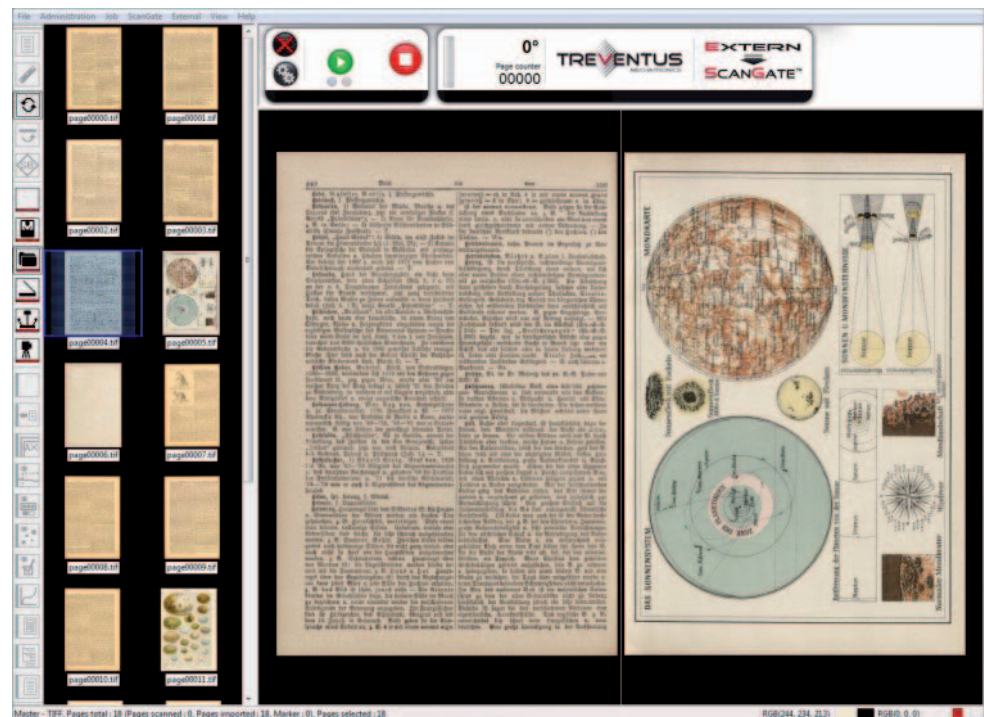


# SCANGATE™

*Capturing, Processing & Management Software*

## Advantages

- Easy and intuitive
- Meta data interface
- Applicable for different scanner hardware
- Real-time preview for fast quality control
- Comprehensive image processing functions



... with integrated workflow module

# BENEFITS

---

## ScanGate™

... the most powerful software **to accelerate** your mass digitization projects.

- Easy integration in existing digitization environments
- Applicable for different scanner hardware
- Meta data editor
- OCR interface
- Available in different languages

## Efficient & Economic / High productivity

... especially developed for **mass digitization**.

- Fully automatic and fast image processing functions
- Real-time preview
- Reprint functions
- Efficient and simple job administration



## Integrated workflow module

... **to automate** local image processing, user and system tasks exact to your needs.

- Create your own individual workflows
- Automated batch processing & image treatment
- Comprehensive image import functions
- Fully compatible with the **ScanFlow™ Professional\*** software environment

\* for more information visit [www.treventus.com](http://www.treventus.com)

# BENEFITS

## ScanGate™ user interface

Scanning interfaces  
(optional)

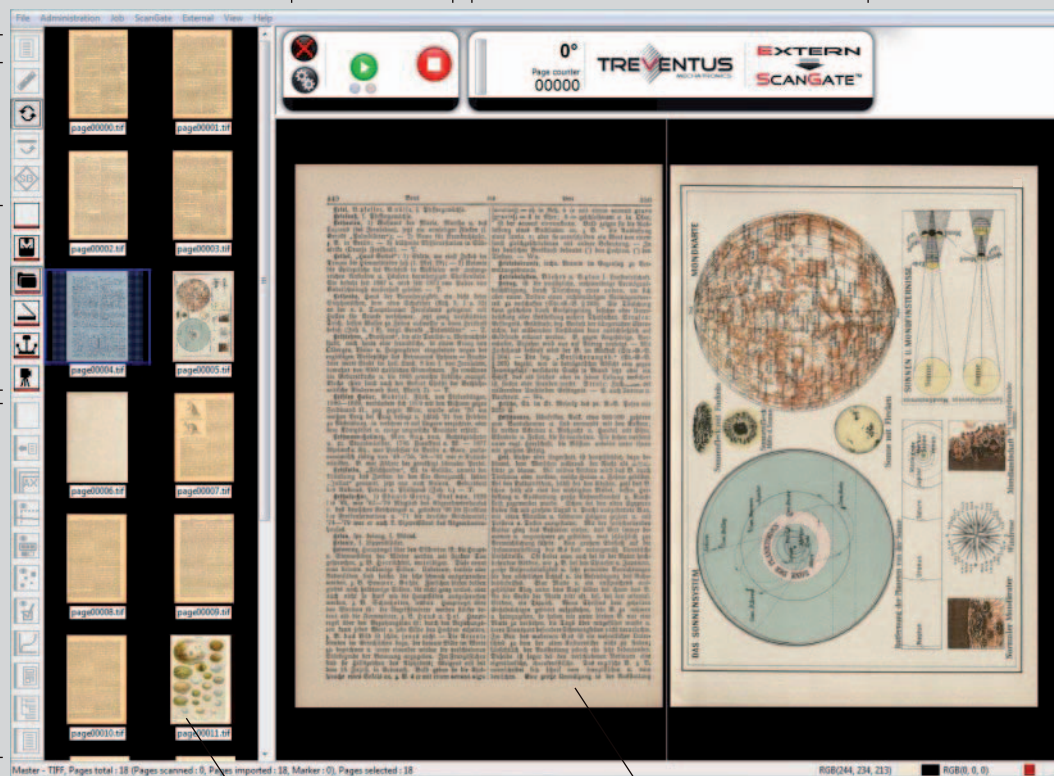


- ScanRobot®
- Hotfolder interface
- TWAIN-interface
- Bookkey scanners
- Canon-digicams

Meta data panel

Control panel

Process state



Process panels

Thumbnails

Main window

# I. META DATA HANDLING

## Bibliographic meta data

| Bibliographic metadata |                                                      |
|------------------------|------------------------------------------------------|
| DUBLIN CORE            |                                                      |
| TITLE                  | ScanRobot Manual                                     |
| CREATOR                | Christoph Bacher                                     |
| SUBJECT                | About an automatic book scanner                      |
| DESCRIPTION            | Explains the function and hardware of the ScanRobot. |
| PUBLISHER              | TreVentus Mechatronics                               |
| CONTRIBUTOR            |                                                      |
| DATE                   | 2012.05.01                                           |
| TYPE                   | Paperback                                            |
| ...                    | Your variable                                        |

- Dublin core
- Unlimited input fields
- All fields customizable

|      |               |
|------|---------------|
| DATE | 2012.05.01    |
| TYPE | Paperback     |
| ...  | Your variable |

## Workflow control - meta data

| Workflow Control       |                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------|
| PROJECT NAME           | Project2                                                                                        |
| ORDER NAME             | Order 123                                                                                       |
| JOB ID                 | JOB_012345                                                                                      |
| BOOK ID                | ISBN1234567890                                                                                  |
| COLOR DEPTH CONVERSION | Original                                                                                        |
| OUTPUT IMAGE FORMATS   | <input type="radio"/> Jpeg<br><input checked="" type="radio"/> Tif<br><input type="radio"/> Png |
| OCR                    | <input checked="" type="checkbox"/> OCR                                                         |
| OCR LANGUAGES          | Deutsch<br>Englisch<br>Griechisch<br>Hindi<br>Spanisch                                          |

- Project metadata
- Several Id's
- Colour depth conversion
- Image output formats
- OCR settings

|              |                |
|--------------|----------------|
| PROJECT NAME | Project2       |
| ORDER NAME   | Order 123      |
| JOB ID       | JOB_012345     |
| BOOK ID      | ISBN1234567890 |

## Document delivery - meta data

| Document delivery                      |                                                                                     |
|----------------------------------------|-------------------------------------------------------------------------------------|
| JOB_012345                             |  |
| BOOK ID                                |                                                                                     |
| CUSTOMER ID                            | ID012345                                                                            |
| CUSTOMER NAME                          | Hans Meier                                                                          |
| CUSTOMER EMAIL                         | Hans.Meier@blabla.com                                                               |
| FTP SERVER UPLOAD                      | <input checked="" type="checkbox"/> FTP Server Upload                               |
| FTP SERVER                             | Rp.treventus.com                                                                    |
| CUSTOMER EMAIL NOTIFICATION            | <input checked="" type="checkbox"/> Customer email notification                     |
| REMOVE DOCUMENTS FROM FTP SERVER AFTER | 2 weeks                                                                             |

- Individual barcode support
- Customer information
- Server upload support
- Automatic backup strategy
- Input fields customizable

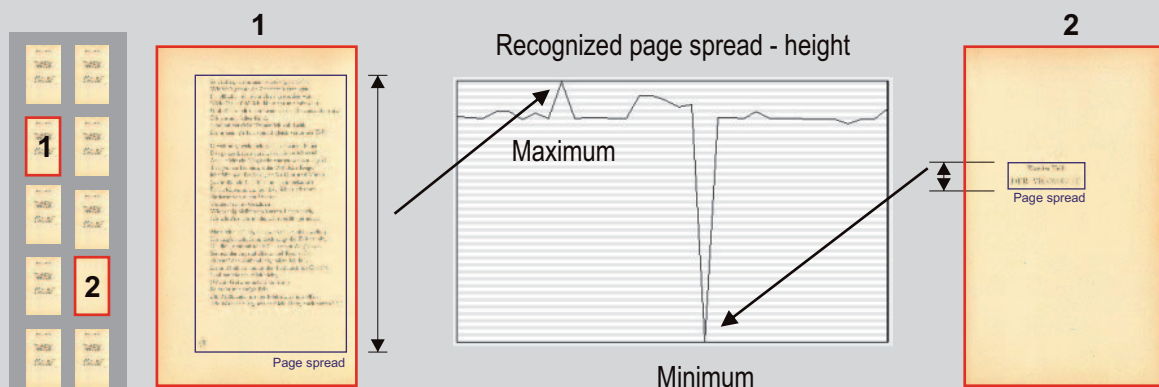
| Document delivery |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| JOB_012345        |  |
| BOOK ID           |                                                                                       |
| CUSTOMER ID       | ID012345                                                                              |

## II. RECOGNITION FUNCTIONS

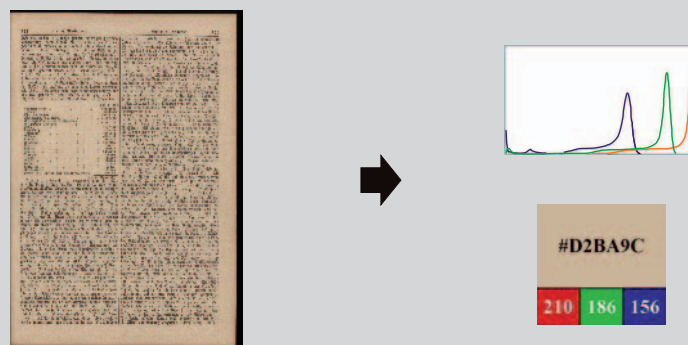
### Automatic border recognition



### Border evaluation - e.g. page spread etc.



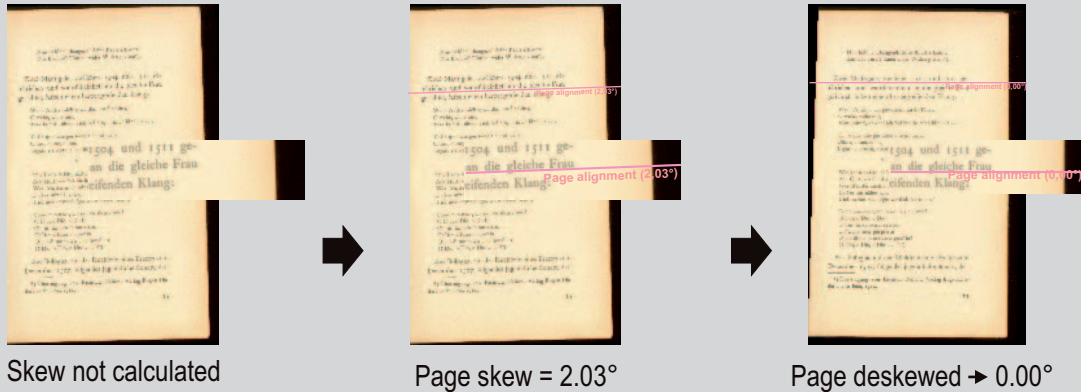
### Automatic background color recognition



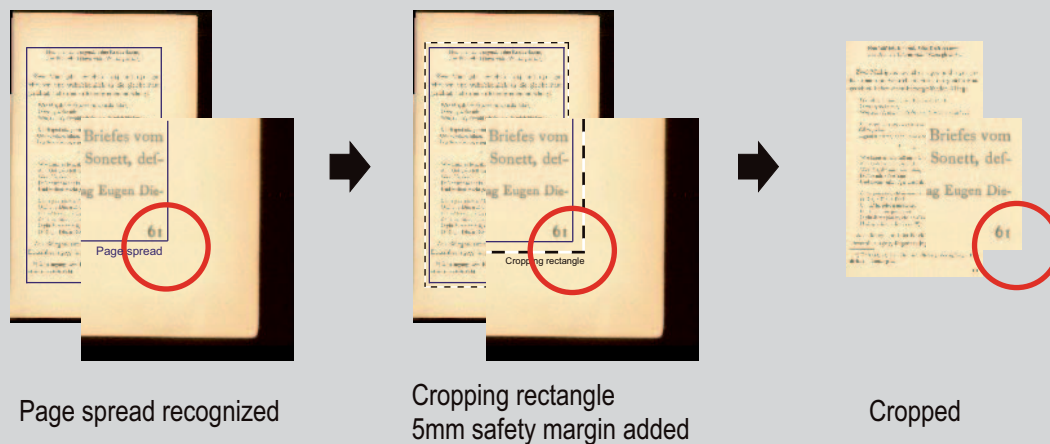


### III. IMAGE SHAPE FUNCTIONS

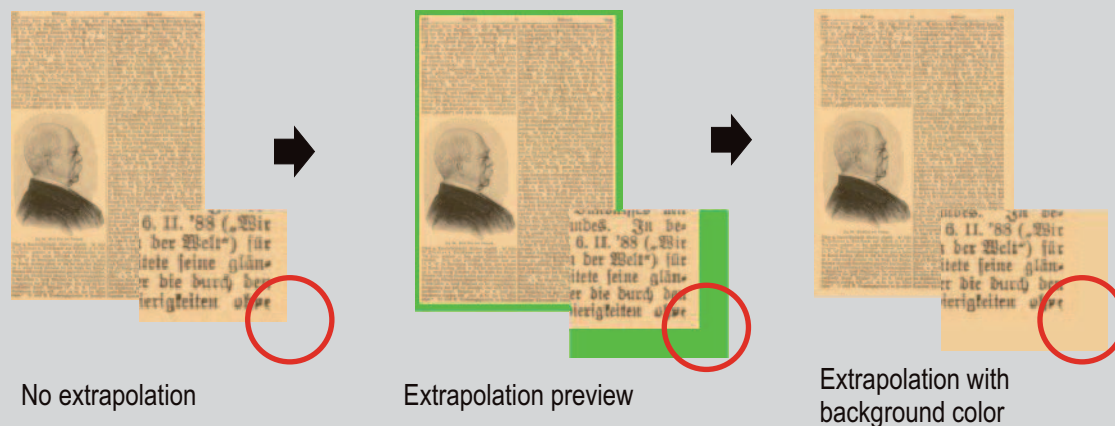
#### Deskewing



#### Cropping

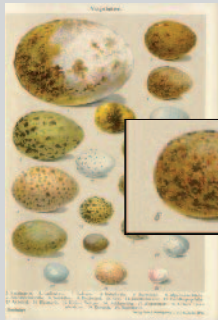


#### Extrapolation

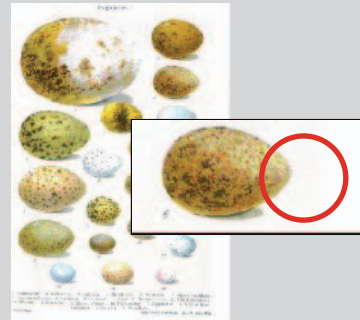


## IV. IMAGE OPTIMIZATION FUNCTIONS

### Automatic background removing

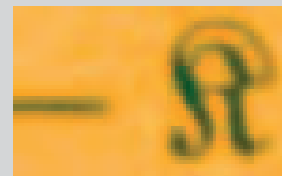


Original



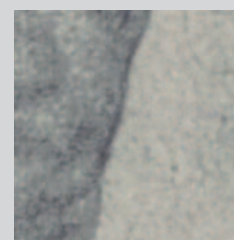
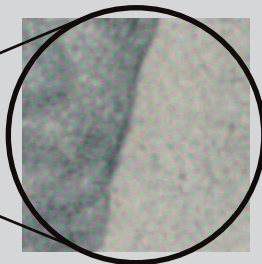
- Image is unchanged
- only background is removed

### Automatic achromatism reducing



Achromatism is removed

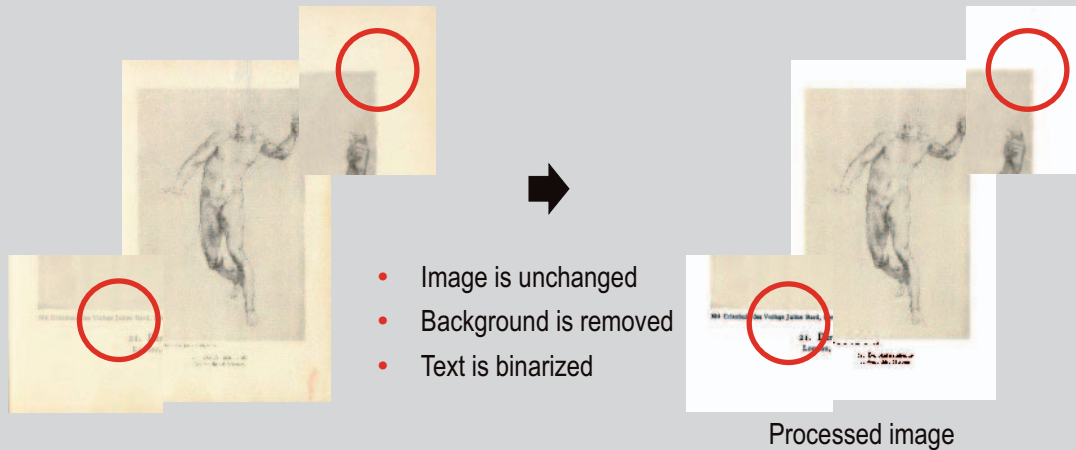
### Automatic Moiré effect removing



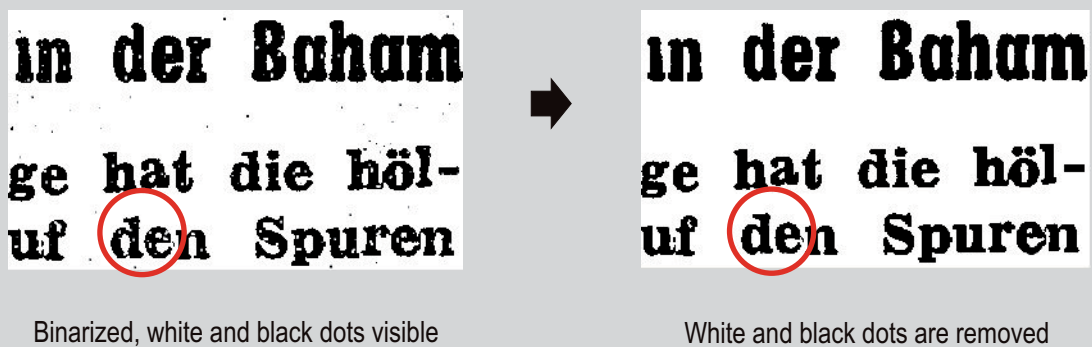
Moiré effect is removed

## V. REPRINT FUNCTIONS

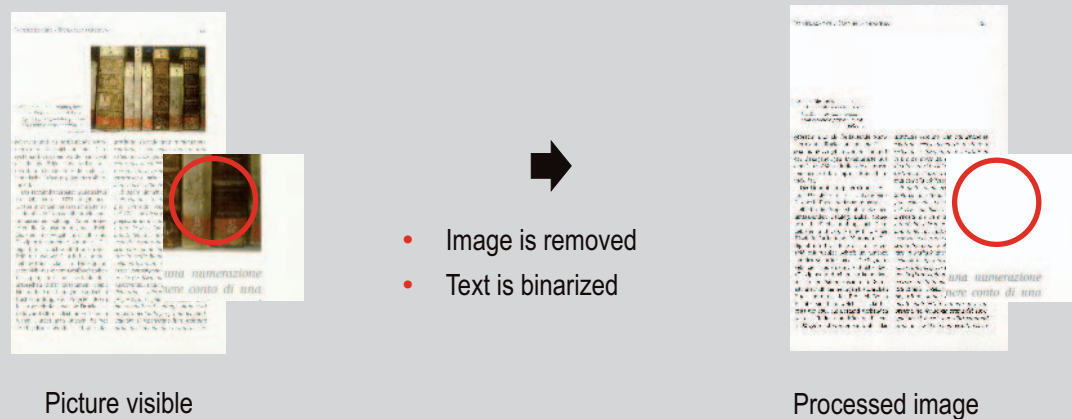
### Area protection



### Automatic despeckling



### Area removing (Copyright issue)





# VI. IMAGE OVERLAY FUNCTIONS

## Adding ruler



Ruler added

## Adding watermark

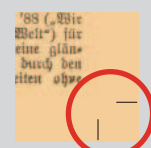
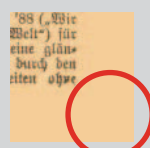
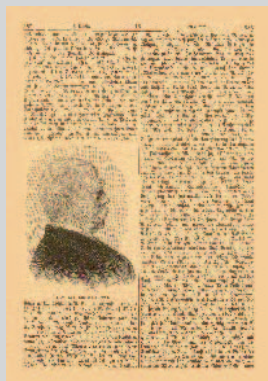


+



Watermark added

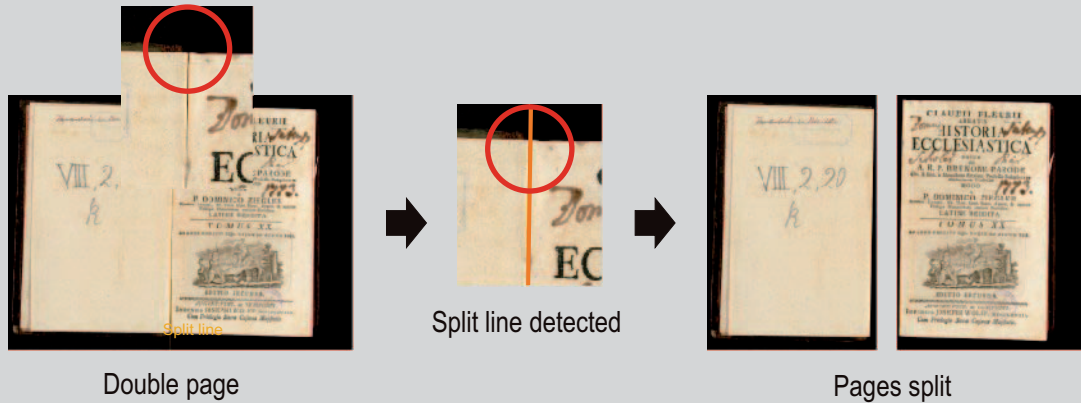
## Adding trim mark



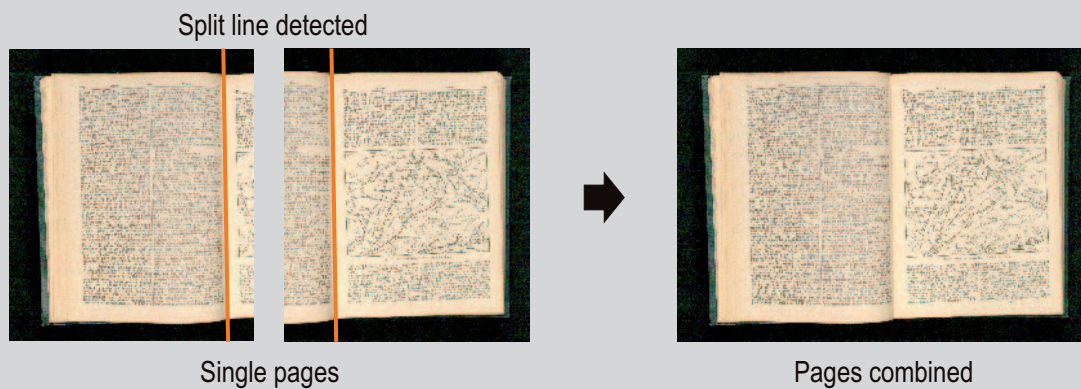
Trim marks added

## VII. PLANETARY SCANNER FUNCTIONS

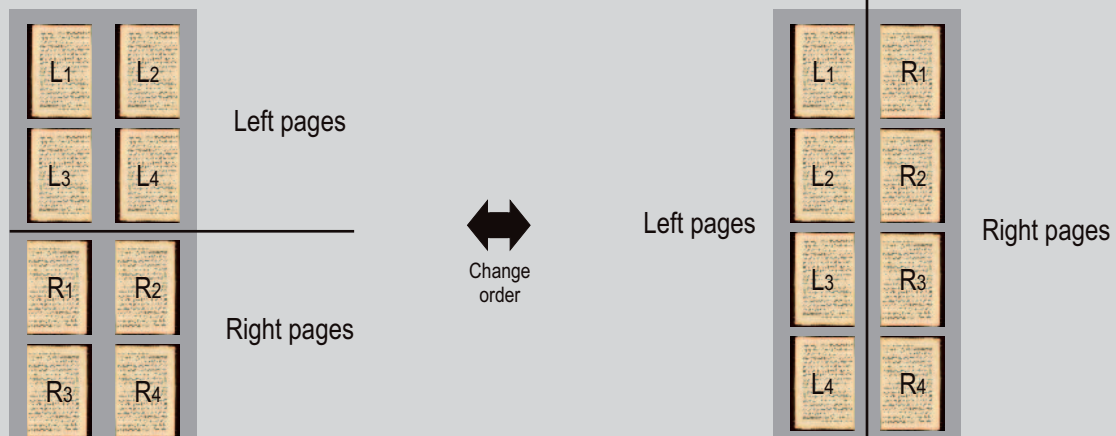
### Automatic split line detection and page splitting



### Page combining

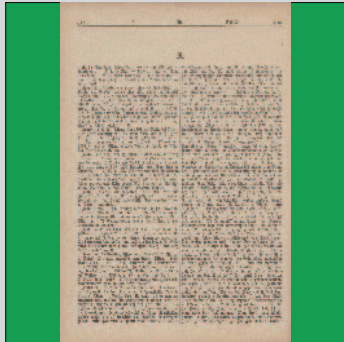


### Interlink & re-interlink pages ...for scanners that scan only single pages



# VIII. GENERAL FUNCTIONS

## Image scaling



Scaled to predefined height

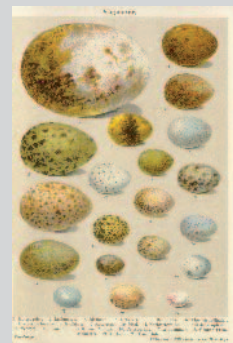


Scaled to predefined width

## Color management - ICC profile handling

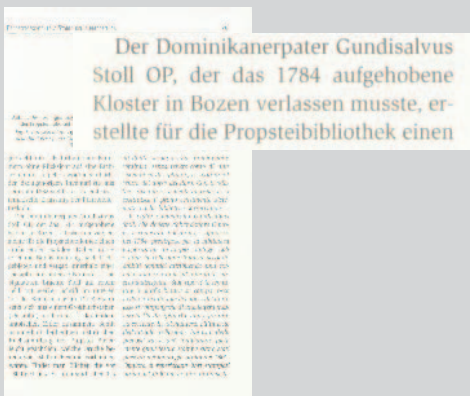


No ICC profile



ICC profile embedded

## OCR\* - searchable pdf



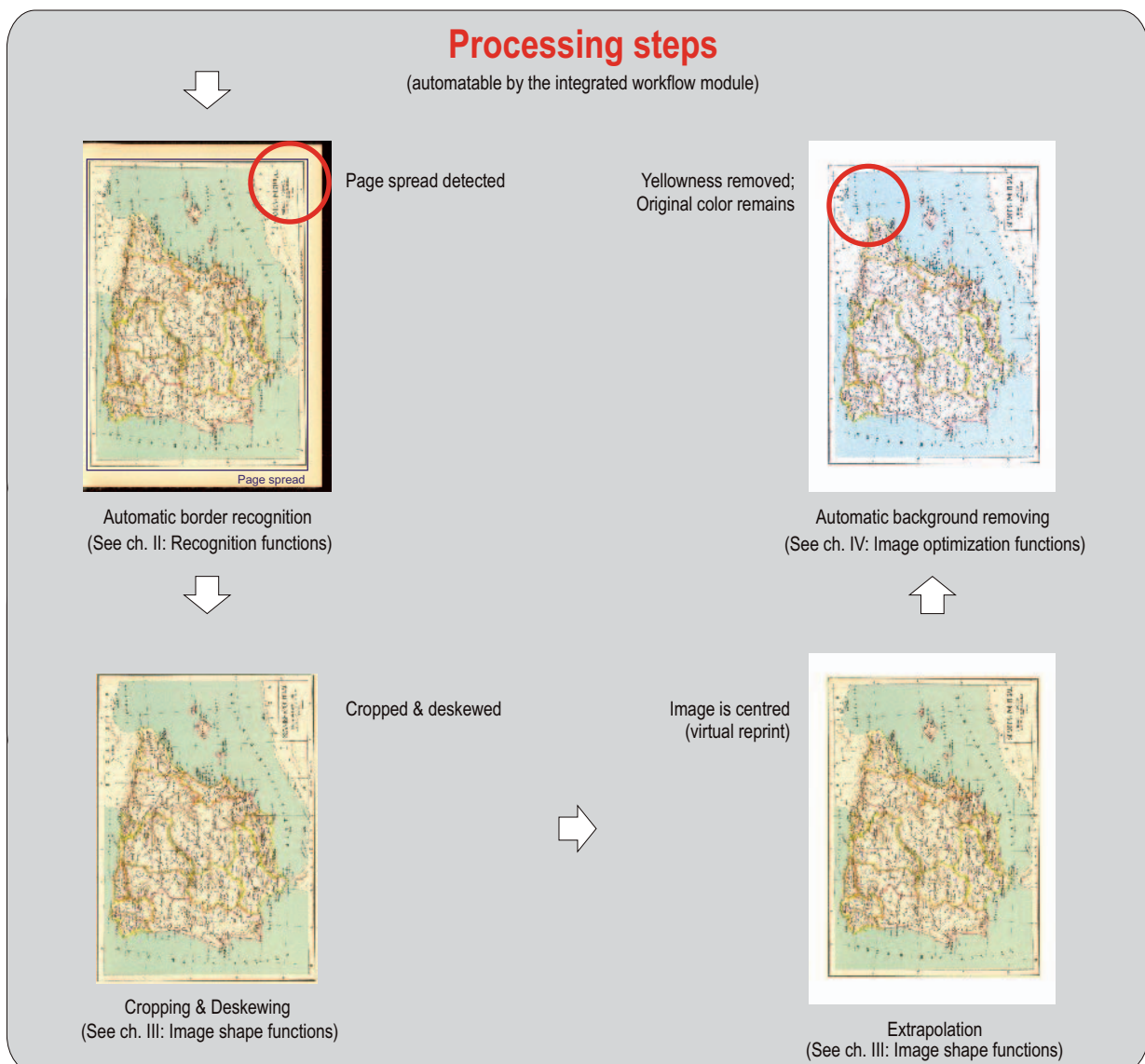
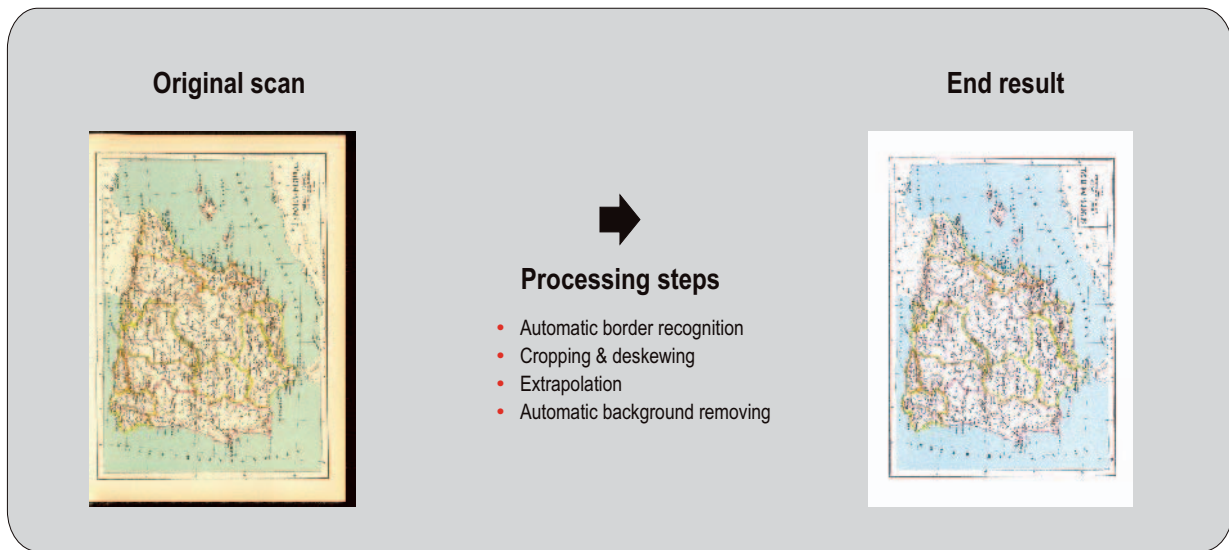
\*Optical Character Recognition (optional third party product)

Searchable text



# IMAGE PROCESSING EXAMPLE 1

Used hardware: ScanRobot®



# IMAGE PROCESSING EXAMPLE 2

Used hardware: planetary scanner

Original scan



End result



## Processing steps

- Page splitting
- Automatic border recognition
- Cropping & deskewing
- Automatic background removing

## Processing steps

(automatable by the integrated workflow module)



Pages split



Page splitting  
(See ch. VII: Planetary scanner functions)

Dark area removed



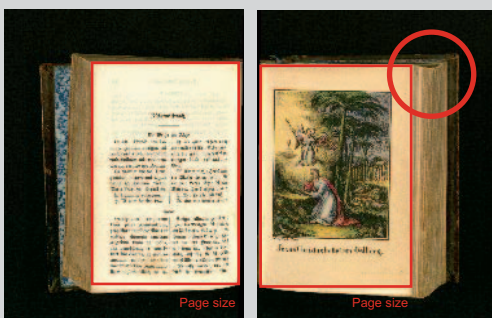
Yellowness removed  
Original color remains



Automatic background removing  
(See ch. IV: Image optimization functions)



Page spread detected  
Book block excluded



Automatic border recognition  
(See ch. II: Recognition functions)

Cropped & deskewed



Cropping & deskewing  
(See ch. III: Image shape functions)



# SPECIFICATIONS

## I. Meta data handling

- Bibliographic meta data\*
- Work flow meta data\*
- Meta data for document delivery\*

*\*customizable*

## II. Recognition functions

- Automatic border recognition
- Border evaluation (e.g. Page size, page spread, page alignment, distances,...)
- Automatic background color recognition

## III. Image shape functions

- Deskewing
- Cropping
- Extrapolation

## IV. Image optimization functions

- Automatic background removing
- Automatic achromatism reducing
- Automatic Moiré effect removing

## V. Reprint functions

- Area protection
- Automatic despeckling
- Area removing

## VI. Image overlay functions

- Adding rule
- Adding watermark
- Adding trim mark

## VII. Planetary scanner functions

- Automatic split line detection
- Page splitting
- Page combining
- Interlink & re-interlink pages

## VIII. General functions

- Image scaling
- Color management - ICC profiles
- OCR interface (optional)

## IX. Standard image functions

- Format conversion
- Resizing
- Binarization
- Brightness / contrast adaption
- Unsharp masking
- Page rotation / flipping

## X. Structure functions

- One dimensional structuring of the pages (groups)
- Group naming

## XI. Optionals

- Scanner interfaces
- ScanFlow™ PROFESSIONAL

## XII. Copy & uploading functions

- Image copying / uploading
- Copying / uploading of pdf/a<sup>2</sup>, DjVu, pdf (incl. OCR layer)<sup>2</sup>, XML, doc<sup>2</sup>, rtf<sup>2</sup>, csv<sup>2</sup>, plain text files<sup>2</sup>
- Meta data copying / uploading

## XIII. Storage formats<sup>1</sup>

- jpg, jpg2000, tiff, tiff G4, png, gif, bmp,
- pdf/a<sup>2</sup>, DjVu, pdf (incl. OCR layer)<sup>2</sup>, XML, doc<sup>2</sup>, rtf<sup>2</sup>, csv<sup>2</sup>, plain text<sup>2</sup>

<sup>1</sup> All formats can be stored simultaneously.

<sup>2</sup> In combination with the OCR software (third party product).

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## World Wide References



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*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...



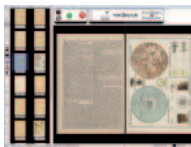
UNIQUE PATENTED PRISM TECHNOLOGY

**TREVENTUS**

**SCANGATE™**  
Capturing, Processing & Management Software

**Advantages**

- Easy and intuitive
- Web-based 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 & output quality
- Efficient organization of staff, scanning hardware, data and books
- Minimization of human interaction and errors
- Fast quality control functions

... let the software work

**TREVENTUS**

**NAINUWA™**  
*open your Mind*

**Dynamic Digital Collection Viewer**

**Advantages**

- Innovative image clustering
- Intuitive search and sort functions
- Fast and efficient image loading
- Adaptive zooming
- Ergonomic view setting
- Browser based application



WWW.NAINUWA.COM  
please contact us for a Test Login  
info@nainuwa.com

**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 search for your needs
- Experienced and collaborative partner network
- State of the art technology

**BUILD YOUR DIGITAL LIBRARY!**

|                        |                  |
|------------------------|------------------|
| Digital Library System | Storage          |
| OCR                    | Documentation    |
| Quality check          | Processing       |
| Backup                 | Scanner hardware |
| Workflow management    |                  |
| Book logistic          | Scanning         |
| Plan                   | Organize         |

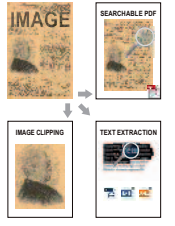
... ask us for advice

**TREVENTUS**

**TREVENTUS OCR SOLUTIONS**  
Software for automated text recognition

**Advantages**

- Highly automated - no operator interaction needed
- Direct integration into digitization workflow
- Various OCR packages for individual project sizes and requirements
- Entire solution from one supplier



**TREVENTUS**



## Awards for TREVENTUS

Winner of the European ICT Grand Prize

Innovation prize of the Theodor Kery foundation

1<sup>st</sup> place in Genius Innovation Award

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Fax: +43 1 890 35 10-15

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