▷ KV-S3105C

More than 230,000,000 pages successfully scanned and stored using 30 Panasonic production scanners without a single failure requiring retiring or completely rebuilding a unit.

Company/Industry:
Major Search Engine | Internet

Task:
Create the world's largest online library of full-text books, catalogs, and related material.

Challenge:
Maintain a high-speed, continuous workflow while simultaneously restoring images of old, yellowed, faded, or otherwise substandard volumes.

Solution:
Panasonic KV-S905C and KV-S3105C high-volume scanners, some of which have been in continuous service for over four years with millions of impressions

Decision-Making Factor:
After extensive tests of every major-manufacturer's 80ppm-plus scanners, the customer found that the Panasonics produced the highest quality images, were the most durable, required the fewest user interventions, and had the longest routine maintenance intervals.

Impact:
Best-in-class paper handling and integrated automatic image-enhancement technology eliminated many traditional operator tasks enabling customer to drastically reduce labor costs by assigning only one person to three machines. Unlimited daily duty cycles kept program on schedule with fewer number of units than anticipated.

User Summation:
More than 230,000,000 pages successfully scanned and stored using 30 Panasonic production scanners without a single failure requiring retiring or completely rebuilding a unit.

Panasonic Production Scanners Power Massive Full-Text Book Digitizing Effort After four years, millions of images, first units still deliver unlimited duty cycles

It started, in 2002, as a simple effort to enable small catalog merchants without Websites to do business on the internet and up-scaled into a colossal, ongoing project to digitalize hundreds of thousands of books and other printed materials by scanning them, complete with library identification cards and other collateral material, into the world's largest literary database.

In ramping the effort up from its humble beginnings to its current lofty mission, the major search-engine provider creating the database conducted extensive real-world tests of units from every manufacturer of high-volume (above 80 pages per minute) production scanners before selecting Panasonic Communications Company of North America KV-S905C and – in later orders – KV-S3105C scanners for the job.

According to the client, a key element in their choosing Panasonic was operator efficiency.
"They wanted to mount the scanners in sets of three, one above the other, with a single operator feeding all three machines," said Alexandra Dilly, Panasonic Communications Company of North America product manager for scanners. "With such features as a stainless-steel, dust and debris-resistant paper path, 6,000,000-page light source, sealed lens and CCD assembly, advanced-material paper-

feed roll, dual ultrasonic double-feed sensors and 1,000-page document feeder, the KV-S3105C requires minimal user intervention and maintenance.

"The customer also appreciated the fact that our Panasonic Image Enhancement (PIE) technology is an integral, onboard part of the scanners," Alexandra Dilly added. "All of the major production scanner makers except Panasonic and one other company rely on third-party software vendors for computer-resource-hogging background applications that cleanup and optimize images. PIE works inside the scanner, which makes it faster, more reliable and much less demanding on the host computer."

In operation, books arriving at the company's central scanning center have their bindings removed and their pages mass scanned at up to 230 duplex images per minute. Bibliographical information, reviews and other data may be dumped into the same batch, added to the database electronically if it is already available in digital form, or scanned in at some other time and automatically linked to the full book manuscript.

Because pre-sorting material by hand would be prohibitively costly in both time and money, the project relies heavily on the PCCNA scanners' unparalleled ability to automatically handle batches of mixed-size documents, distinguish between color and binary pages, remove blank pages, and crop images to the correct size.

"Another differentiating feature for this client is Dynamic Thresholding," Alexandra Dilly said. "A vast part of their collection consists of out of print books, many of which, as you can well imagine, are not in the best of shape. Pages may be yellowed or stained and the ink may have faded. Our proprietary DT Technology converts those originals into high-quality digital images without slowing down the production process.

After being scanned and integrated into the company's database, the volumes can be accessed from a "book search" page on the search-engine's website.

As an example, searching for books authored by Mark Twain returns hundreds of editions of Twain's works in "limited preview" form and nine complete texts. As another example, a search for books written by Ernest Hemmingway that have the word "Africa" in them, returns links to nine volumes which, when clicked, open to the first page in which Hemingway mentions Africa.

A myriad of other search options provide numerous additional ways to work with, or simply enjoy, this vast and rapidly growing reservoir of knowledge. Each and every page of it virtually as clear and readable as the day it was printed thanks to the advanced features and rock-solid reliability of Panasonic high-speed production scanners