

OLYMPUS®

Your Vision, Our Future

Bio Imaging Navigator

FSX100

NEW



fsx.olympus-global.com

Visit our Web site for on-line demonstration of FSX100.



ECO-PRODUCTS

FSX100 is the environmental conscious product according to OLYMPUS's own standards.

Main features of OLYMPUS Eco-products are as follows.

- Lead-free and arsenic-free Eco-glass for optics, such as lenses and prisms.
- Adoption of cardboard for packing materials without styrene foam for promoting the recycling.
- * Some accessories are inapplicable.

Please visit our web site for further information:
<http://www.olympus.co.jp/en/eco-products/>

Specifications are subject to change without any obligation on the part of the manufacturer.

OLYMPUS®

www.olympus.com

OLYMPUS CORPORATION
Shinjuku Monolith, 3-1, Nishi Shinjuku 2-chome, Shinjuku-ku, Tokyo, Japan
OLYMPUS AMERICA INC.
3500 Corporate Parkway, Center Valley, Pennsylvania 18034-0610, U.S.A.
OLYMPUS SINGAPORE PTE LTD.
491B River Valley Road, #12-01/04 Valley Point Office Tower, Singapore 248373
OLYMPUS AUSTRAL A PTY. LTD.
31 Gilby Road, Mt. Waverley, VIC 3149, Melbourne, Australia

All brands are trademarks or registered trademarks of their respective owners.

OLYMPUS CORPORATION has obtained ISO9001/ISO14001

OLYMPUS LATIN AMERICA, INC.
5301 Blue Lagoon Drive, Suite 290 Miami, FL 33126, U.S.A.
OLYMPUS (BEIJING) SALES & SERVICE CO., LTD.
12F, NCI Tower, A12 Jianguomenwai Avenue, Chaoyang District, Beijing 100022, China

fsx.olympus-global.com

UIS2
World-leading optics

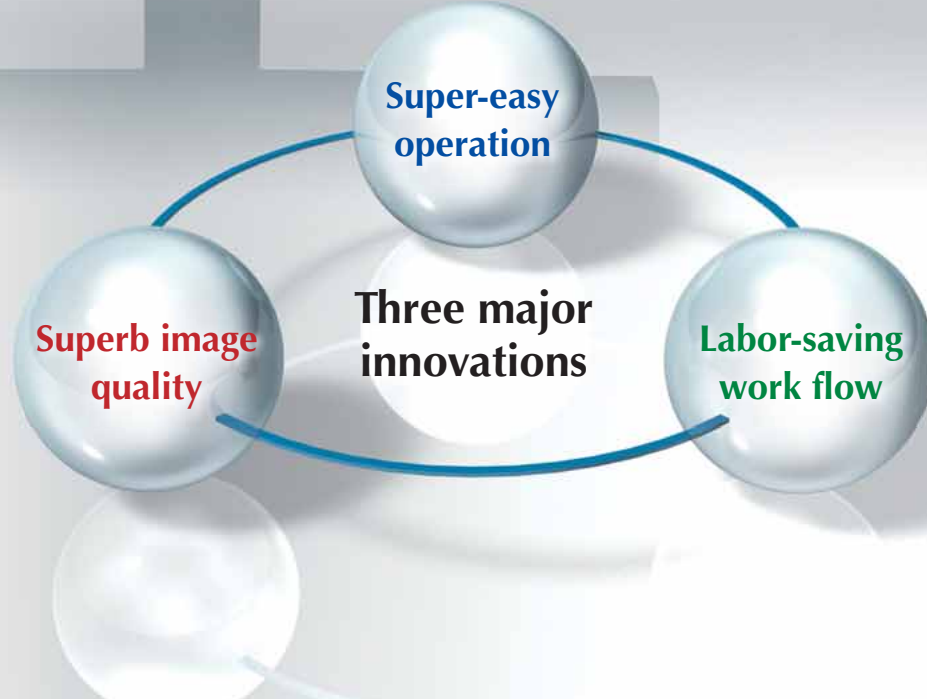
Printed in Japan M1658E-1008B

Innovation - All for the sake of researchers.

Bio Imaging Navigator
FSX100



The quality of microscope images is increasing everyday thanks to innovative advances in digital imaging technology.
The quality of capturing digital microscopic images is increasing everyday thanks to innovative advances in digital image technology.
Fundamental in the design of the new Bio Imaging Navigator, FSX100 was ease of use.
By removing complicated microscope adjustments and set up procedures, the efficiency of research activities is dramatically improved.
Acquiring high quality fluorescence microscope images has never been easier.
Everyone in the Research Laboratory can now realize the value of fluorescence imaging in their documentation and data publishing work flow.
Please note the ingenuity of this microscope, which allows you to take fluorescence microscopy images easily, even if you are a first-time user of a microscope.
Every time you click the mouse button, a whole new world of imaging will be opened at your finger tips.

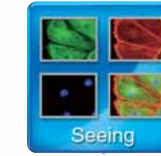




Setting



Shooting



Seeing

I N D E X

■ Innovative and Proprietary User Interface.....	5
■ Four-step Digital Photomicrography.....	7
■ Combines High Quality Imaging and Ease of Use	11
■ Efficient Image Viewing and Editing.....	13
■ Flexible, Versatile Observation/Acquisition modes	15
■ Advanced UIS2 optical system.....	17
■ Advanced System Design.....	20



FSX100 allows you to capture well-defined fluorescence microscopy images in surprisingly simple steps.



Easy to operate using just the mouse
Just simply load your specimen and go

Forget the drawbacks and complicated operation procedures associated with traditional fluorescence microscopy. With the FSX100, the simple operation, intuitive software, excellent ergonomics and PC control bring fluorescence microscopy to everyone, regardless of microscopy experience. Operating the FSX100 is as simple as: 1) turning on the power switch, 2) opening the cover 3) loading your specimen and 4) closing the cover. All operation of the system is performed via the PC software.



Guiding you through image capture
Intuitive User Interface

New operators of microscopes are frequently concerned with the correct operating procedures and optimizing their imaging system. With the FSX100, simply follow the steps displayed, and easily navigate successfully through the easy-to-follow image capturing steps. Capturing high quality images has never been easier.



Facilitating presentations and paper publishing
Image Management System

The FSX100 incorporates a library management system for captured images, that allows easier access and classification of captured images. All image capture conditions are automatically stored with each image file. Images can be edited, featured measured and the data exported to Excel. This system helps you to efficiently produce presentation materials and/or publish scientific papers.



Impressive brightness and high-definition
High resolution and contrast fluorescence images

The FSX100 comes equipped with a 40x objective of Numerical Aperture 0.95, which permits effective de The large NA 0.95 efficiently captures a large quantity of light and provides sharp detail and clean images of dim fluorescence specimens.



Simple operation and space saving
Darkroom-free

Required capabilities for fluorescence observation are all packaged in one complete housing that creates the dark room necessary for fluorescence imaging. Combined with a small footprint, this means that the FSX100 can be installed on a standard laboratory bench. The days of having to operate the microscope in a small, dark closet are gone!



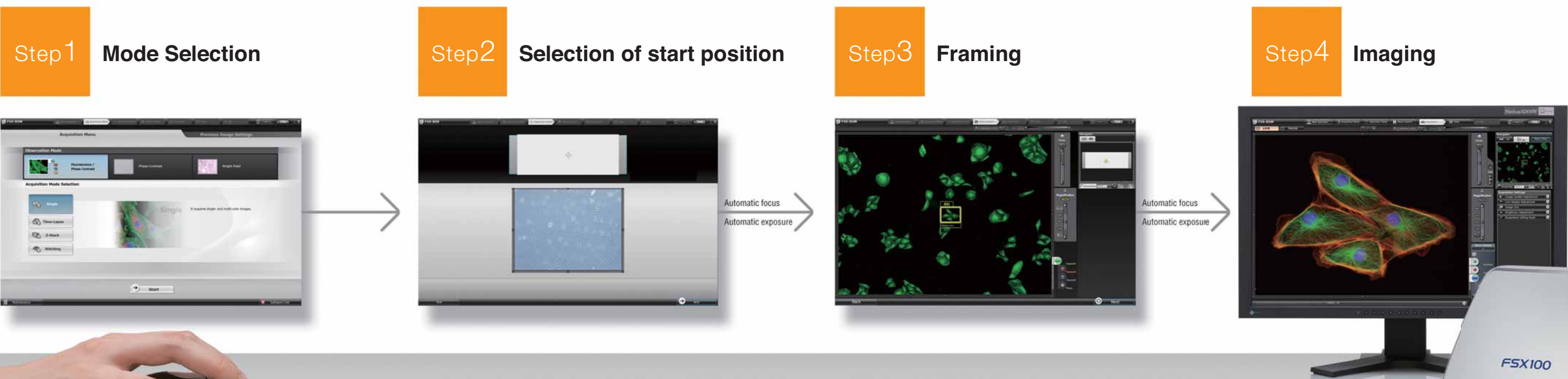
Minimizing time and effort
Simplified routine operation

Adoption of automatic focus and automatic exposure control eliminates the need for adjustment of focusing and brightness. In addition, selection of image magnification and fluorescence colors is simplified and completed by mouse clicks. Furthermore, image capture settings can be stored and later recalled by each operator allowing consistent, repeatable, imaging across experiments.

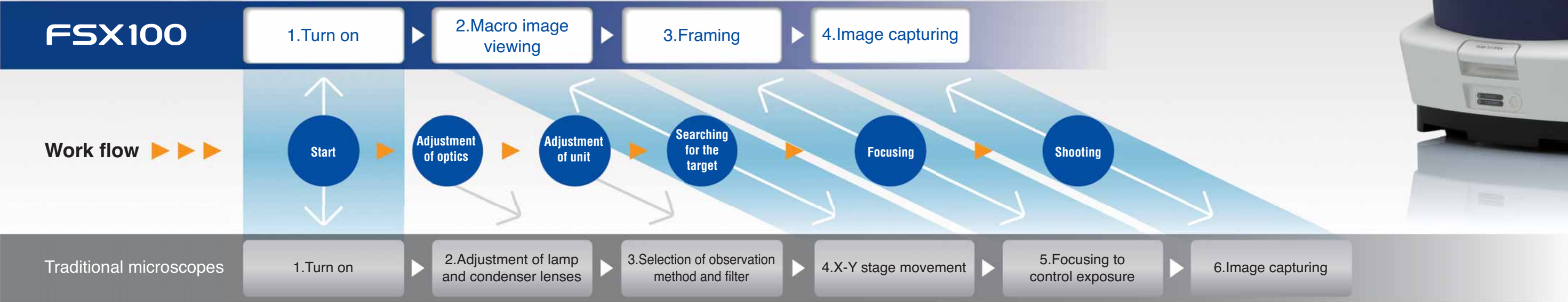
Crisp microscope images, consistently captured using only a computer mouse.

Clear, high-definition images can be easily captured by simply following the step by step instructions displayed one screen at a time.

The user interface is designed for even first time users to smoothly and successfully capture high quality images.
Follow the four steps "Mode Selection" → "Selection of start position" → "Framing" → "Imaging."
After loading your specimen, there is no need to touch the FSX100 during the above procedure.



Dramatically improved work flow due to a considerable saving of time and labor



Even first-time users can capture very high quality images by simply following these four easy steps.

Designed to provide high quality images with a simple user interface.
Even new users can confidently capture beautiful images.

Step1

Mode Selection

FSX100 offers three microscope Observation Modes, 1) Fluorescence / Phase Contrast, 2) Phase Contrast, and 3) Bright Field, and also four Acquisition Modes, 1) Single, 2) Time Lapse, 3) Z-stack, and 4) Stitching, to meet a wide range of applications.

Observation mode selection

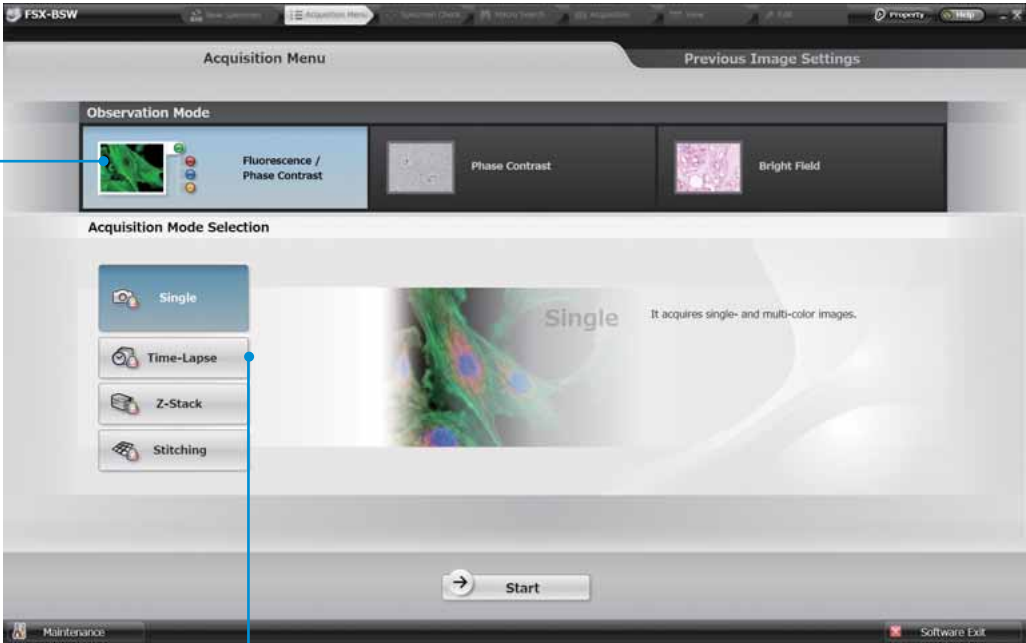


Fluorescence / Phase Contrast Phase Contrast Bright Field

Acquisition mode selection

Single/Time Lapse/Z-stack/Stitching

*Stitching mode is to be loaded around April 2009.



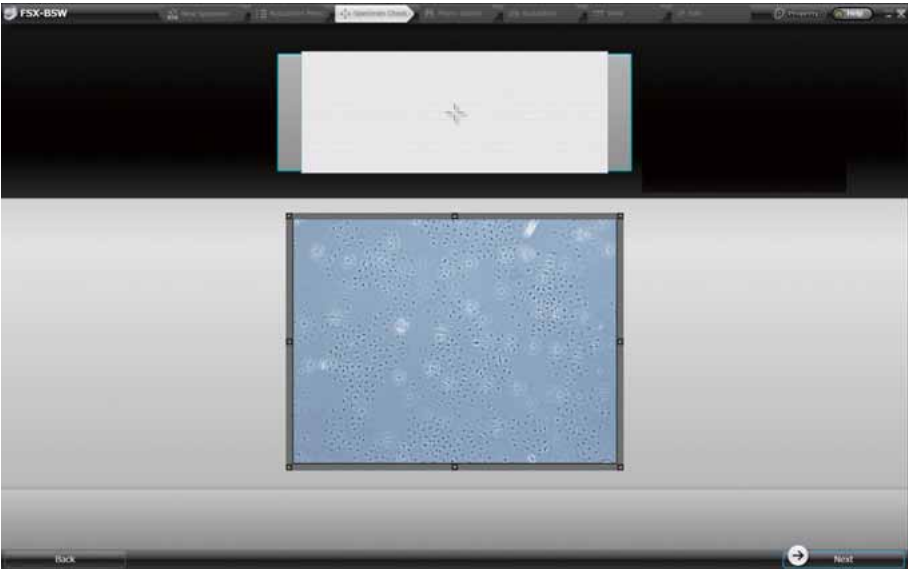
Step2

Selection of start position

This window is where the operator chooses where on the specimen to begin imaging. When the crosshair is placed over the area of interest, the operator clicks the NEXT button and this area is displayed at low magnification and is the starting view for Step 3.
The area selected is then shown in the next window at low magnification.

Displaying the observation range

The specimen holder will automatically be identified and the outline of the specimen is displayed. The operator then moves a crosshair to select the location to begin the framing process.



Displaying the live phase contrast image

As the crosshair is repositioned around the specimen, a live phase contrast image is displayed.

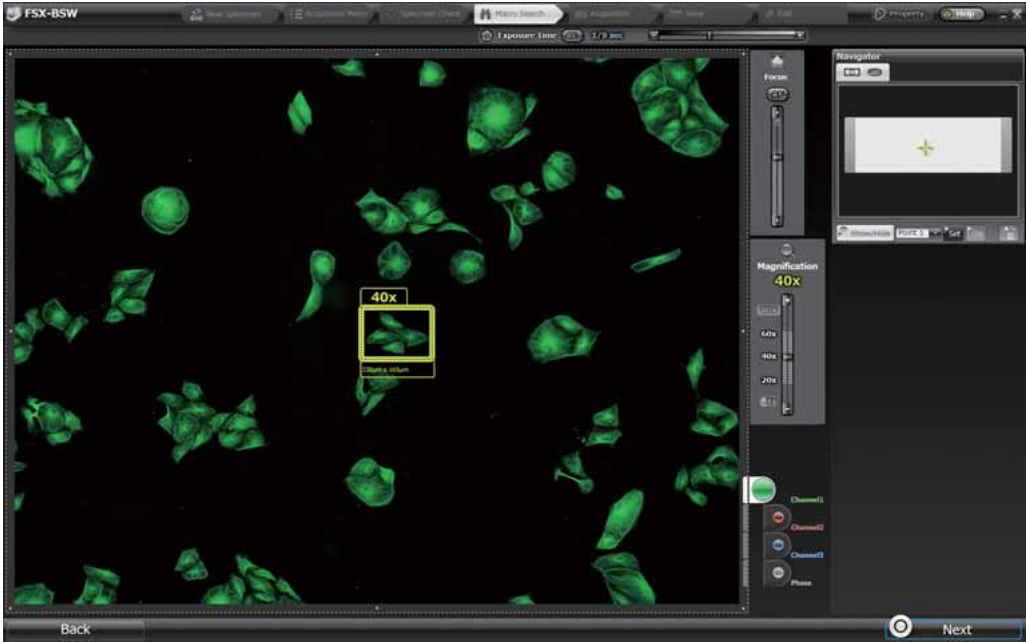
Mapping option

An overview image of the entire specimen can be displayed, if desired. This image allows the identification of areas of interest for closer examination.

Step3

Framing

The area selected in Step 2 is displayed and the operator moves a smaller selection window to choose a region for closer examination. By adjusting the size of the selection window, the operator is choosing the magnification at which to capture a high resolution image at Step 4.



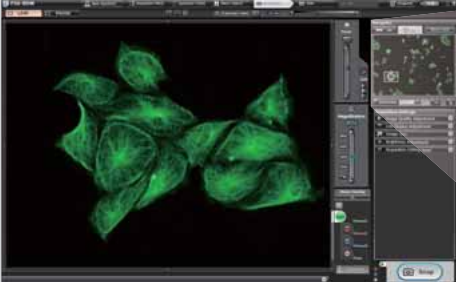
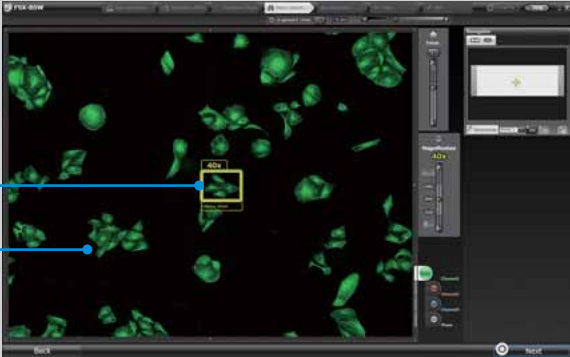
Macro image framing

The wide field of view for macro images allows fast detection of point for image capturing.



Bookmark function

Up to 30 points may be registered on a macro image. The registered points may be read out during the image capturing.



●Bookmark option [for registration]

Step4 Imaging

A high resolution image of the region of interest is displayed and the operator can make adjustments in focus and magnification. Color channels and acquisition setting optimized. Specimen movement and correcting for cover glass thickness can also be adjusted if necessary.

Specimen Protection

Fluorescence excitation light is very bright and potentially damaging to fluorescent molecules. During periods of inactivity, the FSX100 automatically shutters the excitation light source to minimize the amount of time any one area of the specimen is exposed.



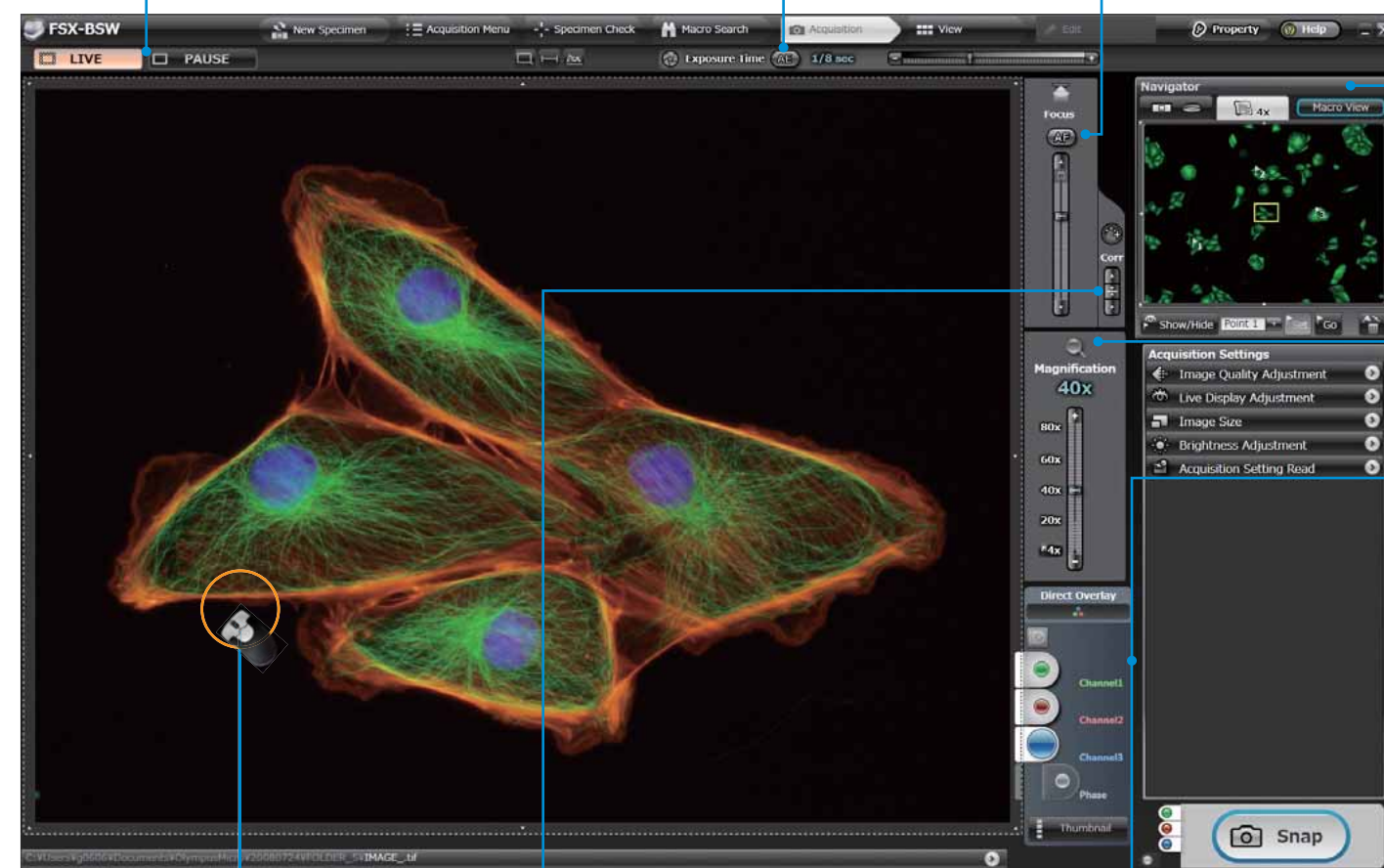
One-click AF and AE

Focus and exposure adjustment can be done by a single click of the mouse button. The adjustment may be also achieved manually.



●Automatic exposure control (AE)

●Automatic focus (AF)



Specimen movement

You can move specimen in any X/Y direction by dragging the cursor on the screen with the mouse, and moving the target to the center of the screen by double-clicking the target.



Correction for cover glass thickness

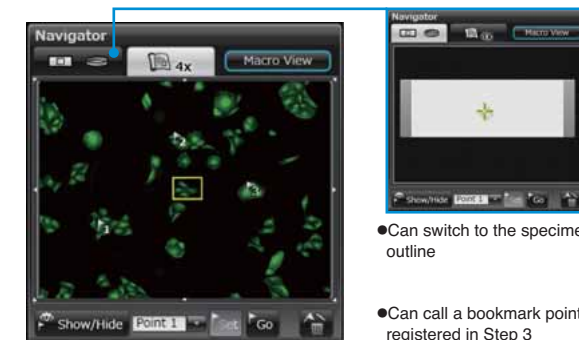
Cover glass thickness can have a negative effect on image quality and result in a loss of resolution and clarity. The FSX100 has a one-touch button to correct for cover glass differences and optimize image quality via a motorized correction ring on the objective. Additional "+" & "-" buttons allow the manual adjustment of this correction system.

Why do we need to correct for cover glass thickness?

When the thickness of the cover glass covering the specimen differs dramatically from that which the objective was designed for, optical aberrations, such as spherical aberration increase, causing an adverse impact on resolution and contrast. This effect becomes particularly significant for objectives with a high N.A. (numerical aperture), and this impact can be corrected by adjusting the objective's internal optical elements via a correction collar on the outer housing. On the FSX100, this collar is motorized.

Navigation

With a double click of the mouse over the point of interest, the FSX100 will automatically move this point to the center of the field of view, and maintain focus.

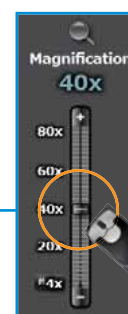


●Can switch to the specimen outline

●Can call a bookmark point registered in Step 3

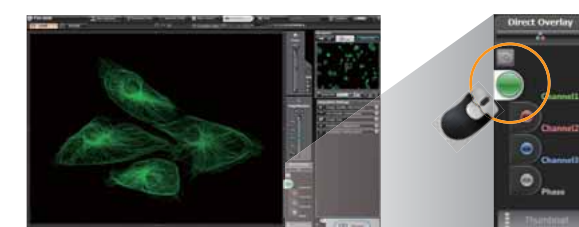
Optical zoom

Simple mouse operation and an elegant optical design allow you to easily select any optical magnification from 17x to 80x without the need for switching objectives.

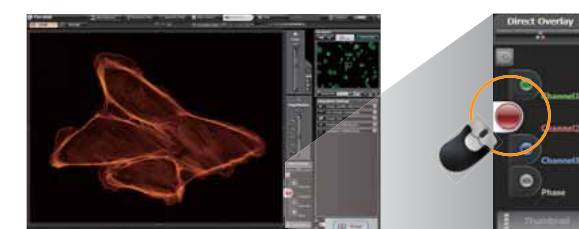


One-click fluorescence channel selection

With a single click of the mouse button, you can change the fluorescence channel you want to display on the screen, and immediately start taking images.

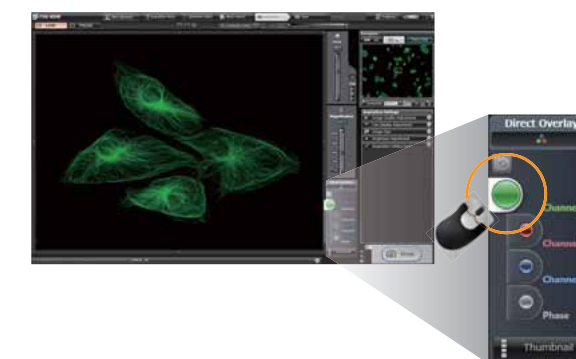


Click

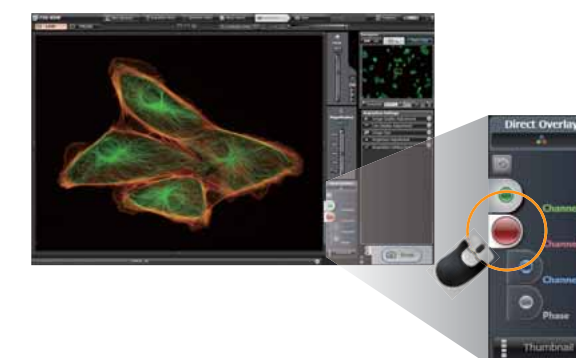


Direct Overlay

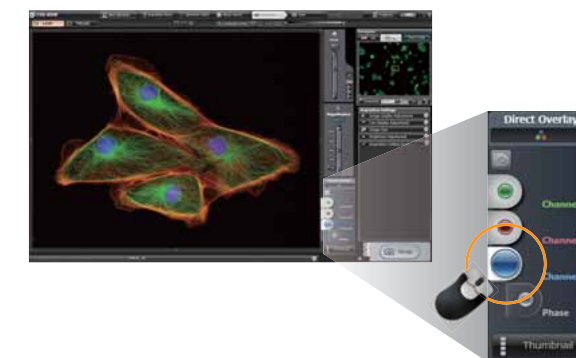
An advanced & powerful function of FSX100, Direct Overlay allows you to overlay captured images over a live image with just one click, and is very helpful with multiple color fluorescence specimens. If live window is moved to a new position on the specimen, one simple mouse click is all that is needed to capture a new image for all channels and update the Direct Overlay image.



Click



Click

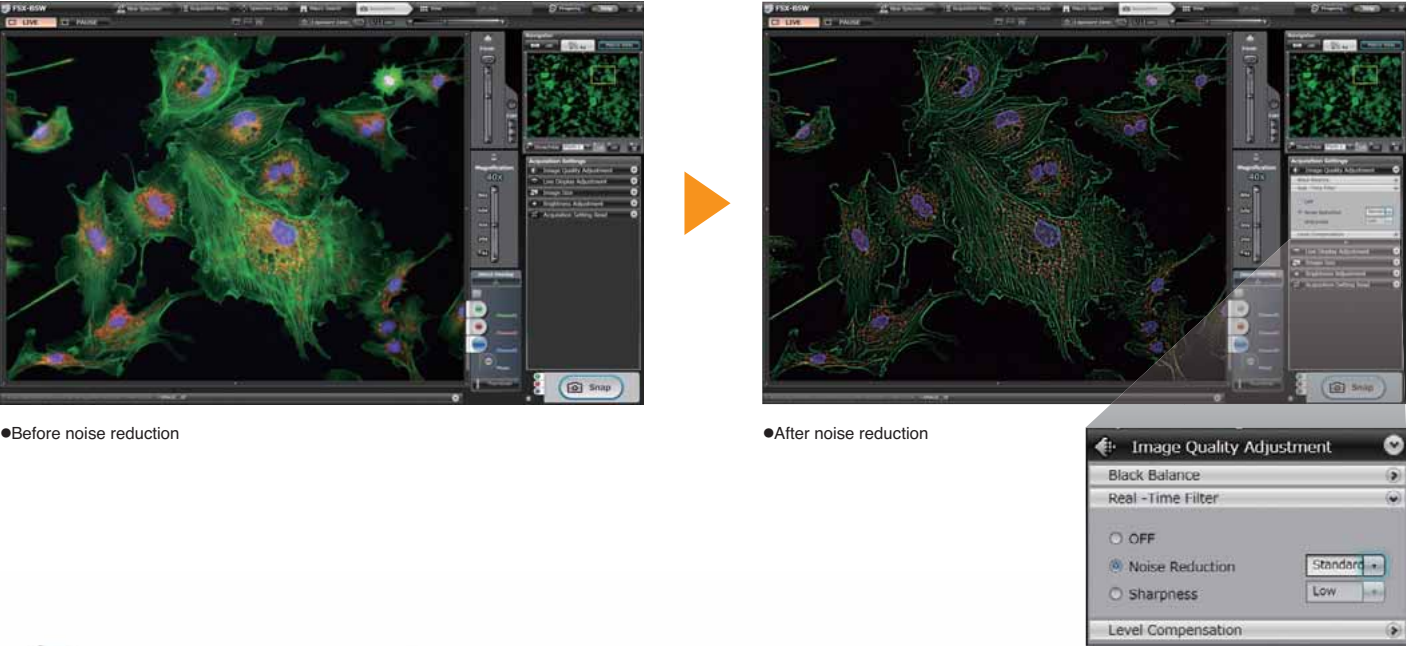


FSX100 combines ease of operation with high quality imaging to help you capture images efficiently

To facilitate the capturing of images for novices or experts, image resolution and ease of operation have been both enhanced.

Real-time noise reduction

It is possible to remove blur in fluorescence microscopy or emphasize the edges on the live images using the available Noise Reduction Algorithm. Noise reduction is available in three levels according to needs of the operator and specimen type.



●Before noise reduction ●After noise reduction

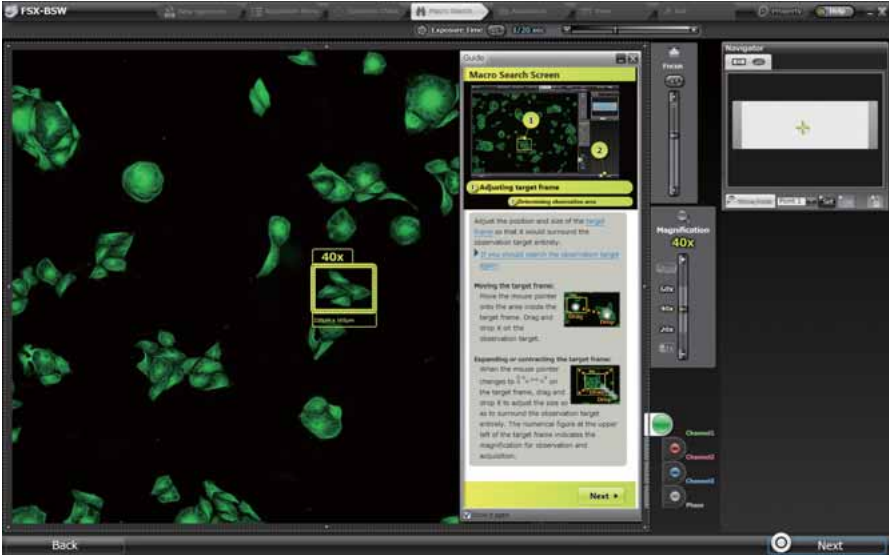
Black-balance Correction

FSX100 allows properly black-balanced imaging without any additional selection of points and/or areas.



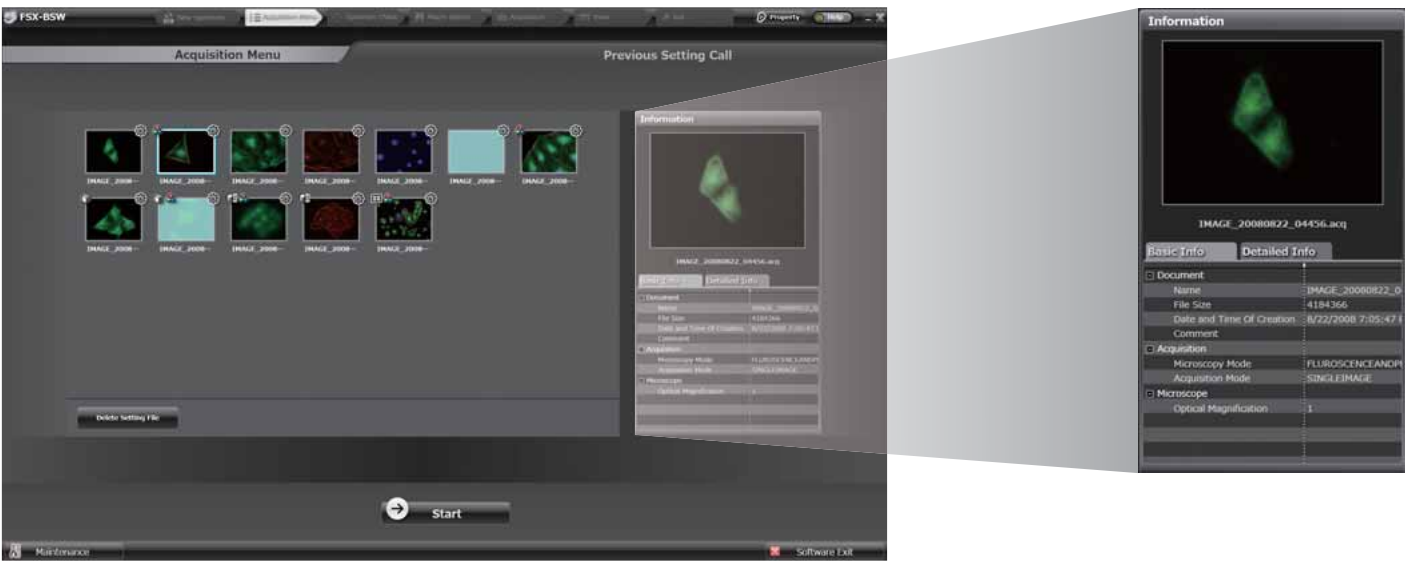
Real time operation guidance window

The FSX100 displays operation guidance in a separate window to assist the user every step of the way to capturing an image. This assistance can be turned off as the user's expertise and familiarity with the FSX100 improves.



Recalling of individual user settings and imaging conditions

After logon into the PC operating system, your individual user-defined settings are automatically loaded when the FSX100 application is launched. In addition, the Settings File recall option in the View window, allows the repeatability of a previous capture setting with one click of the mouse.



Automatic creation of Save Folder

Each time when specimens are changed, a new Save Folder is created. This folder stores captured images by specimen automatically, thus leading to saving of time and labor for viewing and editing.

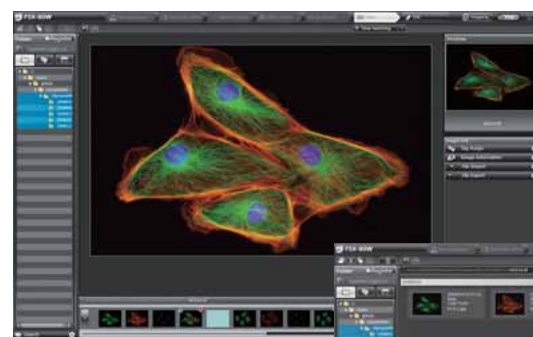
Organizing, viewing, measuring and filtering captured images is easy and intuitive.

FSX100 comes with library management system and a variety of edit facilities for captured images, thus facilitating the creation of presentation materials and publishing papers with a high degree of efficiency.

View Window

Library management of captured images may be available in four modes, "Photo View," "Scale-Down View," "Thumbnail List," and "Detailed View". The image you want to edit can be quickly selected by selection between the four modes.

Photo View



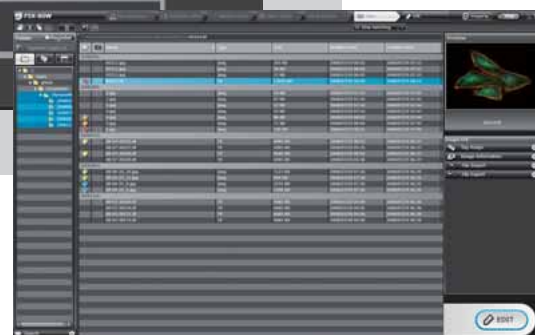
Scale-Down View



Thumbnail List



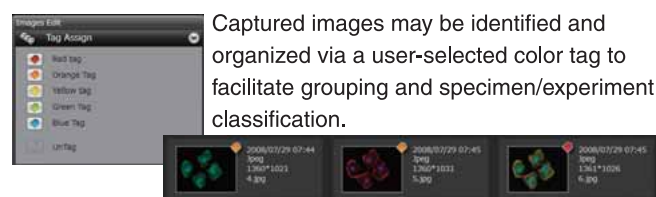
Detailed View



Displaying of image information

Conditions for capturing selected images are displayed to allow identification of magnification of captured images, camera settings and other image capturing conditions.

Color tags



Captured images may be identified and organized via a user-selected color tag to facilitate grouping and specimen/experiment classification.

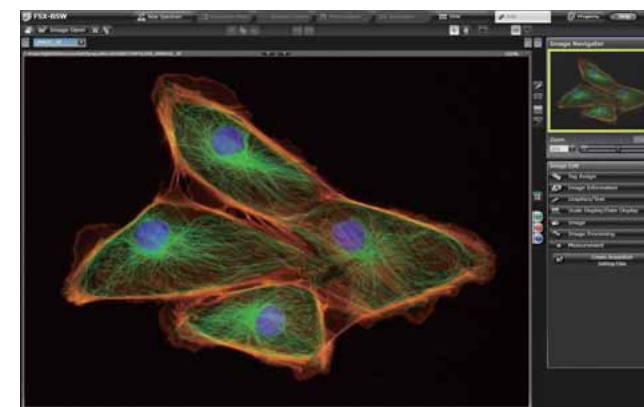
Viewer software provided

FSX100 software can be installed on separate computers so they can serve as viewing platforms for FSX100 images.

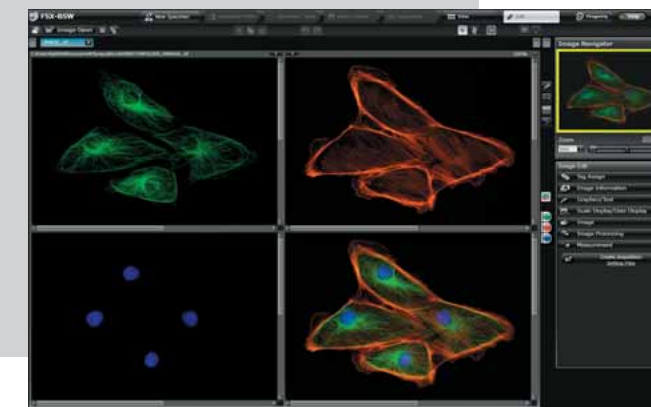
Edit Window

FSX100 incorporates our full range of edit capabilities such as library management of captured images, thereby facilitating the creation of presentation materials and academic papers. Images captured in multiple colors can be displayed and/or edited by individual channels.

Single image viewing

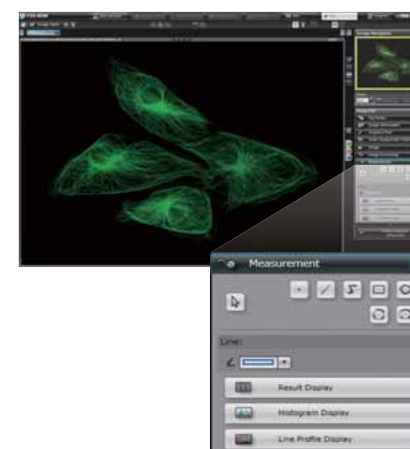


Color channel viewing



Measurement

Measurement can be made for length of line, area, brightness and other data. Measured results may be exported to Excel for utilization in presentation materials and paper publishing.



Graphics and text

Any graphics and/or text can be entered freely on the images and then stored. Overlays are non-destructive and can be removed without a loss of image data.

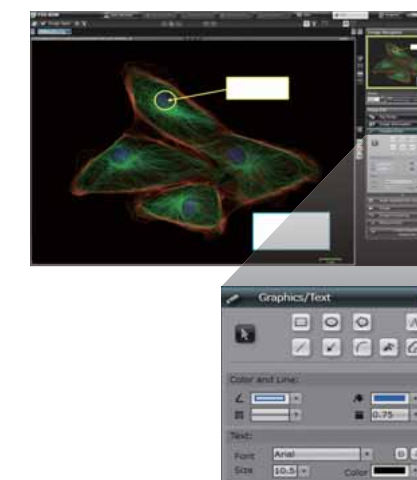
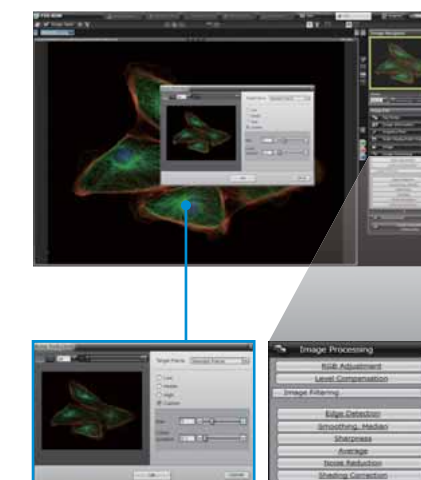


Image filtering processing

A variety of image processing filters are available for emphasizing any desired points and editing into well-defined images.

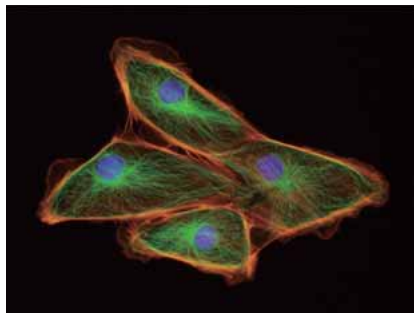


Versatile observation modes available for various research purposes.

Available established three types of microscopy mode to expand laboratory experiments for different specimens.

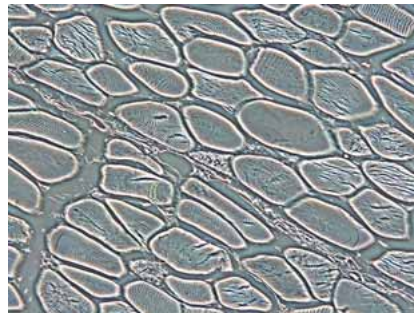
Fluorescence

Provided with the three excitation filters, U, B, and G, as standard equipment for fluorescence microscopy through appropriate objectives with high NA and high S/N. Any one optional mirror unit may be additionally loaded for image capturing at the specific wavelength substituting for any one of the three wavelengths.



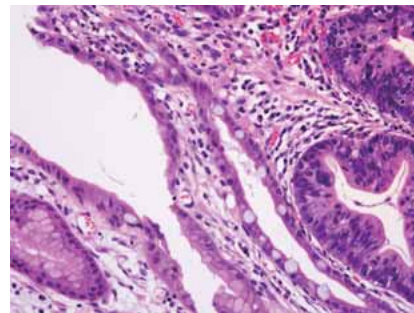
Phase contrast

Allows phase contrast imaging of cultured specimens and other transparent specimens. The pre-centered design eliminates the need for troublesome center alignment of the phase contrast plate, and facilitates the capture of high-contrast phase contrast images.

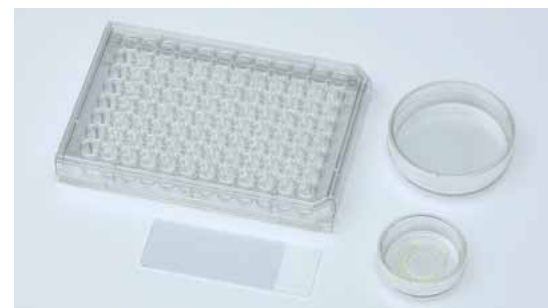


Bright field

Designed to accommodate the bright field imaging of stained specimens with the color camera with a high degree of color reproducibility. It provides sharp bright field image capturing without any troublesome white balance and other adjustments.



Compatible with a variety of specimens



FSX100 is compatible with slide glass, dia.35 mm glass bottom dish, 96-hole multi-well plate*, plastic Petri dish* and other various specimens.



Two specimen holders are provided as standard. One of the holders is intended for slide glass and dia. 35mm glass bottom dish. The other one is for a flat plate to accommodate various shapes of specimens.

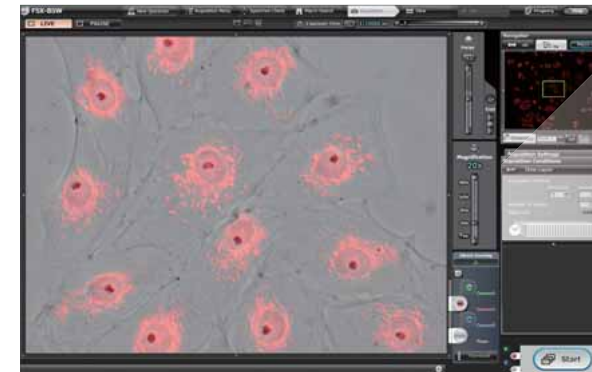
* Use with optional objective LCAHCN40XPHP

Versatile acquisition modes available for more efficient laboratory experiments.

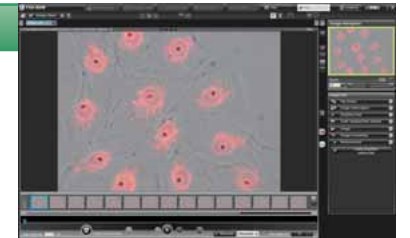
Image capturing in various modes is available in the same steps as in the simple mode, contributing greatly to improved efficiency in laboratory experiments.

Time Lapse mode

For a given specimen, a number of frames can be automatically shot with a certain time interval between each frame once you select the number of shots and the time interval before shooting.



●The time lapse moving image may be integrated into a file of moving images for view/editing through the dedicated viewer.

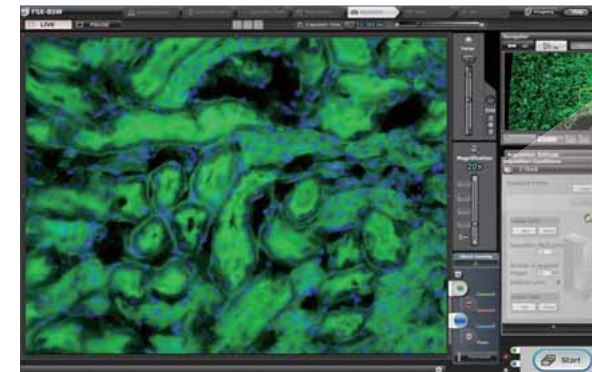


●Select the shooting points using the same procedures as in the simple mode, then click on START.

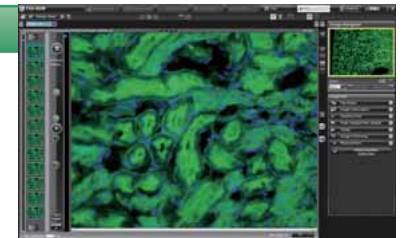


Z-stack mode

Images can be shot in the Z direction while shifting the focal point at a predefined pitch. The extended focus function provides clear, larger focal depth images of specimen with the entire specimen in sharp focus for thick specimens.



- (1) Select the point for observation using the same procedures as in the normal mode.
- (2) Specify the upper and lower end positions.
- (3) Select the pitch for shifting of focal point or the number of shots, then click on START.



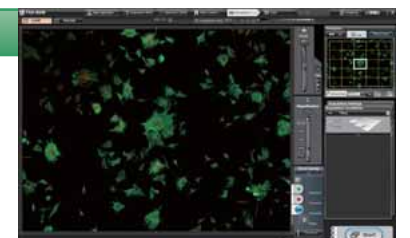
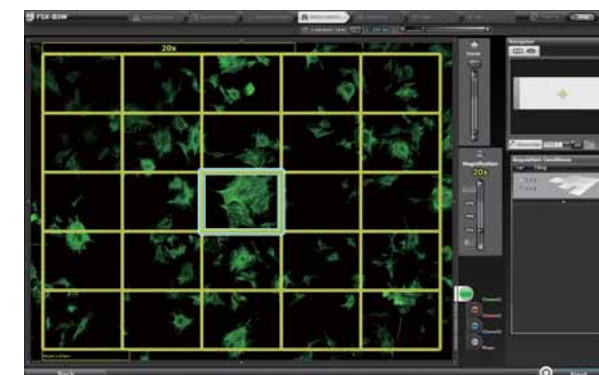
●Z-stack movie images may be integrated into a file of moving images for view/editing through the dedicated viewer.



Stitching mode

3x3 or 5x5 image montages can be acquired easily using the Stitching Mode

*Stitching mode is to be loaded around April 2009.



●Enclose the capturing area with the frame for stitching mode on the macro search screen.
●Images of 4x to 20x equivalent magnifications can be captured.

Olympus proprietary UIS2, Opto-Digital Technology, is the foundation inside the FSX100 responsible for the outstanding image quality.

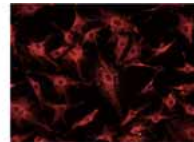
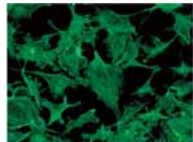
High NA objective ideally suited for fluorescence imaging

40x objective with NA0.95

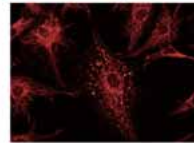
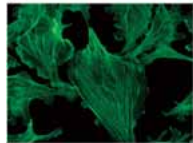
FSX100 is equipped with a UIS2 40x objective with the world's highest Numerical Aperture (NA) 0.95 for a dry system. The objective can efficiently collect weak fluorescence signals and greatly improves the FSX100 sensitivity for low light level specimens.



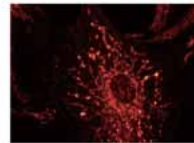
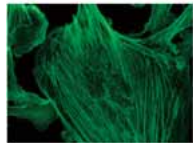
17x



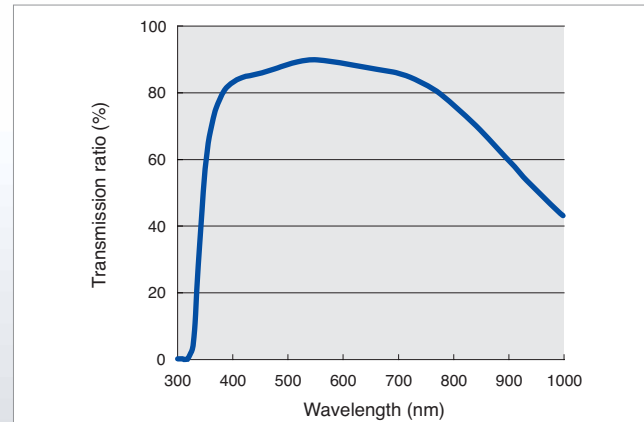
40x



80x



High transmittance maintained over a wide range of wavelengths



Projection phase contrast

Projection phase contrast is adopted for phase contrast microscopy. In the fluorescence microscopy, the phase plate is retracted from the optical path and thus FSX100 enables to maximize fluorescence brightness with the higher NA objectives.

Optical zoom

A 0.42x to 2x zoom lens is provided as standard. When combined with the 40x objective, FSX100 allows true optical zooming from 17x to 80x and maintains excellent image quality throughout the zoom range.

Fluorescence illumination using Fly-eye lenses

Fly-eye lenses are incorporated into FSX100 fluorescence illuminator to ensure that the excitation light is uniformly illuminating the specimen all the way to the edges of the field of view. Even illumination improves image quality during all capture modes, especially Image Stitching.



Optimal optical system for digital imaging

Advanced auto-focusing for fluorescence microscopy

Advanced auto-focusing is incorporated in all modes to greatly improve the ease of use and free the operator from this time consuming task.

Real-time automatic exposure control

Exposure time is automatically changed following the changes in framing and magnification settings to allow capturing of images in the best possible brightness for individual observation modes.

Superior color reproducibility

A high-performance, Olympus designed and manufactured color camera of 12.5 Mega-pixels. Featuring superior color reproducibility and an ISO 1600 sensitivity equivalent, excellent images are easily attained thanks to proprietary Olympus know-how.



The smooth exterior shape and superior image quality of the FSX100 communicate "sophisticated performance" and is at home on any laboratory bench.



Bio Imaging Navigator
FSX100

A clean external design, small footprint and extended life span components combine to allow the FSX100 to be installed in a smaller space and less maintenance than conventional microscopes.

No Darkroom Needed & Space saving

Darkroom-free

Closing the front cover shields the specimen from ambient light and creates a dark room condition inside the FSX100. Unlike a conventional microscope, fluorescence imaging can now occur with the room lights on, and out in the main laboratory area.

Space saving

A clean, smooth outer housing and compact optical design combine to form a small, compact footprint for FSX100. Smaller space requirements, means the FSX100 can be mounted in locations previously too small for a conventional microscope.

Extended life-span design

Transmitted LED light illumination requiring no lamp changing

The transmitted light source utilized for phase and bright field imaging has a life expectancy of approximately 16,000 hours. Consistent performance over multiple years of use is achieved with this white LED system.

Adoption of long-life fluorescence lamp

The pre-centered, 2,000-hour fluorescence excitation lamp system in the FSX100 is designed for stable performance and easy bulb replacement. Intelligent lamp design notifies the user when the bulb is nearing the end of its life cycle.

Fluorescence illumination light source



Image Capture Assistance

Objective correction collar

The 40x NA0.95 objective includes a motorized correction collar that can be adjusted automatically or manually to correct for varying cover glass thicknesses and improve image quality.

Selection between fluorescence filter and projection phase contrast plate

Fluorescence filter and projection contrast plate are quickly selected in response to the selected observation mode and fluorescence wavelength.

Specimen protection

Automatic light quantity control

An ND filter automatically controls the quantity of excitation light in the fluorescence photomicrography to keep the live displaying speed under the possible minimum excitation light. This helps protect specimens against possible damage by any unwanted excitation light.

Field Stop

The field stop of the FSX100 is a rectangular aperture that is automatically set to the imaging area of the camera. Fluorescence excitation is potentially damaging to fluorescent molecules, and the automatic adjustment of the field stop area protects photobleach of the specimen outside of the field of the view.

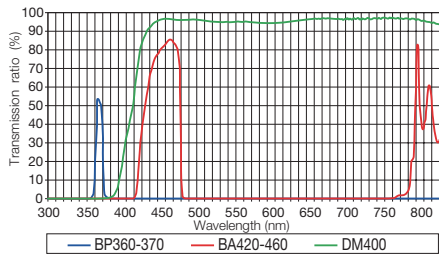
Specifications

Item	Specifications
Observation mode	Fluorescence/Phase contrast, Phase contrast, and Bright field
Acquisition mode	Single, Time Lapse, Z-stack, and Stitching*1 (fluorescence multi color imaging possible for all)
Bookmarks	Up to 30 positions, can be selected and recalled
Automatic focus (AF)	Automatic during the screen transition with one click operation
Exposure control	Auto (with exposure adjustment), Manual
Real-time image processing	Noise reduction (3 adjustment levels) , Sharpness (2 adjustment levels)
Image overlay	Direct overlay function (live image)
White balance, Black balance	Pre-set/Manual, Acquisition/Manual
Image format	BMP, JPG, TIFF, AVI
Specimen Protection	-Automatically shut OFF excitation light when the system is left without any operation for a certain period of time -Be changeable F.S. automatically set to field of view
Auto image library	Automatically creating a folder every time specimen is changed
Operation tutorial	Operation guidance display function, user switchable ON/OFF
Settings restore function	Multi-user settings storage/reproduction, imaging conditions recording/reproduction functions
Image playback	Display switching (Photo View, Scale-Down View, Thumbnail List, Detailed View) Time-lapse / Z-stack dedicated viewer Categorization function with the color tag
Image editing	4 segmented display dedicated to multi color image, full screen display, print, adding figures and text, scale display, date and time display, image rotation, image trimming, image size change, image processing filters, RGB color adjustment (16 bits, 8 bits), gray scale conversion, overlay compensation, RGB adjustment, level adjustment,measurement (possible to export to Excel)
Specimen holder	Accepts 1"x3" slide, dia. 35mm dish Dia.50 mm hole opening , all metal construction
Standard objectives	Capture: 40x NA0.95 (17x to 80x with optical zoom) Macro: 10x NA0.40 (4.2x fixed with optical zoom)
Optical zoom	0.42x to 2.0x
Motorized correction collar	with focusing assist
XY stage	Stroke: 56 × 26mm (with slide glass), 11 × 11 mm (with 35mm dish), 18 × 18mm (with 50mm hole plate) (Automatic switch by recognizing the specimen holder)
Focus range	11 mm
Transmitted illumination	Condenser lens NA0.55, Working distance 27 mm, Phase contrast slit
Transmitted illumination light source	White LED light source, average lifetime 16,000 hours
Fluorescence illumination	Fly-eye lens, Field stop (working with optical zoom), ND filter (automatic switching), Shutter
Fluorescence illumination light source	Metal halide lamp (pre-centered design), average lifetime 2,000 hours
Fluorescence/Phase contrast filter	U excitation (Ex360-370 Em420-460 DM400) Equivalent to U-MNUA2 B excitation (Ex460-495 Em510-550 DM505) Equivalent to U-MWIBA3 G excitation (Ex3530-550 E475IF DM570) Equivalent to U-MWIG3 Projection phase contrast plate (automatic switching)
Camera type	Single-panel color CCD pixel shift type
Imaging sensor	2/3 size (inch), 1.45 mega-pixels (Total number of pixels: 1.5 mega-pixels), Peltier cooling (Max: Ta-10°C)
Effective image resolution	4080 × 3072 (12.5 megapixels)*2, 2040 × 1536 (3.1 megapixels)*2, 1360 × 1024 (1.4 megapixels),680 × 512 (350,000 pixels), 2 x 2 binning; 680 × 510 (350,000 pixels), 4 × 4 binning; 340 × 250 (85,000 pixels)
Sensitivity	Equivalent to ISO 200/400/800/1600
A/D converter	12-bit per channel
Display frame rate	Max. 15 frames/sec. (at live image size of 1,360 × 1,024)
Interface	IEEE 1394 cable, Proprietary camera cable
OS	Windows Vista Business SP1 (32bit)
Dimensions (mm)	Height 476 × Width 388 × Depth 583
Weight	Approx 35kg
Operating environment	+10 to +35°C/35 to 80%RH (no condensation),Pollution degree: 2 (in accordance with IEC60664), Installation (overvoltage) category: II (in accordance with IEC60664)
Input power/Power consumption	AC 100-120/220-240V 50/60Hz 2.5A/1.2A
Optional equipment	
Objectives	UPLSAPO60xO*3 NA1.35 (For oil immersion) (26x to 120x with optical zoom) LCACHN40xPHP*4 NA0.55 (For plastic vessel) (17x to 80x with optical zoom)
Fluorescence mirror unit	Allowable additional installation of one set of UIS2 mirror unit (Exclusive use against any other filter sets)

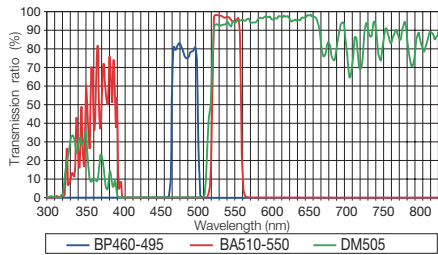
*1 Stitching mode is to be loaded around April 2009. *2 Phase contrast and Bright field observation mode only. *3 Not available Phase contrast, selection of start position, macro image framing, automatic focus and stitching images
*4 Not available ultra violet fluorescence, selection of start position, macro image framing, automatic focus and stitching images.

Fluorescence filter

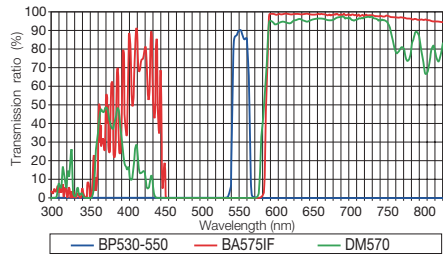
Ultra violet excitation



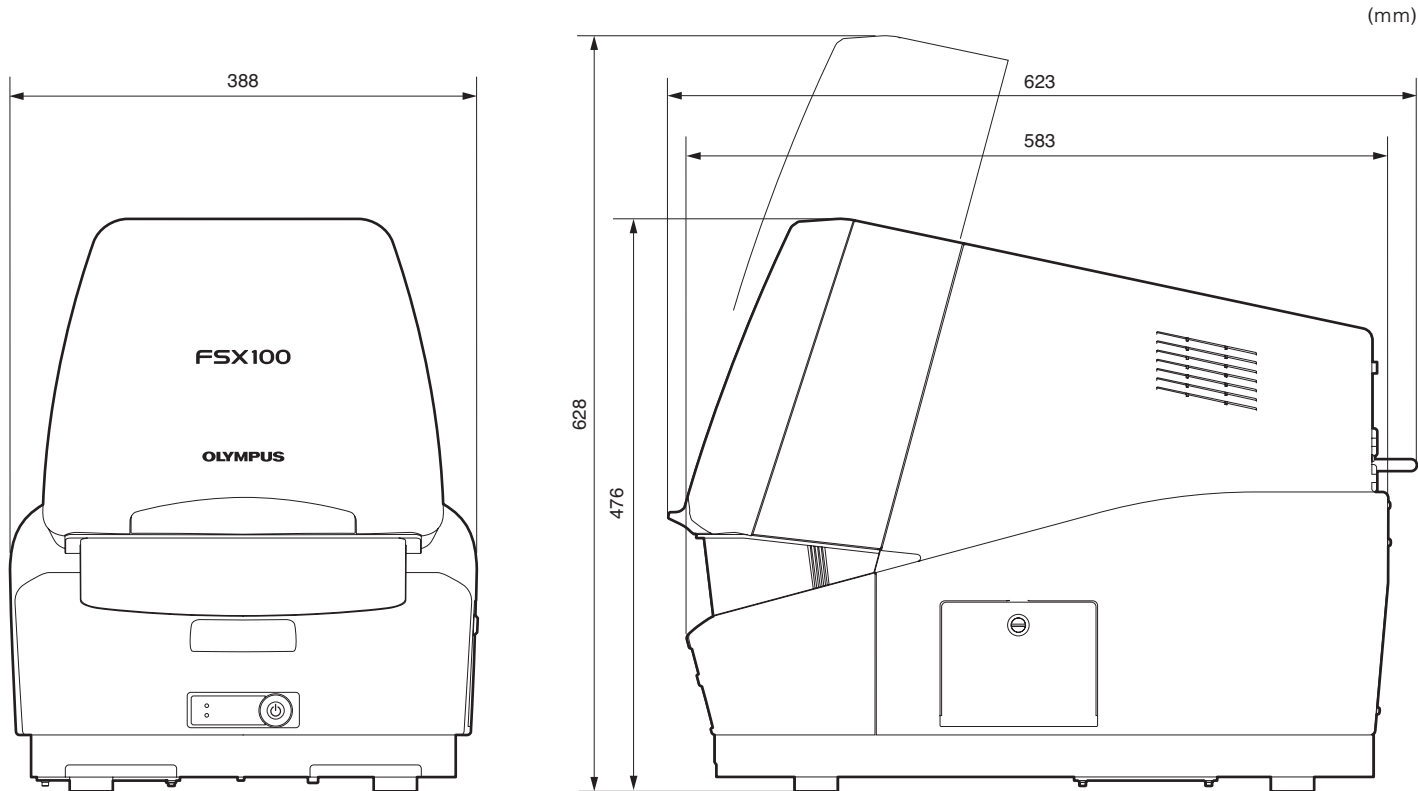
Blue excitation



Green excitation



Dimensions



Optionally available equipment for expanding applications

Oil-immersion objective



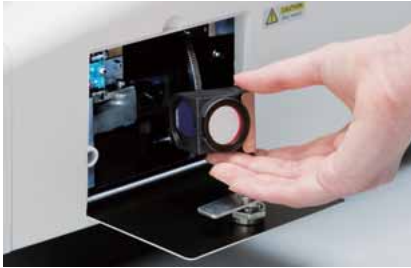
The oil-immersion objective UPLSAPO60XO with NA 1.35 is available for fluorescence photomicrography with higher resolution and higher S/N. It is recommended that this optional objective be used with Olympus low auto-fluorescence immersion oil.

Objective for plastic vessels



LCACHN40XPHP is available for fluorescence or phase contrast photomicrography with a plastic vessel of 1 mm-thick bottom. The phase plate is pre-centered type and thus, there is no need for adjustment of position alignment of ring slit.

Mirror unit



One additional UIS2 mirror unit may be installed as optional accessory.