

## THE CARROLL COUNTY TIMES ARCHIVE

## JUST THE FACTS

## CLIENT

The Carroll County Public Library (CCPL)



## PROJECT

Digitization of the *Carroll County Times* for hosting to an online archive

## STATISTICS

Over 300,000 microfilmed images of newspapers dating from 1933 to 2009

## SOLUTION

- 300 dpi grayscale JPEG images
- 300 dpi grayscale multi-page searchable PDF files
- Delivery of images on external hard drive

## EQUIPMENT/SOFTWARE

- Mekele Technology MACH-series roll film scanner
- Mekele's QuantumScan and QuantumProcess custom capture/processing software

## Microfilm Scanning and Indexing for Newspaper Preservation

Crowley Imaging Helps Carroll County Remember the *Times*

## History

For more than a century, the *Carroll County Times* has been covering local Maryland news while staying current with state, national and global issues, evolving to meet the needs of an increasingly diverse and active community. Founded in 1911 as simply the *Times*, the paper was published weekly by the son of a prominent department store owner in Westminster, Md. The *Times* changed its name in 1956 and went through several owners before being purchased by Landmark Community Newspapers of Maryland in 1974. The *Times* is now printed daily and published online.

To preserve this historic publication for future generations, the Carroll County Public Library (CCPL) had been storing the *Times* issues from 1978-present in microfilm format. Serving the residents of Carroll County since 1863, CCPL is headquartered in New Windsor, Md. with six public branches. Through a combined effort with the Carroll County Public Library and the Enoch Pratt Free Library of Baltimore, Md. – which houses microfilmed *Carroll County Times* issues dating from 1933-present – Crowley Imaging digitally scanned and indexed the newspaper records for the CCPL's online *Carroll County Times* archive.\*

## Challenge

At the time of digitization, the rolls of microfilm were in various states of deterioration from years of storage and library patron use. Many of the original newspapers were not microfilmed until years after their publication; the wear and age were reflected in the filmed images. Additionally, the microfilm rolls were not indexed; library patrons looking for an outdated issue had to sort through hundreds of rolls to find the right film. Not wanting to lose the cultural heritage contained in the papers, CCPL administrators chose digitization as the best option to ensure that the material would be sustained as well as more easily accessible to library and internet researchers.

## Evaluation

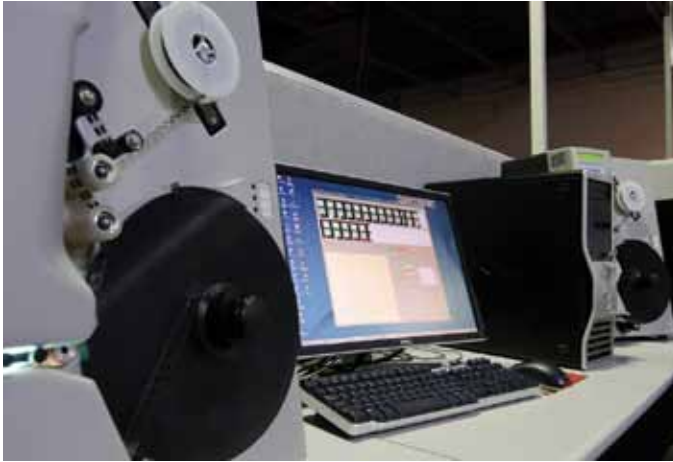
CCPL applied for, and was awarded, a Library Services and Technology Act (LSTA) grant from the Maryland



This issue of the *Carroll County Times* from July 24, 1952, featuring an article on the dedication of the Chesapeake Bay Bridge, was digitized on a MACH5 roll film scanner and processed using Mekele's Quantum software. CCPL chose to have a slight border to ensure no data had been lost.

State Department of Education's Division of Library Development and Services. With funding for the project in place, the next step was to find a service bureau able to perform the digital conversion.

Heading the search for a qualified conversion service bureau was CCPL information technology services manager, Bob Kuntz. "We contacted several service bureaus and reviewed their processes, cost per image, informal reviews and locations," recalls Kuntz of the evaluation process. The Crowley Company had the geographical advantage of being headquartered nearby and also had extensive experience in digitizing historic material for esteemed institutions including the Smithsonian Archives of American Art and Time, Inc.'s *LIFE* magazine. Along with these advantages, Kuntz stated that "Crowley provided CCPL with a great price for the services we required to digitize and allow full-text searchability for the *Carroll County Times*."



The MACH-series roll-film scanners, manufactured by The Crowley Company's Mekel Technology division, read fragile or worn film and scan superior-quality images at high speeds with proprietary Quantum software.

## Solution

To begin the project, Kuntz organized and collected the microfilm records containing over 13,000 *Carroll County Times* issues dating from 1933-2009 for careful transportation to Crowley Imaging. Stated Kuntz, "There is overlap in what CCPL and the Enoch Pratt Library own on microfilm, but some rolls were in better shape than others so we combined our collections for this project." Experienced scanner operators began digitizing the microfilm using a MACH-series roll film scanner, which was determined during the discovery phase to be the equipment best-suited for the type and condition of the material. Developed by Mekel Technology and manufactured by Crowley, the MACH-series roll film scanners are designed to scan high volumes of microfilm and are sensitive to film that shows signs of wear and aging. The series produces archival-quality images using Mekel's custom Quantum capture/processing software.

Approximately 550 rolls of 35mm microfilm, each containing an estimated 20 issues, were scanned on a MACH5 in grayscale at 300 dpi resolution to JPEG format. The images were then used to create a multi-page searchable PDF file for each issue and labeled according to publication date for indexing purposes. At the close of the digitization efforts, Crowley returned the rolls of film, along with the JPEG and PDF files on a two terabyte hard drive, to CCPL.

The high resolution at which the microfilm was scanned allowed Crowley operators to capture as much detail as possible onto the digital images, making the text very legible and pages easy to print. For access purposes and quicker downloads, some of the larger PDF files were compressed after digitization. Kuntz and six other IT staff from CCPL then entered metadata to each file and uploaded the PDF's to the online archive.

## The Result

Over 13,000 issues of the *Carroll County Times*, amounting to over 300,000 images, were digitized by Crowley Imaging and are now available on the online archive. The entire project, including digitization, edits, compression, metadata entry and file uploads to a searchable database, took just over one year to complete. Since then, CCPL staff has been adding and updating issues that were already stored in PDF format by the *Carroll County Times*. Digital copies of newer issues will be added on an annual basis a year after their publication. The online archive provides researchers with intuitive features, including a search bar and a section highlighting issues from "Today's Date in Carroll County History."

Kuntz reflects on CCPL's experience with Crowley, "We have been very pleased with the work of Crowley Imaging. This was our first digitization project. The knowledgeable staff explained the process and helped us make the best decisions for the final product." CCPL has since worked with Crowley to digitize photographs from the Western Maryland Railway Historical Society and, according to Kuntz, "will definitely use The Crowley Company again for future projects."

**"Crowley provided CCPL with a great price for the services we required to digitize and allow full-text searchability for the *Carroll County Times*."**

~ Bob Kuntz, information technology services manager,  
Carroll County Public Library

## About The Crowley Company

Similar Crowley scanning projects in scope and interest include those for the Harvard Divinity School Andover-Harvard Theological Library, the Smithsonian Archives of American Art, *LIFE* Magazine and many others. Incorporated in 1981, The Crowley Company is a leading digital and analog film technologies company headquartered in Frederick, Md. with manufacturing divisions (Mekel Technology, Wicks and Wilson, Extex Microsystems and HF Processor brands) in California and the United Kingdom. With over 100 employees, The Crowley Company provides an extensive number of digital document and film conversion services to the publishing, commercial, government and archive sectors and also manufactures, sells and services high-speed microfilm, microfiche and aperture card scanners, microfilm duplicators, film processors and micrographics equipment.

For more information:  
[www.thecrowleycompany.com](http://www.thecrowleycompany.com)  
[\\*http://cctimes.carr.org](http://cctimes.carr.org)



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