## **Archimed**

## Your microscopic analysis database

Acquisition, processing, image, video and analysis report archiving





# Beyond image, video and report database creation, Archimed is made of several modules:

- **▶** Database
- ▶ Image and video acquisition
- ▶ Image processing
- ▶ Measurement and annotation
- **▶** Report creation
- Extended depth of field and 3D rendering
- ► Cartography / panorama
- ▶ Movie and Sequence

- ▶ Multipurpose tool for the laboratory
- ▶ Client-server licence
- ▶ SQL or Microsoft Access™ compatible database
- ▶ Multi-module workspace
- ▶ Drag and drop, intuitive graphic user interface

## **Archimed**

#### Archiving- Acquisition - Processing - Report

**Archimed** is a multipurpose application that allows you to create **database** in order to efficiently store and retrieve key components of your microscopic analyses: image, report... Beyond archiving function, Archimed includes several modules to **acquire and process** image and video: Acquisition, Report, Image processing, Extended Focus, Cartography, Movie and Sequence.

Archimed is an **integrated workspace** that includes all installed modules. Drag and drop your contents from a module to another in order to complete your processing.

## CORNERSTONE MODULES



#### Database

Easily create your **databases** in order to effectively store your images, videos, reports, cartographies (panoramas)...

#### FEATURES

- ▶ MS Access or SOL format
- ▶ Client-server license
- Archiving of image (bmp, tiff, jpeg), image sequence, cartography (panorama), video (.avi), report (.mvr format), multifocal stack
- ➤ Standard fields (creation date, path, format, thumbnail, calibration factor) + freely user-defined fields

#### FUNCTIONS

- ▶ Password-protected database
- ▶ Finder: by criteria and by keywords
- ► Easy recording of item created or modified in any Archimed module
- ▶ Management by album, adjustable thumbnails
- ▶ Creation of contact sheet layout







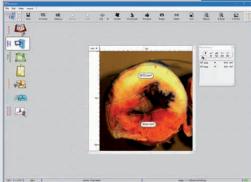
## Acquisition

**Real-time video** module allows rapid acquisition of image issued from various optical devices: macroscopic bench, zoom, microscope, etc.

▶ Integrated control of all imaging conditions such as microscope and camera settings: lighting, lens, diaphragm, filters, exposure time, calibration...

- ▶ Calibration function
- ► Background correction for brightfield illumination
- ▶ Live display
- ▶ Temporary storage in the portfolio
- ► Pre-processing: black/white, color, horizontal/vertical mirror
- ▶ Calibration, overlay of scalebar
- ▶ Fluorescence multichannel management
- ▶ Image direct recording into database



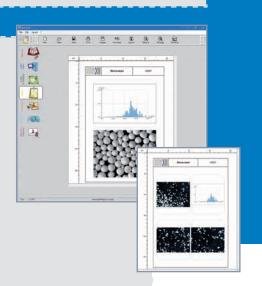




## Reports

Easily create **customized report** including text, image, graph, annotation.

- ▶ Printed reports creation
- Access and use of elements included in reports generated by the whole range of Microvision applications and systems
- ► Customizable header and footer: logo, title, date...
- ▶ Items added by drag and drop
- ▶ .pdf export
- ▶ Direct recording into database

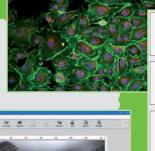


## ADD-ON MODULES



## Image processing

- ▶ Calibration
- ▶ Fixed magnification
- ▶ Image processing and improvement
  - Color correction
- Image resizing, cropping
- Manual or automated setting: contrast, brightness, color
- ▶ Image merging
- ► Image comparison
- ► Image recording and export



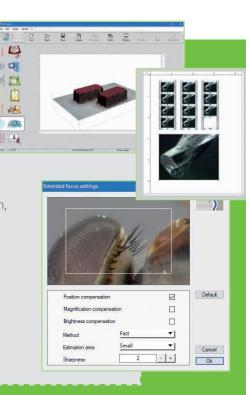




#### **Extended Focus**

Extended Focus builds a sharp image from images acquired at different focal planes thus **enhancing the depth of field**.

- ▶ Multifocal stack creation
- ▶ Import and edition of multifocal stack created by Microvision acquisition systems (Cartograph, Irys, Abys)
- Automatic building of a sharp image with automated correction of magnification, brightness, position
- ▶ 3D rendering
- ▶ "Microvision ZStack" recording format
- ▶ Recording of reconstructed image

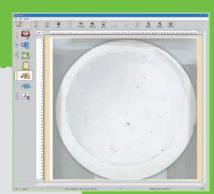


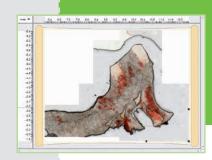


## Cartography

Create an overview from multiple fields of view, manipulate cartography (**panorama**) generated from other Microvision applications and systems.

- ► Image mosaic: creation of a single image from multiple fields
- ▶ Printing and recording of full cartography or separate images
- ► Recording of cartographic overview into a single image file
- ► Microvision cartography import, edition and printing
- ▶ Direct recording into database







## Movie and Sequence

#### Create and save animated sequences.

- ► Creation of .avi video files: from live acquisition or from Replay time-lapse sessions
- ▶ Slideshow creation from images sequences
- ▶ Management of playback speed
- ▶ Various compression options
- ► Movie and sequence compatible with common video/media players



Still images sequence			- 5
Video movie using :	OPTIMIZE		
lmage size :	1024 x 768	-	
Frequency:	1 10	) img/s	
Maximum duration :	1 min 31 s		
Compression :			Cancel

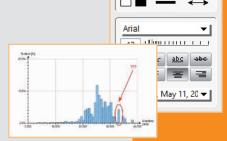
#### TOOLS



#### Annotate

Annotate image or document created in the following modules: Image processing, Report, Cartography

- ▶ Add free text, date, time
- ▶ Draw rectangular or elliptical frame, scalebar graduated in real units (depends on image calibration)



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#### Measure

Geometric measurement toolset. Can be used in conjunction with Image processing, Cartography and Digital Video modules

- ▶ Direct measurement and labelling on the image: distance, length, diameter, area, angle...
- ▶ Direct display and modification of measurement on image
- ▶ Measurement copy/paste
- ▶ Measured values displayed as a list and superimposed on the image
- ▶ Measures on objects larger than field of view





#### Portfolio

Your temporary storage area / integrated clipboard

- ▶ At your disposal with all modules
- ▶ May contain various kind of objects: image, chart...
- ► Work with drag and drop



#### TO GO FURTHER...

#### **BUSINESS LINE SYSTEMS**

for industry and life sciences

#### METALLOGRAPHY

Phase analysis, inclusion. grain sizer, decarburation depth, dimensional measurement



#### PARTICLE CLEANLINESS

Particulate contamination counting for pharmaceuticals, automotive, aeronautics and spatial industries





#### **BIOSCIENCES**

Histomorphometry, counting, serum and antibiotic efficiency control,





Electronic sievina and size/shape distribution



#### **MULTIPURPOSE SYSTEMS**

- ▶ Event analysis Time lapse
- ▶ Data safety FDA compliance
- ▶ Whole slide / wide-field imaging



**Archimed** gathers, in a user friendly workspace, the whole toolset that allows processing video images from optical acquisition device up to printed report:

- Database Acquisition Report creation
- ▶ Image processing Extended Focus Cartography Movie and Sequence

**Archimed** is also the perfect tool to import, manipulate, archive the whole range of image, video, stack, cartography, report... generated by your Microvision image analysis systems.



Sample and virtual mapping review (cartography/ panorama) with a joystick



Compatible with Zeiss, Nikon, Olympus, Motic, Optika... devices



Compatible with digital cameras:

- ▶ Mono / tri -CCD and CMOS sensor
- ▶ Color / B&W
- ► USB2, USB3, IEEE interface



**OS**: compatible with Windows 7, 8, 8.1 and 10

RAM: 8 Go to 16 Go

**Processor**: iCore 7 minimum

Peripherals and interfaces: USB3 port and/or PCI express slot

#### By choosing Microvision, you can rely on:

- Our expertise in object characterization on microscopic and macroscopic scales - over 25 years serving the industry and life sciences
- ▶ User friendly systems developed in partnership with the key industrial players
- ▶ Strong network of resellers and international tech support

#### Support et services

- Maintenance contract, Technical assistance
- Advice and expertise, Training



#### MICROVISION



INSTRUMENTS

#### MICROVISION INSTRUMENTS

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