

MASS DIGITIZATION SYSTEM



Advantages

- Automatic book scanner
- Including semi-automatic & manual mode
- Unique 60° V-shape book cradle
- Up to 2,500 pages per hour
- Patented prism capturing technology



WORLDWIDE ESTABLISHED
IN OVER 50 COUNTRIES

SYSTEM OVERVIEW

ScanRobot® 2.0 MDS

Highly comprehensive & integrated system

- Automatic book scanner
- Single scan technology (for covers, spine, fold outs, ...)
- Control computer workstation with widescreen monitor
- Image treatment & management software ScanGate™
- Self standing unit on wheels for easy relocating
- Highly ergonomic design



Unique hardware features



Patented capturing technology

- * Most advanced scanning device
- * One central capturing unit
- * Equal and constant focus
- * No mechanical shutter

Only one mechanical moving part

- * Robust and simple design
- * Suitable for 24h shift operation
- * Low maintenance

Wooden book cradle

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

ADVANTAGES

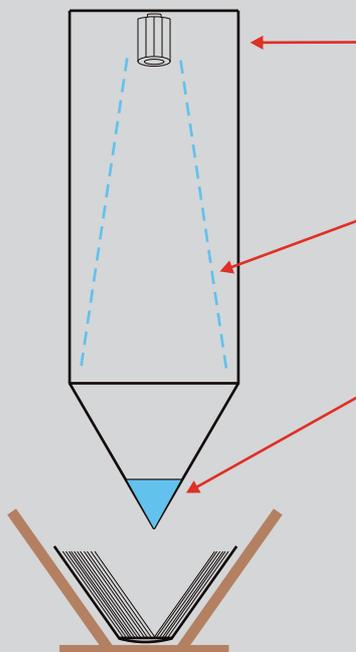
ScanRobot® 2.0 MDS

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 (up to 1,000 pph)
- Manual single scan mode (up to 350 pph)
- No clamps / 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 page illumination
- * No radiation of heat, infrared or UV
- * Long life cycle light

High quality 60° prism

- * Distortion free scanning
- * Smallest book opening angle

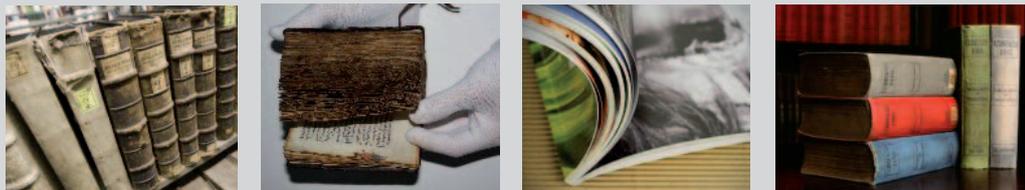


The ScanRobot® can scan every page with the exact, equal and maximum resolution independent of the book size, thickness and the paper quality.

UNIVERSAL, GENTLE & ROBUST

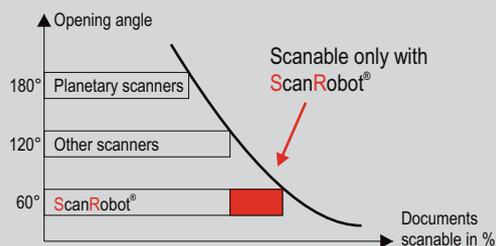
ScanRobot® 2.0 MDS

Universal - suitable for any bound material



Gentle - suitable for books up from the 14th century

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



Robust - low maintenance

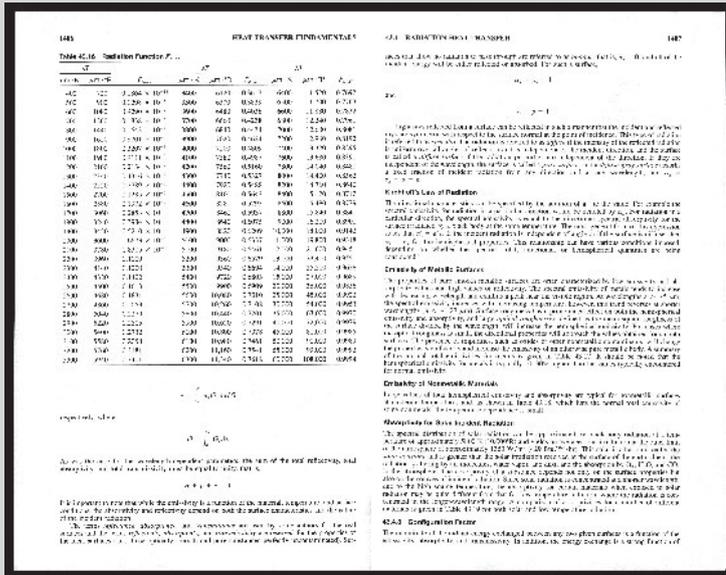
- Suitable for 24h-shift operation
- Only one active moving part
- High quality industrial components
- Worldwide customer proven



IMAGE QUALITY - 1/3

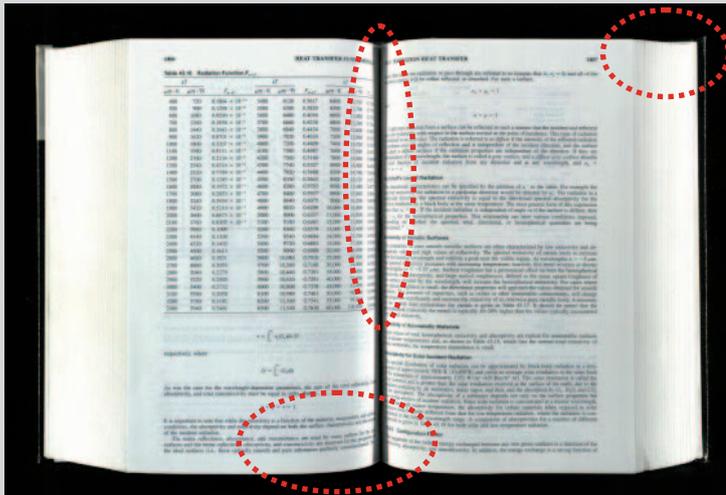
ScanRobot® 2.0 MDS

ScanRobot®



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

Planetary scanner



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

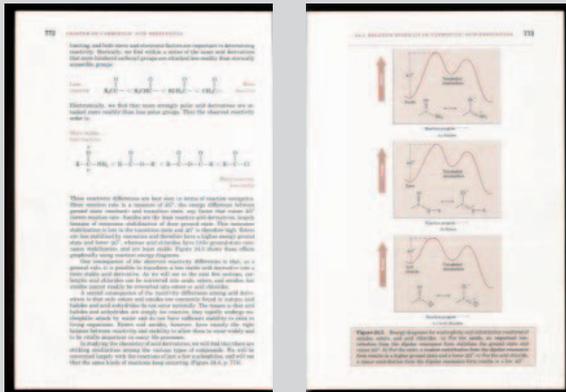
Upcoming challenges

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

IMAGE QUALITY - 2/3

ScanRobot® 2.0 MDS

ScanRobot®



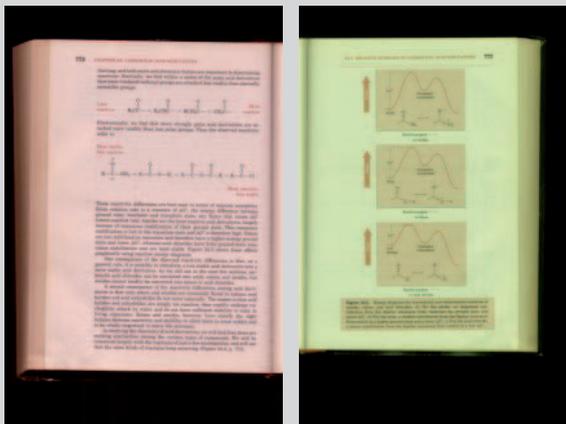
1 capturing unit = 1 scan result

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

Result

- No corrections needed

Camera devices*



2 cameras = 2 scan results

- Different size & resolution
- Different colour
- Different focus & sharpness

Upcoming challenges

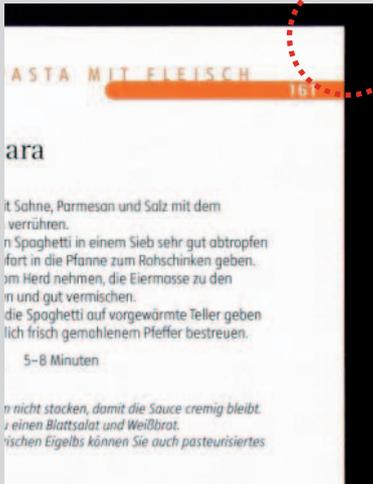
- Resolution correction
- Colour correction
- Focus & sharpness correction

*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 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

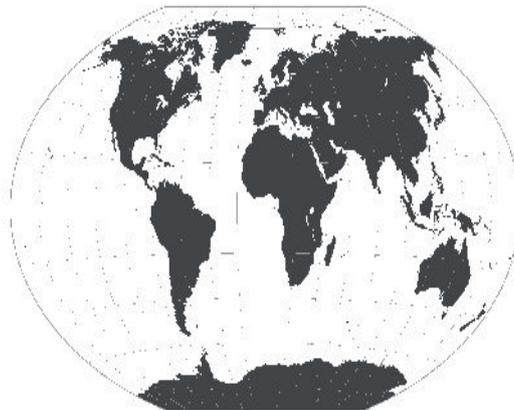
“Treventus Mechatronics GmbH submitted a tender that offers some very clear advantages. [...] The evaluation group’s assessment is that no other supplier can match the tender from Treventus Mechatronics GmbH.”

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

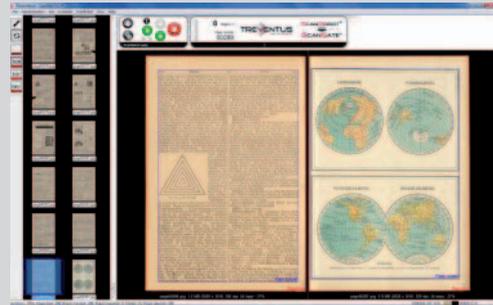
**WORLDWIDE ESTABLISHED
IN OVER 50 COUNTRIES**



Capturing & Processing Software

Advantages

- Interface for different scanner hardware
- Real-time preview for image treatment
- Automated image processing functions
- Meta data interface
- Multi language user interface



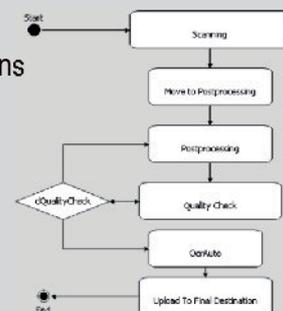
Please find more information about ScanGate™ in the separate product brochure.

INTEGRATED WORKFLOW MODULE

Fully compatible to the ScanFlow™ Professional workflow software environment.

Advantages

- Creating of an individual workflow for fast post processing
- Automatic background processing like image treatment functions
- Included pre-defined „customer proved workflows“
- Automated import of external images
- Automated interaction with the optional OCR-engine
- Increasing the throughput & quality



Please find more information about ScanFlow™ Professional in the separate product brochure.

SPECIFICATIONS & SCOPE OF DELIVERY

ScanRobot® 2.0 MDS

Specifications

- **Speed** up to 2,500 pages/hour* (automatic mode)
up to 1,000 pages/hour* (semi-automatic mode)
- **Page turning** automatic with process monitoring (incl. double sheet control) or semi-automatic and manual
- **Aperture angle** 60 degrees (steplessly adjustable between 60 and 100 degrees)
- **Lightning** user- and book-friendly LED lightning
(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): 5 x 5 cm (1.97 x 1.97 in)
maximum (2 times): 32 x 32 cm (12.6 x 12.6 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/m² to 260 g/m²)
- **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, XML, DjVu
- **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 ScanGate™ - capturing, processing & management software (in many languages)
incl. integrated workflow module

OPTIONAL: various OCR and WORKFLOW software packages

SCANROBOT® 2.0 MDS

MASS DIGITIZATION SYSTEM

World Wide References



Don Juan Archiv Wien, AUSTRIA
Brazilian Institute of Agronomic Research, BRAZIL
University of Prince Edward Island, CANADA
AGN, National Archives of COLOMBIA
NKP, National Library of CZECH REPUBLIC
Bavarian State Library, GERMANY
National University of Educational Planning & Administration, INDIA
Trinity College Library, IRELAND
Meteo Operation Center, JAPAN
Nazarbaev University, KAZAKHSTAN
Ministry of Awqaf and Islamic Affairs, KUWAIT
LNB, National Library of LATVIA
Mongol-Korea Technical College, MONGOLIA
GMS Digitaliseert Service Provider, NETHERLANDS
Nasjonalbiblioteket, National Library of NORWAY
Academy of Science Library, POLAND
Siberian Federal University, RUSSIA
King Fahd Private Library, SAUDIA ARABIA
Slovak National Library, SLOVAKIA
Kungliga biblioteket, National Library of SWEDEN
ETH Library of Zürich, SWITZERLAND
Ukrainian Institute of Industrial Property, UKRAINE
Archive Quest Service Provider, UNITED KINGDOM
The Getty Research Institute, UNITED STATES
Vietnam Institute of Social Sciences Information, VIETNAM

... and many more ...

Alphabetical order by countries.

PRODUCT FAMILY

SCANROBOT® 2.0 MDS
MASS DIGITIZATION SYSTEM

Automatic scanning
fast and gentle up to 2.500 pages / hour

Semi-automatic scanning
for most gentle scanning of fragile books

Manual scanning
covers, spine, fold outs...



UNIQUE PATENTED PRISM TECHNOLOGY

TREVENTUS

SCANGATE™
Capturing, Processing & Management Software

Advantages

- Easy and intuitive
- Web user interface
- Applicable for different scanner hardware
- Real time preview for fast quality control
- Comprehensive processing functions



... with integrated workflow module

TREVENTUS

SCANFLOW™ Professional
Workflow & Management Software



Advantages

- Increasing the throughput & robot quality
- Efficient organization of staff, scanning features, data and books
- Minimization of human interaction and errors
- Fast quality control functions

... let the software work

TREVENTUS

NAINUWA™
DIGITAL LIBRARY SYSTEM

Advantages

- Innovative image displaying
- Intuitive search and sort functions
- Fast and efficient image loading
- Staples zooming



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TREVENTUS

CONSULTING SERVICE
support at any stage

TREVENTUS, your...

- One stop shop for your digitization project
- Right team solution search for your needs
- Right team solution exact for your needs
- Experienced and professional project management
- State of the art technology

BUILD YOUR DIGITAL LIBRARY!

Digital Library System	
Analysis	Storage
OCR	Documentation
Quality check	Processing
Backup	Scanner hardware
Workflow management	
Book logistic	Scanning
Plant	Organization

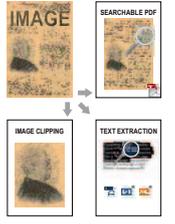
... ask us for advice

TREVENTUS

TREVENTUS OCR SOLUTIONS
Software for automated text recognition

Advantages

- Highly accurate - no operator interaction needed
- Direct integration into digitization workflow
- Various OCR packages for individual project sizes and requirements
- Extensive customer forum web support



TREVENTUS



Awards

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

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