

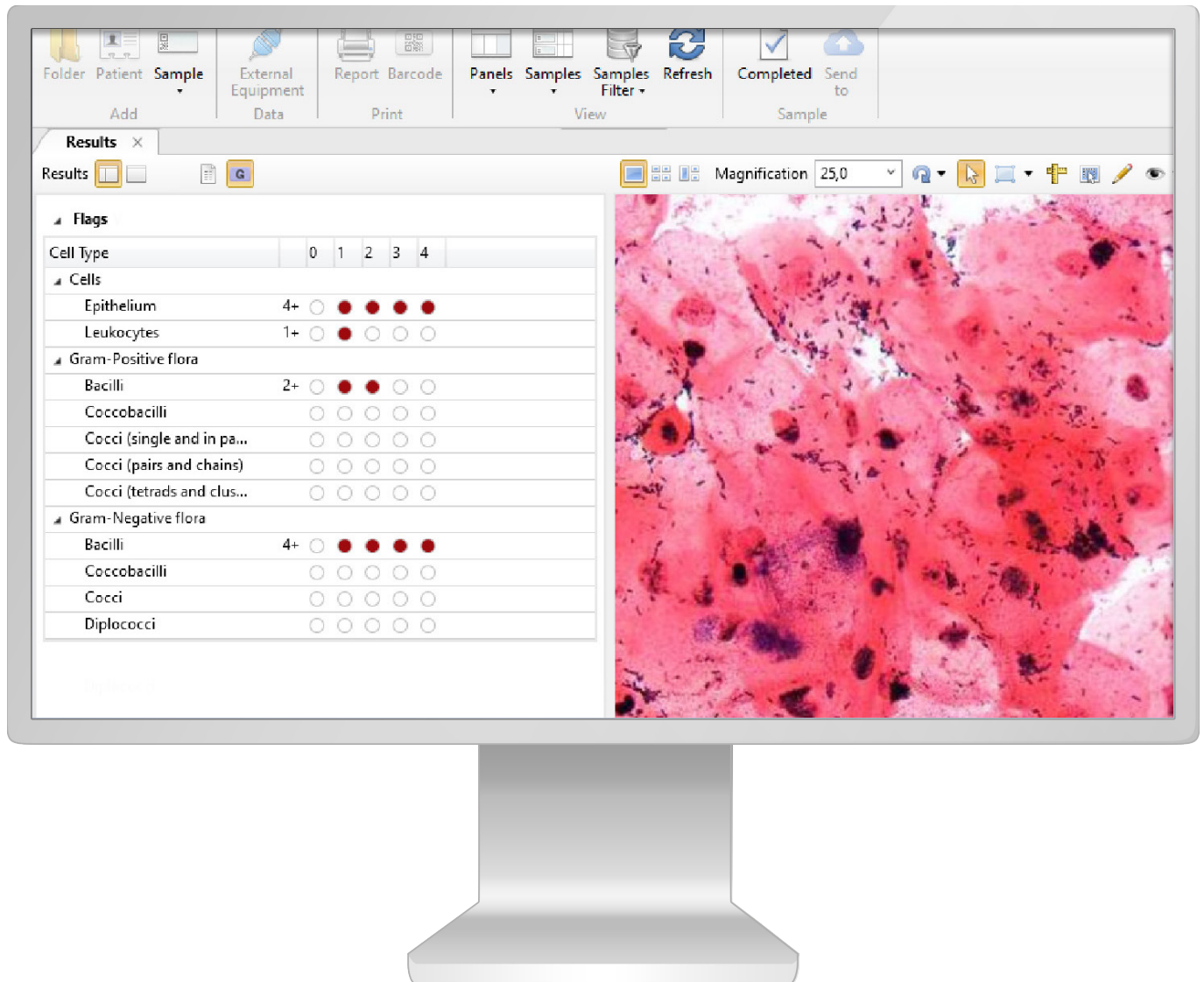
Microbiology

Gram smears analysis automation



Clinical Application Module

Vision Gram



Automatic analysis of Gram smears

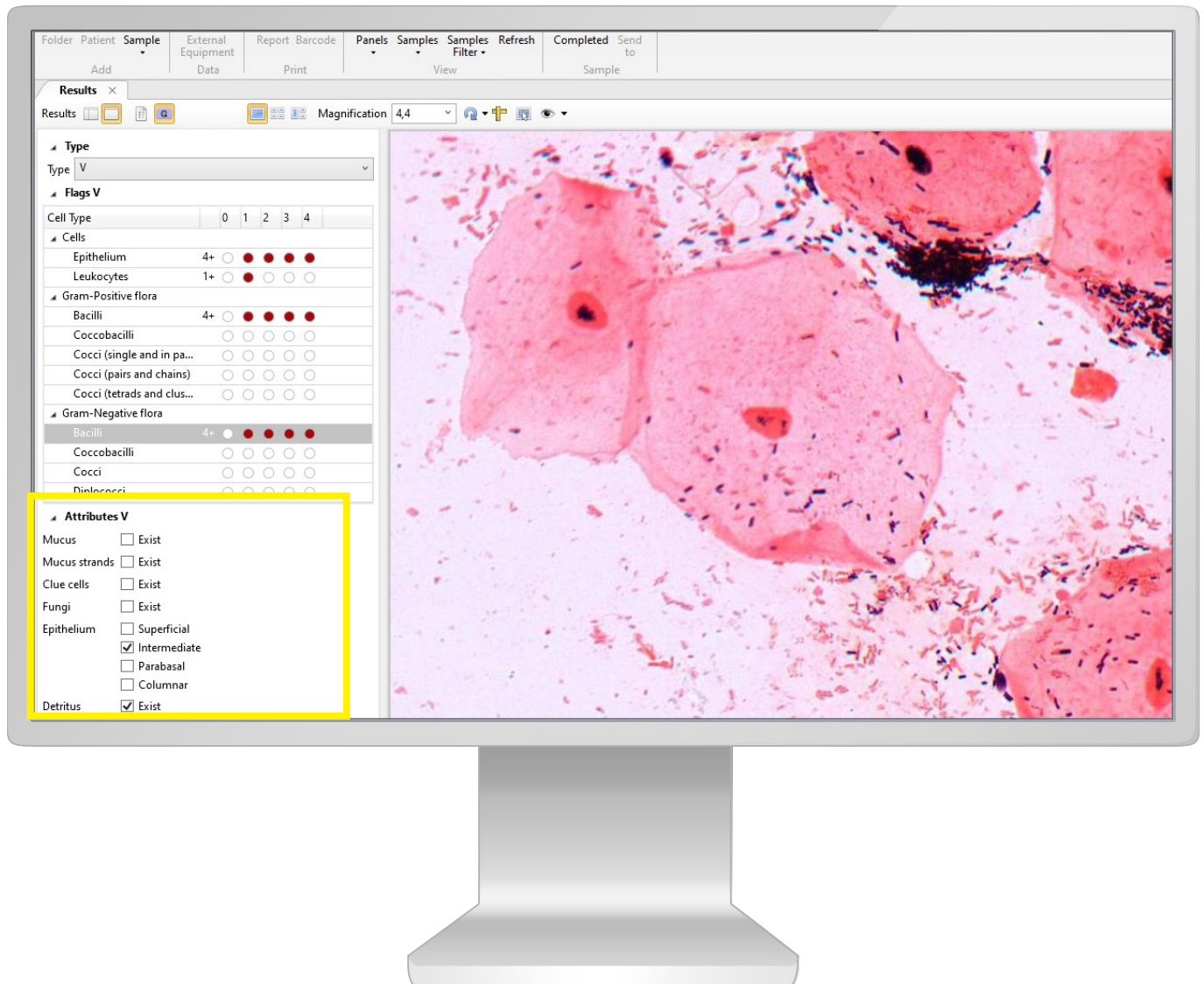
Automatic scanning and creation of digital slide

Automatic morphology assessment, count and pre-classification of gram-positive and gram-negative bacteria:

- Lactobacillus morphotypes
- Gram-negative and gram-positive rods
- Gram-negative and gram-positive cocci, located extra- and intracellularly, paired, chains, clusters
- Gardnerella morphotypes
- Anaerobic bacterial morphotypes, including: Peptostreptococcus, Bacteroides, Fusobacteriales, Prevotella, Mobiluncus spp.

Additional Module

Vision Extended Gram

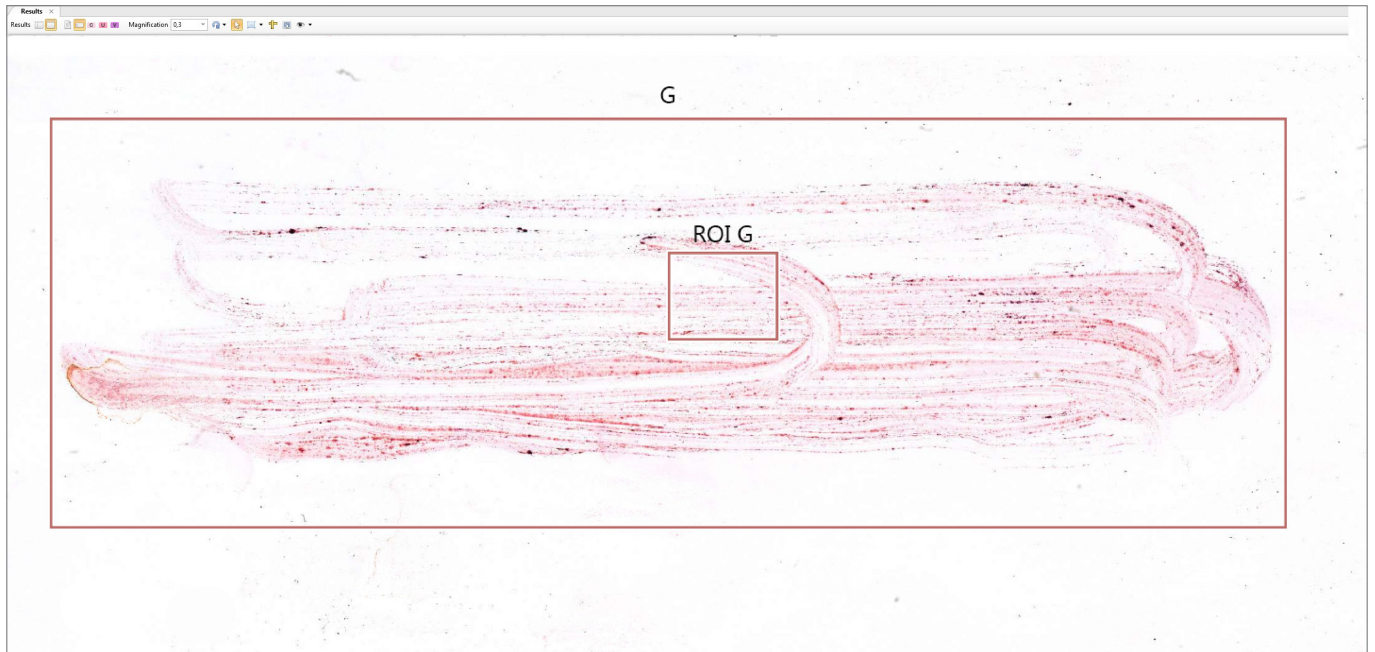


Automatic identification:

- Epithelial cells (superficial, intermediate, parabasal, cylindrical epithelial)
- Leukocytes
- Clue cells
- Mucus and cell debris
- Trichomonas vaginalis
- Candida spp
- Fungi.

Scanning DS 2.5x, smear and location area detector

Working with one location area
Operation mode: Gram



Digital slide, Gram smear with 2.5x magnification.

Automatic detection of Regions of Interest (ROI), Gram smear

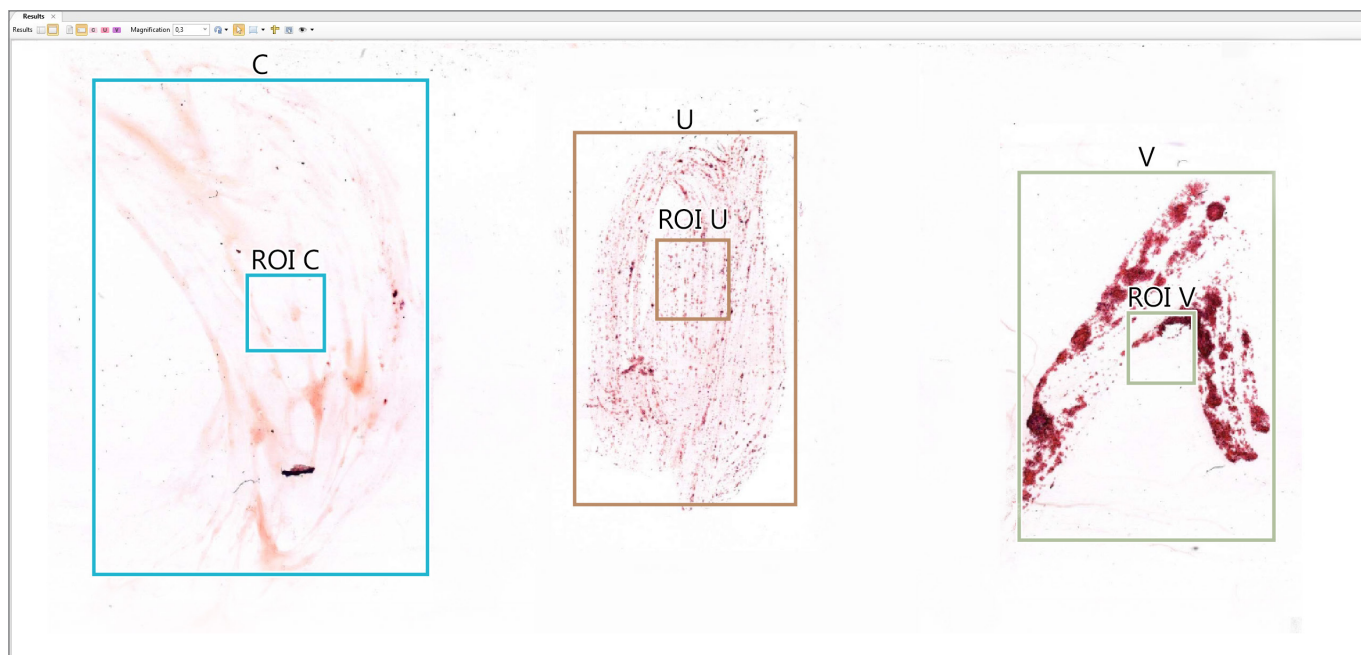
Epithelium	3+	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Leukocytes	-	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▲ Gram-Positive flora						
Bacilli	4+	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Coccobacilli		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cocci (single and in pa...		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cocci (pairs and chains)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cocci (tetrads and clus...		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▲ Gram-Negative flora						
Bacilli	4+	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Coccobacilli		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cocci		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diplococci		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A microscopic image of a Gram smear. The background is pink, indicating Gram-positive bacteria. There are numerous small, dark purple/black structures scattered throughout, indicating Gram-negative bacteria. The image is partially obscured by a large, irregular pink area, likely representing a region of interest or a specific area of the smear.

Automatic scanning and analysis of Gram location

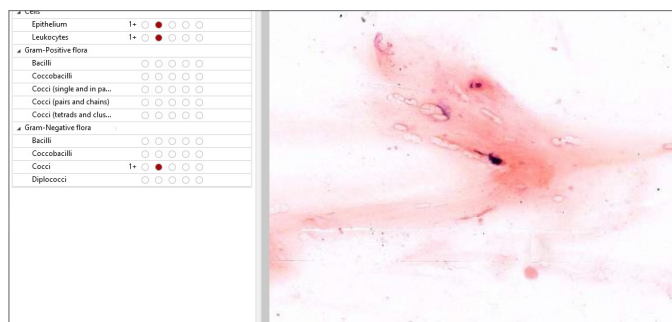
Automatic detection of three locations

Operation mode with three locations:
Cervical, Urethral, Vaginal

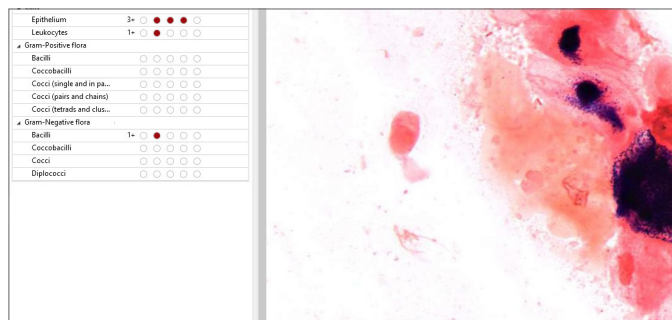


Digital slide, Gram smear with 2.5x magnification.

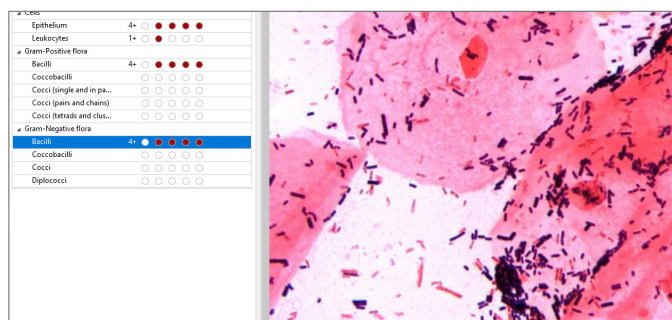
Automatic selection of locations and Regions of Interest (ROI) for locations: Cervical, Vaginal, Urethral



Automatic scanning and analysis
of Cervical Location



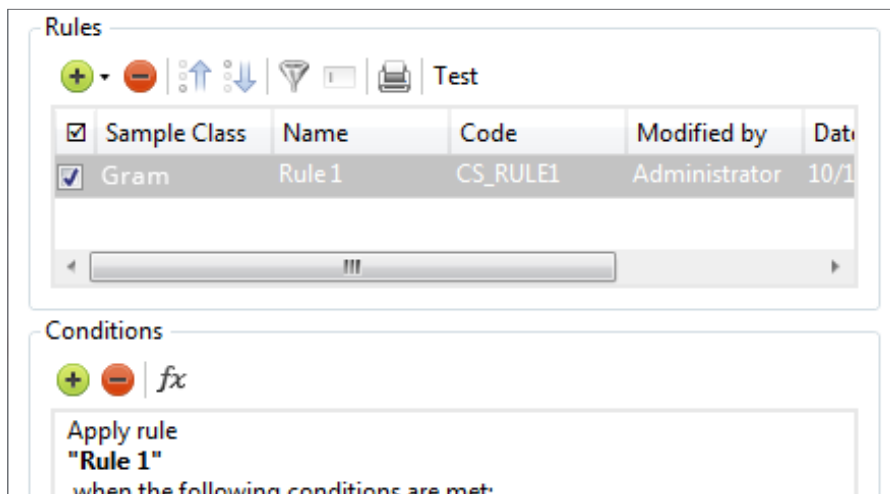
Automatic scanning and analysis
of Urethral Location



Automatic scanning and analysis
of Vaginal Location

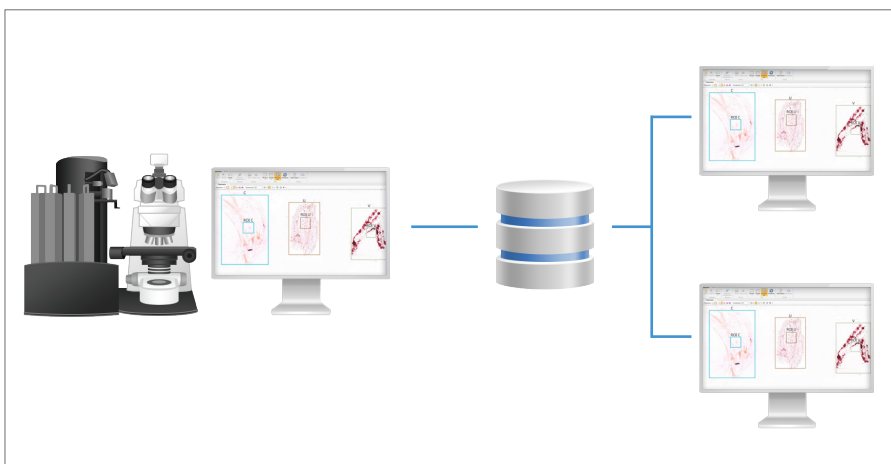
Administrative Modules

Vision Manager



Analysis procedure automation, data processing rules created by the specialist.

Vision Remote



Remote workstation.

Artificial intelligence



Artificial intelligence (AI) cumulates algorithms and technologies that allow computers to learn and solve intellectual tasks provided by humans.

AI speeds up processing and interpretation of data, and allows to efficiently perform the most comprehensive tasks, including medical image analysis.

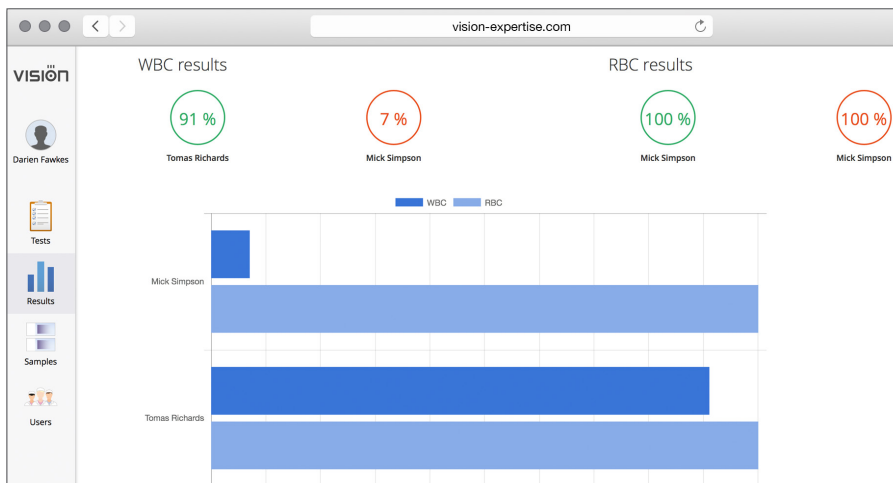
Consulting and Education Modules

Vision Suite

Slide View	LIS	Sample Date	ID	Sample	Size	Note
		12/05/2018, 5:49 PM	2850	Gram	1.1 GB	
		12/05/2018, 5:46 PM	2849	Gram	437.4 MB	
		12/05/2018, 5:44 PM	2848	Gram	383.3 MB	
		12/05/2018, 5:39 PM	2847	Gram	403.3 MB	
		12/05/2018, 7:33 PM	4914	Gram	1.9 GB	
		12/05/2018, 7:33 PM	4558	Gram	905.7 MB	
		12/05/2018, 7:32 PM	4557	Gram	1.5 GB	

Cloud/server for telemedicine and remote consultations with colleagues.

Vision Expertise



Online testing and quality control.

Clinical applications



The latest developments of artificial intelligence provide a solution for the tasks connected with automation in digital microscopy.

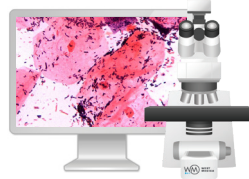
Our technologies speed up the diagnostic process, reduce analysis time and lower subjectivity of the results received.

They improve the efficiency of laboratory routine operation, bringing microscopy analyses in line with state-of-the-art standards.

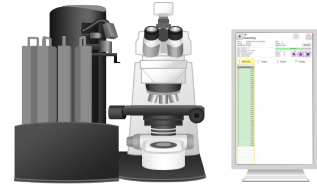
Specifications



Vision Assist
Cell Imaging Analyzer



Vision Pro
Cell Imaging Analyzer



Vision Ultimate
Cell Imaging Analyzer

Application module: Vision Gram	Application module: Vision Gram	Application module: Vision Gram
Additional module: Vision Extended Gram	Additional module: Vision Extended Gram	Additional module: Vision Extended Gram
Digital slide 100x	Digital slide 60x/100x	Digital slide 63x
Operation mode: Gram (1 location)	Operation mode: Gram (1 location)	Operation mode: Gram (1 location)
—	—	Operation mode CUV (3 locations)
—	—	DS 2,5x, smear detector
Working modes: queue (only 4 slides version)	Working modes: queue, random access	Working modes: queue, continuous and random access, STAT testing, 24/7
Automatic scanning	Automatic scanning	Automatic scanning
1 or 4 slides	8 slides	Up to 200 slides
Manual slide handling	2 cassettes with slides	Automatic slide handling
Microscope for scanning	Microscope for scanning	Microscope for scanning
Personal computer	Personal computer	Personal computer
Monitor	Monitor	Monitor
—	—	Touch-screen monitor for control
—	Built-in barcode reader (optional)	Built-in barcode reader
—	Automatic oil dispenser (optional)	Automatic oil dispenser
Optical system: 10x, 50x Oil, 100x Oil	Optical system: 10x, 60x Oil, 100x Oil	Optical system: 2.5x, 10x, 63x Oil
Bright field	Bright field	Bright field
Köhler illumination, LED	Köhler illumination, LED	Köhler illumination, LED
Bidirectional LIS, LIS2-A2 (ASTM), HL7, Ethernet	Bidirectional LIS, LIS2-A2 (ASTM), HL7, Ethernet	Bidirectional LIS, LIS2-A2 (ASTM), HL7, Ethernet
Art. N.: 71150.05 (1 slide) Art. N.: 71450.05 (4 slides)	Art. N.: 72852.05 (8 slides)	Art. N.: 73031.05 (200 slides)

We reserve the right to change specification without notice.



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