

Case Study



Virtual Film by nextScan allows Canyon County, (IDAHO) easy access to Court and Land Title records...

"Improved Efficiency, Reduced Labor Costs and Increased Customer Satisfaction along with long term critical document preservation are just some of the benefits that this project has brought to our County Records Management Department and County Land Title Records" - Lorraine Hunter, Canyon County (IDAHO) Records Management Supervisor

OVERVIEW

Canyon County, ID with a population of over 200,000 is one of the oldest and most history rich counties in the State of Idaho. The Canyon County Courthouse is the site for the County Records Management Department and the County Recorders Department, which are responsible for all Public Records and Non-Public Records of the County (Court, Land Title and Vital Statistics). These records, dating from the late 1800s to around 1995 were archived on legacy microfilm and microfiche. As Canyon County was in the process of updating and streamlining their EDM systems, they were also exploring what could be done with their archived records stored on Microfilm and Fiche. Over time, Microfilm and Microfiche begins to degrade, gets scratched and could be prone to vinegar syndrome making the documents less readable or permanently destroying them over time. Canyon County, like many other agencies with vital records, was running the risk of losing these historical documents. The county also wanted to provide the very best service to the public by reducing retrieval time and streamlining research processes. As part of the investigation for conversion options, Canyon County Clerk of the District Court Ex-Officio and Recorder, Chris Yamamoto, was presented with nextScan's new Virtual Film Conversion technology and after reviewing options, he felt that it was a great solution for the county's infrequently accessed archival records.

THE CHALLENGES AND SCOPE OF THE PROJECT

Canyon County, (IDAHO) wanted to modernize their processes and protect aging records that were on Microfilm but did not have a large budget for this type of project. Because nextScan's Virtual Film microfilm conversion approach offers a significantly less expensive option to traditional scanning, this is a feasible option for counties and other agencies or corporations on a limited budget. At Canyon County, some of the records being converted were from case files dating back to the late 1800s. Records scanned included 2500 Court Record Rolls, and 450 Land Records Rolls all on 100 foot film rolls at 16mm, 31x reduction, scanned at 300 DPI, grayscale. Due to the sensitivity and security concerns for some of the documents, Canyon County elected to have operator training performed on-site and records scanned at the Courthouse.

To complete this task, nextScan provided an Eclipse 1000 high-speed Roll film Production Scanner capable of scanning in sustained mode, up to 1000 pages per minute. A typical office day of approximately 6.5 hours per-shift (accounting for film retrieval, documentation, setup and teardown time as well as lunch break etc.) yielding comfortably an average of 65 rolls scanned per day.

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Virtual Film Conversion Procedure:

The Procedure for Virtual Film Conversion using nextScan's solutions is relatively simple. At the beginning of the shift, the nextScan trained operator verified and checked out film rolls from the Canyon County Records Management secure vault area. Once the quick daily preventative scanner maintenance and sample scan was performed, the operator began the per roll procedure with an average cycle time of around five minutes per roll.

This process included the following steps:

- Pull the next roll from the "Incoming" container
- Load the film on Eclipse scanner and start scanning
- While scanning, take a Picture(s) of the empty film box using nextScan provided small book(label) scanner. *** This allows for a double check verification system of each roll scanner and creates an easy to view and retrieve "Virtual File Cabinet".
- While scanning, enter the index information from the film box
- While scanning, print Barcode and attach to film box
- When Scanner detects End-of-Roll, Confirm the actual film is at end of the roll
- After auto-rewind, unload the film
- Return film to "Completed" container

Auditing:

Although Virtual Film does not require any frame-by-frame detection, for the Canyon County Virtual Film project all frames were individually detected and inspected for proper framing during the audit process. For the Canyon County Scanning Application, nextScan consultants created output templates for PDF and TIFF so that when saving/printing or emailing documents, the user would have the flexibility to choose either format.

Due to film age, use and conditions, some of the film had degraded and was considered to be poor quality. Because nextScan technology includes comprehensive image enhancement tool utilizing the NextStar PLUS Software Platform, nextScan can provide optimum speed and significantly reduce conversion costs by minimizing operator setup and QA, and also eliminate the need for rescans. All image data is captured initially in grayscale as a "Ribbon", so image enhancements can be performed at the audit workstation concurrently while the scanner operates at maximum speed. No images are ever missed during scanning. This system enables optimum scan time and speed, quality of output and the highest accuracy of the overall process. nextScan Scanners also feature LuminTec, nextScan's patented strobed LED illumination system, which effectively increases the character definition and image quality of scanned images by nearly two times in the scanning direction without increasing image file size. Using this technology, resulted in very high quality images, ultimately enabling much better OCR results. nextScan's NextStar PLUS with Virtual Film software package allowed for very good results in frame detection. The process of auditing only took a couple minutes per roll with the exception of some badly damaged or poorly filmed rolls which took between 10 to 15 minutes each. Image quality from the old source material at Canyon County was in some cases very poor because of old original documents, and aging film.

Database and indexing creation:

Virtual Film supports not only 8-Bit Grayscale, but 10 and 12 Bit, providing 256, 1024 and 4096 shades of gray respectively allowing for better image depth and image fidelity. Virtual Film can be set up to output any type of commonly used file formats (for example TIFF, PDF, PDF/A,) so that it can be used as an intermediate step towards a fully indexed traditional conversion if desired. This makes Virtual Film the most flexible Microfilm and Microfiche conversion option, allowing conversion to be completed in stages as budget constraints permit. nextScan software supports over 1000 different formats and uses the most sophisticated military style processes, the poor images that were encountered on the Canyon County conversion project look literally great.

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Database and indexing creation:

Virtual Film allows customers to custom design their workflow and indexing processes based on their unique needs. This process was determined in a consulting session with Canyon County Records Department employees. Once the County Records Management officials determined what fields and types were needed such as date range, various text block and text ranges, numerical ranges and drop-down types, the database was created using a software tool that nextScan provides. The actual entry of the fields and database creation takes only a few minutes. At the start of the project, Canyon County Records Department officials were not completely sure of all of the "Case Types" for court records that might be encountered when converting these film stores since many of the rolls and cases were very old and naming schemas change over time. To address this issue, nextScan created 20 extra drop-down types temporarily named "Zebra 1" through "Zebra 20". During the process of scanning when the scanning operator identified a type that was not in the initial database, they assigned it a "Zebra" number and kept a working record detailing the actual description of what that temporary Case Type represented. At the end of the project, these Zebra numbers were renamed to represent what was actually scanned, allowing Canyon County to have complete, easy to understand and retrieve, indexing for their Virtual Microfilm. Some of the records on film dated back into the 1800's and those were filmed in the 1940's so a portion of the film was very fragile. No film was broken or damaged during the conversion process thanks to nextScan's patented film transport. This system was specially designed with loops that release tension on fragile film, ensure linearity, and eliminate image distortion created by stretching of film. nextScan technicians did perform repairs by adding leaders to a few of the rolls. At the end of the roll, nextScan scanners are able to effectively scan to within two inches of the end of the roll; therefore we did not need to add film to short rolls.

This project was a cooperative effort between nextScan and Canyon County where they agreed to be a local beta test site for Virtual Film Microfilm Conversion. As part of this joint effort, nextScan provided trained scanner operators. These individuals were students from local colleges who required only about half of a day of training for the scanning portion, and a few hours training for Audit and QA. nextScan also provided training for the end users in both Court Records Management Division and the County Records Department (Land Titles) at the Canyon County Courthouse on the basic operation of Virtual Film. This is a very easy to understand and streamlined system, so minimal training of an hour or so with each key employee was all that was required. Working with the County's IT department, nextScan consultants spent about 2 days to setup the Virtual Film server(s). The County decided to host the data on their own servers using Microsoft MS-SQL as the final database. Virtual Film options include, self-hosted (this is what Canyon County chose), Cloud Based Provider Hosting, or nextScan provided server(s). For the Canyon County conversion project, data was backed up on an external Storage Device, and transported to nextScan's facility weekly for offsite backup and Audit, QA and final database generation.

The Virtual Film System:

Virtual Film converts your film into a user viewable digital ribbon format, and allows access to the film images using the microfilm scrolling and search techniques, but without the need for the film! The cost of digital conversion can be less expensive than making a duplicate of the film, and is a permanent record that can be viewed at any PC workstation using nextScan software. Simply use your existing workflow with the same indexes. Enter the roll number, instrument or case number in the Viewer and the roll or fiche is instantly displayed. In simple terms, Virtual Film emulates an existing microfilm retrieval process, but in a digital format.

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providing immediate access to the data and allowing for instant remote access. Virtual Film is the perfect tool for low retrieval rate film and at any time the images can be output for import in to your current Document Management System along with your current day-forward content.

Virtual Film Viewer Features:

- Smooth Scroll action on the PC viewing screen
- Zoom features to zero in on a specific portion of the page of file
- Search by image, roll or blip, or page-by-page indexing
- "draw a box" around an image or paragraph and print, email or save
- Virtual Film allows user management of security setting and user permissions
- Virtual Film Viewer can be installed on multiple workstations allowing instant and remote access and yielding increased efficiencies.
- The Virtual Film Viewer is very user friendly, no hassles of retrieving, loading and unloading film and no Reader/Printer maintenance.
- At any time output the entire archive of Virtual Film to individual files for any Document Management system.

THE SOLUTION AND RESULTS

This Virtual Film conversion for Canyon County, (IDAHO) resulted in increased efficiencies for record retrieval, reducing the response time to potential customers dramatically. The software was installed in various departments which allowed multiple employees to search for cases on microfilm from their desk, rather than physically going to different areas for procuring document copies as well as allowing employees to remain in their department. The transition to using the Virtual Film Viewing System for access was not difficult as the Courts Records and County Records employees at Canyon County could easily use their prior workflow methods of indexing.

This new technology has changed their processes, reduced retrieval labor and storage costs, and vastly improved the quality of the images and files available for public access. Canyon County Records Management officials are relieved to have the security and flexibility of permanently preserved records and look forward to performing full indexing using their current document management system, as their budget and resources allow.

About nextScan:

nextScan is a world leader in cutting edge technology for the micrographics conversion and document management industry. Incorporated in 2002, nextScan was established to give the microfilm and microfiche conversion market a high performance alternative to existing technologies. nextScan's innovative patented products are designed and built with simplicity and functionality to increase user production and lower overall costs for scanning film and fiche.

For more information on Virtual Film and other nextScan products and services, contact www.nextscan.com or 1-208-514-4000.