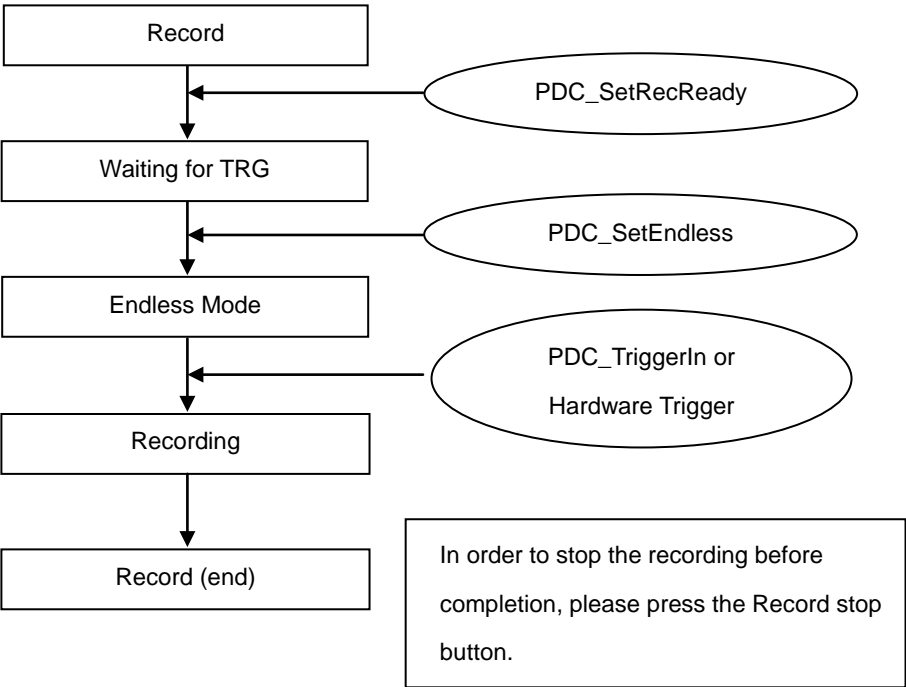


② End trigger



③ Center trigger

Program command



### 3.4. Data save tab

The screenshot shows a software window with two tabs: 'Camera' and 'Data save'. The 'Data save' tab is active. It contains the following elements:

- Camera:** A text field displaying 'FASTCAM-APX RS model 250KC'.
- Head:** A dropdown menu currently showing 'Head No1'.
- Save path:** A text field containing '23\_backup\$\\_Sample\_R14SP3\_VS6\_EN'. To its right is a small square button with three dots '...'.
- Filename:** A text field containing 'Data'.
- Format:** A dropdown menu currently showing 'AVI'.
- Frame Range:** A section containing a horizontal slider with arrows at both ends. Below the slider are three text fields: 'Start frame' with '-3072', 'Current frame' with '-942', and 'End frame' with '3072'. To the left of the slider is the number '-3072' and to the right is '3072'. Below these fields are two buttons: 'PLAY' and 'STOP'.
- Buttons:** At the bottom of the window are two buttons: 'SAVE' and 'Close'.

Callouts provide the following explanations:

- Camera:** It displays the camera name.
- Head:** Access to the memory of the selected head
- Save path button:** Please left click this button in order to select the save folder.
- Frame Range:** Display (Memory)

#### ◆ Display (Memory)

Different operations can be done in this part of the GUI. For the selected camera head the slider can be used to negative through the recorded images. The play button can be used to playback images in an infinite loop and the stop button will stop the current image, The Start frame and End frame can be entered to limit the range of images being played back.

#### ◆ File Save

Save path : Select your save folder.

Filename : Enter the filename of the save file (extension not needed).

Format : Select the format of your save file : BMP or JPEG or AVI.

If a folder and a filename are chosen, file can be saved in three formats : BMP, JPEG and AVI.

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## **Chapter.4    Contacting**

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## 4. Contacting

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For inquiries related to this manual, contact Photron using the contact information listed below.

To assist us with your inquiry, please provide the following information.

Items Verified	Concrete Example
Contact Information	Company, school or organization name, customer contact name, contact phone number, Contact e-mail.
Condition of the system and what is known about it.	

Contact Information	
In Americas and Antipodes	<b>PHOTRON USA, INC.</b> 9520 Padgett Street, Suite 110 San Diego, CA 92126-4426, USA Phone : 800-585-2129 or 858-684-3555 Fax : 858-684-3558 E-mail : image@photron.com www.photron.com
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