

VersaIMAGE in the Mortgage Industry

Background:

SHORE Mortgage's ("SHORE") mortgage closing files contain a great number of significant documents that often must be quickly located by various user departments. With approximately 200 pages per file and 50 files per day a minimum of 10,000 documents are generated per working day. The original documents in each valid closing file must be copied immediately after closing and overnight expressed to the lending organization or investors.

Imaging requirement:

SHORE required an imaging system that eliminated the substantial daily copying requirements, manual file storage and handling, allowing quick image retrieval of desired documents while providing total document security. Also, additional documents that usually arrive after the loan closing need to be added quickly to the electronic file folder eliminating costly manual filing and copying.

Imaging Proposals:

Conventional imaging methods proposed by various vendors required the addition of bar coded divider sheets to separate documents within each file. However, SHORE did not want to spend the additional labor hours required to divide and index their files into various categories or adding costly divider sheets to their files.

The SOLUTION:

Installation of the **VersaIMAGE-GOLD** imaging software with full image text retrieval capability quickly solved SHORE's document scanning, indexing and retrieval problem. Because a large number of documents are contained in each file folder the Versa image text search feature is "perfect" for this application, eliminating unacceptable "file sorting labor" altogether. Even though VersaIMAGE has standard batch scanning, OCR and Bar code field indexing available the full image text conversion and "fuzzy" text search capability was selected by SHORE as the most desirable imaging process.

System installation:

In 2003 SHORE purchased the first two of five Canon DR 3060 and DR 5020 high speed document scanners and installed a 15 concurrent user VersaIMAGE-GOLD imaging system at their headquarters in Birmingham, Michigan. In minutes, a VersaIMAGE client application was created with 15 index fields in a Microsoft SQL database and scanning could begin.

At that time and still today, closed loan files are contained in legal file folders. "Loan work papers" are Acco fastened inside the folder to the inside right and "closing papers" are attached to the inside left with approximately 75 - 100 paper documents in each group. Because the Acco fastener holes on top of each page often caused double feeds or paper jams a document jogger was installed to allow documents to be fed "bottom first" and the VersaIMAGE software was set to rotate images by 180 degrees automatically.

Scanning and Indexing:

Documents are removed from the folder, reverse jogged (there are legal, standard 8 1/2 and smaller pages intermixed in the file) and inserted bottom first into the scanner. Pressing the F-5 function key scans only the first page and displays this image on the right side of the display screen. The loan number and file type is now keyed by the operator from the image or paper folder into the database fields. Subsequent F-5 key actuation scans the entire loan file automatically. The SCAN DATE is entered automatically by VersaIMAGE into the database together with the additional 13 data fields, that are match merged by VersaIMAGE's loan number "lookup-append" function from Shore's LOS database.

IMAGE RETRIEVAL:

1. Initial OCR "word search table" set-up:

Within a typical closed loan file (approx. 200+ images) all significant images were located manually by scrolling through the images. Significant images are images that often require retrieval such as a specific

HUD or IRS forms, Mortgage application or support pages. Next, on each document the recognized OCR text was analyzed by the SHORE systems administrator (a control/right click on an image displays the OCR text file). The best unique search word combination for retrieval purposes was now chosen, tested and written down into an "OCR Search Table". Final test searches were made in VersaIMAGE using the OCR text field in conjunction with the database loan number field to see how many OCR "hits" were delivered for a given search.

Naturally the goal was to devise unique OCR search words for each document image type without retrieving other meaningless documents. For example the search word **Note** as shown below occurred in as many as 24 documents rendering the OCR search feature rather ineffective. However by adding the Boolean **AND** search command with the word **Promise** we narrowed the OCR HIT image count down to two images as shown below. We then continued to build a HIT table for each document category:

EXAMPLE:

Enter into in Loan Number field: **1024435675**

Enter into OCR field: **note**

Unacceptable Result: 24 thumbnail OCR HIT images

Now modify the OCR search criteria to require two words on the same page:

Note AND Promise

Acceptable Result: Yields only two OCR HIT images, the correct "Note" and a related page.

The final search table was now compiled to eliminate excessive OCR HIT images:

Application	application AND uniform
Appraisal	appraisal AND comparable
Assinment	assignment
Deed	deed
Good faith estimate	good AND faith
HUD Settlement:	hud AND settlement
Insurance	insurance AND Insured
IRS form 4506	"IRS" AND 4506
Mortgage	mortgage AND "MIN"
W2	W-2
Termite inspection report	wood AND Insect

Others...

With the completion of 24 items in the the OCR search table the system was now ready!

2. SEARCHING FOR DOC TYPES AND IMAGES:

The VersaIMAGE retrieval system offers a very simple yet powerful image retrieval process:

1. Enter a loan number into the SQL database **Loan Number field** (I.e. "1204353210")
2. Enter a search argument into the OCR field from the OCR search table (I.e. **W2**)
3. One or more OCR HIT thumbnail images appear on the screen (I.e. **OCR HIT 44**, **OCR HIT 107**) on a green desktop background.
4. The operator views the OCR HIT images (left click on image to enlarge, right click to reduce) and then selects the desired image (I.e. **OCR HIT 44**) pressing the blinking blue "**STANDAD Display**" button on the bottom of the screen.
5. The display switches to the exact image location (**Image 44**) within the loan file (light blue background).
6. The user may now view, print, fax, e-mail, image transfer to PDF one or more images as required or copy the images into distribution folders. Distribution folders allow multiple search requests to be stored for subsequent image distribution.
7. Fuzzy search: If no OCR hit is found move the fuzzy filter from 100% to 80% or less until OCR hit pages appear on the screen. The fuzzy filter relaxes the exact OCR spell matching requirement.

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