



# Vision Uri+

Digital solution for working with microscopic examination of urine sediment and chemistry urine analysis

urine analysis



# New standards in the daily work

## Applications



medicine



clinical laboratory



veterinary



education



remote consultations



specialist training



telemedicine



## Vision concept

Vision concept is a modern approach to diagnostics, combining microscopy, digital image processing and analysis data. Specialists, that are looking for professional development and recognize new digital technologies, are presented with unlimited resources in their field.

## Vision digital solutions

Vision digital solution is a workplace to obtain, manage, analyze and interpret digital microscopic samples. You work with a unified system where priority is given to efficiency.

## Vision+ digital solutions

Vision+ digital solution combines the possibilities of digital solutions in microscopy and analytic medical devices to provide an integrated patient assay and a correct diagnosis.

**Improve your standards and enhance the quality of your work! Take control of the increasing amount of information in your laboratory.**

# Vision solution



## Digital microscopy

Digital microscopy (digital pathology) is a digital environment for managing and analyzing microscopy data, which is obtained using a microscope, a camera, software and a computer.

Digital microscopy allows you to attain qualitative and quantitative results, which are either impossible to receive by other means or cost and time consuming.

## Urine chemistry analysis

Urine analyzer allows you to get quick and reliable results of the principal urine chemistry parameters.

## Vision Uri+

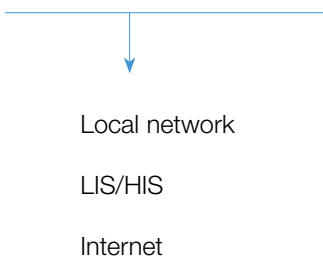


Solution that combines information obtained from urine sediment microscopy and chemistry urine analysis. Effective tool to generate reports that include text as well as digital images of the sample.

# Efficient unified system



- 1 Urine analyzer
- 2 Personal computer with Vision software
- 3 Biological microscope with Vision camera



**Vision Uri+** is an integrated system for conducting clinical urine analysis and managing microscopy samples, patient data and analysis results

You now store and examine digital urine samples and analysis results

An innovative approach to urine analysis and workflow optimization

# Main benefits



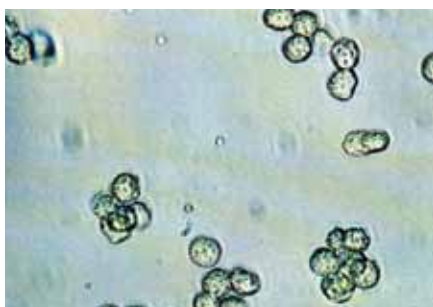
1 Quick and easy patient registration



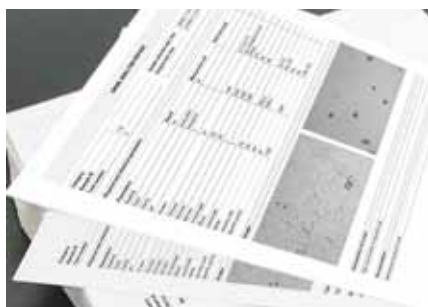
2 Parameters received from a urine analyzer are registered automatically



3 Microscopic examination of urine sediment and generation of a digital sample



4 Reliable data management system stores all patient records and analysis results



5 Report generation according to individual requirements

Date	External ID	Album	Name
Wednesday, August 17, 2011 4:56:57 PM	266	Urine Analysis	
Tuesday, August 23, 2011 4:55:17 PM	264	Urine Analysis	
Tuesday, August 23, 2011 4:54:32 PM	260	Urine Analysis	
Tuesday, August 23, 2011 4:51:49 PM	247	Urine Analysis	
Monday, August 22, 2011 4:53:37 PM	255	Urine Analysis	
Sunday, August 21, 2011 4:51:56 PM	248	Urine Analysis	
Saturday, August 20, 2011 4:54:20 PM	259	Urine Analysis	
Thursday, August 18, 2011 4:54:38 PM	261	Urine Analysis	
Wednesday, August 17, 2011 4:53:51 PM	256	Urine Analysis	
Monday, August 15, 2011 4:54:54 PM	262	Urine Analysis	
Monday, August 15, 2011 4:53:06 PM	251	Urine Analysis	
Sunday, August 14, 2011 4:54:02 PM	257	Urine Analysis	
Saturday, August 13, 2011 4:53:27 PM	250	Urine Analysis	

6 Automated statistical processing



7 Easy access to analysis results and digital samples



8 Telemedicine and remote consultations with colleagues



9 Education for specialists: scientists, doctors, lab technicians and students



# Workflow optimization

1



## Quick and easy patient registration

Creating and managing patient records became much easier. All patient data are shown in a chart form and can individually be adjusted by selecting the necessary fields: ID, name, surname, date of birth, age, etc.

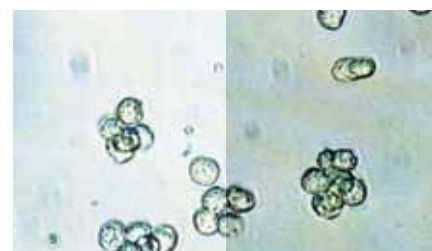
2



## Automatic transfer and storage of urine analysis results

Information from the urine analyzer is automatically transferred to a PC and integrated into the urine analysis report.

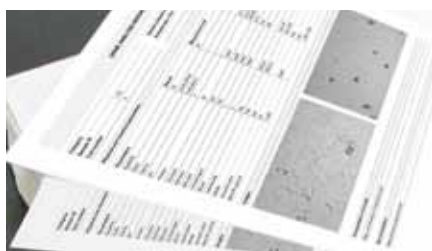
3



## Urine sediment microscopy and capture of a superior quality digital sample

Microscopy of urine sediment and capture of a perfectly crisp digital image in one quick step. Received data and microscopic images are then integrated into a report automatically.

4



### Report generation in accordance with modern requirements

Urine analysis report template allows specialists to create reports of the microscopic as well as chemical study of urine without spending valuable time on routine paperwork.

Saved reports are available for search, preview, edit, print, send by e-mail and export to popular formats: PDF, DOC, XLS, JPEG, GIF, PNG and many others.

5



### Secure and reliable data storage

Vision database stores all patient records, microscopic samples, analysis results, and reports. Information is shown in a form of a patient record with his/her analysis result. Possibility to assess quickly the dynamics in analysis results over a period of time.

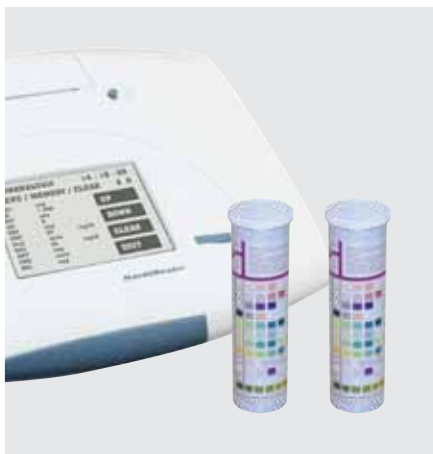
The system saves all data automatically, excluding any possibility of losing valuable information.

6



### Benefits of Internet connection

Connect several workplaces to a remote server and hold video conferences with colleagues from around the world, exchange digital albums, analysis results and reports, publish your research on specialized social networks.



## Tests performed on urine analyzer

Urine analyzer allows you to get quick and reliable results of the principal urine chemistry parameters:

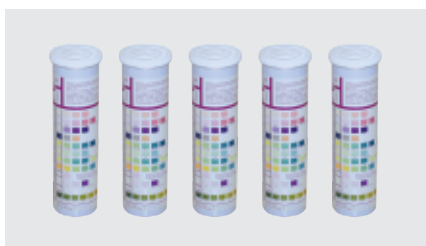
- blood
- glucose
- pH
- relative density
- bilirubin
- urobilinogen
- ketones
- protein
- nitrites
- leukocytes
- ascorbic acid

### Chemistry analysis

**Enter patient ID, and analysis results will be automatically added to the patient record in the database**



Prepare sample containers to conduct urine analysis. Enter patient ID.



Dip the test strip into the urine sample for two seconds. Remove excess urine from the strip by wiping against the rim of the test tube or by touching the edge of the strip with a paper towel.



Place the moist test strip (test indicators facing up) in the strip holder of the urine analyzer. The test results will be transferred to a PC automatically.

Test results from the urine analyzer are received and entered in the report automatically



*Working with this system allows storing all analysis results in the database of my office computer. At any time, I can see the patient's analysis results, performed months or years ago, as well as observe the dynamics of change in tests over time*





# Image enhancement

## Image capture procedure



Find object of interest



Save captured image in the album



Edit image if necessary

## Camera control tools



### Camera settings

Different modes when working with color (8 or 16 bit) allow color depth adjustment. "Field alignment" function removes any image defects: uneven field illumination, dust and scratches on optical components of the system.



### Color settings and exposure/brightness control

Manual or automatic color settings give the possibility of image adjustment according to illumination (LED or halogen). If its necessary to change image brightness, adjust exposure.



### Histogram

Histogram explores contrast, saturation and exposure of the image, as well as estimates what is required when capturing/enhancing an image.



### Preview

Live image preview. "Zoom" function lets you magnify the sample. "Resolution" function sets the size of the captured image in pixels.

## Image editing tools

### Crop

Select a fragment of an image and save it as a separate digital sample.

### Scale

Reduce the image size for easier online operations.

### Rotate

To make examination easier, turn your microscopic image at a certain angle.

### Color

Select a color from a preset palette, use the 'Pipette' tool to select it from the image directly or set precise RGB values with alpha blending (transparency).

### Color adjustment

To ensure the best quality of your digital image, use color adjustment tools such as brightness, contrast and saturation settings.

### Edit

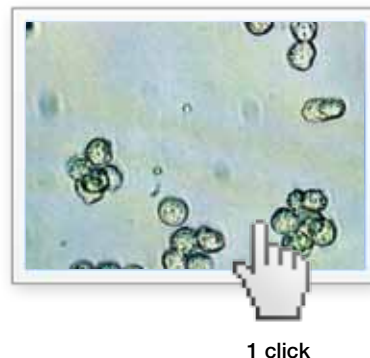
You can easily remove minor defects if they hamper your work.

### Export/import

To exchange samples with your colleagues, it is easy to import and export images from your database.

## Ergonomic image editing tools facilitate fast enhancement of a microscopic sample image

One click on a 'Color settings' button to correct an image and get a superior quality digital sample.



hue/saturation



brightness/contrast



sharpness



color balance



# Report generation

## Analysis procedure is easier than ever with a report template

Test results from the urine analyzer are received and entered in the report automatically.

Saved reports are available for search, preview, edit, print, send by e-mail and export to popular formats: PDF, DOC, XLS, JPEG, GIF, PNG and many others.



## Report customization

### You decide how your report will look like

You can take into account different template requirements (form and content). Add and delete analysis parameters, patient information fields and images.



## Atlas

### Atlas of analysis objects is an indispensable tool for object identification

Click on the "hint" button and you will see the images in the atlas, corresponding to the object of study.

Images can be added to the atlas by simply dragging and dropping them to the object field.

## Report form

- 1 Report name
- 2 Laboratory logo
- 3 Analysis information
- 4 Patient information
- 5 Date and time of sample collection/delivery/report
- 6 Institution information
- 7 Comments about a patient/sample, etc.
- 8 Analysis results
- 9 Images
- 10 Interpretation of results
- 11 Recommendation
- 12 Validation
- 13 Date and time of validation
- 14 Signature
- 15 Page number

## Report example on one page

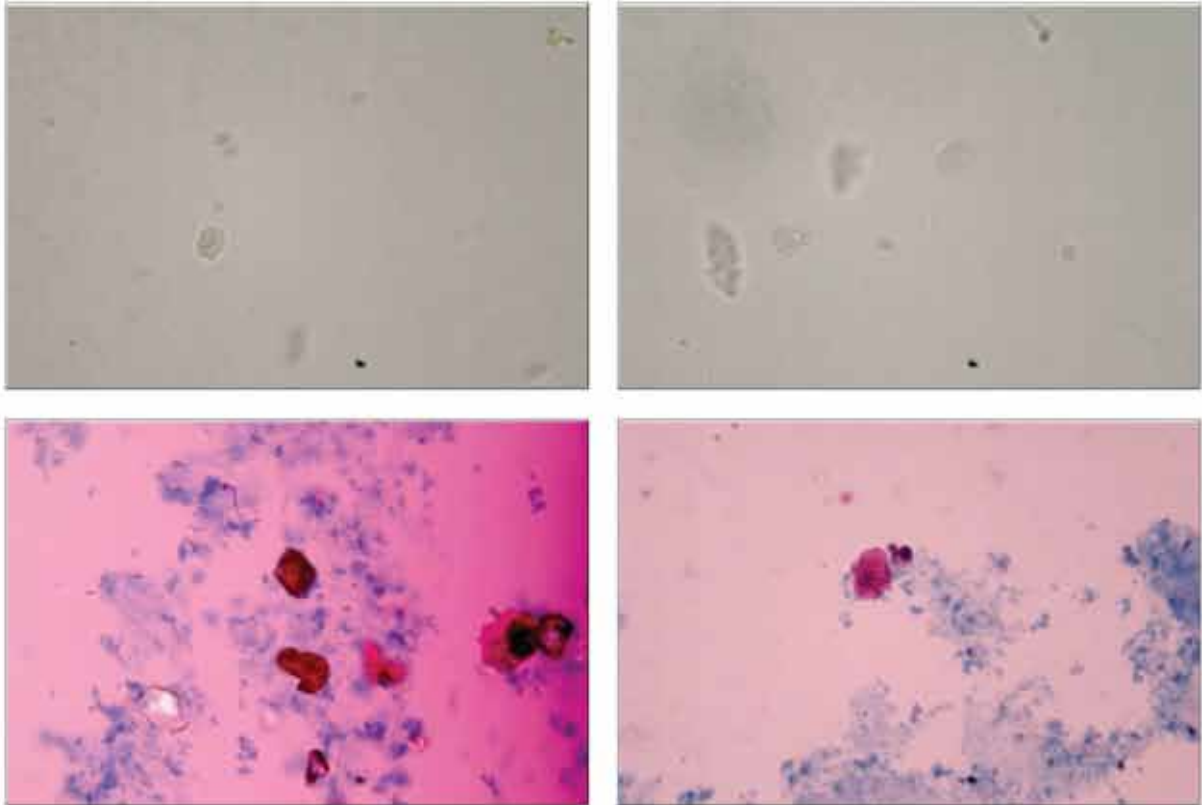
1 URINE ANALYSIS REPORT		2 UriLAB		
3	Category	Medical examination	Sample collection date / time	6/10/2011 11:27 AM
	Sample ID	113	Analysis date / time	6/10/2011 11:41 AM
4	Patient ID	123456	Institution	Apollo Hospital
	Name	Howard John	Address	25, Yongue str
8	Physical and chemical parameters			
Parameters	Result	Measurement unit	Reference range	< = >
<b>Physical urine parameters</b>				
Quantity	130	ml		
Color	straw yellow			
Specific gravity	1028			
Clarity	slightly cloudy			
<b>Chemical urine parameters</b>				
pH	6,5		5,0–6,0	>
Bilirubin	neg.	umol/L	neg. (<17)	
Urobilinogen	norm	umol/L	norm. (<35)	
Ketones	neg.	umol/L	neg	
Ascorbic acid	neg.	g/L	neg	
Glucose	neg.	umol/L	neg	
Protein	0,3	g/L	neg	
Blood	neg (<5)	RBC/uL	neg (<5)	
Nitrites	pos.		neg	>
Leucocytes	75	WBC/uL	neg (<5)	>
<b>Urine sediment</b>				
Colored specimen (supravital)				
RBC				
- Isomorphic	0-1	p./HPF	0-1	
- Dismorphic	0-1	p./HPF	0-1	
Leucocytes				
- Neutrophils	3-10	p./HPF	0-2	>
- Lymphocytes	0-2	p./HPF		
Epithelial cells				
- Superficial squamous ep.cell	Small	p./HPF		
- Transitional rp.cells	Small	p./HPF		
- Transitional	Small	p./HPF		
- Renal	Small	p./HPF		
Crystals				
- Uric acid	Small	p./HPF		
Bacteria				
- Cocci	Moderate	p./HPF		
- Rodes	Absent	p./HPF		
Mucus	Small	p./HPF		
10	Interpretation of results			
Moderate leukocyturia, signs of bacteruria				
11	Recomendation			
Bacterial study				
12	Name	Dr. Chris Mayers	Date	6/10/2011
		Signature _____		
WM		© West Medica www.vision-at.com		Page 1/1

URINE ANALYSIS REPORT		UriLAB		
<b>Category</b>	Medical examination	<b>Sample collection date / time</b>	6/9/2011 11:27 AM	
<b>Sample ID</b>	113	<b>Analysis date / time</b>	6/10/2011 11:41 AM	
<b>Test number</b>	3			
<b>Patient ID</b>	123456	<b>Institution</b>	Apollo Hospital	
<b>Name</b>	Howard John	<b>Address</b>	25, Yongue str	
<b>Birth date</b>	5/25/1979	<b>Department</b>	Surgery	
<b>Gender</b>	Male	<b>Ward</b>	6	
<b>Address</b>	53 Church str	<b>Practice</b>		
<b>Insurance</b>	Eurolife	<b>Physician name</b>	Rebecca Nelson	
<b>Medical record</b>	m532560053f			
<b>Comments</b>				
Direct to surgical treatment				
<b>Physical and chemical parameters</b>				
Parameters	Result	Measurement unit	Reference range	< = >
<b>Physical urine parameters</b>				
Quantity	130	ml		
Color	straw yellow			
Specific gravity	1028			
Clarity	slightly cloudy			
<b>Chemical urine parameters</b>				
pH	6,5		5,0–6,0	>
Bilirubin	neg.	umol/L	neg. (<17)	
Urobilinogen	norm	umol/L	norm. (<35)	
Ketones	neg.	umol/L	neg	
Ascorbic acid	neg.	g/L	neg	
Glucose	neg.	umol/L	neg	
Protein	0,3	g/L	neg	
Blood	neg (<5)	RBC/uL	neg (<5)	
Nitrites	pos.		neg	>
Leucocytes	75	WBC/uL	neg (<5)	>
<b>Urine sediment</b>				
Colored specimen (supravital)				
RBC				
- Isomorphic	0-1	p./HPF	0-1	
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- Lymphocytes	0-2	p./HPF		
Epithelial cells				
- Superficial squamous ep cell	Small	p./HPF		
- Transitional rp cells	Small	p./HPF		
- Transitional	Small	p./HPF		
- Renal	Small	p./HPF		
Crystals				
- Uric acid	Small	p./HPF		
Bacteria				
- Cocci	Moderate	p./HPF		

- Rodes	Absent	p./HPF	
Mucus	Small	p./HPF	

9

**Images**



10

**Interpretation of results**

Moderate leukocyturia, signs of bacteruria

11

**Recomendation**

Bacterial study

**Validated by**

12

<b>Name</b>	Dr. Chris Mayers	<b>Date</b>	6/10/2011
<b>Position</b>	Pathologist	<b>Time</b>	3:37 PM

13

Signature \_\_\_\_\_

14

15

# Database



*Thanks to the database  
I can be sure that  
my analysis results  
are stored securely,  
and, what is the most  
important, statistical  
reports no longer take  
so much time to prepare*



## Reliable database

Vision database stores all patient records, microscopic samples, analysis results, and reports. Information is shown in a form of a patient record with his/her analysis result. Possibility to assess quickly the dynamics in analysis results over a period of time.

The system saves all data automatically, excluding any possibility of losing valuable information. Advanced data management tools, like filtering and sorting, will help you not to waste time on searching.

Storage, statistic handling, quick search, cooperation with colleagues, remote access via Internet and integration into other information networks (LIS/HIS).

If you need a special report template or additional data fields to a patient record, we can help you customize the database according to your requirements.



# Network capabilities



View analysis results on the screen and discuss with your colleagues.



Print out your reports.



Data import/export to other information networks (LIS/HIS).



Share information with people wherever they are. Send your reports by email.



Organize video conferences with colleagues from around the world.



Connect, via Internet, multiple workplaces to a remote server.



Publish your research on specialized social networks.

# Main characteristics

	Description	Vision Uri+	Vision Uri+
	Biological trinocular microscope with “infinite” optics and Vision digital camera. Preview live video on a PC as well as capture a digital microscopic sample.	✓	✓
	Portable urine analyzer HandUReader. The 11 parameters are blood, glucose, pH, relative density, bilirubin, urobilinogen, ketones, protein, nitrites, leukocytes, ascorbic acid.	✓	
	Semi automated urine analyzer LabUReader+. The 11 parameters are blood, glucose, pH, relative density, bilirubin, urobilinogen, ketones, protein, nitrites, leukocytes, ascorbic acid.		✓
	Personal computer with Vision Uri+ software, high resolution monitor and color printer.	✓	✓
	Test results from the urine analyzer are received and entered in the report automatically.	✓	✓
	A professional set of tools to work with digital samples: create, edit, organize, classify and comment.	✓	✓
	Storage, statistic handling, quick search, cooperation with colleagues, remote access via Internet and integration into other information networks (LIS/HIS).	✓	✓
	Urine analysis report template. Customizable report reference guide to fit your personal requirements.	✓	✓
	Report contains: images, analysis parameter fields, measurement units and reference range.	✓	✓
	Report operations: search, preview, edit, print, e-mail and export in popular formats: PDF, DOC, XLS, JPEG, GIF, PNG and many more.	✓	✓

# Ordering information



Description	Code
<p><b>Vision Uri+ system</b> Set includes: HandUReader urine analyzer, MT4300L biological microscope, Vision CAM V1200 digital camera, Vision Uri+ software, PC, monitor, printer.</p>	60.0008.00
<p><b>Vision Uri+ system</b> Set includes: LabUReader+ urine analyzer, MT4300L biological microscope, Vision CAM V1200 digital camera, Vision Uri+ software, PC, monitor, printer.</p>	60.0018.00
<p><b>Vision Uri+ software</b> Set includes: Vision Uri+ software.</p>	20.0008.01



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We reserve the right to change specification without notice.

Official distributor

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