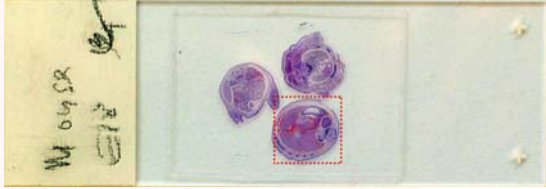


# GT Vision

## product datasheet

### Surveyor System with Turboscan, for Real-Time Mosaic Imaging



The Surveyor automated scanning and imaging system with Turboscan enables scanning and near perfect-image mosaic creation at camera frame rates.

Scan the entire specimen in seconds, and then effortlessly relocate to areas of interest with a simple click.



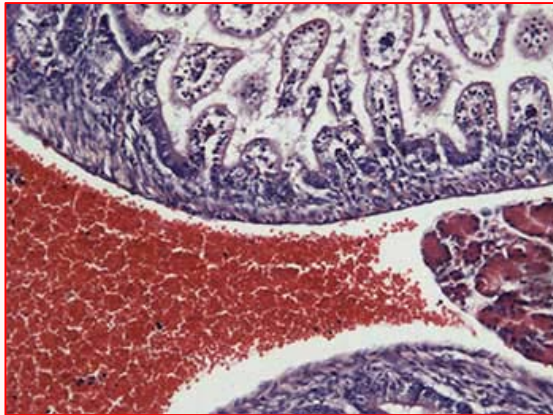
Quickly obtain the specimen overview to aid in understanding the relationships between microscopic features and overall structure.

Save your work for later review, discussion, and publication.

Based on the OASIS-4i controller with either the OASIS-DC1 digital camera interface or OASIS-AF analogue video processor option, Surveyor with Turboscan provides everything a microscopist needs for surveying, relocating, printing and saving at a new standard in high-performance automation.

#### **Turboscan highlights:**

- Scanning and acquisition at camera frame rates
- Support for various digital and analogue cameras
- Real-time high-quality image tiling
- Real-time shading correction
- Fast and accurate relocation
- Freely mix scans at various magnifications and locations



#### **Mouse Section Scan**

10X objective lens  
Turboscan mosaic of over 340 images  
Digital camera resolution: 1392 x 1040 pixels  
Scanned with predictive focus and shading correction  
Total time for scan and mosaic: 42 seconds

#### **Typical system comprises:**

- Microscope or lens
- Motorised stage, preferably with encoders
- Motorised focus
- Digital or analog camera
- Joystick
- 4 axis controller in PC
- Surveyor with Turboscan software
- PC
- Cables

## Surveyor Feature List

### Mosaic Acquisition

- Turboscan for fast continuous scan and acquire
- Standard scan for step and acquire for low light applications
- Snake and raster scanning
- User-defined settle time at each field
- Pause and continue scanning mode
- Grab individual fields into mosaic with key-press
- Acquire at full or reduced resolution
- JPEG compression option
- Image streaming for mosaic sizes limited only by free disk space

### Scan Patterns

- Rectangle
- Circular
- Annular
- Cross ("+", "x")
- Random
- User-defined
- Save / load scan patterns
- Keyboard support for pattern scanning and stage navigation

### Camera Support

- Image setup based on camera capabilities
- Exposure, gain, offset, and gamma control as available
- Automatic and manual white balance
- Colour or monochrome acquisition
- Frame-rate shading correction
- Shading correction on live display
- Calibrated graticule overlay on live image
- Grab, copy, save live image

### Export / Import

- Workspace save and load of full mosaic, scan pattern and Surveyor environment
- Export mosaic as full resolution bitmap
- Export mosaic as reduced resolution bitmaps
- Export user-selected region of interest
- Print full mosaic or selected region
- Print preview

### Specimen Map

- Stage and pattern views
- Point and click relocation to position or pattern field
- Real-time graphic display of current stage position on specimen map
- Zoom and pan
- Drag-drop pattern definition
- Acquire and display multiple mosaics at different magnifications

### Calibration

- X and Y calibration factors
- Stored calibration table for multiple lens and secondary optic settings
- Guided camera to stage alignment procedure
- Automatic correlation-based calibration procedure
- Automatic stage orthogonality correction

### Microscope Automation

- OASIS-4i XY stage and Z focus
- Software joystick for stage, focus, turret, and lamp control
- Leica Microsystems DM range focus, turret, condenser, and lamp control via RS-232
- Olympus BX-61 focus, turret, condenser, and lamp control via RS-232
- Stage and focus speed defined per objective
- Computer controlled parfocality and illumination defined per objective

### Automatic Focus

- Multi-point predictive focus for continuous focus tracking
- Predictive focus setup wizard
- Video autofocus using OASIS-AF module
- Digital camera autofocus using OASIS-DC 1 module
- Autofocus parameters stored separately for each objective lens



OASIS-4i  
Controller

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