METIS

HIGH QUALITY SCANNERS

METIS EDS GAMMA - Cultural Heritage

The innovative A1 desktop planetary scanner with a superior image quality, ergonomics and high productivity in a unique integrated solution.

EDS (Easy Digital Scanner) means great quality, speed and ease-of-use.

METIS TECHNOLOGY

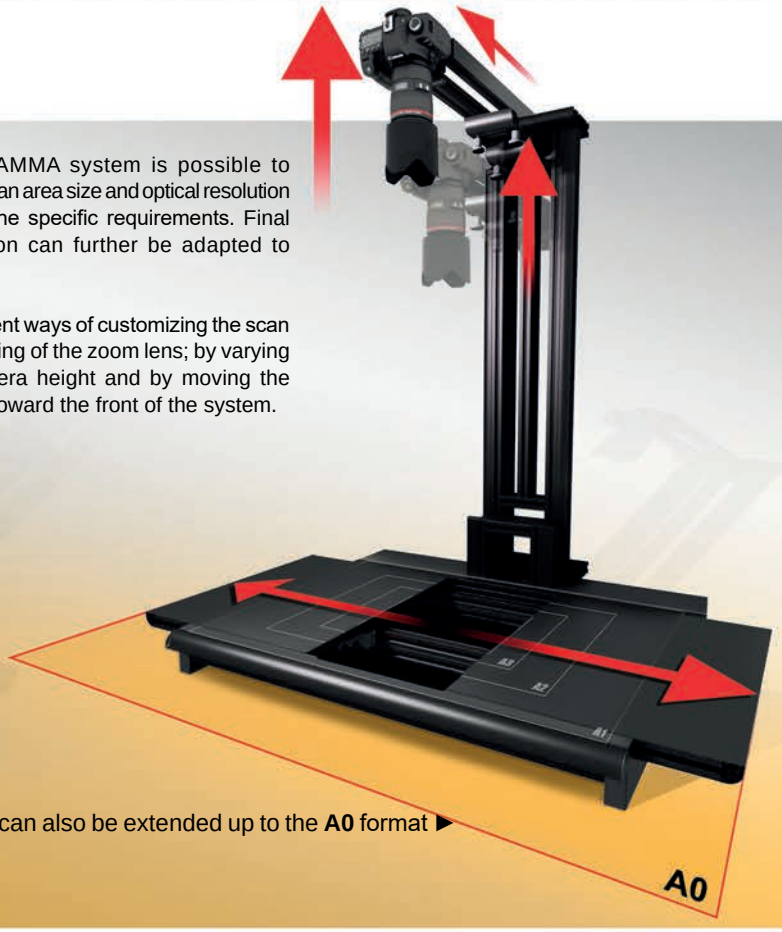
CGS ORIS

Variable scan area and resolution

In the EDS GAMMA system is possible to customize the scan area size and optical resolution depending on the specific requirements. Final image resolution can further be adapted to specific needs.

There are different ways of customizing the scan area size: by using of the zoom lens; by varying the digital camera height and by moving the digital camera toward the front of the system.

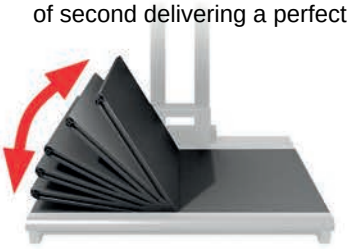
Scan area may vary up to 90 x 60 cm



Scan area can also be extended up to the **A0** format ►

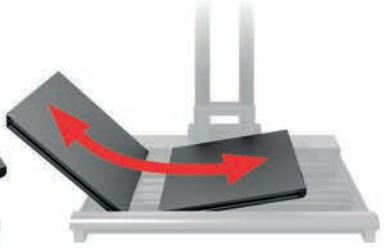
The V-Table design

The EDS GAMMA integrates an innovative V-Table design supported by specific software tools in order to hold the originals in any possible position/angle. The V-table has been specially designed by METIS in order to accept and gently hold different kind of originals in an optimal manner, even antique books with limited opening angle. The V-Table allows scanning large books, maps, drawings and many types of originals even larger than the A1 format and up to 15 cm of thickness. Thanks to the METIS exclusive “shape recognition” and “curvature correction” technology, integrated into the EDS software, the document shape is detected in realtime and the acquired image is deskewed in a fraction of second delivering a perfect result.

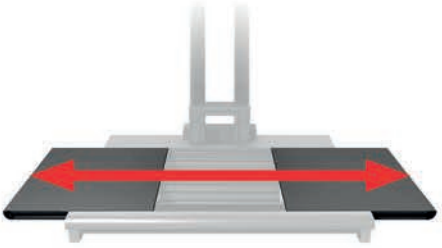


Plates can be tilted independently ►

► Example 1



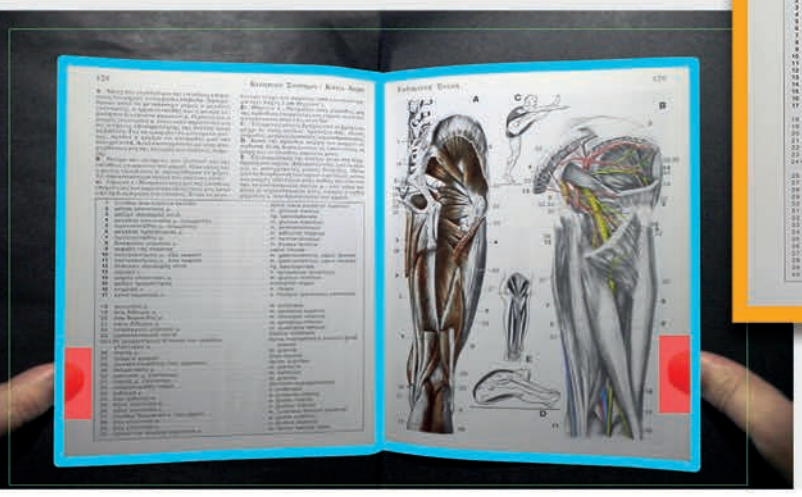
► Example 2

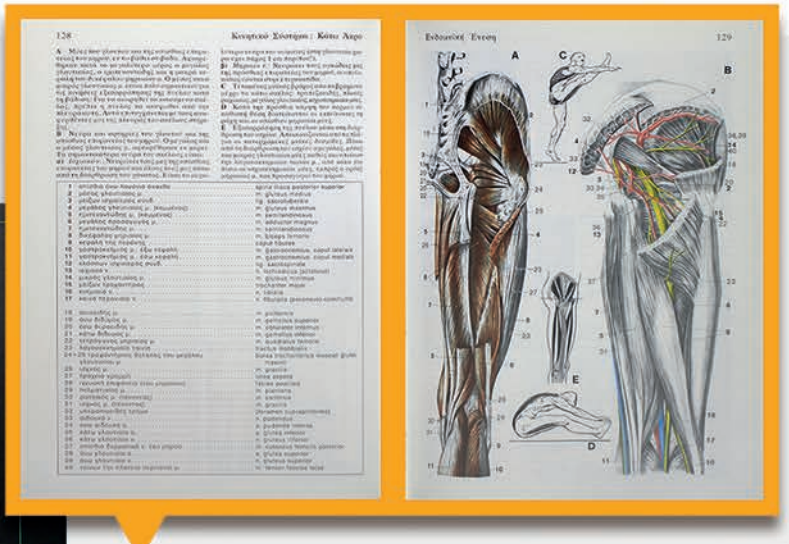


Plates distance may also vary independently

Automatic shape and fingers recognition

The EDS software is capable of recognizing the shape of the pages and the operators fingers. Furthermore, the aquisition can be automatically triggered when the fingers are recognized.

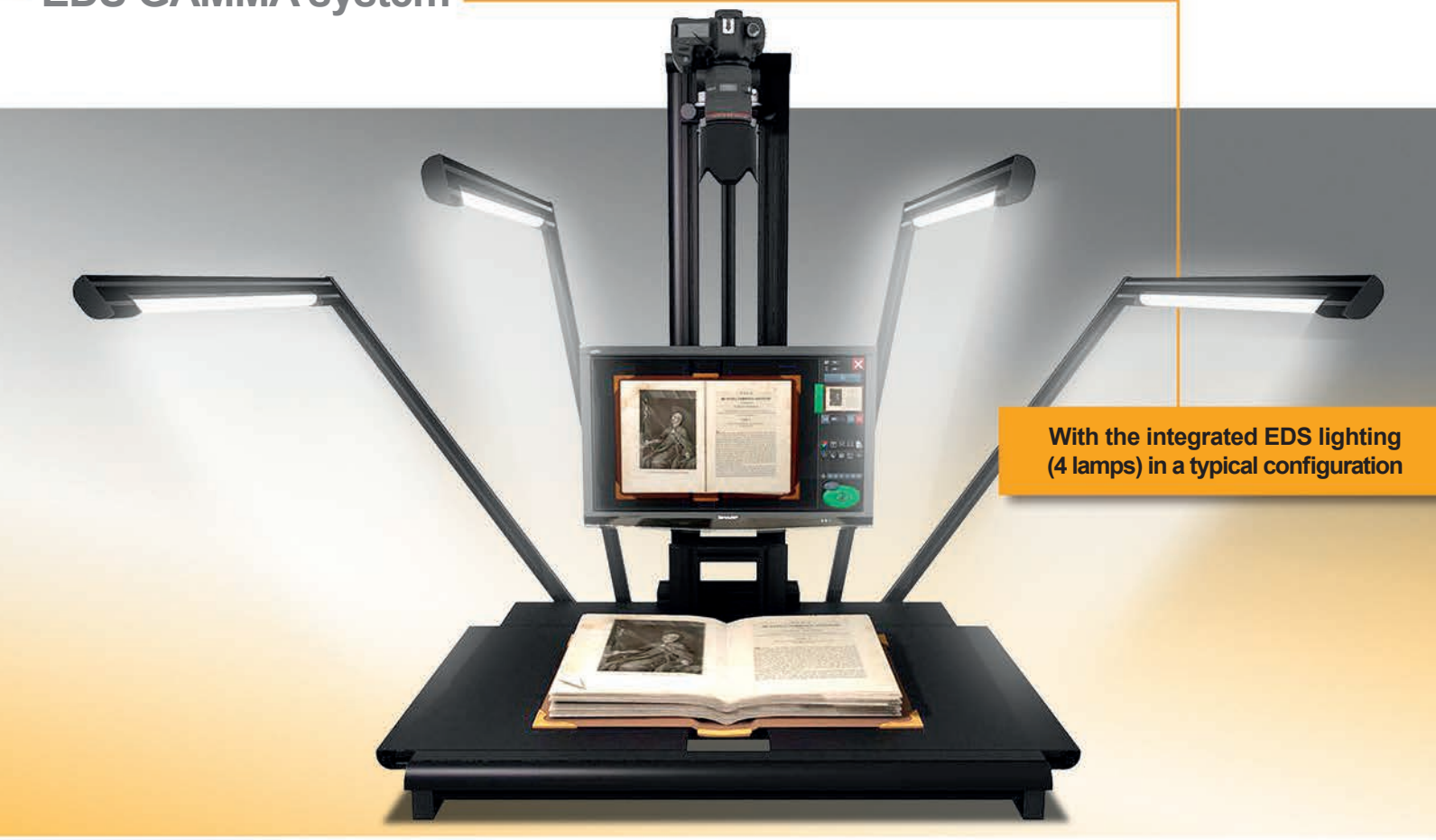




Automatic curvature correction and finger removal

After recognition, the EDS software is able to correct the curvature and to remove recognized fingers from the image automatically.

EDS GAMMA system



With the integrated EDS lighting (4 lamps) in a typical configuration

The EDS lighting

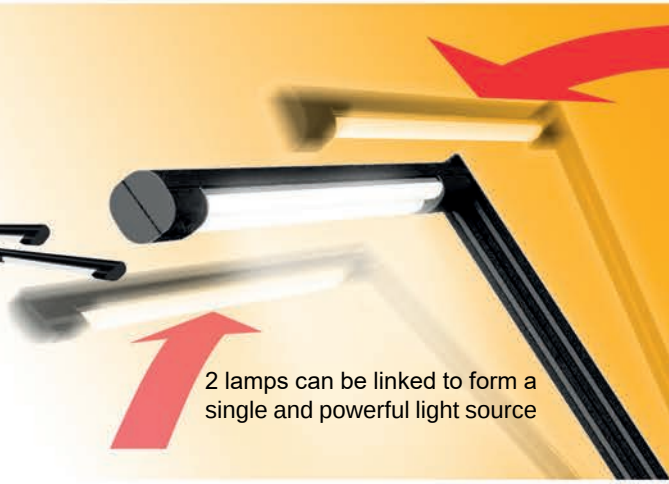
- Light color temperature is Warm White and provides very high Color Rendering Index (CRI = 93)
- It includes 4 lamps (LED array based) that can be positioned and tilted independently. This allows to optimize the light distribution over the scan area by maximizing uniformity and minimizing reflections. Furthermore, the possibility to change the angle of the lamps also allows to optimize for particular types of originals.
- Every EDS lamp integrates 60 state-of-the-art high power LEDs arranged in a single array (line).
- Every EDS lamp have a 120 degrees uniform output.
- Every EDS lamp delivers a luminous flux of about 950 lumen; a total of 3800 lumen for 4 lamps.
- Luminous flux is equivalent to 4 x 120 watt traditional bulbs but power consumption is only 4 x 17 watt.
- Power supply, cables and electronic are directly integrated into the EDS GAMMA structure.
- Two lamps can be connected to form a single light source.
- All lamps are directly controlled from the EDS software (the lamps can be switched ON/OFF independently); a specific USB link is provided in order to connect the EDS lighting with the PC.

Independent lighting position / tilt

The EDS lighting includes 4 lamps that can be adjusted independently by the user (fixed in different positions and tilted). Customizing the light position/tilt allow to control the light distribution over the scan area and to optimize reflections and uniformity. This is very important because different originals may require different arrangements and optimization of the lighting for best results. Furthermore every lamp is controlled (switched On/Off) directly from the EDS Software and according to the selected working profile (e.g. book, map, etc.).

Light from the Top can minimize shadows in the book's gutter

Light directions from the sides may provide higher uniformity especially on large flat originals as maps or drawings



2 lamps can be linked to form a single and powerful light source

SPECIFICATIONS

METIS EDS GAMMA - Cultural Heritage

Technical Specifications

- Supported DSLR Digital Cameras (CMOS color): Nikon D850, 45.4 MegaPixels, Full Frame and Canon EOS 5DS, 50.6 MegaPixels, Full Frame
- Support of Nikon lenses
- Acquisition color depth of 14bit per channel (3x14bit), integrated sensors for realtime reading of exposure, color temperature and automatic focus
- Variable camera height and position in order to optimize scan area and optical resolution; adjustable optical resolution (over 800 PPI is possible) through:
  - integrated Zoom optics with motorized focus
  - variable camera height
- Acquisition area up to 90 x 60 cm // 35.43 x 23.62 in (A1 = 84 x 59,4 cm // 33.07 x 23.39 in). Acquisition area can be further extended (up to A0 format for drawings or maps with an appropriate lens and additional lighting)
- Adjustable working area: it includes the V-table which consists of two tiltable and shiftable fully independent plates which can be easily adapted to different needs and perfectly accommodate even difficult original such as old and fragile books with limited opening angle
- Acquisition time < 1 second; full cycle time, between one acquisition and the next one, including acquisition, processing and saving: ~ 2 seconds
- Professional EDS LED lighting system with CRI=93 and high luminous flux of 3800 lumen; it includes 4 LED lamps fully and independently adjustable in position and tilt. All lamps are directly controlled by the EDS Software

Minimal PC Specifications

- i7 Intel Processor and 16GB RAM
- 2 x USB-2.0 and 2 x USB-3.0 ports
- Windows 10 Professional 64bit

METIS EDS Software Specifications

- Background and parallel image processing / saving (image processing and saving do not affect the acquisition time)
- “Live Video” function allows a realtime control over the scanning area; this is particularly useful in order to maximize image quality and to perfectly position the original respect to the camera
- Image review and navigator tools with a full resolution image viewer
- Automatic JOB handling with full image and shooting parameters save and reuse
- Automatic image naming with user selectable rules (customizable fields, programmable increments, programmable actions, etc.)
- Automatic or manual exposure and gray balance control (light color temperature compensation)
- Automatic or manual focus control (with depth of field customization)
- Manual and automatic Crop
- Automatic deskew and curvature correction
- Automatic book center and shape recognition
- Automatic page split with definable overlap
- Light uniformity and paper color correction filters
- Automatic fingers recognition and removal filter
- Anti-Reflection shooting mode (for glossy originals)
- EDS Light Control directly from the EDS software;
- Keyboard shortcuts
- Image saving in grayscale and color in TIFF, JPEG, JPEG2000, BMP, PNG, PDF, PDF-A, Multipage PDF, Multipage TIFF, TIFF G4 1bit

Product specifications or appearance may change without prior notice - v.2021-03-EN

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