flash [A1+] X

The professional solution for large-format scanning

… for many good reasons

Cultural Heritage in Focus

Only he who knows the past has a future

Wilhelm von Humboldt (1767-1835)

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Today, digitization is a fundamental contribution to the protection of our heritage. Therefore, we have been developing our scanning systems in close cooperation with selected customers from archives, libraries, universities and administration as well as with service providers in order to ensure an optimal balance between the demands of conservation and ecological and economic requirements.

book2net offers a scale of innovative and effective scanning solutions, which are already in use in libraries, archives, and museums all over the world.

In close cooperation with our customers we are continuously developing our broad range of scanning systems according to the latest technology and environmental standards to conform to the highest conservational standards and to ensure optimal scanning results. Specially adapted software modules allow an optimal workflow and integration of metadata for a systematic evaluation and communication of the digitized objects.

Our state-of-the-art scanners provide ideal conditions for a gentle, non-contact digitization of exceedingly fragile writings and printings as well as highly sensitive works of art.

Whether you wish to digitize **autographs**, **books**, **maps**, **architectural plans**, **notes**, **prints**, **photographs**, **miniatures**, **coins**, **jewellery**, **archaeological finds**, **scientific specimens** or **archival** and **documentary material** such as **glass plate negatives** - we offer customized and innovative solutions!

Committed to our Clients:

Quality & productivity to meet the highest standards!

book2net flash at the RDZ (Centre for Restoration and Digitization) in Cologne

flash [A1⁺] X

Streamline your digitization project!

With our A1 large format scanner **book2net flash** we have developed a high-performance device specifically designed for the use in mass digitization projects with large-format, bulky or extremely heavy originals such as newspaper volumes in order to ensure high productivity as well as a particularly gentle treatment of the originals.

The **book2net flash** has been especially designed for high-volume large-format book scanning projects.

A1 full-frame scans
Layout section 610 x 860 mm >A1

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 flash**, we have placed special emphasis on the following aspects:

Streamlining the entire workflow

- **Innovative ✕ Matrix Sensor Technology**
- **High performance area sensor**
- **300 dpi / 400 dpi versions available**
- **0.3 sec. scanning time (A0 Color / 300 dpi)**
- **2.2 sec. processing time (scanning + imaging + storage)**
- **SSD**
- **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)**
- **Definable working height**
- **Gentle LED lighting system**
  - ➢ Low light radiation
  - ➢ <=2500 lux
- **Low-noise**

True Scale Capturing

Every 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.**

With the support of the two LED beams of the alignment tool **the cradle of the book2net flash can be adjusted** to the perfect focus level within seconds.

+ Vertical motion of the entire book cradle for true capturing

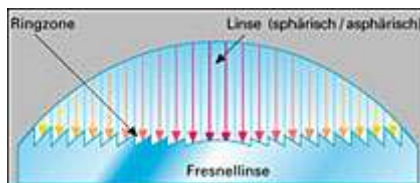**+ Horizontal adjustment of the left and right pads**

The self-opening glass plate ensures a convenient operation over hours. The glass plate can be easily locked in an upright position in case scanning without a glass plate is desired. As the light always goes through the glass, an additional white balance or color calibration is not required.

Dual LED Illumination System

Less is more!

The **book2net flash** is equipped with a LED lighting system which provides an exceptional stability of color during the scan process and thereby guarantees the most accurate color reproduction.

Thanks to our innovative **Matrix Sensor Technology**, the **book2net flash** works with a markedly reduced **lighting period of 0.6 sec.** with a **scanning speed of 0.3 sec.** The use of **Fresnel lenses** ensures a homogenous lighting within the entire scan area. The LED source is glare- and UV/IR-free; thus, the operator is not exposed to radiation in accordance with EN60825-1.

LED illumination unit

- UV/IR-free (acc. EN60825-1)
- Glare-free
- Low energy consumption < 100 W
- Stable color temperature
- Durable (10.000 working hours)

Fresnel lenses

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

In the right light!

Valuable 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.

To meet these special requirements, the **book2net flash** is equipped with an additional lighting system for the glare- and shadow-free capture of specially structured surfaces, which can be integrated, mounted or controlled externally.
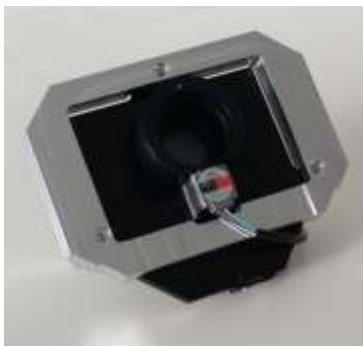
Additional LED illumination

- Light-Control-Module
  - Integrated controller module for precise synchronization of both light sources
  - Reducing the light intensity up to 2500 lux

✕ Matrix Sensor Technology
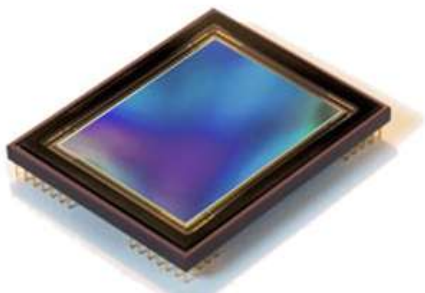
The new level of scanning technology!

Thanks to the use of a resolving area sensor in combination with high quality lens, the **book2net flash** provides uncompromised quality. Using our new, innovative ✕ **Matrix Sensor Technology** brings you additional benefits in terms of image quality and productivity.

sensor head

- **Enhanced image quality**
- **Highest resolution**
- **Highest processing speed**
- **Reduced processing time**

Top performance by high technology area sensor

- **Perfect color reproduction**
- **High resolution**
- **Excellent contrast**
  (signal to noise relation)
  ⇨ reduced file size
  ⇨ faster post-processing
  ⇨ better & faster OCR recognition
- **12 cm depth of field**

  The high depth of field guarantees the capture of all information, including the book fold area, without loss of quality. At the same time, an even capture of the entire book without the necessity of height regulation is ensured.

- **Low light level requirement**

True Color Management

In the field of color reproduction, the **book2net flash** meets highest requirements according to **Metamorfoze** and **NARA guidelines** and is way ahead of conventional linear sensor technology.

The following diagram shows the performance of **book2net** by means of a target/actual 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]
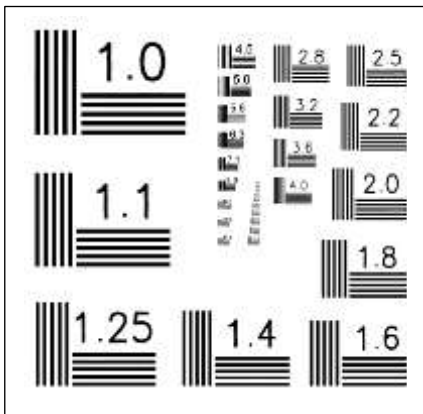
Mean Difference	book2netflash Actual Value (7x7 Average)			X-Rite ColorChecker® Theoretical Value			Color Name
-1,67	116	84	70	115	82	68	Dark skin
2,67	193	144	129	194	150	130	Light skin
4,00	94	119	152	98	122	157	Blue sky
-1,33	91	110	65	87	108	67	Foliage
4,00	130	126	170	133	128	177	Blue flower
3,67	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							

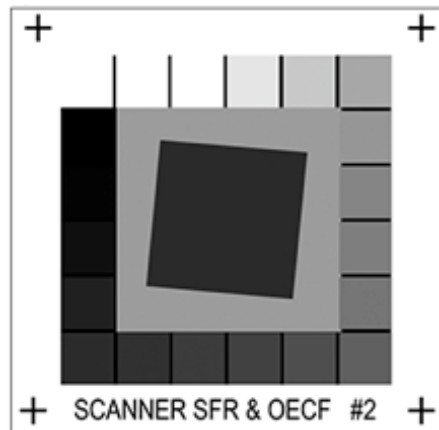[1] The reference scans have been done with **book2net flash** serial no 199022

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, user-friendly

Thanks to the intuitive, multilingual user interface, the **book2net flash** is exceptionally easy to operate.

The intuitive professional Software *Easy Scan Professional* with integrated image enhancement can handle even the most demanding production requirements. Features include thumbnails (insert, delete, view), page splitting, center adjustment, contrast regulation, zoom function, print, cut-out etc.

The software allows saving the image in multiple file-/color-formats and resolutions just with one scan.

It couldn't be easier!

The intuitive graphical user-interface
... individually adaptable to your requirements!

flash [A1⁺] X

… the fastest and most economical solution!

We are looking forward to supporting your project!