

JUST THE FACTS



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CLIENT

United States National Archives and Records Administration

PROJECT

To equip NARA for the ongoing digitization of U.S. Federal government documents and materials considered important enough for legal or historical reasons to be permanently preserved and archived under stringent technical guidelines.

STATISTICS

An estimated **8 billion** records, primarily paper documents and including 500,000 rolls of microfilm

SOLUTION

A combination of high-volume book/large-format, microfilm, microfiche and paper document scanners, including the Zeutschel Omniscan 14000-series and accompanying Omniscan 12 64-bit software which was designed specifically to meet NARA's standards.

EQUIPMENT/SOFTWARE

- Zeutschel 14000-series book/large-format scanners
- Zeutschel Omniscan 12 64-bit software
- Zeutschel OP500 ArchiveWriter
- Mekel Technology MACH-series microfilm and microfiche scanners
- InoTec Scamax® 422 auto-feed document scanners with IRIS PowerScan software
- Extensive technical support

A Three-Pronged Solution for Large-format, Document and Film Scanning



Zeutschel Omniscan 14000

For more than 20 years, The Crowley Company has provided capture equipment, software and technical support to the U.S. National Archives and Records Administration (NARA), helping to keep the agency at the forefront of technological changes in the records management and preservation industries.

Of all documents and materials created in the course of business conducted by the United States Federal government, only 1 to 3 percent is considered important enough for legal or historical reasons to be permanently preserved and archived. This preservation takes one of two forms: conservation (the remedial repair of damaged records) or reformatting. With a responsibility to preserve an estimated **8 billion** such Federal government records, NARA's mission is to make these records — 98 percent of which are textual — accessible in an ever-changing environment. This has necessitated a migration toward digital formatting.

The Opportunity

In 2004, NARA Preservation and Imaging Specialist, Steven Puglia, along with Jeffrey Reed and Erin Rhodes, authored "Technical Guidelines for Digitizing Archival Materials for Electronic Access: Creation of Production Master Files — Raster Images." This guideline, an update to an earlier document, intended to provide a technical foundation and standardization for digitization activities. The guide, coupled with the creation of NARA's electronic archives infrastructure for permanent storage, led to

department approval for the purchase of lab equipment to digitize the NARA collections.

Creating A Scanner That Didn't Exist

The response to the original RFP specifications for the ideal **overhead scanner** revealed a void in the document imaging industry: such a scanner did not exist. As the exclusive North American distributor for Zeutschel, The Crowley Company convinced Zeutschel's German engineers to design a scanner to meet NARA's rigid demand for color-quality output from a line-scan camera with unheralded image quality and speed. After nearly four years of engineering and field-testing, the **Zeutschel Omniscan 14000-series** achieved the required SFR and image noise levels and was deemed a success. To complement the camera, Zeutschel designed **Omniscan 12 64-bit software** to allow for image processing while moving on to the next scan — something that other software could not perform at this large file size. With researchers demanding digital images that allow for easy access and a closer proximity to the original, the perfecting of these nuances was critical.



A Multi-Vendor Solution

As of this printing, there are 15 **Zeutschel Omniscan 14000's** in operation at NARA for the digitization of books, maps, photos, hand-written documents, engineering and architectural plans and other archival records. NARA also makes use of a **Zeutschel OP500 16/35mm Archive Writer** for digital records that require the long-shelf life and security afforded by microfilm. NARA had several other areas of digitization and preservation that needed to be addressed and, as a multi-vendor source, Crowley was able to provide further imaging solutions:

Film/Fiche Scanners



As owners of Mekel Technology since 2003, Crowley entered into the manufacturing business with a knowledge base unlike most vendors: that of a client. Using only Mekel Technology microfilm, microfiche and aperture card scanners in its high-volume service bureau, Crowley was intimately familiar with the capabilities and benefits of the brand, which had created the first microfilm and microfiche scanners in the world. As manufacturers, Crowley is in a position to continuously

improve technology based on their own experiences and need, mirroring that of their customers. NARA uses a variety of Mekel Technology products, most recently upgrading their older MACH-series microfilm scanners units to the latest **MACH V** technology. These full-roll ribbon scanners, powered with custom **Quantum software**, guarantee 100% image capture and have proven themselves with increased productivity and unparalleled grayscale image quality.



Document Scanners



Almost 98 percent of the archives NARA preserves are paper records that have been reviewed and de-classified. The challenge was to find an unlimited 24/7 duty cycle document scanner that could process high-volume, was easy-feed and which allowed for easy indexing, a NARA priority. Enter **InoTec's Scamax**®-series paper scanner, dubbed "The German Tank." Field-upgradable for future innovations, this high performance



paper scanner met the criteria and is intuitively simple to operate. Run with **IRIS PowerScan**, the complementary software to InoTec, NARA has been able to make full use of this powerful solution for scanning, structuring, sorting, indexing and converting all documents into fully searchable text files.



Technical Support

Another key component of the successful Crowley/NARA relationship is the degree of technical support required. In addition to standard installation/training and a typical maintenance agreement on all brands, a Crowley expert technician devoted much of the Zeutschel 14000's testing period on-site in College Park, Maryland to ensure that the equipment and software could meet the exacting standards set forth in technical guidelines. Requiring several trips to and from Zeutschel's headquarters in Germany, the end result is unquestionably a large-format scanner that sets world standards.

The Final Results

Document digitization methods are constantly being refined as technology changes. The partnerships that The Crowley Company has entered into with the premier manufacturers of capture equipment and software, coupled with its dual roles as manufacturers of Mekel Technology, Extek Microsystems and HF Processors equipment and imaging specialists with its own 18,000 SF service bureau, offers an unparalleled opportunity to understand and meet client demand. In this case, when the equipment didn't exist, these partnerships and the company's vast industry knowledge allowed for an innovation that ultimately raised the industry standard.

As NARA moves forward with the digitization of Federal government records, the archives are kept safe. Today's researchers and the public have unprecedented ease of access to files as close to the original as technologically possible.

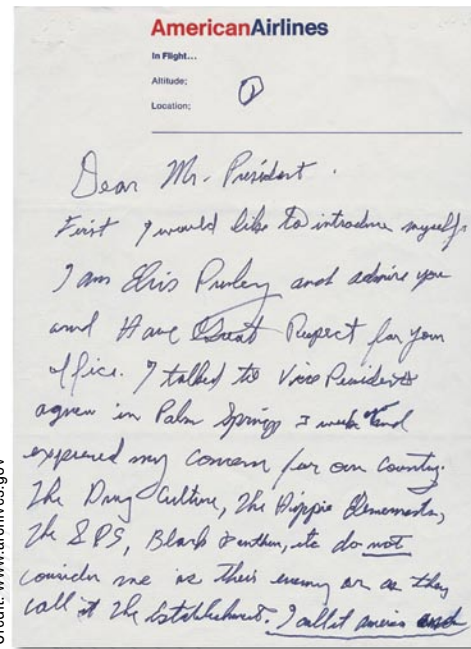
About The Crowley Company

Incorporated in 1981, The Crowley Company is a leading digital and analog film technologies company headquartered in Frederick, Maryland with manufacturing divisions (Mekel, Extek Microsystems and HF Processor brands) in Compton and San Dimas, California. With over 100 employees, The Crowley Company manufactures, sells and services high-speed microfilm, microfiche and aperture card scanners, microfilm duplicators, film processors and micrographics equipment and also provides an extensive number of digital document and film conversion services to the publishing, commercial, government and archive sectors.

For more information:

www.thecrowleycompany.com

<http://www.archives.gov/exhibits/index.html>



This first page of a letter from Elvis Presley to President Richard M. Nixon illustrates the many types of documents and images housed in the NARA collections. With the advent of sophisticated scanning equipment, many are digitized and made available online for public access.

Credit: www.archives.gov

"The demand for information in a digital format is strong. For an archivist, the dilemma is how to do this while keeping the original material pure."

— Steven Puglia, NARA Preservation and Imaging Specialist

