



DRAGON [A1+]
HIGH-END V-SCANNER

Highlights

- Dual X71 camera technology
- Variable scan areas: A1 - A4
- Physical resolution: 400 - 800 dpi
- Special lenses optional (40, 45, 60, 80, 100 mm)
- Book support angle: 110° standard (optional 90°, 100°, 120°)
- V-shape glass plate: 110° standard (optional 90°, 100°, 120°)
- Flexible camera position
- LED light angle adjustable (homogenous to sided light)
- Storable presetting of calibration settings
- PLC process control (glass plate/cameras/illumination)

book2net HD camera

The X71 not only sets new standards in the field of modern digital cameras, it is also the heart of all our scanners.

Our CMOS sensor technology is the key element of the system and enables high-resolution capturing of archive materials, books, cards, seals and objects of various sizes and structures.

The X71 camera is characterized by first-class image quality, flexible handling and an incredible scanning speed.

LED illumination unit with Fresnel lenses

Professional UV/IR and ozone free lighting system. With low energy consumption as well as a light exposure of less than 2,500 lux and a stable color temperature during the entire scanning process, the highest conservation and ecological requirements are met.

The Fresnel lenses specially developed for the **book2net** illumination units are a major technological advantage over classic lighting units. They ensure perfect light distribution and illumination. Unwanted and annoying gradients and reflection effects that otherwise occur in very light or very dark surfaces and also with shiny materials are avoided.

Two operating modes:

- 1) Flash: The lamps light up slightly for the scan and then reduce their intensity again immediately after the scan. A heating up of the room, often annoying with permanent light, is avoided and at the same time the service life of the light units is extended considerably.
- 2) Continuous light: On request, it is possible to work with a higher "lamp bias", whereby the "brightening effect", if it is perceived as annoying, is omitted.

Valuable, old books deserve special attention to put their beauty in its true light. Heightened and waved surfaces, special inks and colors and especially gold grounds and gildings require more than standard illumination.

The **book2net Dragon** offers the highest possible versatility for the gentle digitization of special historical holdings in **A1 to A4 format**, which can only be scanned with a small opening angle.

Freely selectable setting parameters allow individual exposure positions as well as standardized, productive workflows.

Sustainable technology

As with all our systems, we have placed great emphasis on ecological production and the selection of sustainable, resource-saving materials for the **book2net Dragon**.

Our systems are also free of UV/IR radiation and heat load. They are extremely noiselessly and have very low energy requirements.

Book cradle

- 110° opening angle (standard) (optional 90°, 100°, 120°)
- Height compensation up to 15 cm (optionally up to 25 cm)
- Spine width up to 10 cm (optionally 20 cm)
- Spine depth up to 8 cm
- Profile lifting column for precise height adjustment
- Load capacity up to 180 kg
- Special coating on request
- Preservation approved



DRAGON [A1+]

Productivity & efficiency for highest demands



The book2net Dragon starts, where other scanning systems reach their limits

Highest flexibility, yet always with perfect color accuracy and quality

The positioning of the cameras on slide rails enables format-filling images in the highest quality (up to 800 dpi). For special tasks, special lenses from 40 - 100 mm can be used as an option.

Standardized format changes from A1 to A4 are possible in just a few steps. The angle change of the camera position guarantees exact scanning results in the book fold and overlap area. Fine adjustment using the 3-axis camera support system delivers distortion-free, parallel and perpendicular alignment to the scan object. Our LED light concept (UV/IR free) ensures outstanding illumination.

On request, the opening angle of the book support can be adjusted and combined with a corresponding V-glass plate.

Control-Center with EIZO 27“ monitor and controller

Ergonomics and ease of use are among our top priorities. The mounting option for a monitor in the user's field of vision was a customer request that we were happy to implement. The operating comfort is increased and both the scan preview and the scan results can be checked immediately in full screen size.

Optionally, MICROBOX delivers this equipment together with a controller PC system based on the latest and most modern components of Microsoft® and Intel technologies; a PC system optimized for fast transfer rates to achieve scan and process speeds of less than 3.5 seconds.

True Color Management

Color accurate directly from the camera: the true color management is unique. Directly from the camera, it is possible to generate color accurate scans according to the color spaces sRGB, Adobe 1998 RGB, ECI RGB V1 and ECI RGB V2 and thus easily meet all requirements of digitization guidelines, specifications and standards.

The great advantage of True Color: Unlike the creation of an ICC profile, which is calculated by a “calibration software” using a 24-bit color scan of an X-Rite Color Checker, True Color uses the advantage of all calculations and adjustments in-house imaging area of the camera with a color depth and analysis depth of 48 bits. Colors are captured even more precisely and signal noise is minimized.

The result: METAMORFOZE, FADGI and ISO/TS 19264-1:2017 compliant scan results.

True to scale & gentle

...adapted to your application

Starting from the surface of the layout section up to the spine support a major part of the development effort has been spent on the book cradle. With a layout section of 635 x 880 mm (> A1!) the **book2net Dragon** offers the opportunity to scan a broad range of books. The reduced opening angle of 110° allows the capturing of fragile books and valuable manuscripts that cannot be fully opened for conservation reasons.

Each book is unique and differs concerning its thickness. Therefore the height compensation of the book cradle is mandatory to ensure that your collection will be captured true to scale.

Hence, the **book2net Dragon** allows adjustments to all elements of the book cradle to achieve a perfect scanning result.

The adjustable book cradle with spine exemption of up to 20 cm in width and 8 cm in depth allows the gentle handling of particularly fragile books and can be provided with different coatings as required.

The special coating of the support surfaces prevents any abrasion of sensitive bindings. The coating can be selected according to the respective requirements (i.e. imitation leather, felt, or anodized metal in black).

Precision-guided linear drive

Controller module 1

Controller for the optimization of the traverse paths of the glass plate, providing automated adaptation to the book size. The glass plate only lifts up as far as needed for a comfortable turning of the pages. This ensures maximum efficiency and reduces process times.

Controller module 2

Controller for the optional control of the fully automatic, semi-automatic or manual operation:

- Program 1: fully automatic sequence of the entire process (automated pressure procedure and triggering of the scans according to programmed time intervals)
- Program 2: semi-automatic sequence (automatic pressure procedure and manual triggering of the scans)
- Program 3: manual sequence (all individual functions are being controlled manually)





V-shaped glass plate

The V-shaped glass plate of the **book2net Dragon** offers maximum operating convenience. Precise pressure control is guaranteed at all times thanks to the precise fine adjustment (also possible manually).

- V-shaped glass plate (110° standard / optionally 90°, 100°, 120°)
- Reflection-free glass (museum glass optional)
- Gentle on originals
- SPS-controlled process sequences
- Self-opening and self-closing
- Book size-dependent traverse paths
- Sensitive, all-electric pressure control
- Integrated motion monitoring

Motor-driven “Butterfly” page holding system

- V-shaped, particularly gentle motorized book holding system in “Butterfly” style with four pressure fingers
- Individually adaptable to any book size
- Automatically opening/closing pressure fingers synchronized with the scanning process
- Removable at any time
- Can also be operated via foot switch if required

TECHNICAL DATA

X Matrix sensor technology

Sensor:	High performance area sensors (dual technology)
Optics:	Schneider precision lens
Shutter:	No shutter mechanics
Illumination:	Cold light LED-technology with integrated Light-Control-System (LCS)
Resolution:	400 - 800 dpi
Depth of field:	8 cm A1 / 12 cm A2
Scanning time:	0.3 sec. (2 x A2 color @ 400 dpi)
Processing time:	3.5 sec. (scanning + imaging + storing!)
Layout section:	635 mm x 880 mm
Book opening angle:	110° (optional 90°, 100°, 120°)
PC interface:	USB 3.0
Software:	Easy Scan Professional Intuitive Professional Software with extended functions for job management
Color depth:	48 Bit color, 24 Bit color, 16 Bit grey, 8 Bit grey, 1 Bit B/W
File formats:	TIFF, PDF, JPEG, JPEG 2000, Multipage TIFF & PDF
Output:	sRGB, Adobe 1998 RGB, eciRGB V1/V2, Wide Gammut, ProPhoto according to ICC standard
Dimensions:	2000 x 2100 x 2000 mm (h x w x d) incl. lighting
Weight:	ca. 250 kg
Connection values:	100 V - 240 V, 47 Hz - 63 Hz
Energy consumption:	Standby 69 - 75 VA; in operation 69 - 125 VA
Safety standard:	CE EMV

Remote maintenance possible.
Technical changes reserved.

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