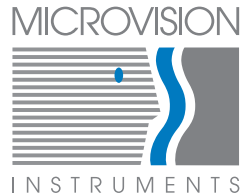


Replay

Time-lapse digital video recorder

Event temporal analysis, dynamic microscopic analysis, time-lapse microscopy



Replay is a configurable digital video recorder aimed at time-lapse microscopy.

Replay is a flexible system, widely adopted by life science, food, pharmacy, chemistry, electronics or geology laboratories:

- ▶ Change in state of matter
- ▶ Rheology
- ▶ Further slow microscopic and macroscopic phenomena...

- ▶ Modular system: from a recording software application up to a comprehensive turnkey system
- ▶ Quick start
- ▶ Configurable recording method: manual, periodic, on image change
- ▶ Indexed image sequences recording/export
- ▶ Reports and video creation

Replay

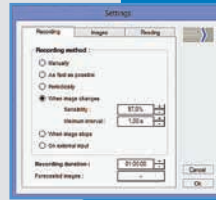
Time-lapse - Dynamic microscopic analysis

ACQUISITION

- ▶ Analysis from live acquisition: video camera and zoom / microscope...
- ▶ Integrated acquisition equipment setting and monitoring (lighting, lenses, filters, diaphragm...)
- ▶ Background correction

RECORDING METHODS

- ▶ Manually
- ▶ As fast as possible
- ▶ Periodically
- ▶ When image changes
- ▶ When image stops (after an expected change)
- ▶ On external input (for instance pedal)



FEATURES

- ▶ Configurable recording duration
- ▶ Adjustable transition sensibility
- ▶ Adaptable playback frame rate
- ▶ Live image and parameters display (time, duration, temperature, recording method, current image number, session's name)

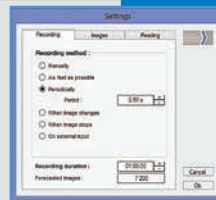
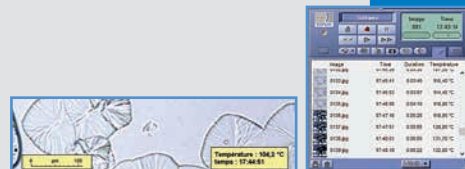


IMAGE AND VIDEO FORMATS

- ▶ TIFF, JPEG, BMP images and metadata files (time stamp, temperature...)
- ▶ .AVI video with Archimed
- ▶ Overlay on each image of a same session (temperature, scale bar, free text, shapes, date, time)



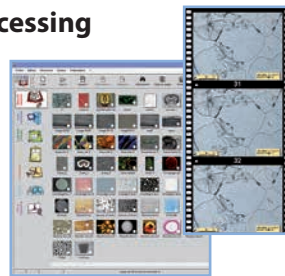
RESULTS EXPLOITATION

- Replay sessions can be open and processed by the whole range of Microvision systems and applications, for example:
- ▶ Reports editing, video and slideshow creation, archiving (Archimed)
 - ▶ Granulometry (Ellix, Granix)

Archimed Acquisition, archiving and image/video processing

Archimed enables to create archives that are stored in a database in the Microsoft Access™ format and includes various components:

- ▶ Archiving and database
- ▶ Images acquisition and processing
- ▶ Real-time video, film and slideshow
- ▶ Report editing
- ▶ Creation and importing of mappings
- ▶ Multifocus and 3D display
- ▶ Measurements by direct drawing on images



Thermal and dynamic analysis of matter

System

- ▶ Upright or inverted microscope
- ▶ Video camera
- ▶ Hot stage
- ▶ Humidity controller: 5-90% (option)
- ▶ Replay and Thermo software applications

Additional features

- ▶ Hot stage integrated setting and monitoring: heating and cooling rate, ramps, hold time...
- ▶ Temperature displayed on each acquired image
- ▶ Recording of temperature metadata



CRYSTALLOGRAPHY



- ▶ Temperature range: -196°C to 600°C
- ▶ Very high heating/freezing rates
- ▶ Thermal stability < 0.1°C

CRYO-FLUORESCENCE / CRYO-MICROSCOPY



- ▶ Hold temperature at -196°C
- ▶ Up to 6 hours steady operation

RHEOLOGY



- ▶ Temperature range: -50°C to 450°C
- ▶ 3 modes of operation: oscillatory, step & steady

FREEZE DRYING



- ▶ Temperature range: -196°C to 125°C
- ▶ Vacuum chamber: up to 10⁻³ mbar
- ▶ Thermal stability < 0.1°C

OTHER THERMAL ANALYSES



- ▶ Peltier systems: -40°C to 120°C

Replay seamlessly fits into your environment. Depending on your needs, Replay is available as an **image enriching and recording software application** up to a comprehensive **turnkey system** including **optical acquisition device**.

By using Replay in conjunction with **hot stage**, our customers monitor and record image sessions of typical thermal phenomena. Numerous industrial fields of applications:

- ▶ Change in state of matter: melting point, boiling, crystallization, polymorphism, fluid micro inclusion
- ▶ Freeze-drying, dissolution studies
- ▶ Rheology, tensile properties, liquid crystal study, semiconductor
- ▶ Oxidation, corrosion, conductivity
- ▶ Correlative microscopy, cryo-fluorescence...



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



Compatible with
Linkam Scientific
temperature
controlled stages



OS: Windows 7, 8, 8.1, 10

RAM: 8 GB to 16 GB

Processor:
iCore 7 minimum

**Peripherals
and interfaces:**
USB3 slot
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
- ▶ A strong network of resellers and international tech support

Support and services

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



MICROVISION



INSTRUMENTS

MICROVISION INSTRUMENTS

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