SCANFLOW™
stay on Track

SCANNING

QUALITY CONTROL

AUTOMATION

OCR

IMAGE TREATMENT

THE MOST EFFICIENT SOLUTION
FOR YOUR MASS DIGITIZATION

TREVENTUS
MECHATRONICS

What is ScanFlow™ Professional?

ScanFlow™ Professional...

... is an efficient and easy to use workflow & management software. It increases the throughput and output quality of your mass digitization projects.

Manage your staff

Supervisors	Operators

What shall be done by whom?

Organize different hardware

Scanner hardware

Which hardware shall be used?

ScanFlow™

Staff

Hardware

Books

Data & Tasks

Plan the book & document logistic

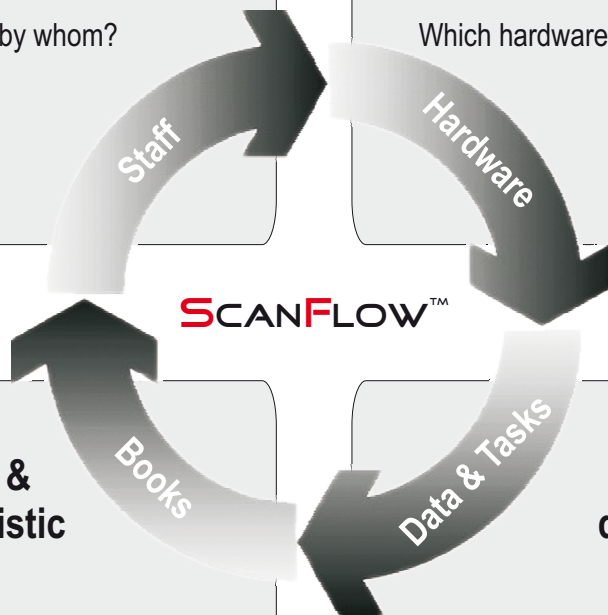| Sheets	Books	Documents	Index cards	Maps

Which workflow fits to the requirement of the documents?

Automatize data flow & tasks

Job creation	Job data transfer	Format conversion
Scanning	Quality check	Server
Set parameter	Processing	Archiving

Which task shall be processed next?

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ScanFlow™ Professional - What is the BENEFIT?

Output quality

Quality

ScanFlow™

Other solutions

Throughput
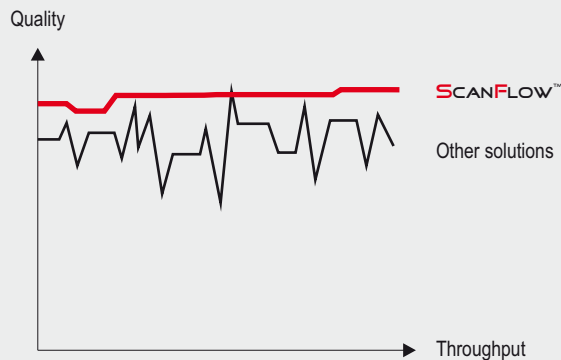
QUALITY

ScanFlow™ ensures a constant & high output quality

Working efficiency

Start of digitization prozess

End result
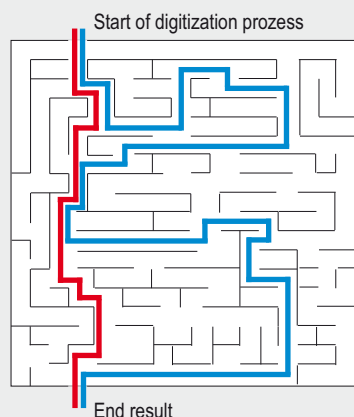
Throughput time

ScanFlow™

Other solutions
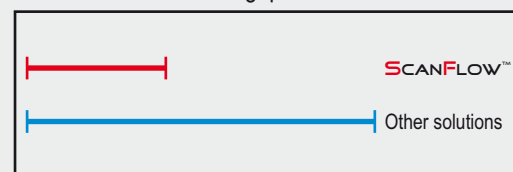
ScanFlow™ increases the throughput

Structure efficiency

Job creation

Scanning

Scanning

Quality check

Job data transfer

Processing

Archiving

Quality check

Set parameter

Archiving

Processing

Loss of efficiency

ScanFlow™

Job creation

Quality check

Scanning

Scanning

Job data transfer

Job data transfer

Set parameter

Set parameter

Processing

Processing

Archiving

Archiving
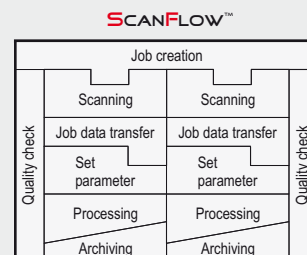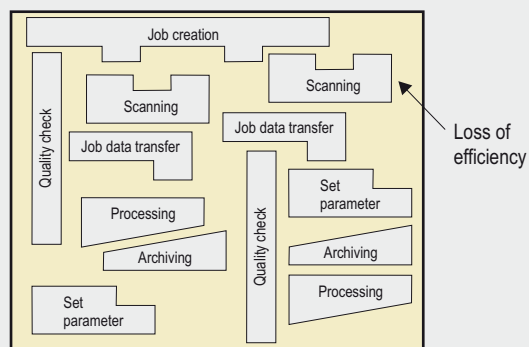
Quality check

ADVANTAGES

- No loss of efficiency
- All tasks fit perfectly

ScanFlow™ leads to a clear structure

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What does ScanFlow™ ?

Struggling without workflow software...
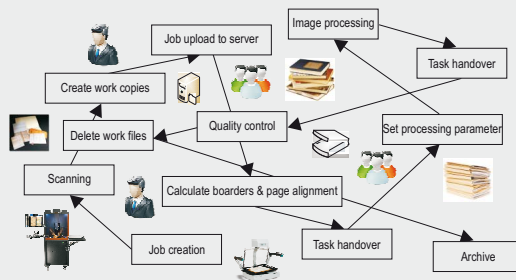
☹ **DISADVANTAGES**

- ☹ Manual documentation
- ☹ Manual copying & working
- ☹ Manual quality check
- ☹ High communication overhead
- ☹ Handling errors
- ☹ No project overview

WHO is doing WHAT and WHEN?
... get organized ...
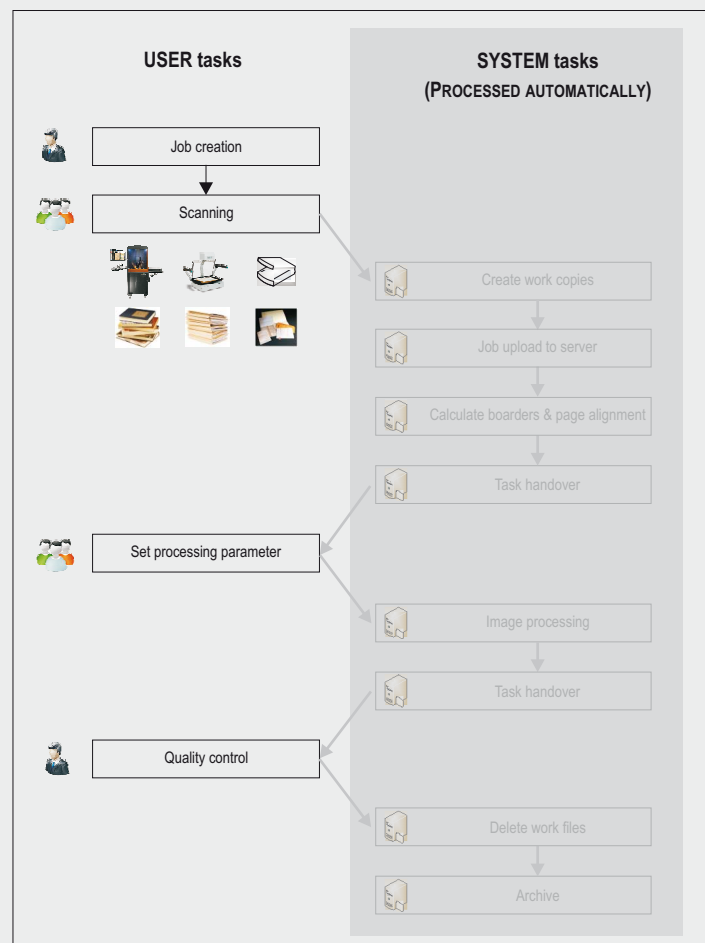
Structured working with ScanFlow™ Professional

☺ **ADVANTAGES**

- ☺ Automatic processing of system tasks
- ☺ Automatic documentation
- ☺ Job tracking (WHICH job is WHERE?)
- ☺ Automatic copying
- ☺ Quality check support

SCANFLOW™
...brings order into chaos...

USER tasks

- Job creation
- Scanning

- Set processing parameter

- Quality control

SYSTEM tasks
(PROCESSED AUTOMATICALLY)

- Create work copies
- Job upload to server
- Calculate boarders & page alignment
- Task handover
- Image processing
- Task handover
- Delete work files
- Archive

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Workflow example

Environment / Data flow diagram
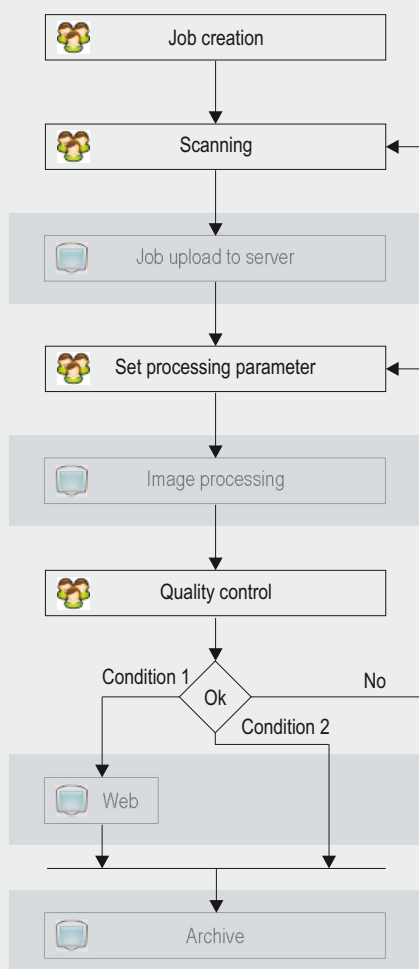
	Scanner stations	Data server	Processing stations
Documents			

ScanFlow™ Professional

Final storage

Flow chart	Executors	Tasks
Job creation	Supervisor	Insert meta data Inspect book Assign scanner Assign workflow Assign operator
Scanning		Scan book pages Scan book cover Scan book spine Scan fold outs / maps
Job upload to server	AUTOMATIC BY ScanFlow™	Upload job to the server
Set processing parameter	Operator	Check scan quality Check book structure Set cropping rectangle Check and set page alignment Set image pixel functions Check setting in preview
Image processing	AUTOMATIC BY ScanFlow™	Create image work copy Deskew images Crop images Process image pixel functions
Quality control	Supervisor	Check cropping and alignment Check image processing Mark incorrect pages for re-processing

Condition 1 — Ok — No
Condition 2

| Web | AUTOMATIC BY ScanFlow™ | Upload images to web server |
| Archive | AUTOMATIC BY ScanFlow™ | Store processing parameters
Store original TIFFs
Delete work copies |

User task = manual tasks
System tasks = tasks that are done automatically

... let the software work

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ScanFlow™ - Global functions

Parameter controlled processing

Original
(Master TIFF)

+

Processing parameter

- Cropping rectangle
- Deskew line
- Extrapolation

Work Copy
(Copy TIFF)
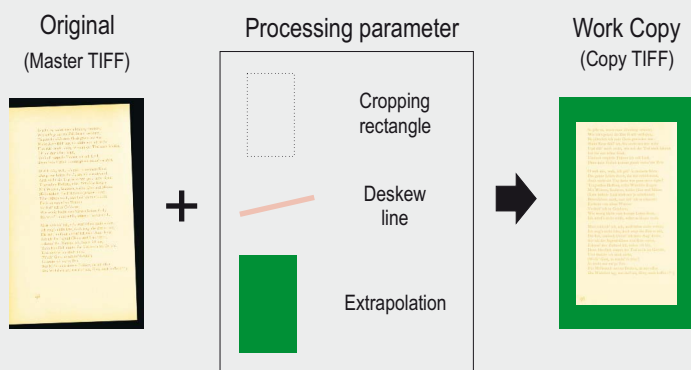
ADVANTAGES

- Easy setting of processing parameters
- Processing parameter can be set
  - a) globally for a whole job and
  - b) individually for single pages
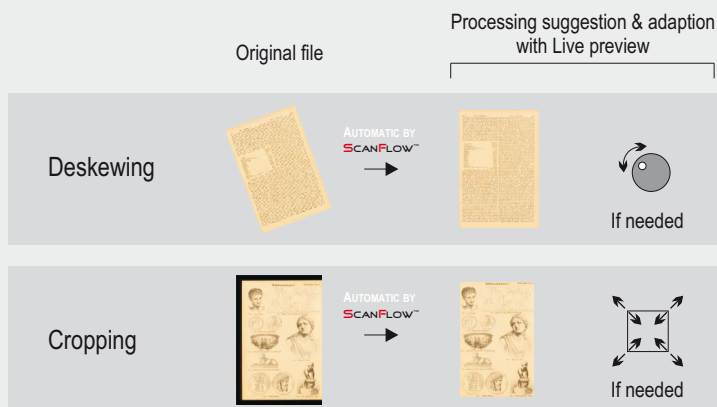- Master files remain unchanged

Undo function (e.g. Deskewing)

Adapt settings

Deskewing

Quality Check

✗ Deskewing error

✓ Next task
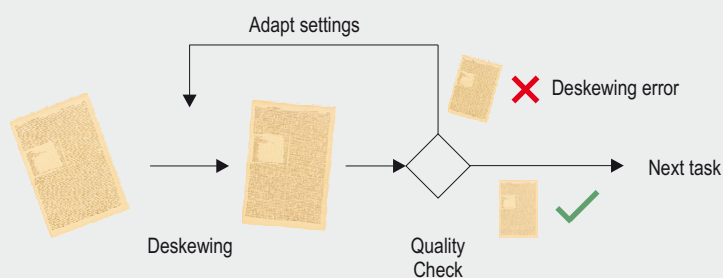
ADVANTAGES

- Go back to any previous task
- Easy correction of settings:
  - a) Correct settings stay unchanged
  - b) Wrong settings can be adapted

Processing suggestion & Live preview

Original file

Processing suggestion & adaption with Live preview

Deskewing

AUTOMATIC BY ScanFlow™ →

If needed

Cropping

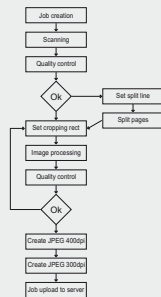AUTOMATIC BY ScanFlow™ →

If needed

ADVANTAGES

- Automatic processing suggestions
- Displayed in Live preview
- Exact adjustment easily possible with Live preview
- Available for all processing functions
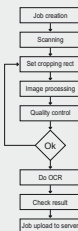 (e.g. Deskewing, Cropping, Extrapolation, Brightness & Contrast adaption,...)

TREVENTUS MECHATRONICS

ScanFlow™ - Global functions

Multiple workflows

Workflow 1

```
Job creation
Scanning
Quality control
Ok ──── Set split line
      └─ Split pages
Set cropping rect
Image processing
Quality control
Ok
Create JPEG 400dpi
Create JPEG 300dpi
Job upload to server
```

Workflow 2

```
Job creation
Scanning
Set cropping rect
Image processing
Quality control
Ok
Do OCR
Check result
Job upload to server
```

Workflow 3

```
Image import
Scanning
Set cropping rect
Image processing
Quality control
Ok
Create JPEG    Create PDF
Job upload to server
```

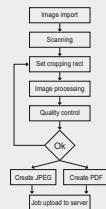**ADVANTAGES**

- Create and customize multiple workflows
- Use different workflows simultaneously
- Different projects can be processed with the same staff and hardware simultaneously
- Change workflow settings anytime when needed

Multiple outputs

Final result

TIFF, color, 400 dpi

JPEG, greyscale, 400 dpi

PNG, b/w, 300 dpi

. . .

Images

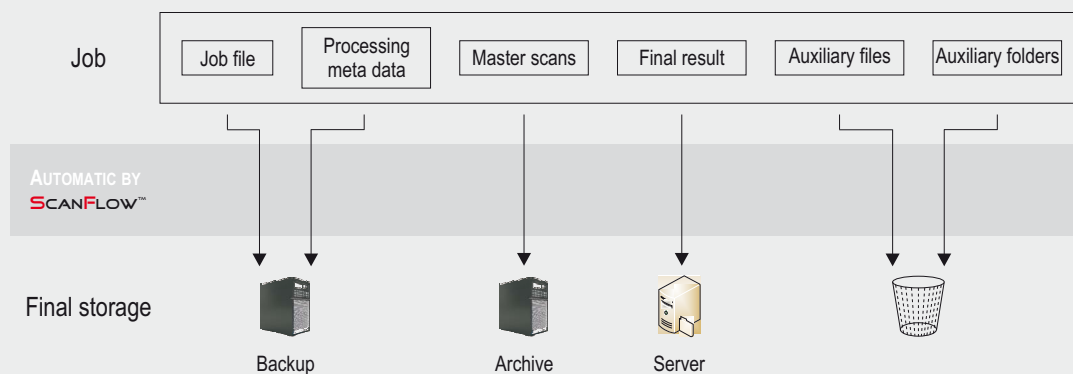PDF

OCR*

XML*

Epub*

. . .

Documents

* In combination with OCR

ADVANTAGES

- ScanFlow™ creates multiple file formats
- File formats can be created automatically and simultaneously

Job finalization

All finalization tasks (e.g. Transfer to storage, delete auxiliary files) are done by ScanFlow™ automatically.

Job | Job file | Processing meta data | Master scans | Final result | Auxiliary files | Auxiliary folders

AUTOMATIC BY
SCANFLOW™

Final storage

Backup   Archive   Server

ScanFlow™ - Analysis, Reporting & Tracking

Analysis, Reporting & Tracking tools

ADVANTAGES

- Different process overviews
- Easy project progress analysis
- Fast identification of bottlenecks within scanning projects
- Track & log the status quo of each job (e.g. in which workflow stage is each job, etc.)

PROCESSING TIME

- scanning time
- image processing
- Quality Control
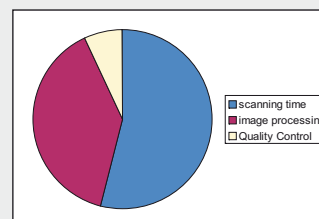
TRACK & LOG

Job name	pages	Scanning (time) start	stop	Image processing time (minutes)	job finished
11	568	09:53	10:16	15	21.11.2012
12	682	10:18	10:49	18	21.11.2012
15	610	14:34	14:53	11	21.11.2012
17	872	11:37	12:02	13	21.11.2012
18	594	08:58	09:17	10	21.11.2012

ScanFlow™ - Quality control tools

Task completeness check

ScanFlow™ reports automatically if every task has been executed and generates status reports of all embedded workflow tasks.

Quality control recommendation

ScanFlow™ provides recommendations for:
- Which pages might have lower quality?
- Which pages require an additional quality control?

Quality check

ScanFlow™ supports fast quality checking:
- Pages can be easily marked
- Explanatory notes can be easily added

FAST QUALITY CHECK

* Faulty pages are marked red.

ScanFlow™ - further functions & tools

Resource organization tools

Inter-task message tool
ScanFlow™ enables users to pass notes within the software by using inter-task messages.

Remote monitoring tool
ScanFlow™ includes a monitoring tool for all processes by remote access via web interface.

Scheduling function
ScanFlow™ allows to schedule all tasks to guarantee an optimal resource management
(e.g. time consuming and computationally intensive tasks can be processed over night).

Task automation functions

Automatic execution of external scripts
ScanFlow™ allows to execute external scripts automatically
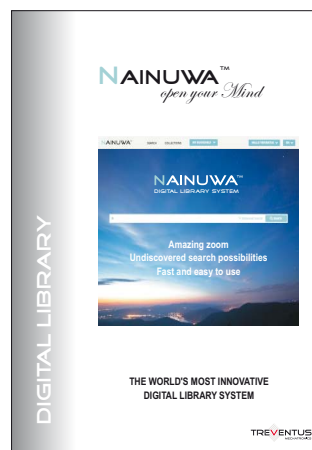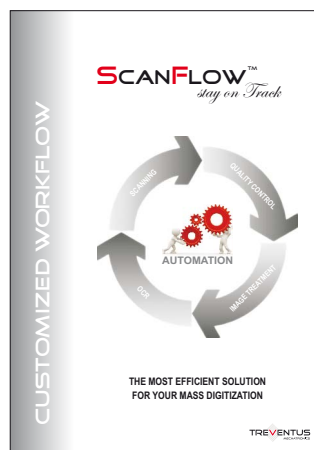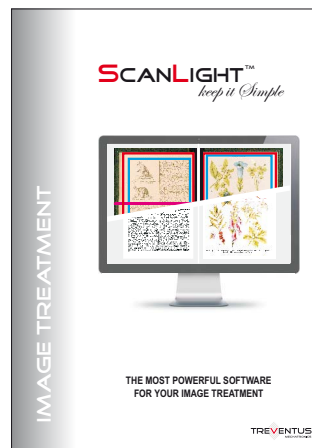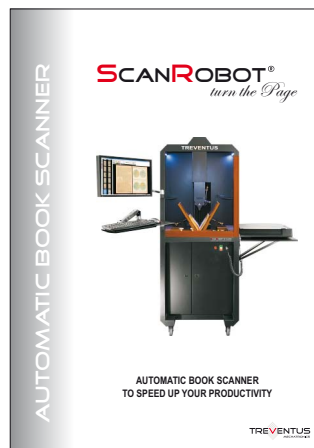by using a CLI (Command Line Interface).

Automatic import functions
ScanFlow™ supports automatic import functions.

Automation of FTP-uploads
ScanFlow™ enables the automation of FTP-uploads.

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MECHATRONICS

PRODUCT FAMILY

AUTOMATIC BOOK SCANNER

SCANROBOT®
turn the Page

AUTOMATIC BOOK SCANNER
TO SPEED UP YOUR PRODUCTIVITY

TREVENTUS

IMAGE TREATMENT

SCANLIGHT™
keep it Simple

THE MOST POWERFUL SOFTWARE
FOR YOUR IMAGE TREATMENT

TREVENTUS

CUSTOMIZED WORKFLOW

SCANFLOW™
stay on Track

SCANNING
QUALITY CONTROL
AUTOMATION
OCR
IMAGE TREATMENT

THE MOST EFFICIENT SOLUTION
FOR YOUR MASS DIGITIZATION

TREVENTUS

DIGITAL LIBRARY

NAINUWA™
open your Mind

NAINUWA™
DIGITAL LIBRARY SYSTEM

Amazing zoom
Undiscovered search possibilities
Fast and easy to use

THE WORLD'S MOST INNOVATIVE
DIGITAL LIBRARY SYSTEM

TREVENTUS

TEXT RECOGNITION

OCRSOLUTIONS™
highlight your Content

IMAGE
SEARCHABLE PDF
IMAGE CLIPPING
TEXT EXTRACTION

FULLY AUTOMATED TEXT RECOGNITION
FOR YOUR SCANFLOW™ & NAINUWA™

TREVENTUS

PROJECT DEVELOPMENT

CONSULTING™
support at any Stage

PROFESSIONAL
INNOVATIVE
EFFICIENT

YOUR SOLUTION PARTNER FOR
MASS DIGITIZATION PROJECTS

TREVENTUS

THE EUROPEAN ICT PRIZE
GRAND PRIZE WINNER

Awards

Winner of the European ICT Grand Prize

Innovation prize of the Theodor Kery foundation

1st place in Genius Innovation Award

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