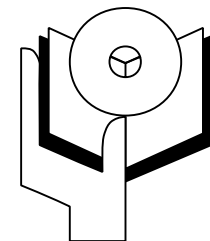

DL-mini

Automatic and Manual Book Scanner in ONE



 SWISS MADE

4DigitalBooks™

Introduction :

- **automatic** and **manual** book scanner in **ONE**
- **automatic : no operator** in front of the machine saves labor costs
- **manual : for scanning all exceptions** in a book : lose sheets, inserts, fold-outs, covers ...

- up to **A3 page format for books** (2xA3)
- up to **A2 format scanning surface** (for single pages)
- full visibility **deep in the binding** captures all text close to the binding

- **all types of books**, magazines, bound newspapers, registers
- respects full **safety of the book, the binding and the pages**
- suitable for **old and sensitive books**

- high image quality up to **600 dpi optical**
- pages presented under the **glass removes page curvature**
- **LED lights** 6000 °K, no variation over time

- **most reliable page turning method** - less operator interventions
- **intelligent automatic retry** solves difficulties without operator
- **3 speed settings** depending on fragility of document

- **max speed up to 2'000** pages per hour / 33 pages per minute
- **average productivity 10'000** pages per working shift (300, 400 dpi)
- one DL-mini is comparable to **3x manual scanners with 3x operators**
(maximum productivity is reached for books in good condition, depends on camera model)

Auto and Manual in ONE

Large Page Format A3

Old and Recent Books

Constant Image Quality

Reliable Page Turning

High Speed 3x

Automatic mode :

Highest Automation

- automatic **detection of double pages**
- automatic **retries of page pickup** - insures only one page turn at a time
- automatic **book cradle** accepts any book thickness up to 10 cm
- automatic **book centering** to the scanner, preserving relaxed back of the book
- automatic **measure of book thickness and page size** (user has just to put the book inside)
- automatic **follow-up of page border** for best page pickup
- automatic **book holding** by distributed low pressure on plates
- automatic **page pickup** by distributed low pressure arm
- automatic **page flattening** under the glass can be : with selected pressure or without pressure
- automatic **RGB camera calibration** with 24 patch target, for building ICC profile
- automatic **light correction** for regular intensity of light over the whole scanning surface
- automatic **arm with variable geometry** has 2 modes of page pickup :
 - direct catch (faster for easy books)
 - flat catch (slower for difficult books)

Automatic safety :

Highest Book Safety

- checking for **proper page pickup** to avoid wrong manipulation of page
- checking for **proper page release** to avoid pulling on the page
- checking for **page collision** to avoid folding or crunching a page
- checking for **end of book** to stop the process
- checking for **book exceptions** to stop the process before the exception
- checking for **proper loading of book** before starting an automatic process
- checking for **closed operator door** before starting an automatic process

Manual mode :

- operator manually **turns pages and manipulates exceptions**
- operator **uses foot switch** to scan exposed document
- operator may **scan with glass or without glass**

- manual mode allows scanning **all exceptions in a book**
 - o lose sheets
 - o inserts, fold-outs
 - o bent pages, torn pages
 - o covers, book jackets

- accepts **all unusual documents** :
 - o photo albums, stamps albums
 - o spiral bindings, bound notebooks
 - o postcards, photos, maps
 - o manuscripts

All Exceptions in Books

All Unusual Documents

Documents accepted :

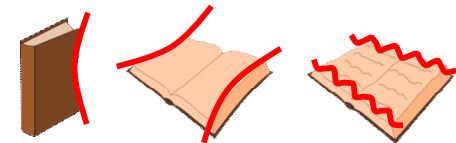
- document types : books, magazines, bound newspapers, registers
- challenging books : smaller books that **close spontaneously**
books bound with **multiple paper thickness**
- precious books : **no forces pulling up** pages from the binding
no friction on pages
no local forces holding the cover or the pages

- book weight : max. **10 kg**
- book thickness : max. **100 mm**
- book covers : soft and rigid

- page size : min A6 (105 x 148 mm), **max A3 (297 x 420 mm)**
- scanning surface : **max A2 (600 x 420 mm)** (available for i2S camera models)
- opening angle of pages : 180°

- paper weight : min. **20 g/m²**, max. **200 g/m²**
- wavy pages or covers : max. **amplitude 10 mm**

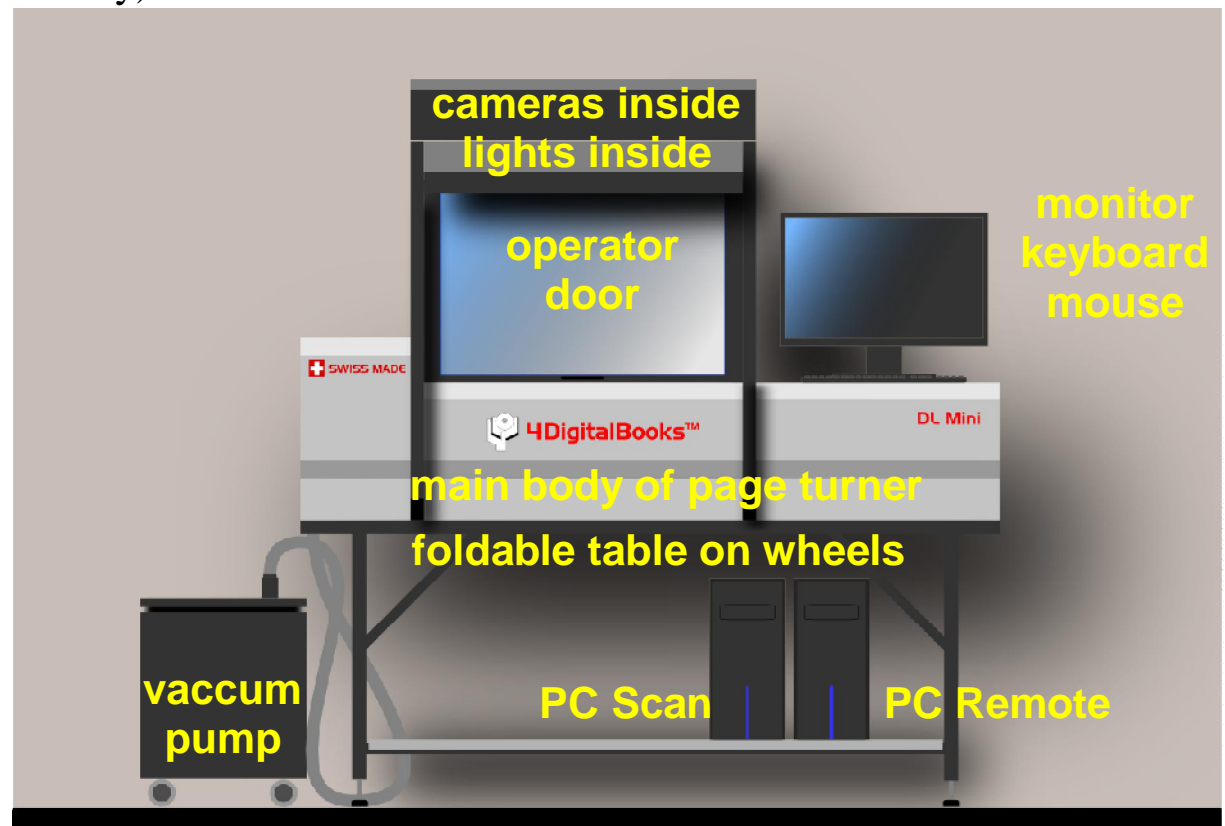
- loading /unloading : takes less than **30 seconds** per book
- similar books : **using presets to store book parameters** for faster operation



Delivery includes :

- enclosure with scanner, camera(s) and LED lights
- page turner with vacuum pump and pipes
- PC-Scan computer with i7 CPU, 8 GB RAM, Windows 10 PRO
- 24" monitor, keyboard, mouse, foot switch
- 1 TB ultra fast local storage
- scanning software CopiNet or EOSNet
- PC-Remote computer (for Canon cameras only)
- robust table on wheels

Complete Ready to Use

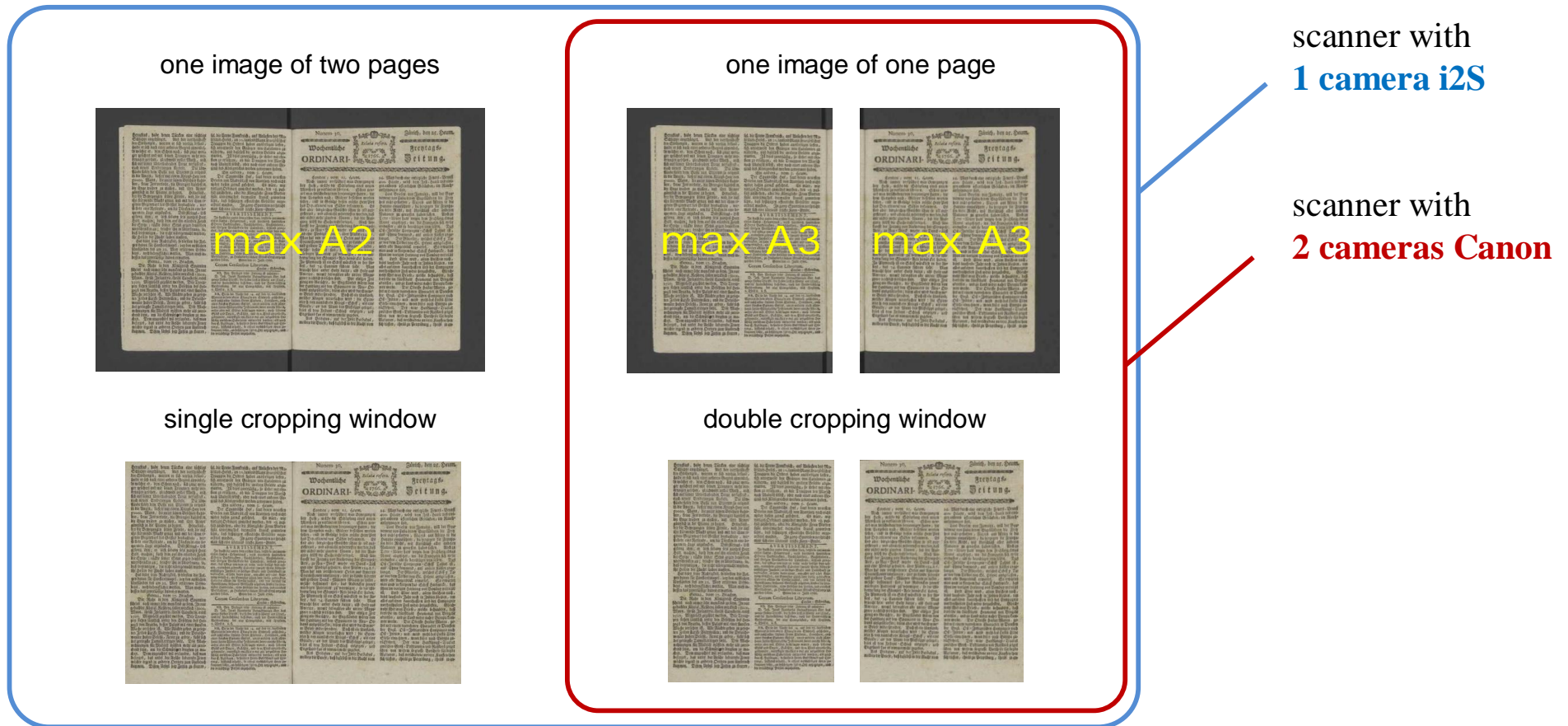


Scanner options :

1x camera i2S Eagle	71	Mega Pixels each	400 dpi	surface A2 per camera
1x camera i2S Extra	156	Mega Pixels each	600 dpi	surface A2 per camera
2x camera Canon EOS 5 DS R	50	Mega Pixels each	400 dpi	surface A3 per camera

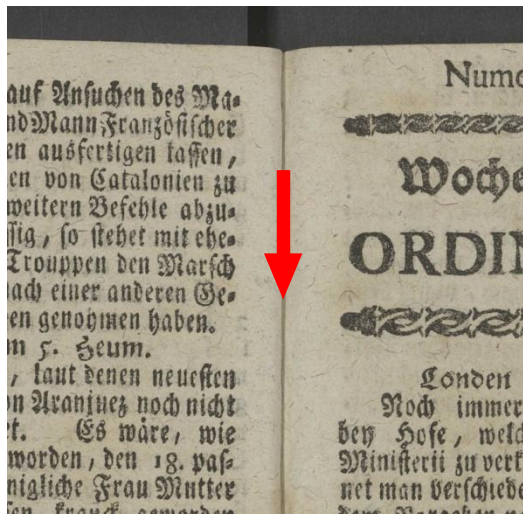
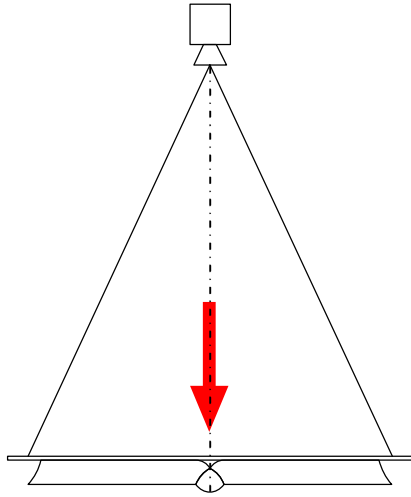
1 camera can capture 2 pages (left + right), to produce a single image (max A2) or separate images (max A3).

2 cameras can capture 1 page, to produce separate images (max A3).

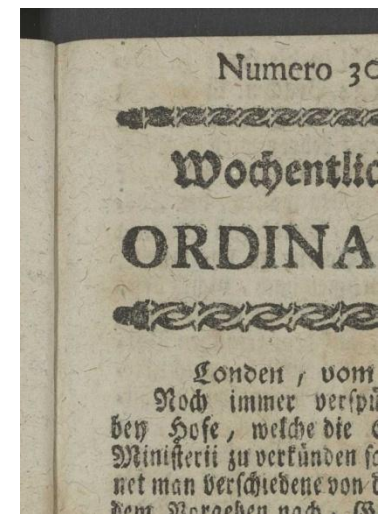
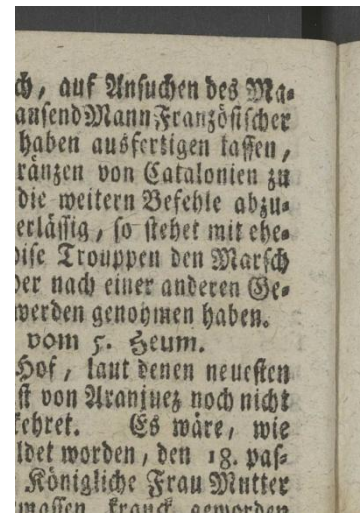
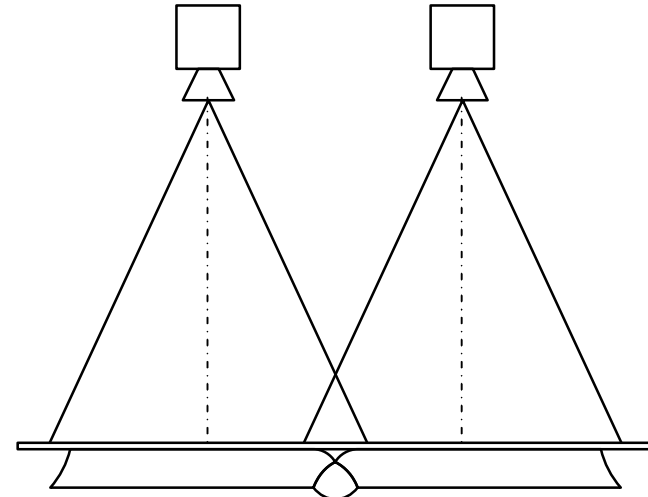


Scanner options :

Scanner with **1 camera** centered to the book.



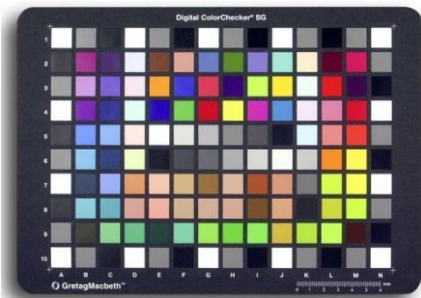
Scanner with **2 cameras** centered to the pages.



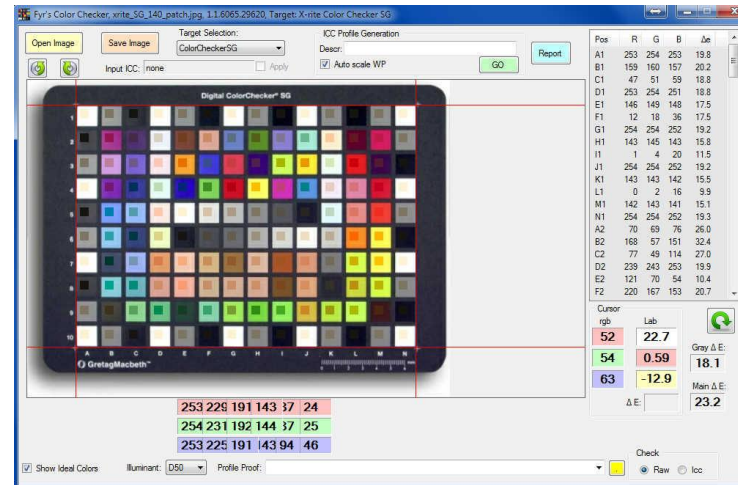
Captured images provide **full visibility** of the gutter and **no loss of visible information** on tight bindings.

Camera calibration :

Sophisticated calibrations such as **light correction**, **white and black balance**, **ICC calibration**, are automated. They can be done directly by the operator without calling a technical service.



Color Checker SG
calibration target by X-Rite
to capture a color reference



Fyr Checker
Software by 4DigitalBooks
to produce an ICC profile and to measure its quality De

Maintenance :

- **no consumables**
- **duty cycle is 24 hours per day, 7 days per week**
- **recommended maintenance** after every year of operation, once per year
- **full remote control capability** for technical support and diagnosis, user assistance and training