Ultra III [A2+]X

Ultra-performance for highest requirements

...many good reasons

...speak for it

Ultra III [A2+] X : High-Performance
Fast, versatile, durable and precise

The **book2net ultra** has established itself worldwide as a successful product in the field of A2+ production scanners.

Designed for use in the service sector as well as for reproduction and digitization centers, the **book2net ultra** meets the specific requirements of high throughput, excellent quality and extreme durability.

Further focal points in the development have been the consideration of conservational, environmental and economic aspects as well as a maximum user-friendliness.

Equipped with our pioneering X **Matrix Sensor Technology,** a high-quality lens, an energy-saving Eco-LED light unit, a self-adjusting motorized book cradle and a self-opening motorized glass plate, the new generation **book2net ultra III** combines impressive productivity and quality with ease of use. The industrial precision components and standards are ensuring longevity and a smooth adjustment of all movable elements, thus guaranteeing a streamlined workflow.

NEW FEATURE
Additional LED lighting for special requirements

Unrivaled Productivity!

The mass digitization of large-format originals like newspapers is typically linked to **high volumes**. In the course of these projects **productivity as well as ease of use is getting more and more important**. Therefore, in designing the **book2net ultra III**, we have placed special emphasis on the following aspects:

Streamlining the entire workflow

- **Innovative X Matrix Sensor Technology**
- **High performance area sensor**
- **400 dpi / 600 dpi versions available**
- **0.3 sec. scanning time (A0 Color / 400 dpi)**
- **2.2 sec. processing time (scanning + imaging + storage)**
- **USB 3.0 Interface**
- **Extremely high throughput**
- **Longevity**
- **Downtimes are history now!**
  - ➢ No mechanical wear parts
  - ➢ Electronic shutter
- **Best contrast (signal-to-noise-relation) for**
  - ➢ Reduced file size
  - ➢ Faster post-processing
  - ➢ Faster OCR recognition

Maximum user friendliness

- **High degree of ergonomics**
- **Easy handling (foot or hand control)**
- **Working height definable**
- **Gentle LED lighting system**
  - ➢ Low light radiation
  - ➢ <=2500 lux
- **Low-noise**

Ultra III [A2+] Ⅹ : The Next Generation

Innovation at the highest level

We continued our quality requirements in the new generation of the **book2net ultra III**: Equipped with our innovative Ⅹ **Matrix Sensor Technology, precision optics, an** ecological LED lighting system a self-adjusting motorized book cradle and a modern, robust frame, the **book2net ultra III** sets new technological standards.

Optics

- Schneider precision lens
- Long-term durability
- 12 cm depth of field
- Brilliant color reproduction
- Perfect linearity
- Distortion-free

High-performance sensor

- High-resolution matrix sensor
- Selectable options:
    - Ⅹ 400 dpi
    - Ⅹ 600 dpi
- 0.3 sec. scanning time (double page, color @ 400 dpi)
- 2.2 sec. processing time (scanning + imaging + storage)
- USB 3.0 interface

LED Illumination

- Cold-light LEDs
- Fresnel lenses for homogeneous uniform illumination
- Eco function
- Low power consumption
- Adaptable to ambient light
- Uniform light distribution
- Constant wave-length
- Lighting time 0.5 sec.

Glass plate

- Semiautomatic (self-opening)
- Control by pressure sensors
- Automatic pressure adjustment
- Variable and removable

3D Analyser II

- Geometric 3D book analysis
- Finger removal
- Edge detection
- Page detection
- Type area detection
- Book-fold optimization (BFO)
- Preservation approved

Book cradle

- Layout section 460 x 645 mm
- Self-opening, semi-automatic glass plate
- Self-adjusting
- Motorized height adjustment
- 15 cm height adjustment
- 10 cm spine exemption
- Automatic pressure control
- Preservation approved

X71 — CMOS 71 MP Camera

Cutting-edge technology « *Made by MICROBOX* »

Guaranteeing the highest quality and performance!

The new X71 camera, developed by **MICROBOX book2net**, does represent world-leading technology in modern digital cameras.

Our **CMOS 71 MP Sensor Technology** is considered as the key technology of the future, allowing high-resolution images with superior image quality, ease of use and incredible speed.

Integrated in the book2net ultra III

The use of our pioneering technology brings you additional advantages in image quality and productivity.

Enjoy the benefits:

- **CMOS 71 MP sensor with BSI technic**
- **Exceptional image quality with perfect color management**
- **High resolution**
- **12 cm depth of field**
- **Fast imaging**
- **Reduced processing times**
- **Automatic exposure control**
- **Minimal lighting requirements**
- **USB 3.0 interface (for optimal transfer rate)**
- **Optimized signal to noise relation**

Exceptional depth of field

Quality at All Levels

…due to BFO and 12 cm depth of field

Thanks to the high depth of field of 12 cm and the **optical book fold optimization** (BFO) integrated in our pioneering **Matrix Sensor Technology**, the **book2net ultra III** ensures constant image sharpness across the entire layout section. Thus, even with uneven and/or wavy documents, an excellent scan result will be achieved. This applies in particular to the difficult book fold and edge areas.

Due to the exceptional **Matrix Sensor Technology** no later manipulation or mathematical correction of the image data is required. The image data are therefore genuine as raw data for the digital archiving and further processing. Furthermore, the scanning result guarantees ideal preconditions for a **precise OCR** thanks to its sharp outlines.

Optical Book Fold Optimization (BFO)
Optimal scan results & sharp letter contours for OCR –
Even with the most challenging originals!

Optimal Depth of Field

…guaranteeing high quality at all levels

The high depth of field ensures that all information is captured without loss of quality, even in the book fold and edges. Furthermore, the capturing of the entire book is guaranteed without any need for height adjustment.

These results convince even in 3D!

Eco-friendly Green Technology

Less is more and better for your books!

Measures for energy reduction and climate protection are not only protecting the environment but also the development of an innovative and future-oriented technology. With the lowest consumption data the **book2net** scanners are making a significant contribution to a positive energy balance. They **are emission-free, low noise and highly durable**.

Economic and ecological responsibility is a clearly defined development specification which has been implemented in the new generation of the **book2net ultra III**. With the reduction in illumination times to 0.5 seconds, and the adaption of the light intensity to the environmental conditions we make a directly measurable contribution to **Green Technology.** The light source can optionally be set to economical "eco-function" with low light intensity or to higher light intensity in order to overcome the ambient light. This is achieved due to the **minimal light requirement of the matrix sensor** and the use of especially calculated **Fresnel lenses** for an even, glare-free illumination of the layout section. As a result the **book2net** scanners are achieving an optimum image quality with reduced light intensity.

The energy saving is up to 60%. As a matter of course the used White LEDs (cold light) are UV-/ IR-free.

Innovative & Glare-free LED Illumination

A high light intensity even over a short period of time can start biochemical processes, especially with old manuscripts with the consequence that paper, ink or paint changes their characteristics. As common book scanners working with line sensor technology are forced to capture with a minimum amount of light of 14000 lux the risk of damaging valuable books during digitization is high.

The **book2net ultra III** is equipped with a LED illumination system that provides stable color temperature during operation.

Lowest light requirements!

- ➢ **0.5 sec. exposure time**
- ➢ **Eco function (2500 lux only)**
- ➢ **Glare-free**
- ➢ **UV/IR-free**
  (no radiation for the operator according to EN60825-1)

Let your treasures shine in a special light!

To guarantee the optimal shadow-free and reflection-free illumination of particularly detailed documents or especially structured or uneven surfaces, we have developed a special additional illumination unit for the **book2net ultra III w**hich can be integrated, mounted or externally connected as required.

Light Controller Module

Dual LED lighting unit equipped with high quality **Fresnel lenses** and integrated control module for the precise synchronization of both light sources.
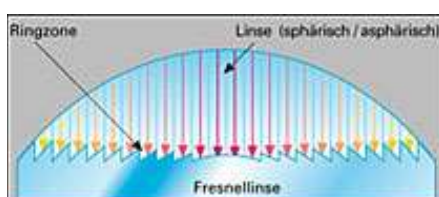
LED additional lighting

Synchronization

LED lighting unit

Dual LED lighting unit

- ➢ UV/IR-free (acc. EN60825-1)
- ➢ Glare-free
- ➢ Low energy consumption < 100 W
- ➢ Stable color temperature

Fresnel Lenses

- ➢ Uniform area illumination
- ➢ Continuous variable control of the light emission angle

Self-adjusting Book Cradle

Fragile historical books, modern books, magazines, documents, files or ring binders - the new self-adjusting, conservation book cradle A2+ (460 x 645 mm) is adapting to a wide range of different templates. It guarantees a particularly gentle treatment of the originals and allows a quiet, motionless scanning process.

The **adjustable spine-exemption** allows a particularly gentle handling of very sensitive or thick books.

The **layout section** is **optionally provided with** a **special scratch-resistant film or** a **non-reflecting, smooth coating**.

The scanning process can be triggered via sensitive touch-pads (smooth touch) or foot switch.

+ Spine exemption up to 10 cm

+ Height adjustment up to 15 cm

Variable Glass Plate

The **book2net** **ultra III** has a semi-automatic glass plate that is opening automatically after each scan. Also, the scanner can be used without the locking mechanism, that is, without the glass pressure.

A1 extension tool
Adjustable angle for scanning books up to A1 size and weighing up to 10 kg

True Color Management

The integrated True Color Management meets the highest requirements in accordance with **Metamorfoze, FADGI 4-Star** and **ISO/TS 19264-1:2017** standards regarding color quality, resolution, noise and linearity and is far ahead from conventional line sensor technology.

In the following chart the performance of the **book2net** scanner is presented by an actual-theoretical comparison. Compared are the measured results of a scan of an X-Rite ColorChecker[®] 24 Patch Classic target against the provided manufacturer reference data. All results are measured in the sRGB (IEC 61966-2-1) color working space for illuminate D65.[1]
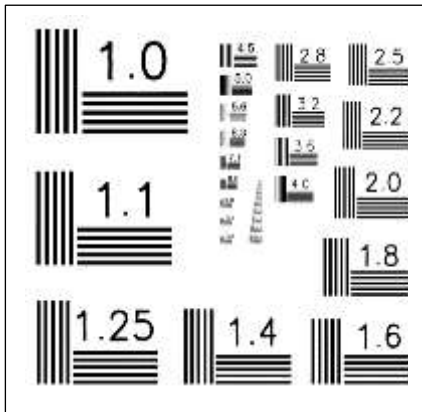
Mean Difference	book2net ultra III Actual Value (7x7 Average)			X-Rite ColorChecker® Theoretical Value			Color Name
-1,67	116	84	70	115	82	68	Dark skin
2,67	193	144	129	194	150	130	Light skin
4,00	94	119	152	98	122	157	Blue sky
-1,33	91	110	65	87	108	67	Foliage
4,00	130	126	170	133	128	177	Blue flower
3,67	103	184	164	103	189	170	Bluish green
-3,67	215	125	55	214	126	44	Orange
0,00	80	91	166	80	91	166	Purplish blue
-1,00	195	82	108	193	90	99	Moderate red
-3,00	99	64	108	94	60	108	Purple
-2,33	155	190	71	157	188	64	Yellow green
3,67	215	164	43	224	163	46	Orange yellow
2,00	51	63	147	56	61	150	Blue
-1,00	77	148	69	70	148	73	Green
-3,33	179	52	68	175	54	60	Red
2,67	227	199	27	231	199	31	Yellow
-2,67	191	85	154	187	86	149	Magenta
-0,67	14	129	161	8	133	161	Cyan
2,00	241	241	240	243	243	242	White (.05)
3,33	195	200	195	200	200	200	Neutral 8 (.23)
2,33	154	162	157	160	160	160	Neutral 6.5 (.44)
2,33	119	121	118	122	122	121	Neutral 5 (.70)
2,00	82	85	82	85	85	85	Neutral 3.5 (1.05)
2,67	49	50	49	52	52	52	Black (1.50)
0,69							

[1] Reference scans have been made with **book2net ultra III** serial no 2050046
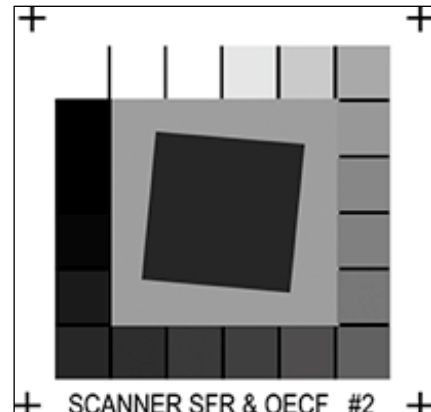
Measurable Quality

Resolution, grey scale & color matching

To provide our clients with constant, measurable quality, we work with ISO standard test charts for the calibration of resolution, grayscale and color.

Applied Image Inc® ISO Resolution Chart (T-10)

Imatest™ Scanner SFR & OECF QA-62

X-Rite® GretagMacbeth Color Checker

X-Rite® GretagMacbeth Color Checker SG

Universal Test Target (UTT)

Easy Scan Professional

Intuitive, fast and unrivaled user-friendly!

Easy Scan Professional is exceptionally intuitive and easy to use. The multilingual user interface can be customized according to your specific requirements just by enabling or disabling features. All configuration parameters are visible at a glance, without unnecessary branching into endless sub-menus. Finger removal, type-area and page recognition, automatic cutting and straightening and book-fold optimization are performed by *Easy Scan Professional* in the range of milliseconds.

With the integrated image enhancement, *Easy Scan Professional* meets the highest standards of quality and performance in the areas of digitization of cultural heritage as well as high volume digitization.

The software allows the storage of images in multiple file-/color-formats and resolutions with just one scan. It couldn't be easier!

Customizable user interface

…by easily enabling or disabling features

- Multilingual
  (selectable and definable language drop-down menu)
- Thumbnail display
- Drag & Drop
  (insert, view, delete)
- Choice of color
  (COL , GS, BW)
- Choice of format
  (TIFF, PDF, JPEG)
- Multipage
- Adaptation of the center
- Automatic deskewing
- Full size scan
- Page separation
  Left side / right side
- Setting frames
- Print defined sections
- Contrast control
- Zoom function
- Book fold optimization and book curve correction
- Finger removal
- Direct keys
  (for the most used settings)

Easy Scan Professional

…to streamline you workflow!

Choose your options by easily unroll the menu by a simple touch!

- Scan in color, grayscale and black and white
- Thumbnail display & features
  - insert, delete, replace by scan or re-scan, replacing with pictures from file, placeholder left side or right side
  - direct reorganization of view and count to actions such as inserting or deleting files
  - automatic numbering
- Job history list to reload already processed scan jobs, including used job parameters
- Multiple processing of digitized scan jobs
  - scan once – process multiple times
  - generating different storage formats
  - change color depth etc.
- Automatic cutting, aligning and sharpening
- Adjustment of brightness / contrast
- Clipping and quick selection between the print sizes A3/A4

- One Touch for setting both frames with the same size
- Page separation, with mid shift of the dividing line
- 1:1 Quick view
- 3D-Analyser - Software for geometric book analysis
  - finger removal, edge detention
  - page recognition, type area recognition
- Book fold optimization and book curve correction
- OCR
- Tonal value correction
- Color profiling according to ICC
- Different storage formats
  - TIFF, JPEG, PDF
  - multipage PDF, multipage TIFF, PDF-A
- Fast storage to local hard disc, USB or SMB network shares

Easy Scan Professional

Comfortable and individual image processing

Our *Easy Scan Professional* software is also an excellent tool to support the individual manipulation of your images.

- Cropping
  ...the software allows to define regions of interest by setting frames. Once adjusted the settings can be applied to a set of images.
- Add, insert, replace pages (e.g. with text or copyright notification
- Manual deskewing
- Rotation
- OCR
- Large file format support (e.g. for files >1 GB)
- Insert watermarks (optional)
- Insert footers or headers (optional)

Easy Scan Professional

…and efficient project management!

Easy Scan Professional can be easily integrated into the post-processing workflow. An intelligent job processing with job creation, job retention, job continuation and job post-processing, provides a basis for a wide variety of uses. Routines for error prevention and intelligent management framework also ensure a smooth workflow.

The add-on module *Easy Scan* **OCR** is accessible for more than 120 languages and allows the fast and easy generation of searchable or editable documents by pressing either in single-page mode or in job mode.

It couldn't be easier!

- Name files and documents
- Define different projects simultaneously
- Close and open projects/jobs as needed
- Continue from the end automatically
- Choose the storage format
- Add, insert, delete or replace pages easily due to the
- Automatic numbering
- Job history list to reload already processed scan jobs, including used job parameters
- Multiple processing of digitized scan jobs
  - ➢ scan once – process multiple times
  - ➢ generating different storage formats
  - ➢ change color depth etc.
- Export files
- Raw data
- Uncompressed TIFF
- Fast storage to local hard disc, USB or SMB network shares

Watch our video on:
https://www.youtube.com/watch?v=c1G2emE6Rk8

Easy Scan: Live-Control Professional

…more comfortable features!

The new software module Live-Control Professional offers a number of convenient features such as live preview, improved auto alignment and individual adaptation of additional document frames.
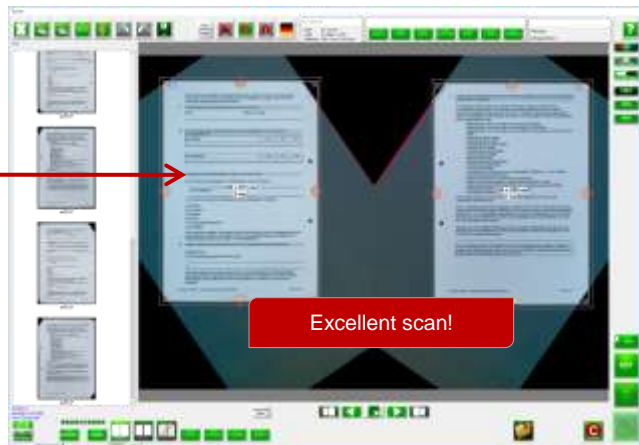

Place the document

Live Preview

Check the result!

Difficult templates

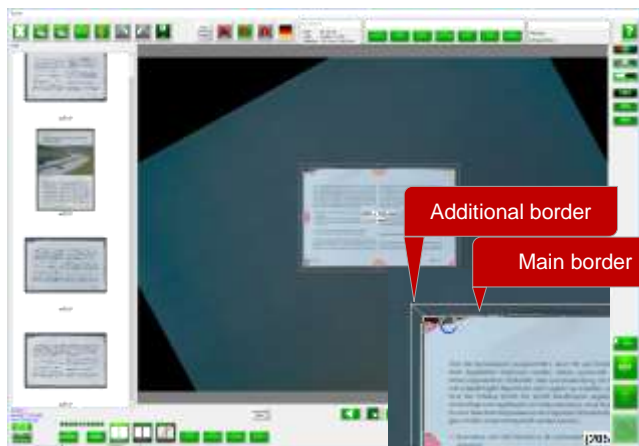Excellent scan!

Automatic deskew
- ➢ Bound and stapled documents
- ➢ Full document alignment
- ➢ Individual sheet alignment
  (also for stapled sheets)
- ➢ Rotation up to 180°

Automatic page separation
- ➢ Bound and stapled documents

Automatic additional framing
- ➢ Adjustable frame size by using cursor or entering values

Additional border

Main border

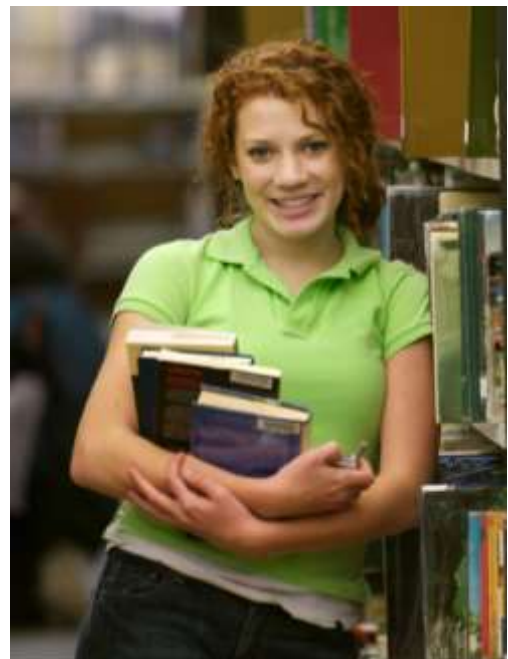# For your notes:

Ultra III [A2+] X

…the ultra-fast production scanner!

We will be more than pleased to support you on your project!