OLYMPUS

SIMPLIFIED OPERATION MANUAL

FLUOVIEW

FV10i

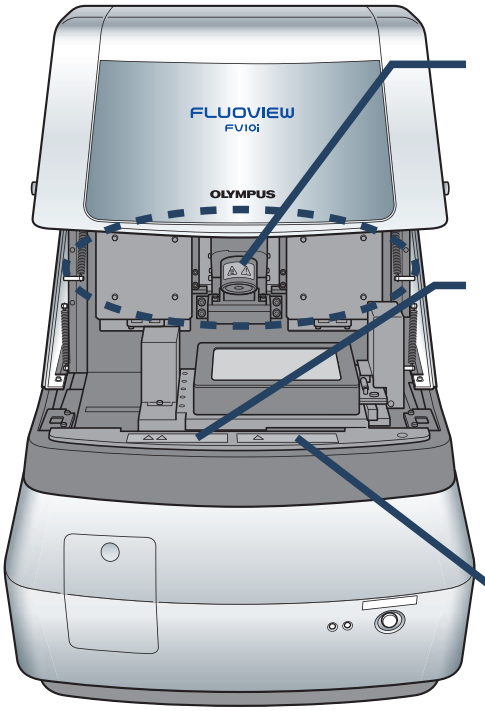
Note

This manual introduces a simplified operating procedure of the product so that even the person who uses it for the first time can complete the operations.
For detailed operating procedures, refer to the separate User's Manuals [Safety] and [Hardware] as well as the Navigation/Online Help of the software.
Retain this manual in an easily accessible place near the work desk for future reference.

AX7923 [TYPE 2]

SAFETY PRECAUTIONS

During observation and acquisition, the cover is kept closed to avoid the risk on the user. However, when replacing the specimen holder, the cover should be opened so care is required in this operation.
Also note that the laser beam is screened by a shutter and therefore safe while the cover is opened.



Caution against high temperature
(FV10i-W only)

This section becomes hot for keeping the incubator temperature.

Caution against finger being caught

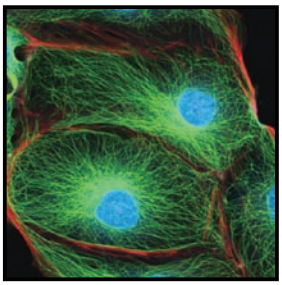
This section accommodates motorized modules and the unit should not be operated while the cover is open.
Also be careful not to have your hand or finger caught by the cover when closing it.

Caution for specimen replacement

Always remove the specimen together with the specimen holder.

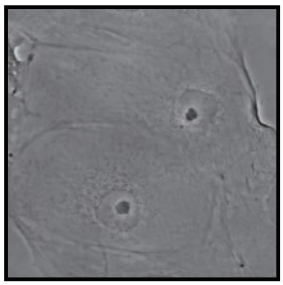
Observation Methods

Fluorescence observation



This method utilizes the fluorescence generated when the specimen is irradiated with strong light to observe the specimen structure or identify the substance according to the presence/absence and color tone of the fluorescence.

Phase contrast observation

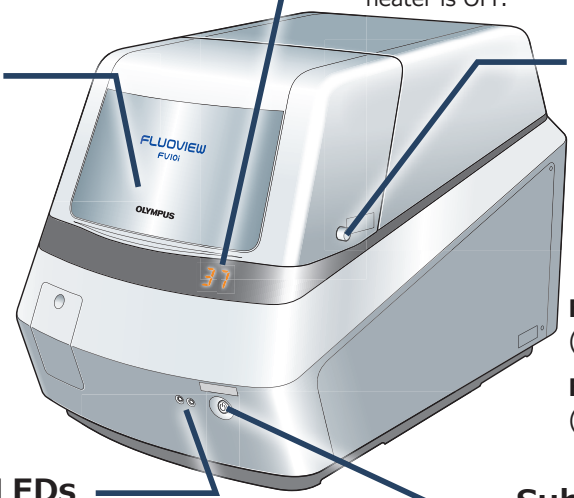


This method makes it possible to observe a non-stained specimen (living specimen) or nearly transparent specimen, which is hard to observe in brightfield observation, by enhancing the contrast between brightness and darkness.

Nomenclature

Incubator temperature indicator (FV10i-W only)

The indicator blinks during warm-up and light steadily when the optimum temperature (34 to 38° C) is reached.
The temperature indicator shows "- -" when the heater is OFF.



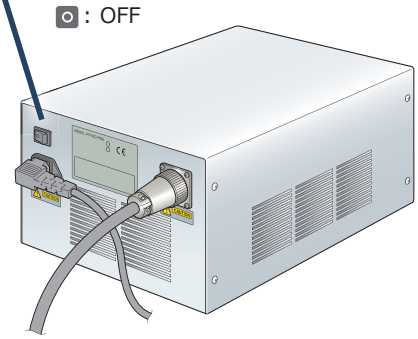
LEDs		Laser	Software
Left	Right		
Blinking	Lighting	Initializing	
Lighting	Lighting	Standby	Not run
Lighting	Blinking		Running

Both the left LED ( ) and right LED ( ) blink when the cover is open.

Main switch

Power Supply Unit (FV10C-PSU)

I : ON
O : OFF



The operations other than those available with the above controls can be adjusted or set from the software. (The operations are easy using the Navigation.)
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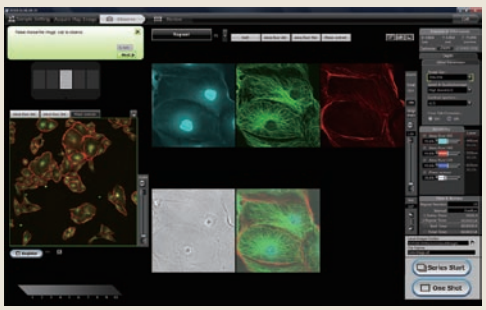
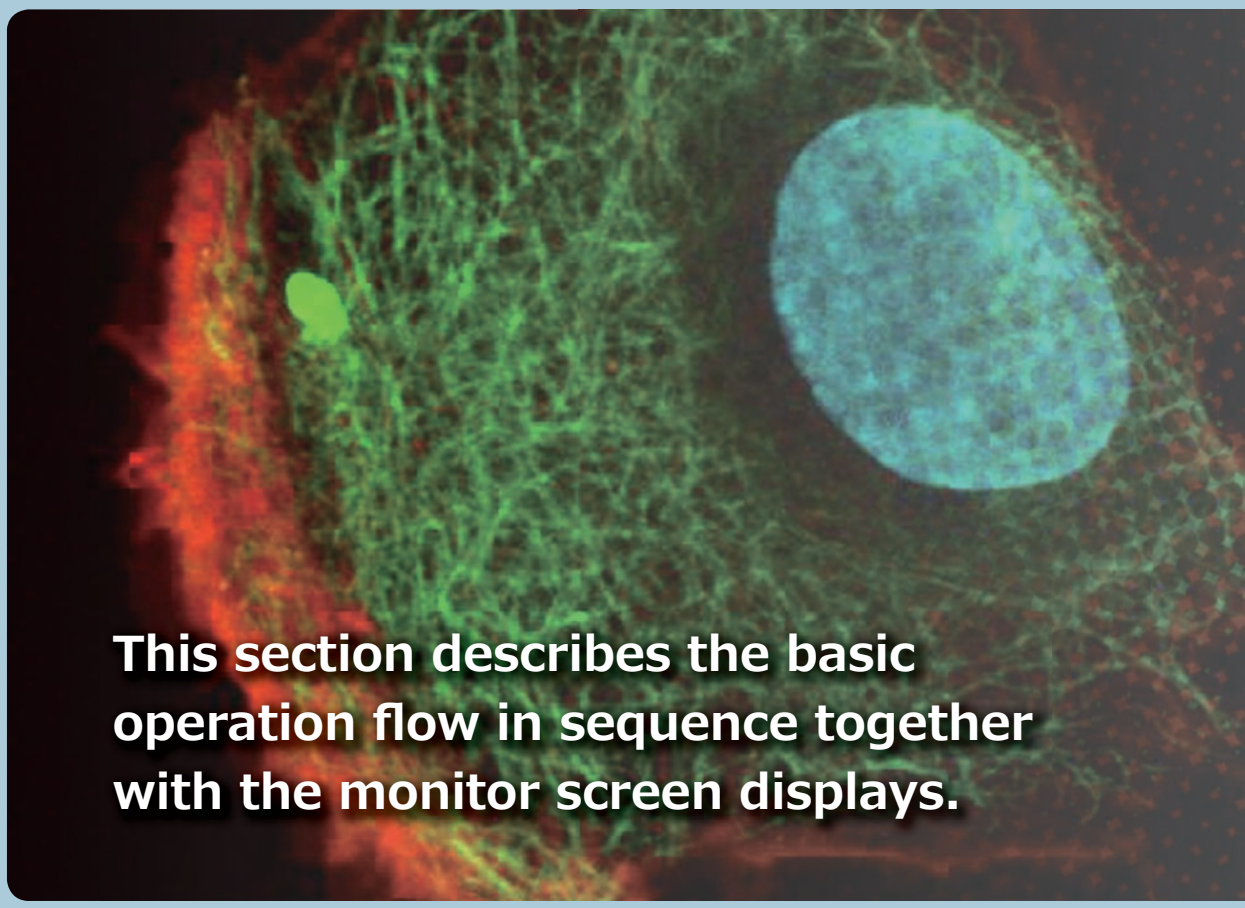
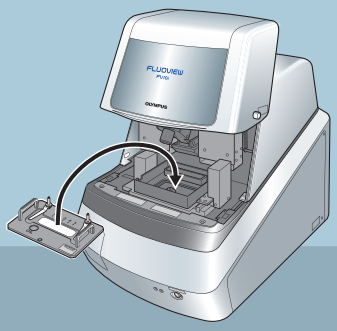
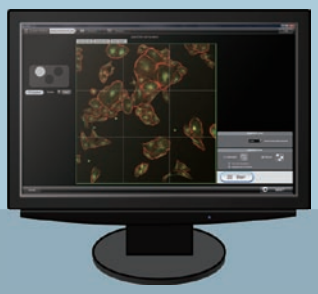


Observation/Acquisition Flow



This section describes the basic operation flow in sequence together with the monitor screen displays.





System Setup

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Software Setup

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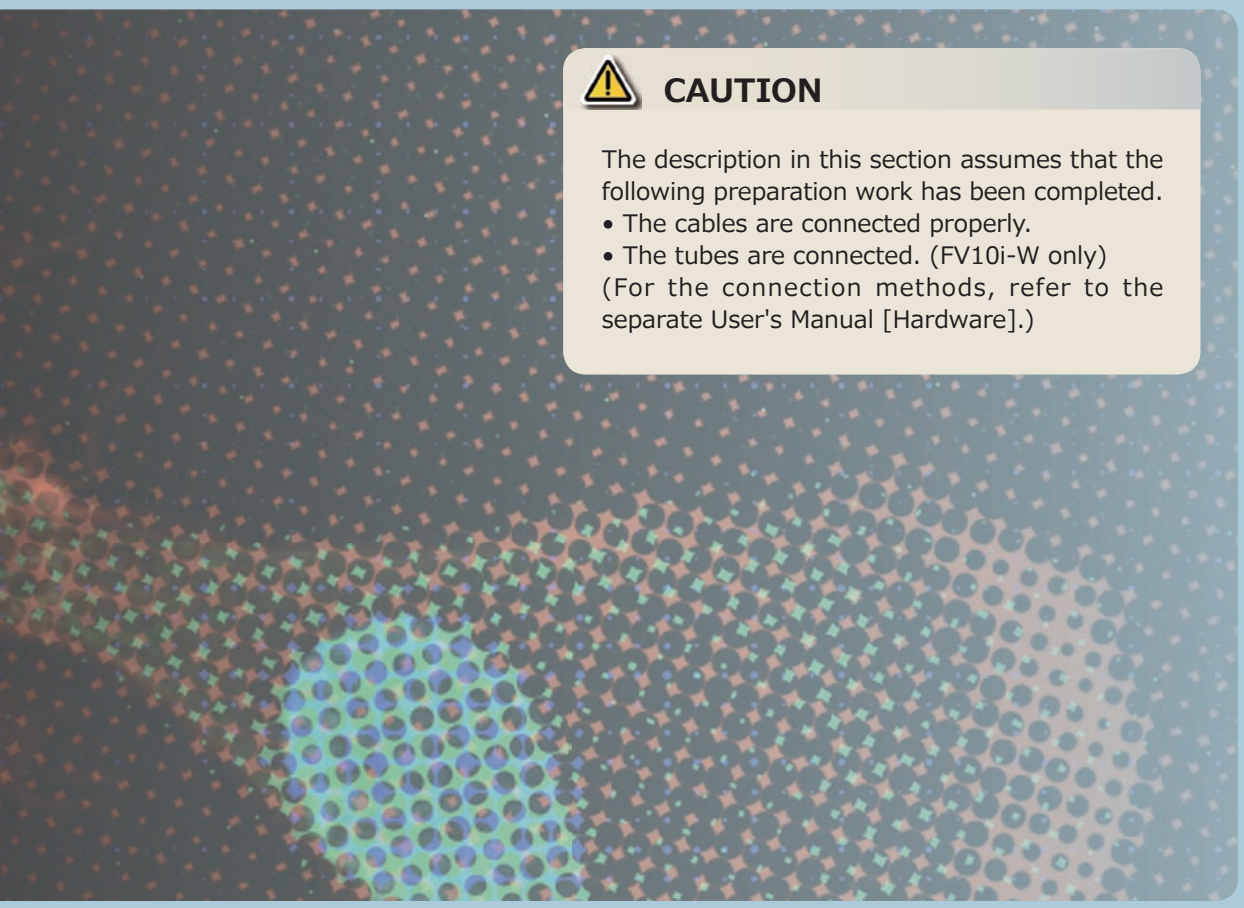
Map Image Acquisition

→ p. 10



CAUTION

The description in this section assumes that the following preparation work has been completed.
- The cables are connected properly.
- The tubes are connected. (FV10i-W only)

(For the connection methods, refer to the separate User's Manual [Hardware].)

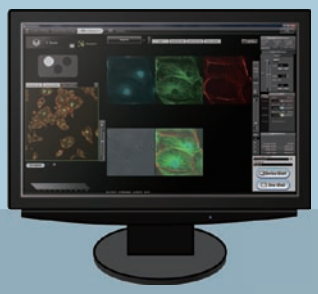


Image Acquisition

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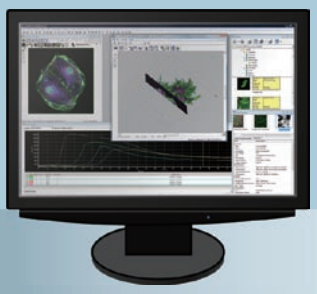

Image Editing/ Analysis

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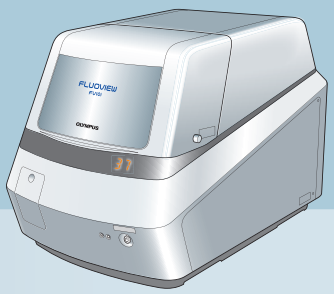

System Termination

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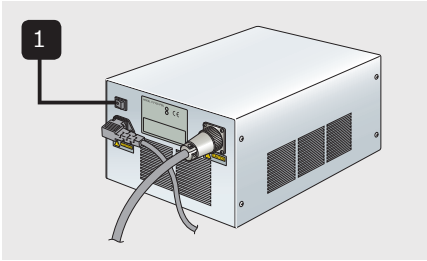
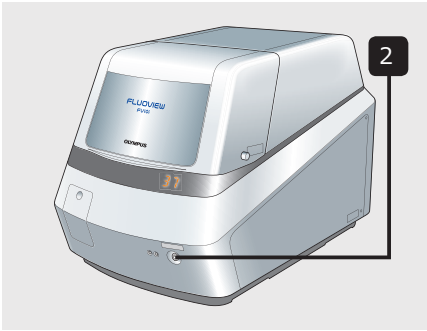
1. System Setup

Starting the system



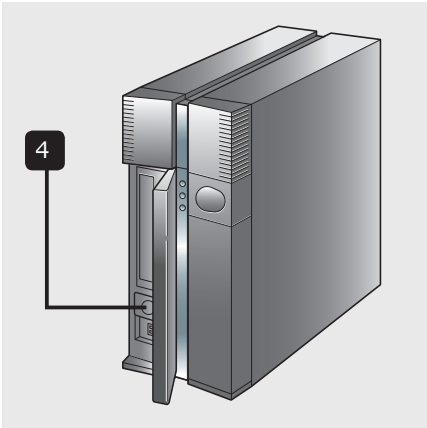
1 Set the main switch on the power supply unit to " I " (ON).



2 Set the sub switch on the main unit to turn it on.

To start up the main unit without turning the heater ON, press and hold the sub-switch until a short beep is generated (for about 3 seconds).

3 Set the main switch of the display to ON.



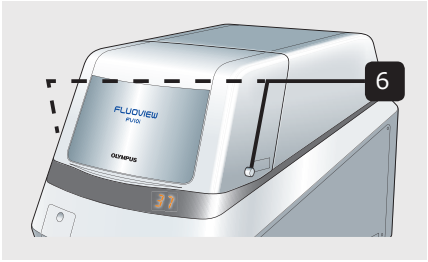
4 Open the front cover of the controller and set the main switch to ON.

5 Log on Windows Vista with your own user ID.

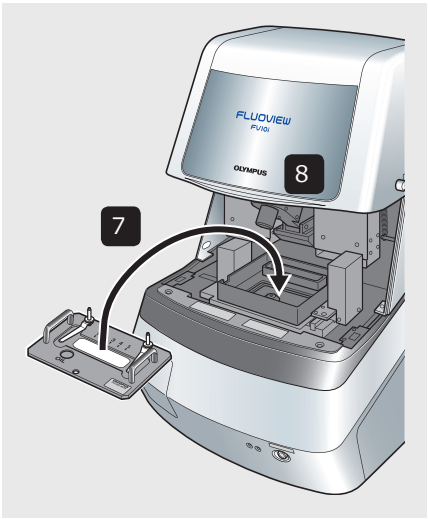
If you have not yet registered your user ID, log on with the factory default ID.

Factory default ID: fluoview
Password: fluoview

Installing the specimen holder



6 Push and hold the cover lock buttons (on both sides), and lift the cover.



7 Install the specimen holder carrying the specimen to be observed in the main unit.

For details, refer to the User's Manual [Hardware].

The software cannot be launched unless the specimen holder is installed.

8 Push down the cover until it clicks to indicate that it is closed.

Observation is not available unless the cover is closed completely.

Stable images can be acquired if acquisition is started after the following warm-up period.

FV10i-W: 60 minutes
FV10i-O: 30 minutes

Now the system setup is complete.

2. Software Setup

Launching the software

1

Wait until the left STATUS LED on the main unit changes from blinking ( ) to steady lighting ( ).

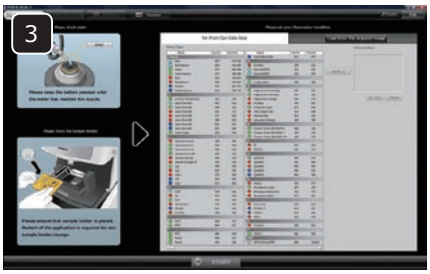
1 Double-click on the FV10i-SW icon on the desktop to launch the software.

2

2 After the splash screen the logon screen appears on the monitor screen. Log on with your own user ID.

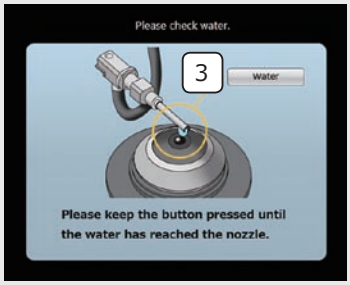
If you have not yet registered your user ID, log on with the factory default ID.
Factory default ID: Administrator
Password: Administrator

3



3 The operation preparation screen appears.

Checking water in the water feed nozzle (FV10i-W only)



1 Open the cover.

2 Remove the specimen holder.

3 Press and hold the Water botton. (It may sometimes take as long as 30 seconds to 1 minute until water comes out.)

4 When water comes out of the water feed nozzle, release the Water botton.

5 Install the specimen holder in the original position.

6 Close the cover.

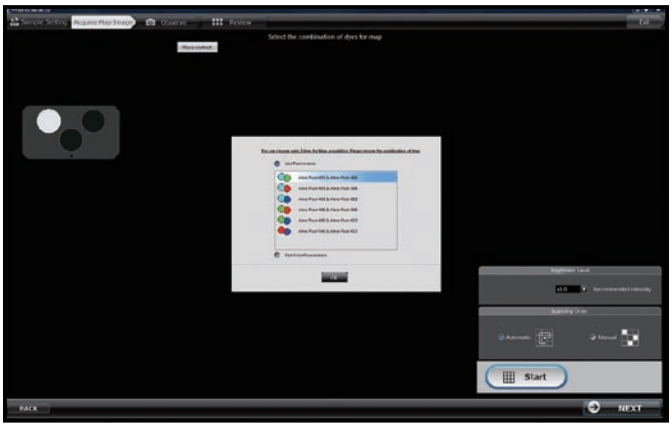
4 From the [Setup Dyes] list, select the fluorescent dyes for use in observation and click on the Apply > button. (Up to 4 dyes can be selected.)

5 Click on the START button.

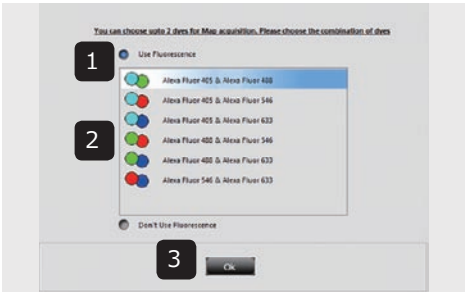
Now the software setup is complete.

3. Map Image Acquisition

The map image is the overall view of the specimen and used to locate the observation target.
The description in this manual takes an example in which a fluorescence image is selected and acquired as the map image.



Setting the map image acquisition condition

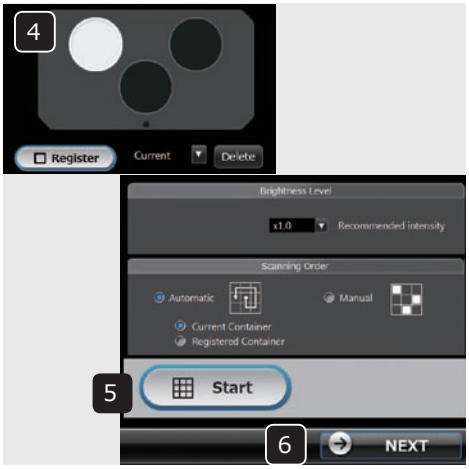


1 Select [Use Fluorescence].

2 When more than 3 kinds of fluorescent dyes have been chosen, select the combination of fluorescent dyes to be used in the map image acquisition.

3 Click on the Ok button.

Acquiring the map image



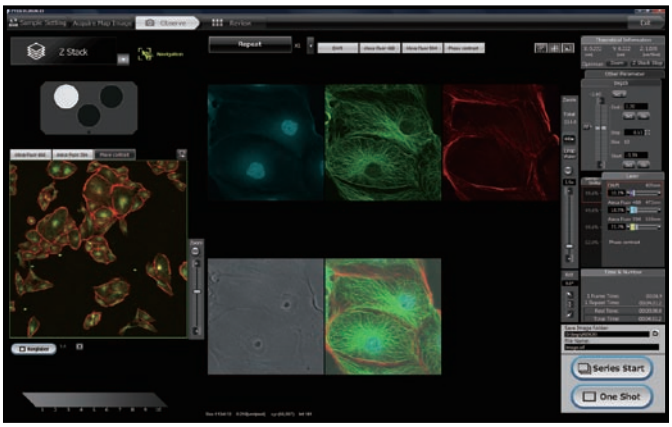
4 Double-click on the position (container) that you want to acquire the map image.

5 Click on the Start button to start the image acquisition.

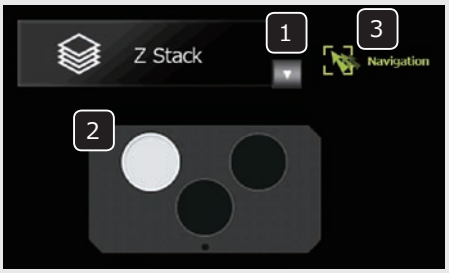
6 When the map image is completed, click on the NEXT button.

Now the map image has been acquired.

4. Image Acquisition



Selecting the acquisition mode



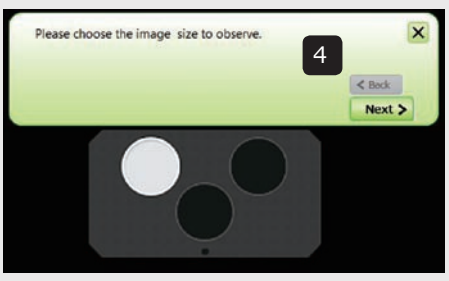
1 Click on the ▼ button to select the acquisition mode.

2 Double-click on the observation target position (container) that you want to acquire the image.

3 Click on the Navigation button to view the Navigation.

The following five acquisition modes are available.

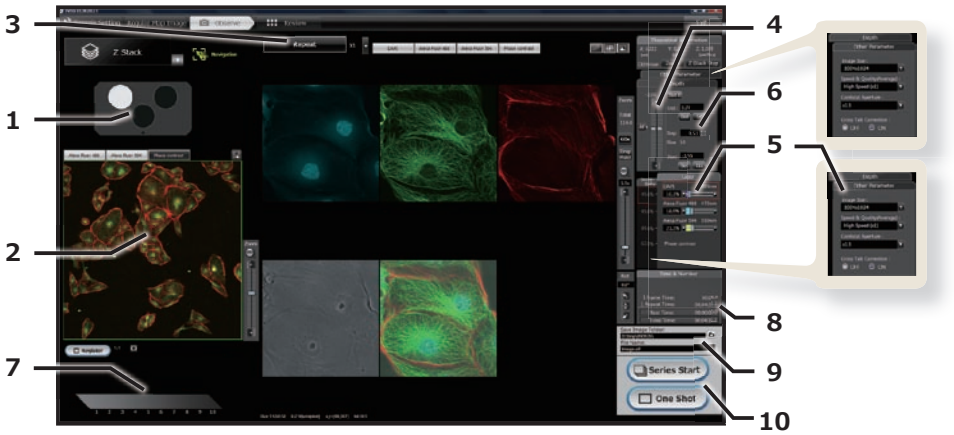
- **Time Lapse:** Sequential acquisition of the images of a specified area at the specified time intervals.
- **Z Stack:** Sequential acquisition of the images of a specified area by varying the focused position at constant steps.
- **Z Stack Time Lapse:** Sequential acquisition combining the Z Stack and Time Lapse modes.
- **Multi Area Time Lapse:** Time Lapse acquisition while moving across multiple specified areas.
- **Multi Area Z Stack Time Lapse:** Z Stack/Time Lapse combined acquisition while moving across multiple specified areas.

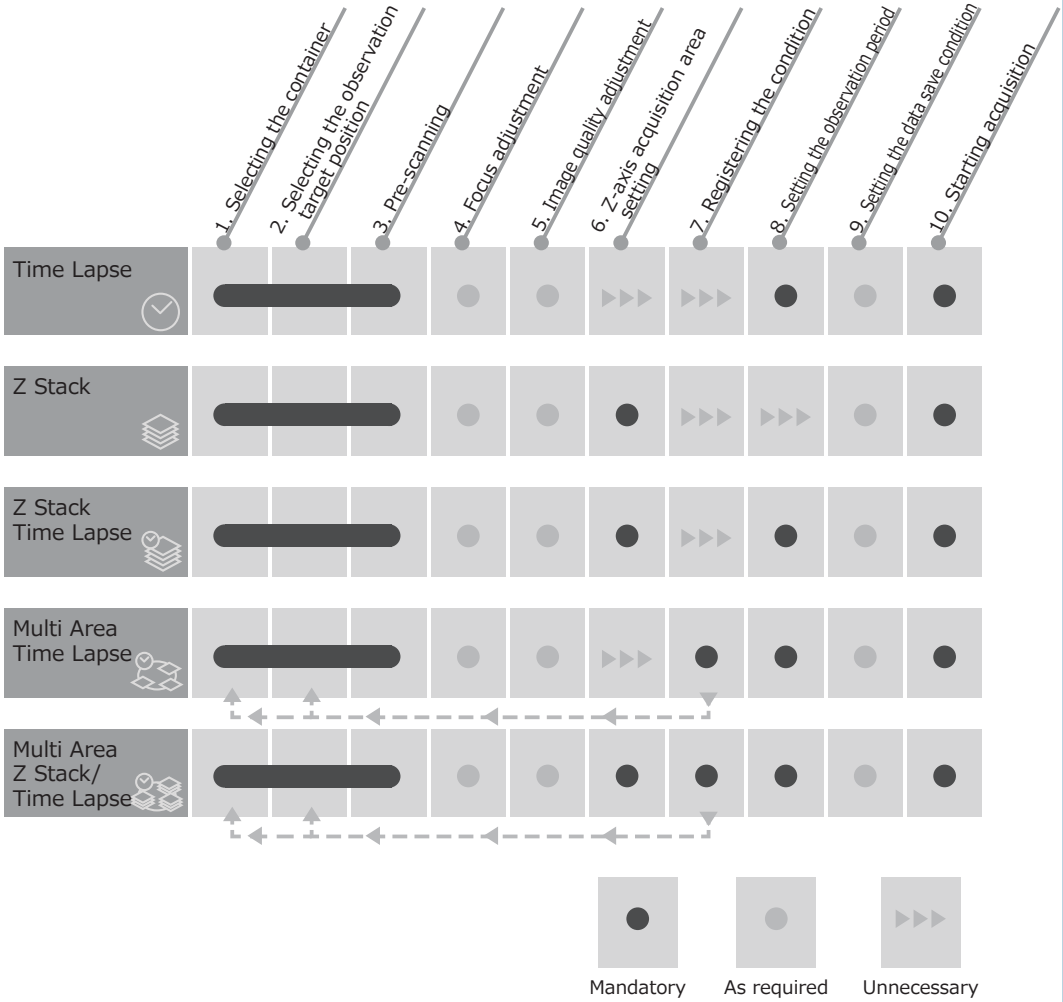


4 Hereafter, continue operation by following the instructions given by the Navigation.

When the operation is completed, click on the Next > button to view the next operated position and the instruction on it.

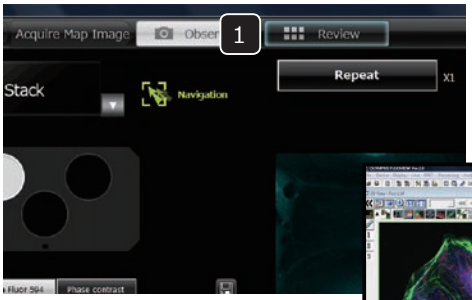
5. Flow of Image Acquisition



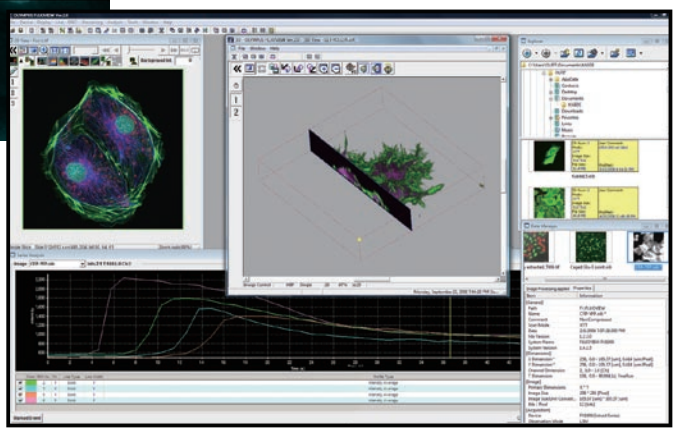


6. Image Editing/Analysis

Switching to the Review Software



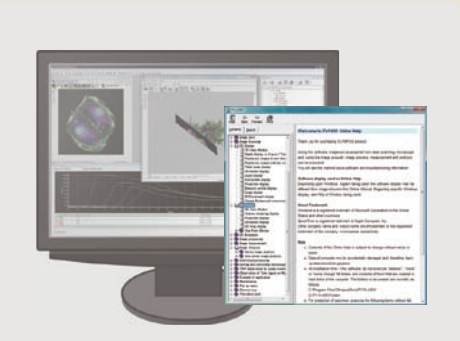
1 Click on the Review button on the toolbar to switch to the Review software.



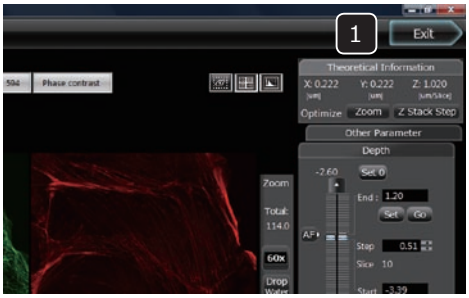
The Review software provides the following functions.

- LUT modification
- Tile image display
- Maximum Intensity Projection image creation
- Annotation addition
- 3D image building
- Time lapse image file editing using Partial Open
- Stitch image creation using MATL Viewer
- File export
- Addition of user ID

The software also incorporates various other functions.
For details, open the [Help] menu and launch the Online Help.



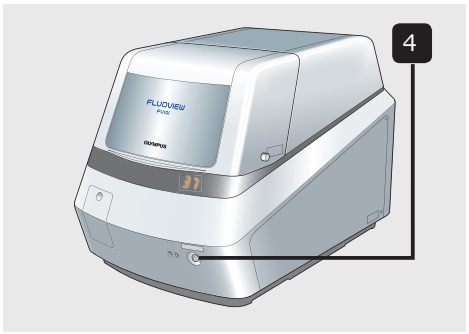
7. System Termination



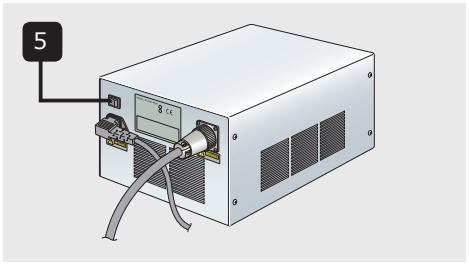
1 Click on the Exit button on the toolbar to exit the software.

2 Shut down Windows Vista.

3 Set the main switch of the display to OFF.



4 Press and hold the sub switch on the main unit for 3 seconds to turn it off.



5 Set the main switch on the power supply unit to "O" (OFF) as required.

MEMO

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