A Q&A WITH ZEUTSCHEL PRESIDENT JÖRG VOGLER

In March 2021, the last Zeutschel OS 14000 large format overhead scanner left Tübingen, Germany for its final destination. Originally brought to market in 2008, the OS 14000 series satisfied stringent digital imaging guidelines set forth by the U.S. National Archives and Records Administration (NARA) in 2004 at a time when no other scanner could do so. You can read the full story on how Zeutschel and The Crowley Company (Crowley) collaborated to engineer the OS 14000 series here. The OS 14000 series was significant in that it ushered in a new era of high-quality digital preservation for bound and loose media up to A0 size (33.1" x 46.8" inches).

The new generation OS Q will carry forward the mantle of Zeutschel digitization innovation and superior image quality that is utilized by archives, libraries, museums and service bureaus worldwide for high-end digital archival preservation.

Q: Why retire a scanner series that has been a gold standard in the digital preservation industry?
A: Zeutschel's goal is to continue to innovate and deliver best-in-class imaging solutions. The OS Q is an upgrade to the OS 14000 scanner technology, bringing about even better image quality and increased productivity and operator comfort.

Zeutschel OS 14000

Q: Will the OS 14000 scanners in the field continue to be supported?
A: Absolutely. Zeutschel and our partners such as Crowley will render OS 14000 support and spare parts for at least seven years.*

Q: What was the engineering motivation for the OS Q series?
A: The growing demand for higher image quality that meets international and ISO imaging standards. The OS Q series and the OS HQ now meet or exceed the highest standards set for FADGI 4-star, Metamorfoze and ISO 19264-1 (Level A) guidelines.

Q: How important is it to meet current industry standards?
A: For the preservation of cultural heritage and historic materials, there must be an international standard for image quality. There is a difference between image standards and quality for general digitization (ie: a working copy) versus long term preservation and reproduction needs.

Q: How does Zeutschel test image quality?
A: Testing includes using the Zeutschel QM tool as well as producing sample images using the UTT test chart and/or DICE target to ensure measurable quality and accuracy. The scanners analyze the results automatically with pass/fail notifications and, if applicable, areas needing improvement. For the OS Q series our test scan quality matches and exceeds ISO 19264-1 Level A, Metamorfoze Full and FADGI 4-star.

It's important to note that regular maintenance and calibration of the scanners ensure that Zeutschel scanners can continually achieve the highest image quality standards.

Q: What are the OS Q advantages over the OS 14000?
A: Some of the key features include:

- Faster bi-directional scanning for increased productivity
- Up to 12 line pairs per mm – the highest resolution and highest image quality offered in the industry
- Scan mode 96 bit color
- Ability to zoom
- New document tables
- Interchangeable camera system (100mp/150mp)

Q: What is the difference between the OS Q and OS HQ?
A: The OS HQ exceeds the quality of the OS Q by nearly double. It's designed with a GigaPixel camera system which incorporates the largest CMOS sensor currently available. This allows for a single scan without image stitching. The OS HQ is the only large format scanner on the market that can scan greater than A0/E size media with resolutions up to 1,000 ppi and 14 line pairs using optical zoom A0-A1 and a scan mode 96-bit color (internal)/48-/24-/16-/8-/1-bit output. The integrated camlink interface guarantees fast data transfer, complementing the image quality with enhanced productivity.

Q: In developing these new scanners, how and why did Zeutschel consider operator comfort?
A: Zeutschel scanners are designed to scan for many consecutive hours, so scan operator comfort – such as sufficient leg room – is always a key consideration. Other considerations include:

- A UV- and IR-free lighting system that only activates when performing a scan to minimize operator exposure
- A footswitch option to relieve operators from repetitive interaction with a PC and mouse
- Easily interchanged document tables to grant operator and media flexibility
- Scanner lighting from the back to avoid operator shadow and reflections

Zeutschel OS HQ

Q: How does Zeutschel keep current and even think ahead?
A: To stay ahead, Zeutschel works closely with the industry leaders in national archives, libraries, museums and service companies who are tasked with the digital preservation of records and archives. Our Research and Development director is also a working member of various industry think tanks, such as the international board of ISO/TC42.

Q: In your opinion, what sets Zeutschel scanners apart?
A: I don't think I'm biased when I say that Zeutschel has been the innovation leader in large format and book scanners for more than 25 years.

- Zeutschel continually integrates the **latest technology** available on the market. Just one example: as of this writing, most document scanners create images in 24-bit data output. Zeutschel scanners capture in 48-bit and 96-bit for all document formats from postage stamps to bound books to large format maps and manuscripts.
- As a result of working with digitization specialists, customers and our partners, Zeutschel scanners offer the **highest quality** in resolution and color reproduction.
- Zeutschel scanners have a **modular structure**. The working tables, which are offered in large variety for special documents and unique solutions, have been a main component of our offerings. As scanner technology changes, customers can continue to use their existing table systems when upgrading their scan system to the next generation.
- Zeutschel's OmniScan **software** is known throughout the capture industry as both one of the most universal scan software packages and the simplest to use. Meeting all customer requirements with multiple options for varying job types and a project memory, even the most inexperienced operator can produce quality images via the error-free (green button) function.

Q: How does Zeutschel measure the success of a scanner?
A: Customer feedback, customer satisfaction, the number of installations worldwide and industry awards. Using these metrics, the OS 14000 series was an enormous success and we expect the same of the next generation OS Q series and ScanStudio. Both have already won Modern Library Awards.

Q: Many of your distributor partnerships, such as those with Crowley, span decades. What role do your partners play in the development of future Zeutschel scanners?
A: You cannot become a leader alone. Zeutschel has over 100 worldwide partners. Our most key partners – such as The Crowley Company – have worked with us for more than 20 years. These long-term working relationships have created a common platform for the provision of valuable insights of both the technical and operational use of our scanners and software solutions. We meet annually to provide feedback and promote new ideas together.

Q: Any ideas on the future of digitization?
A: I think it will be a continual quest for absolute reproductions of the original. To help achieve this, Zeutschel will focus in three key areas:

- The demand for higher quality images to avoid the need for future rescans
- Digital images that guarantee long-term preservation
- Digitization's impact on the environmental, social interaction and governance of individual country archiving plans

Q: The ScanStudio is another new offering from Zeutschel. What was the motivation for its engineering?
A: Most archival organizations have media that is both reflective, such as books and documents, and transmissive, such as slides and photographic negatives. The idea behind the ScanStudio was to design an all-in-one scan "studio" that incorporated Zeutschel technology but which could digitize both media types to the highest imaging standards. The modular design and flexible configuration delivers a high return on investment, replacing multiple scanners with a single unit.

Zeutschel ScanStudio

The ScanStudio also replaces the increasingly obsolete technology of traditional camera systems and simplifies capture by reducing the need for manual shutter settings, manual light configurations and the need to learn multiple software programs. The ScanStudio is all-inclusive of these options and yet still allows for manual manipulation if required by the archivist. It is also designed ergonomically to protect and enhance the operator work environment. As with the OS Q series, the ScanStudio exceeds the highest ISO, Metamorfoze and FADGI standards.

Q: How does the ScanStudio add to the Zeutschel offerings?
A: With the ScanStudio in our product line, Zeutschel now offers the best of both scan technologies: **line sensor** with the OS Q and OS HQ and **area sensor** (150mp) with the ScanStudio.

CELEBRATING THE OLD, PROVIDING THE NEW

The Crowley Company is fortunate to have shared in the shaping of the above-mentioned Zeutschel scanners. Our manufacturing, technical and sales teams collaborate closely with Zeutschel as new technologies evolve. We currently utilize four OS 14000's in our digitization services bureau. In addition to the OS 14000's (and several 12000 and 10000 series models that are still in great working order), Crowley Imaging is using both the OS Q and the ScanStudio with excellent results.

If you'd like an in-person or web demonstration of these or any of Crowley's digitization solutions, contact your Crowley representative, call (240) 215-0224 (U.S.) or request a quote.

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