

AUTOMATIC BOOK SCANNER

SCANROBOT®

turn the Page



**AUTOMATIC BOOK SCANNER
TO SPEED UP YOUR PRODUCTIVITY**

SYSTEM OVERVIEW

ScanRobot® 2.0 MDS

High quality - Automatic Book Scanner

- Fast - Up to 2,500 pages per hour
- Distortion free & Gentle scanning (prism technology)
- Unique 60° V-shape book cradle
- Single scan technology (for covers, folded maps, loose pages, ...)
- Self standing unit on wheels for easy relocating
- Highly ergonomic design



Unique hardware features



Patented capturing technology

- * Unique 60° prism
- * One central capturing unit
- * Equal and constant focus
- * No mechanical shutter

Only one mechanical moving part

- * Robust and simple design
- * Built for 24h shift operation
- * Low maintenance
- * Very long life cycle

Wooden 60° V-shape book cradle

- * Self centering
- * Adjustable between 60° and 100°
- * Minimum load/unload time
- * Suitable for hard and soft covers

ADVANTAGES

ScanRobot® 2.0 MDS

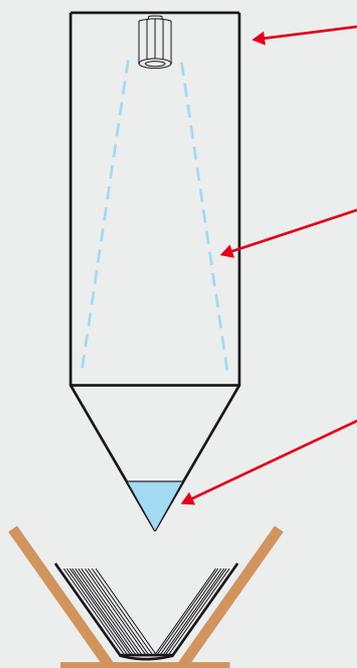


Page turning technology



- Most gentle & touch free page turning by air flow
- Automatic (up to 2,500 pph) with process monitoring & double sheet control
- Semi-automatic / weightless mode
- No clamps
- No fingers
- No glass plates

Patented capturing system



Closed capturing unit (optical 300/400 dpi)

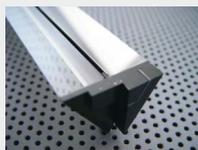
- * Independent from ambient light
- * Minimum calibration (static white balance)
- * Constant distance between object and focal plane

Inside LED illumination

- * Perfect homogenous page illumination
- * High color reproduction index value (CRI)
- * No radiation of heat, infrared or UV light
- * Long life cycle LED technology

High quality 60° prism technology

- * Distortion free scanning
- * Smallest book opening angle - unique 60° V-shape



The ScanRobot® can scan every page with the exact, equal and maximum resolution independent of the book size, thickness and the paper quality.

UNIVERSAL, GENTLE & ROBUST

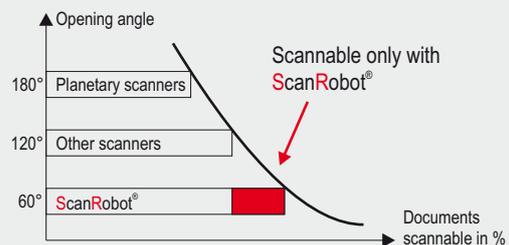
ScanRobot® 2.0 MDS

Universal - suitable for any bound material



Gentle - suitable for books up from the 14th century

- Book opening angle 60°
- No overstretching of the book binding
- Pressure free scanning
- Touch free page turning by air flow
- LED illumination without any radiation of heat, infrared or UV



Robust - low maintenance

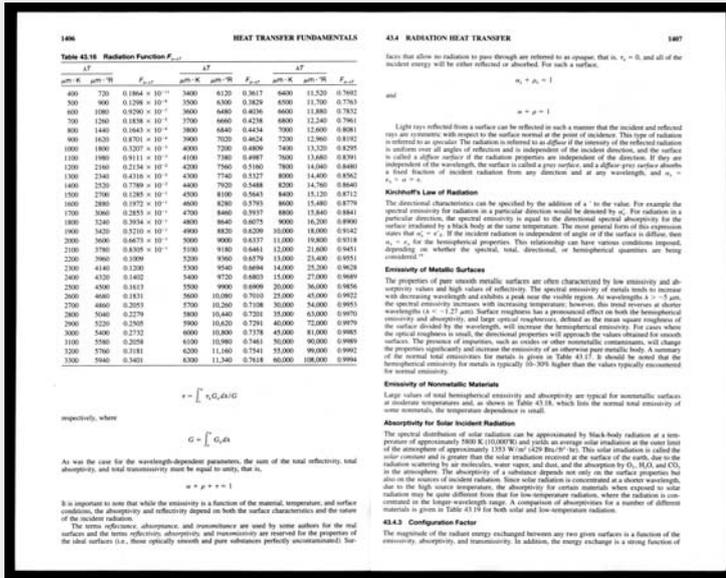
- Designed for 24h-shift operation
- Only one active moving part
- High quality industrial components
- Very long system life cycle
- Worldwide customer proven



IMAGE QUALITY - 1/3

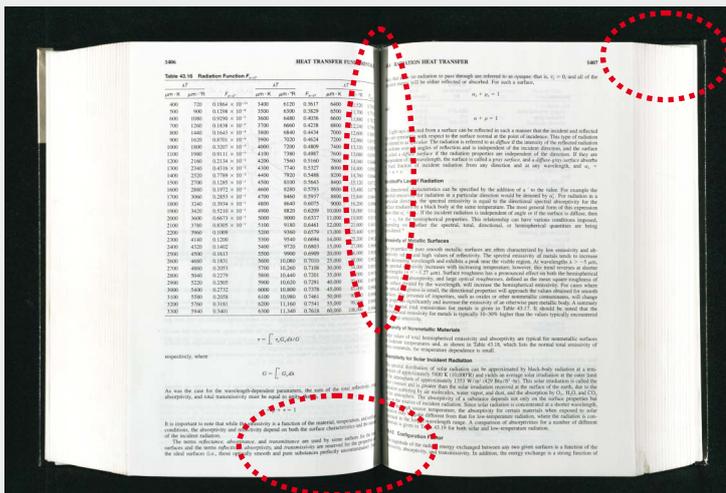
ScanRobot® 2.0 MDS

ScanRobot®



- No distortions
- No curvature
- No waves
- Exact page margin scan
- Perfect illumination

Planetary scanner



- Distortions
- Curves
- No exact page margin
- Inhomogeneous illumination

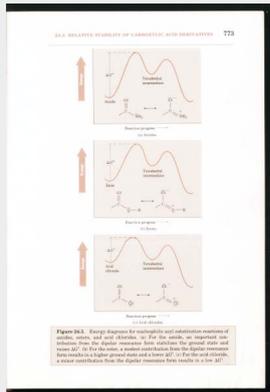
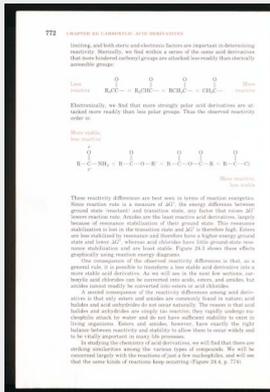
Upcoming challenges

- Page cropping
- Changing page sizes
- More post processing
- Uncertain OCR results

IMAGE QUALITY - 2/3

ScanRobot® 2.0 MDS

ScanRobot®



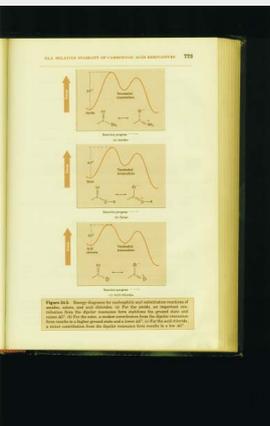
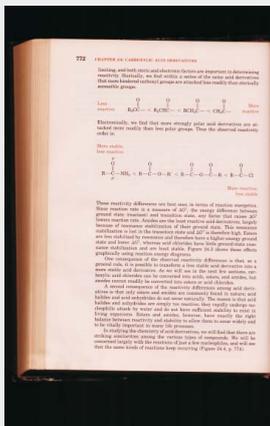
- No size & resolution variation
- No colour variation
- No focus & sharpness variation
- No white point variation

Result

- No corrections needed

1 capturing unit = 1 scan result

Camera devices*



- Varying sizes & resolutions
- Varying colours
- Varying colours
- Varying white point

Upcoming challenges

- Resolution correction
- Colour correction
- Focus & sharpness correction

2 cameras = 2 scan results

* Effects are amplified for demonstration reasons

IMAGE QUALITY - 3/3

ScanRobot® 2.0 MDS

ScanRobot®



- Single page image
- Easy page edge detection
- Easy cropping

- Artefact free
- No clamps / fingers
- No removing needed

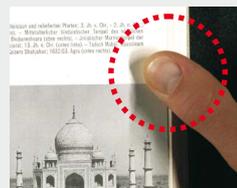
Other scanner

Disturbing book block



- Page edge detecting challenge
- Cropping & deskewing challenge

Image artefacts



- Artefacts like clamps or fingers
- Removing challenge

SCANROBOT® 2.0 MDS

MASS DIGITIZATION SYSTEM

Customer feedback

“The ScanRobot® can scan almost any types of book, binding or paper (e.g. Leather-covered wooden bindings, flexible parchment bindings, cardboard bindings, thick, thin or rigid paper).”

The Bavarian State Library

“Treventus Mechatronics GmbH submitted a tender that offers some very clear advantages. [...] The evaluation group’s assessment is that no other supplier can match the tender from Treventus Mechatronics GmbH.”

Swedish tender evaluation committee (8 specialists)

“The unique image-taking and page-turning technique of the ScanRobot® shows its benefits in particular with thick books. [...] the pages can be scanned [...] absolutely distortion-free and without any shadows [...] up to just a few mm into the fold.”

Digitization Center Regensburg

**WORLDWIDE ESTABLISHED
IN OVER 60 COUNTRIES**

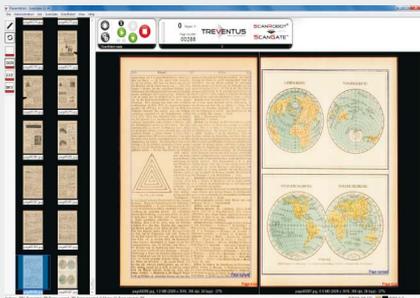


CAPTURING SOFTWARE OPTIONS

for ScanRobot® 2.0 MDS

SCANGATE™ RT (Real-Time processing edition)

Included with ScanRobot® 2.0 MDS as a stand-alone software package.

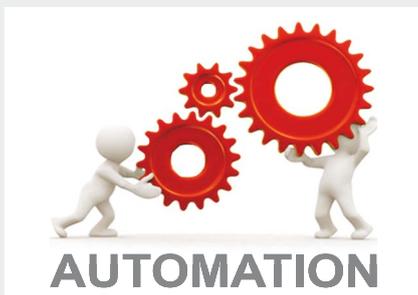


- Capturing & treatment in one automated step
- Live view of scanned & treated images
- Ready to use output (= time saving & intuitive)
- Parameter profiles administration (storage of parameters for fastest book changeovers)
- Additional flatbed scanner interface (to scan loose pages, folded maps, covers, etc.)
- Multi language user interface

Please find more information about ScanGate™ RT in the separate ScanRobot® solution comparison chart.

SCANGATE™ SF (ScanFlow™ edition)

Only available for ScanRobot® 2.0 MDS with a ScanFlow™ workflow solution package.



- Includes all functionalities of ScanGate™ RT
- Fully integrated within ScanFlow™
- Separates the scanning from image treatment
- Enables the highest scanning productivity
- Offers multiple quality check options



Please find more information about ScanGate™ SF in the separate ScanRobot® solution comparison chart.

SPECIFICATIONS & SCOPE OF DELIVERY

ScanRobot® 2.0 MDS

Specifications

• Speed	up to 2,500 pages/hour* (automatic mode)
• Page turning	automatic with process monitoring (incl. double sheet control), semi-automatic / weightless mode and single scan technology
• Aperture angle	60 degrees (steplessly adjustable between 60 and 100 degrees)
• Illumination	user- and book-friendly LED illumination (without any exposure to heat, IR or UV)
• Resolution	constant and independent of the page format optical 300 dpi (included) optical 400 dpi (optional)
• Colour depth	36-bit
• Image types	colour, greyscale, b&w
• Page format (scanning area)	minimum (2 times - automatic mode): 5 x 5 cm (1.97 x 1.97 in) maximum (2 times - automatic mode): 32 x 32 cm (12.6 x 12.6 in) single scan area: 30 x 43.2 cm (11.8 x 17 in)
• Book size (maximum)	35.5 x 34.0 cm (13.98 x 13.39 in)
• Book thickness	up to 15 cm (5.91 in)
• Paper thickness	no restrictions (recommended spectrum: 40 g/m ² to 260 g/m ²)
• Paper quality	all pages, also acid damaged and wavy pages
• Covers	all covers (soft and rigid)
• Book age	14th century up to now
• Storage formats	jpg, jpg2000, tiff, tiff G4, png, gif, bmp, pdf
• Dimensions	l/w/h (without monitor): 0,78 x 0,78 x 1,90 m (30.7 x 30.7 x 74.8 in)
• Weight	260 kg (573 lbs)

* The page speed can vary depending on paper quality, book size and the book condition in general.

Scope of delivery

- 1 pc Automatic book scanner ScanRobot® 2.0 (300 dpi standard, 400dpi optional)
- 1 pc Single-scan book scanner (flatbed A3)
- 1 pc Control Computer System (high-end PC-workstation)
- 1 pc EIZO 23" widescreen monitor (colour calibrated)
- 1 pc Integrated holder for monitor, keyboard and mouse
- 1 pc Capturing software with real-time processing - ScanGate™ RT (available in many languages)

OPTIONAL: various IPP (image post processing), WORKFLOW and OCR solutions

SCANROBOT® 2.0 MDS

MASS DIGITIZATION SYSTEM

World Wide References



National University, AUSTRALIA	GMS Service Provider, NETHERLANDS
University of Queensland, AUSTRALIA	National Library, NORWAY
Federal Office of Metrology and Surveying, AUSTRIA	Academy of Science Library, POLAND
National Library, AUSTRIA	National Library, POLAND
University of Graz Library, AUSTRIA	Siberian Federal University, RUSSIA
University Library of Liege, BELGIUM	Moscow State University, RUSSIA
Brazilian Institute of Agronomic Research, BRAZIL	National Library, RUSSIA
University of Prince Edward Island, CANADA	King Fahd Private Library, SAUDIA ARABIA
National Archive, COLOMBIA	Pavol Jozef Šafárik University, SLOVAKIA
Academy of Science, CZECH REPUBLIC	National Library, SLOVAKIA
National Library, CZECH REPUBLIC	University Library of Bratislava, SLOVAKIA
University of Jyväskylä, FINLAND	Universidad Complutense de Madrid, SPAIN
Bavarian State Library, GERMANY	National Library, SWEDEN
State Library of Berlin, GERMANY	Stockholm University Library, SWEDEN
University Library Regensburg, GERMANY	Umeå University Library, SWEDEN
NUEPA National University, INDIA	ETH Library of Zürich, SWITZERLAND
Trinity College Library, IRELAND	Zentralbibliothek Zürich, SWITZERLAND
Meteo Operation Center, JAPAN	Ankara Social University, TURKEY
Nazarbaev University, KAZAKHSTAN	National Library, TURKEY
Ministry of Awqaf and Islamic Affairs, KUWAIT	Ukrainian Institute of Industrial Property, UKRAINE
National Library, KUWAIT	The Getty Research Institute, UNITED STATES
National Library, LATVIA	Scanarkist Service Provider, UNITED STATES
University, LUXEMBOURG	Utah State University, UNITED STATES
Universidad Autonoma Metropolitana, MEXICO	Vietnam Institute of Social Sciences Information, VIETNAM
National Library, MONGOLIA	Vietnam National University, VIETNAM

... and many more ...

Alphabetical order by countries.

PRODUCT FAMILY

SCANROBOT™
turn the Page



AUTOMATIC BOOK SCANNER
TO SPEED UP YOUR PRODUCTIVITY

TREVENTUS

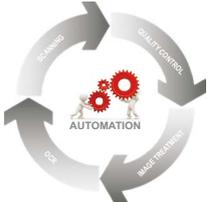
SCANLIGHT™
keep it Simple



THE MOST POWERFUL SOFTWARE
FOR YOUR IMAGE TREATMENT

TREVENTUS

SCANFLOW™
stay on Track



THE MOST EFFICIENT SOLUTION
FOR YOUR MASS DIGITIZATION

TREVENTUS

NAINUWA™
open your Mind



THE WORLD'S MOST INNOVATIVE
DIGITAL LIBRARY SYSTEM

TREVENTUS

OCRSOLUTIONS™
highlight your Content



FULLY AUTOMATED TEXT RECOGNITION
FOR YOUR SCANFLOW™ & NAINUWA™

TREVENTUS

CONSULTING™
support at any Stage



YOUR SOLUTION PARTNER FOR
MASS DIGITIZATION PROJECTS

TREVENTUS

Vikmans Multimedia (India) Pvt. Ltd.

517, Devika Tower, 6 Nehru Place, New Delhi-110019
Ph.: +91 11 26212325, 26472325, 8383063820, 9560600552
email : manish@vikmans.org, www.vikmans.com

Awards

Winner of the European ICT Grand Prize
Innovation prize of the Theodor Kery foundation
1st place in Genius Innovation Award



TREVENTUS Mechatronics GmbH
Siebenbrunnengasse 17 / Top 2
1050 Vienna - AUSTRIA - Europe

Tel: +43 1 890 35 10-02
Fax: +43 1 890 35 10-15

E-Mail: sales@treventus.com
www.treventus.com