OLYMPUS®

Your Vision, Our Future

Virtual Slide System

VS120

NEW

The VS120: Providing a Complete Spectrum of Functionality for Research, Training and Education

- **OLYMPUS CORPORATION is ISO14001 certified.**
- **OLYMPUS CORPORATION is FM553994/ISO9001 certified.**
- **Illumination devices for microscope have suggested lifetimes. Periodic inspections are required. Please visit our web site for details.**
- This device is designed for use in industrial environments for the EMC performance (IEC61326-1 Class A device). Using it in a residential environment may affect other equipment in the environment.
- Microsoft, Word, Excel, PowerPoint, and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other company and product names are registered trademarks and/or trademarks of their respective owners.
- Images on the PC monitors are simulated.
- Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.

Not for clinical diagnostic use.

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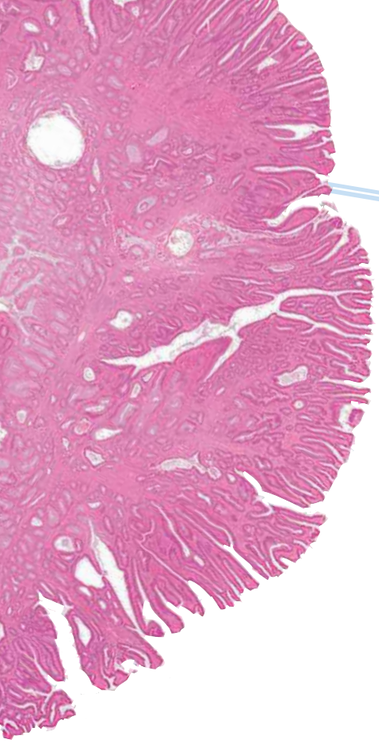


An Ideal Choice for Today's Digital Learning Environment and State-of-the-Art Research Facilities

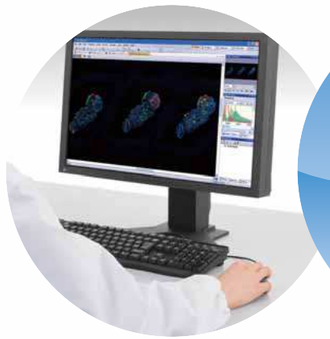
Advanced Medical Education and Collaboration

The VS120 allows multiple viewers to study virtual slide specimens simultaneously via simple server access, regardless of time and location — providing an ideal solution for medical instruction, Q&A session, tumor boards and remote collaboration.

Remote Conferencing and Consultation

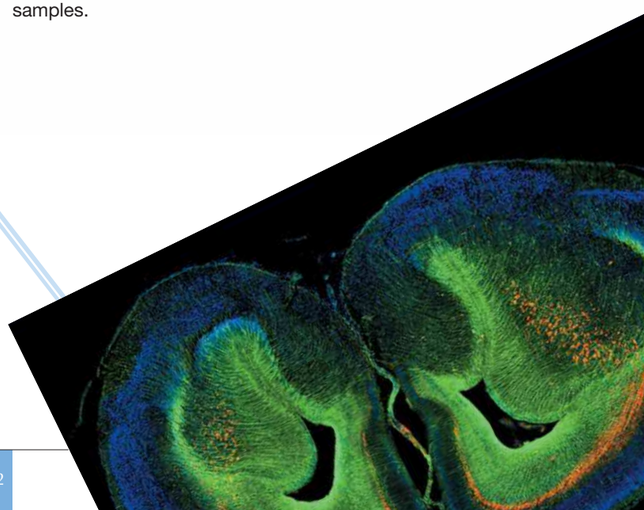
Virtual slides can be archived to a database, enabling network-based remote retrieval at any time through the Olympus NISSQL NetImage Server. Images are stored at high resolution, and multiple clients can review and even synchronize elements such as specific observation areas to facilitate efficient review and discussion.

Brightfield Observation Configuration
(With 100-slide Storage Capacity)



Enhanced Research Tool for Brightfield and Fluorescence

The VS120 not only creates high resolution brightfield images, but also can scan in full multi-fluorescence mode. Utilizing virtual microscopy for fluorescence imaging helps to minimize problems associated with damaging and fading of sensitive fluorescence samples.

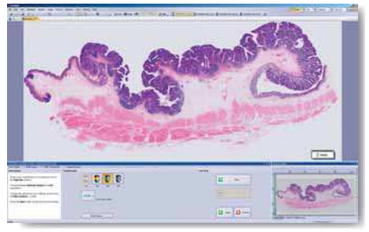


Scanning

Fast High-Definition Scanning

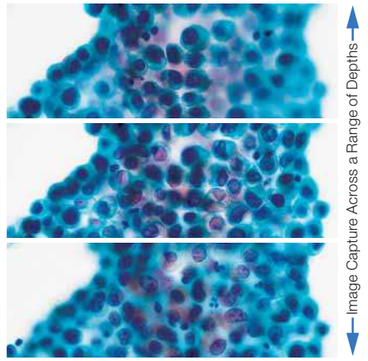
■ Wide Range of Objectives from 2x to 100x

The VS120 comes standard with Olympus UPLSAPO 2x, 10x, 20x and 40x objectives, allowing the user to choose an objective most suitable for his or her research needs. Automatic specimen recognition capability limits scanning to the specimen area, with high-level color fidelity and image quality.



■ Virtual-Z, 3D Virtual Slide Production

Multi-plane virtual slides can be produced by specifying attributes such as depth for multiple areas, range, number of planes, and magnification. The Virtual-Z scanning function allows the user to change the depth of the image simply by scrolling a mouse, making it easy to focus through the depth at any region of interest. Such functionality is particularly advantageous for viewing thicker specimens such as cell clusters or cranial nerves.

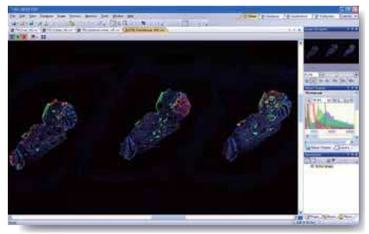


■ Automation Enhances Laboratory Efficiency

An optional automated slide loader with a capacity to hold 100 slides adds efficiency to laboratories with high throughput requirements. Furthermore, specimen information can be automatically read using 1D and 2D barcode scanner, making it easier to store and organize information.

■ Supporting High-resolution, High-sensitivity Virtual Fluorescent Slides

High-speed filter wheels of the optional fluorescent unit can be installed on both the excitation and observation side, enabling the swift production of fluorescent virtual slides with high-level definition and resolution. Multi-colored virtual slides also can be prepared for long-term observation, negating concerns over fading, discoloration, and degradation.

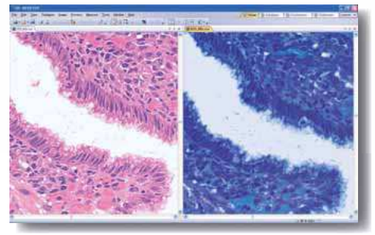


Viewing

High Performance Viewer Facilitates Advanced Analysis

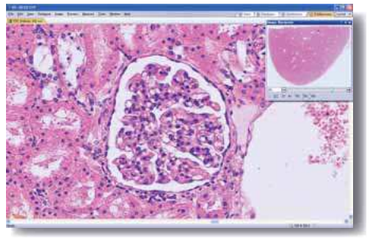
■ An Innovative Synchronizing Feature Enables Comparative Viewing of the Same Sample Under Different Stains

Analysis of the multiple virtual slides prepared from the same specimen is made easy through the ability to align them on the monitor with positions and magnifications interlinked.



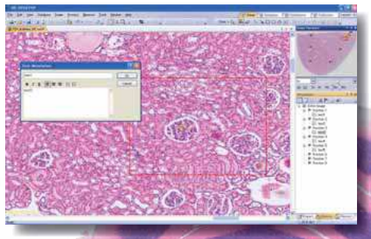
■ View Full and Magnified Images on the Same Screen

Both the whole slide and zoomed-in region can be displayed on the same screen, making it easy to pinpoint the specific location on the larger image.



■ Save Annotation Voice Data

An innovative annotation function allows the user to save and link text and voice data to specific regions of interest on the slide.



Data Management

A Database Providing Simple Operation

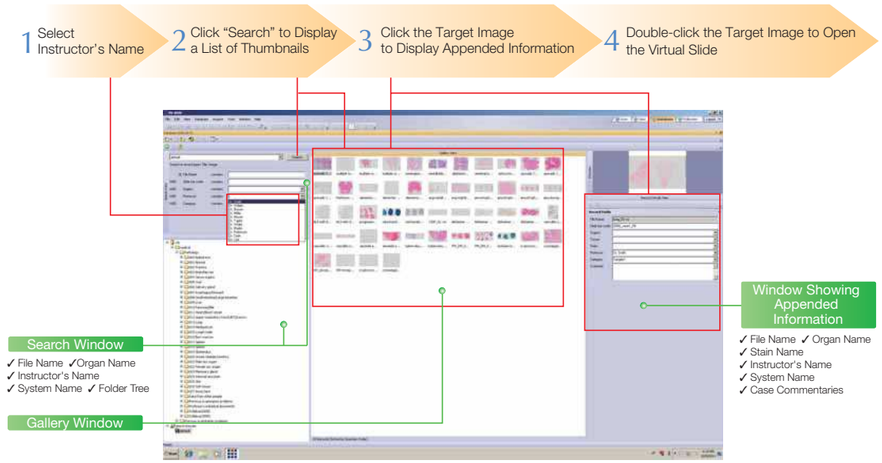
■ Powerful and Fast Search Functionality

Virtual slides are easily found by using keywords through the folder tree. Simply double-clicking on the corresponding thumbnail image opens the desired virtual slide in a new window.

■ Attach Metadata to Virtual Slides

The VS120 provides editable metadata fields that can be used to store data such as tissue name, staining method, organ name, system, instructor's name and other keywords. Such information appended to slides, can assist greatly in an educational setting.

■ Example of a Virtual Slide Search



■ Batch Management of Digital Content

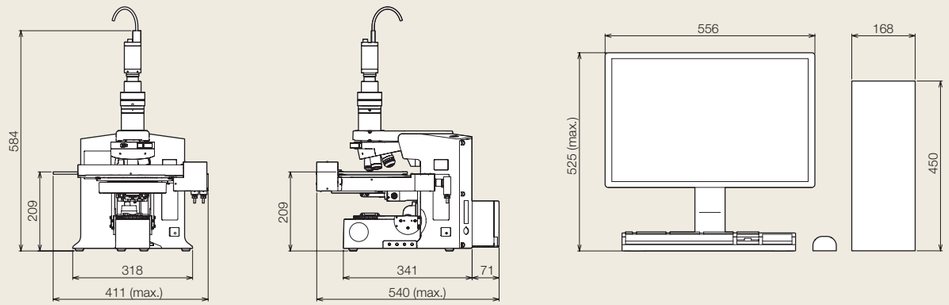
Offering functionality beyond virtual slides, the VS120 allows a wide range of image data to be archived to a database in both JPEG and TIFF formats, including macro images captured by other devices such as endoscopic images, X-ray images and electrocardiograms. Users are also able to save Microsoft Word, Excel and PowerPoint documents to the database.

Specifications

		VS120-S1	VS120-S5	VS120-L100
Intended Specimen	Observable Specimen	Glass slide with cover glass		
	Size of Glass Slide	Width: 25 mm–26 mm, length: 75 mm–76 mm, thickness: 0.8 mm–1.4 mm		
	Size of Cover Glass	Thickness: 0.12 mm–0.17 mm		
Microscope Frame	Illuminator	Built-in Koehler illumination for transmitted light		
	Objective Lenses	2x,10x, 20x, 40x with a motorized revolving nosepiece		
	Motorized Stage	Motorized XY stage with automatic control		
	Focusing	Motorized automatic control		
Digital Camera	CCD Camera	2/3" CCD camera, 3.45 µm x 3.45 µm pixel size, high sensitivity, high resolution		
	Image Correction	Shading correction, auto white balance		
Loading System	Capacity	1 slide (manual)	5 slides (maximum) (manual)	100 slides (maximum) (automatic)
Scan	Scan Area	W 26 mm x H 64 mm (Slide glass size: W26 mm x H76 mm)		
	Resolution	Less than 0.33 µ/pixel when using 20x objective, less than 0.17 µ/pixel when using 40x objective		
	Scan Time	Approx. 2 min. (20x objective lens, scan area 15 mm x 15 mm)		
System Control	OS	Compatible with Windows 7 32bit Professional English version		
	Network Interface	100/1000 Mbps Ethernet		
	Memory	4 GB RAM		
	Hard Disc Drive	1.0 TB or more		
	Display	24" TFT wide monitor		
	Software	Image format: vsi, JPEG, TIFF/zooming while scanning/annotations/automatic sample detection/ Z stack extended focus imaging/screen capture/stepless zooming/synchronized multi-images display automatic stitching/slide loader control consultation software (option)		
Environment	Weight	Approx. 52 kg (incl. controller and display)		Approx. 100 kg (incl. controller and display)
	Operating Environment	Temperature: 15–28 degree centigrade, humidity: 30%–80% (non condensing)		
	Power	Scanner: AC 100–120/220–240 V, 50/60 Hz, 3.5 A/1.5 A Controller: AC 100–120/200–240 V, 50/60 Hz, 10 A/6 A Display: AC 100–240V, 50/60 Hz, 1.5 A Slide loader: AC 100–120/220–240 V, 50/60 Hz, 0.9 A/0.5 A (VS120-L100 Only)		
	Power Consumption	960 W	960 W	1030 W

Dimensions (Unit : mm)

Brightfield Observation Configuration (With 5-slide Storage Capacity)



Brightfield Observation Configuration (With 100-slide Storage Capacity)