

# NAVIGO



## Smart digital pathology

Share expertise in real time,  
not just images



# NAVIGO

# Diagnosis without boundaries

## The solution for real-time distance diagnosis

Navigo is the new fully automated A. Menarini Diagnostics compact brightfield slide scanner for digital pathology that allows fast and reliable acquisition, navigation, analysis, archiving and sharing of high quality digital images.

The compact and functional design makes it easy for any operator to use, even when workspace is limited.

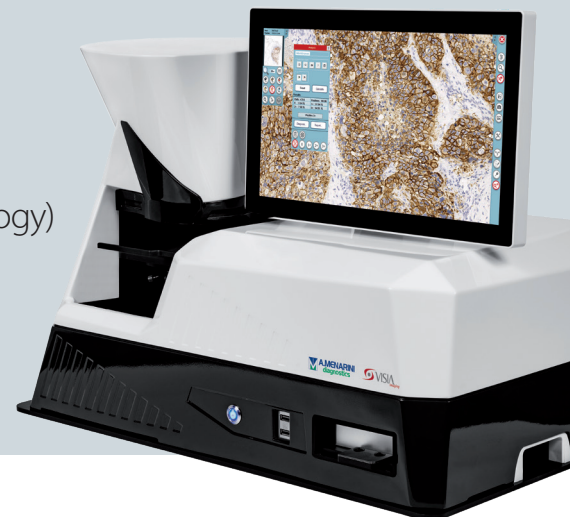
The on-board processor and 15.6-inch full HD color touch screen monitor make it **fully plug & play**.

**Entire slides can be scanned at selectable magnifications** with high focus precision and superb image quality. The digital microscope allows **real-time slide browsing** and workflow control also from remote workstations. **Navigo's dedicated Web application provides unlimited remote access** to acquired images and password-protected access to individual files and working environments.

Navigo manages each process in a single work environment, guaranteeing optimized workflows tailored to the needs of each pathologist.

### Main features and benefits

- Compact design
- 15.6-inch touch screen monitor & on-board processor
- Plug & play
- High-resolution objectives
- High-quality scanning sensor
- A variety of hardware profiles (histology, cytology, hematology)
- IHC membrane and IHC nuclei analysis modules
- Digital microscope for live mode slide browsing
- Remote digital microscope
- Web interface for remote slide viewing and sharing



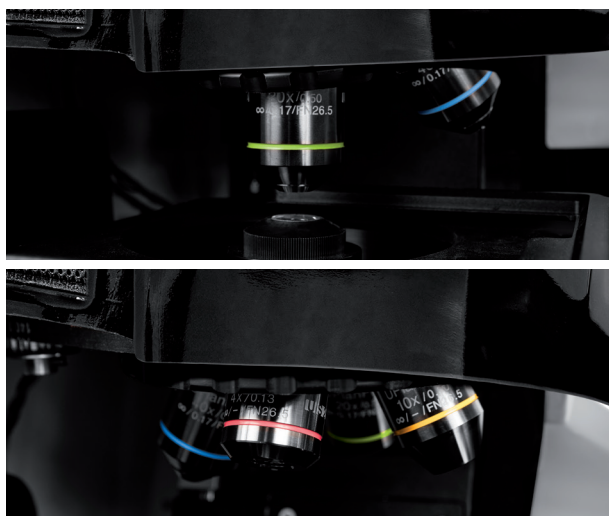
# All the solutions you need on one, unified platform



**1** Microscope with integrated base to enhance stability and eliminate vibrations



**2** Loading device with 2-slide tray



**3** Motorized revolver with 4 high-resolution objectives for optical scanning at 4x, 10x, 20x and 40x magnifications



**4** 15.6-inch full HD touch screen monitor

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On-board processor

Integrated 1D and 2D barcode reader

High-quality CCD camera offers excellent sensitivity and enhanced efficiency for improved scanning and live viewing

Seamless integration with LIS



## ENJOY

Manage images from remote stations using a dedicated ambidextrous joystick to navigate like a traditional microscope



5 Dedicated slot for fast slide preview (1 sec)

Because quality care starts with an image



## Capture, view and share information-rich digital images across your lab and beyond

### Smart technology for true-to-slide images

#### Capture every detail of your samples with the Navigo digital microscope

The Navigo digital microscope allows **real-time live sample viewing**.

The user can easily change the camera settings and objectives, pan the entire slide and acquire and save any image.

Navigo's telepathology capabilities enable **remote intranet and internet users to access live slides** and to navigate them as with a conventional microscope. Users can securely access the system and take full control of it (remote digital microscopy).

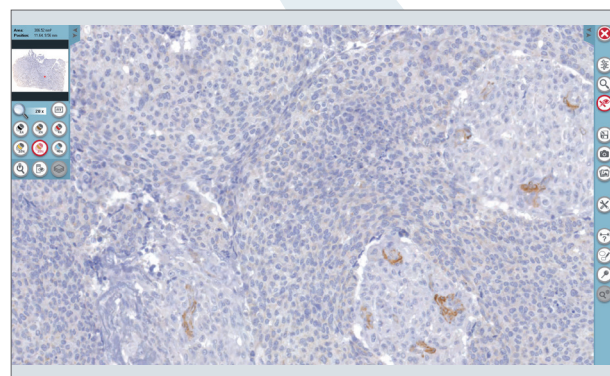
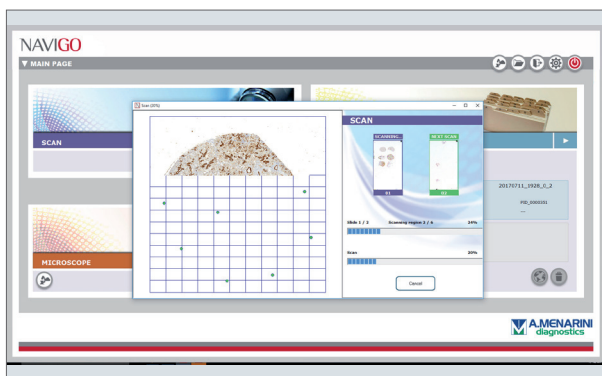
### Brilliant image viewing software

#### Navigo viewer: An enhanced user experience for advanced visualization

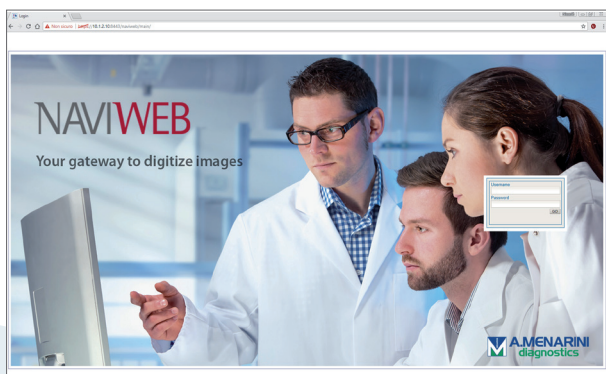
With the **advanced image viewer**, users can enjoy the benefits of user-friendly software to:

- change magnification (4x, 10x, 20x and 40x)
- use the zoom function
- use the focus slider to view different layers in Z-stack images
- manage the measuring, mark-up and text tools
- perform image analysis/apply image processing algorithms
- choose the file format for saving images.

Whether viewing digital slides locally on your Navigo monitor or remotely on your desktop (through a web browser/integrated web viewer), the intuitive interface and customized workflows provide a consistently excellent viewing experience.



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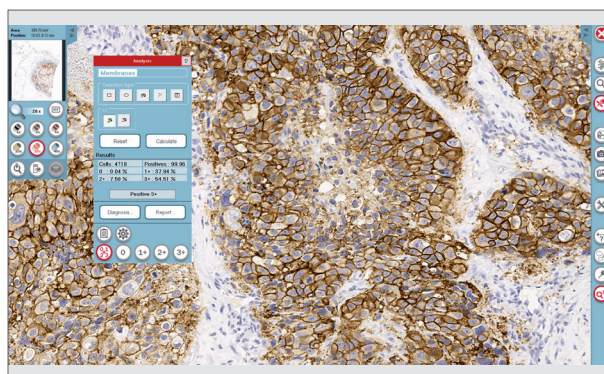
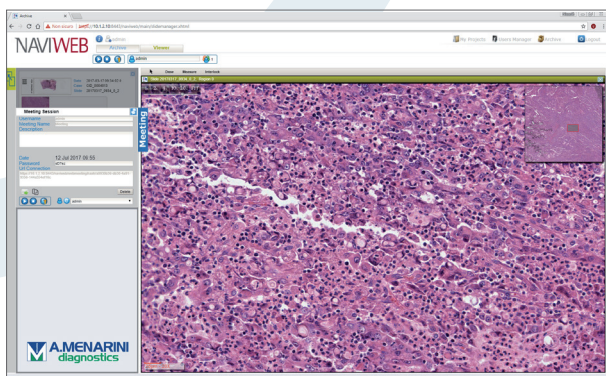
## Network integration tools

### Naviweb: your gateway to digitized images, anywhere... anytime

The Naviweb web-based application makes Navigo the ideal solution for telepathology, providing access to digitized slides from anywhere with immediate image display and navigation.

Once the acquired images are uploaded to a web-server, they can be accessed at any time from any web-device.

- No software to download or install
- Seamless multi-user sharing of digital slides
- Fast image streaming and instant notification to remote users when a case is assigned for review or real-time consultation
- Simultaneous examination of sample images and synchronized navigation
- Easy navigation with the image viewer



## Powerful analysis algorithms

### Enhanced diagnostic confidence with dedicated analysis modules

The Navigo image analysis algorithms enhance overall system functionality through computer assisted quantitative slide analysis, to support decision making with objective data.

- **Membrane analysis module** for identification and semi-quantitative scoring of HER2 IHC staining; 4 scoring classes (0, 1+, 2+, 3+)
- **Nuclei analysis module** for identification and semi-quantitative scoring of estrogen receptor (ER), progesterone receptor (PR) IHC staining (4 scoring classes: 0, 1+, 2+, 3+) and Ki-67 proliferation marker
- Algorithms are compliant with ASCO-CAP guidelines.



# Diagnostic confidence, when and where you need it

## Enabling collaboration regardless of distance

The A. Menarini Diagnostics Navigo slide scanner and software solutions work seamlessly together to allow pathologists to **quickly and easily obtain a second opinion** by eliminating the need to physically package and transport slides, facilitating **close connections among experts in the patient diagnosis pathway**.



### Intraoperative consultation

When a patient is undergoing surgery, **rapid diagnostic decisions are required** and every minute counts.

The Navigo smart digital pathology solution changes the practice of pathology by **allowing remote examinations**, offering a tailored workflow for intraoperative consultation with instant remote access to expert review on digital slides.

**Engage in peer-to-peer interaction and share expertise**, reducing costs without compromising excellence in patient care.



### Transplantation telepathology

The shortage of donor organs for lifesaving transplants has led to the utilization of organs from donors with underlying **conditions that require stringent perioperative evaluation**.

In these circumstances **the pathologist serves as a gatekeeper** to ensure that usable organs are not discarded and defective organs are not inappropriately transplanted.

**Telepathology with frozen sections is a powerful tool** that can contribute to meeting these goals.

Additional applications of transplantation telepathology:

- **Evaluation of pre-transplant biopsies** to determine the cause of the underlying disease and avoid contraindicated transplantation (e.g., systemic diseases, potentially reversible diseases)
- **Consultation in the post-transplant setting** (e.g., evaluation of biopsies to uncover the causes of allograft dysfunction)

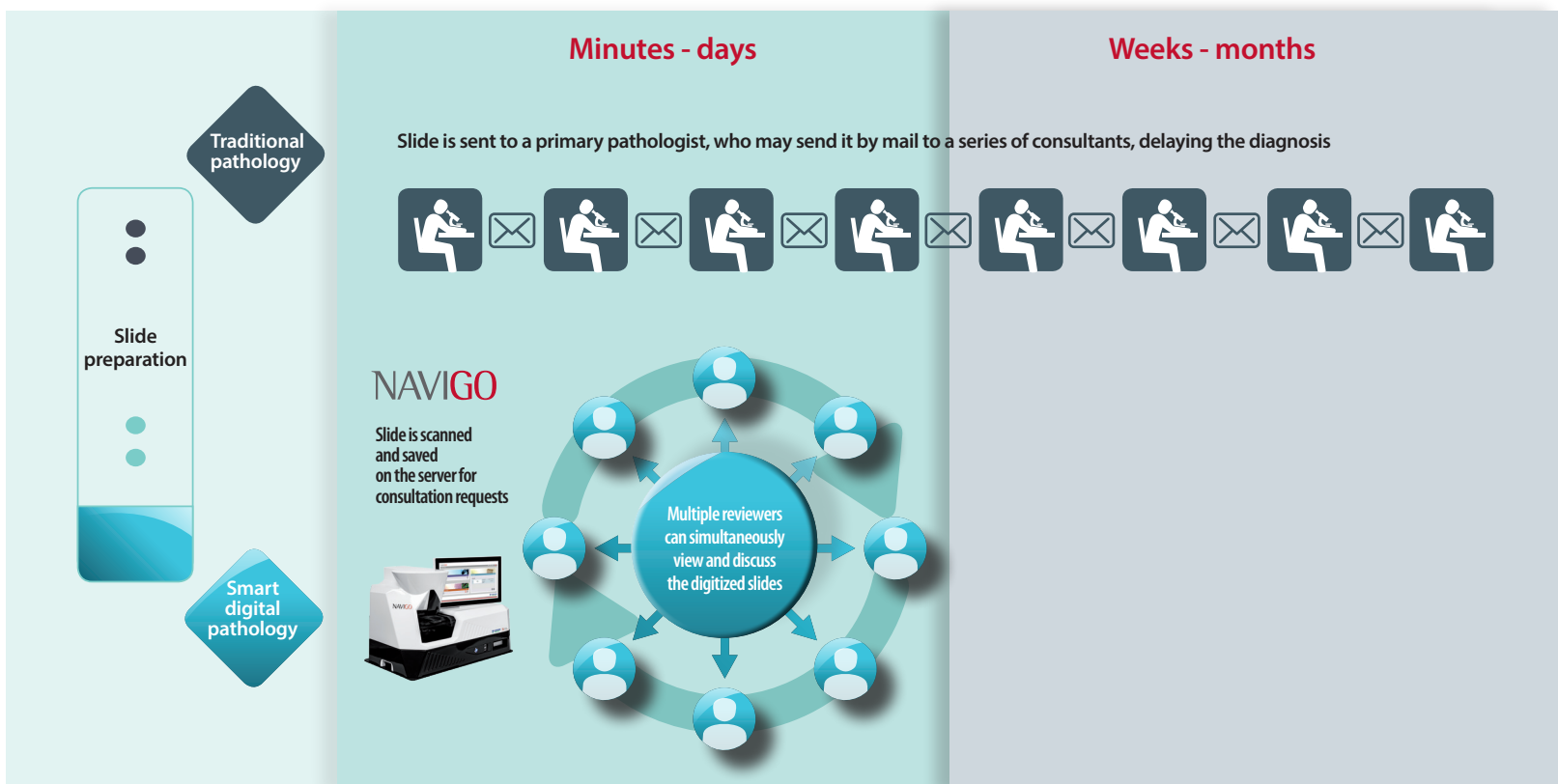


### Consultation and second opinion

Specialized and difficult cases can challenge any pathologist. **The Navigo smart digital pathology solution enables you to consult and get opinions on difficult and urgent cases anytime/anywhere** by easily connecting with colleagues in the same organization or experts around the globe, in minutes, instead of days.



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- Send instant requests for review and/or consultation
- Decrease time-to-result and improve efficiency
- Avoid sample shipping costs or pathologist travel
- Eliminate risks associated with shipping glass microscope slides
- Free up staff and resources
- Avoid using emails to send digital slides
- Enable multiple site consultation



A new learning and training experience,  
driven by sharing and technology

## Knowledge shared is knowledge multiplied



### E-learning and digital education for students

Learning pathology is a challenge and students must develop the skills to understand organ and tissue structure, at the cellular level. Courses in biology and medicine use demonstration of histological and cytological slides at microscope as part of the training.

The Navigo smart digital pathology system provides **a novel clinical case-based approach to teaching pathology in medical schools and teaching hospitals** through digital images, virtual online slides, and a learning management system for training course distribution (e.g., Moodle).

#### Main benefits:

- Increases student engagement
- Provides a collaborative environment
- Reduces costs for specialized equipment and resources
- Allows development of customizable tools and branded platforms



### Virtual workshops/seminars, training courses, MDT meetings

The Navigo smart digital pathology solution can help create **an innovative sharing experience among colleagues for training and non-clinical collaboration**. The A. Menarini Diagnostics network integration tools will help you develop a collaborative environment with a cost-effective solution.

#### Main benefits:

- Improves and harmonizes pathology reports
- Reduces time spent at meetings and preparing for MDTMs
- Promotes continuing education
- Connects professionals during international congresses



### Quality control

Whole slide digital imaging can play a significant role in anatomic pathology quality assurance initiatives, both inter and intra-laboratory. The Navigo smart digital pathology solution provides **the necessary sharing, standardization and traceability tools to plan quality control strategies** in histology and cytology diagnostics.

# Empower your digital pathology experience with the A. Menarini Diagnostics advanced slide scanner portfolio

Experience the ease and reliability that comes with a complete smart digital pathology portfolio of next generation instruments and solutions that enhance efficiency and drive quality in patient care, with the flexibility that only A. Menarini Diagnostics can provide.

“ Cutting-edge technology to transform your pathology practice, increase knowledge sharing and maximize your performance, with unmatched image quality, connectivity and efficiency. ”

**Navigo**  
Compact brightfield slide scanner



**NAVIGO**

The ideal solution for small labs to improve workflow efficiency, stimulate collaboration with telepathology tools and increase diagnostic confidence.

**D-Sight**  
Brightfield slide scanner



**D·SIGHT**

Image perfection for a reliable and flexible laboratory workflow.

**D-Sight fluo**  
Brightfield and fluorescence slide scanner



**D·SIGHT fluo**

All-in-one, to deliver results in full brightness and ensure the best possible management and durability of fluorescence images, also in routine diagnostics

# Technical specifications

# NAVIGO

Slides	Up to 2
Objectives	4x, 10x, 20x, 40x
Scanning magnification	10x, 20x, 40x
Scanning speed (brightfield)	<2 min at 20x (1 cm <sup>2</sup> area)
Camera	Color
Resolution	0.5 µm/pixel at 20x, 0.25 µm/pixel at 40x
Image compression	Jpeg 2000
Barcode reader	Yes
Illumination	LED
PC and monitor	In-built, 1 TB hard disk, 15.6-inch full HD touch screen monitor
Digital microscope	Yes
Image analysis modules (optional)	IHC Membrane, IHC Nuclei
Web application (optional)	Yes
LIS connection	Yes
Joystick (optional)	Yes
Weight	31 kg
Dimensions (HLW, cm)	52x40x68
Input voltage	AC 110-240 V 50-60 Hz

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