Converting from Proprietary Imaging Systems

by William Krautter

It is hard to believe commercial imaging systems are less than fifteen years old. Many of the issues that presented themselves to traditional data processing systems in the 60's and 70's are similar to those in imaging systems found in the 80's and 90's. The most profound issue today is compatibility among imaging software solutions as computing platforms change.

In the 60's, 70's and most of the 80's, large computer data processing systems could not use the executable (.exe files in the PC environment) software code when installing newer, faster and larger systems. Armies of programmers and analysts were kept around to correct software which would not operate on the newest "big blue" box or function properly when new versions of the computer operating system changed. These software corrections did not give the users of the computer information any more data or function, just the same application operating on the new machine.

Unfortunately in the 80's, the imaging industry did not learn from these shortcomings. Mainframe based imaging systems continued to use the "mainframe" approach. Since there were no industry standards for mainframe computer manufacturers to use, they each developed their own. Some vendors borrowed specifications from the defense department; others created their own bit-map image file structures. This added to the complexity

of changing the corporate mainframe. In the mid to late 80's when the micro-computer came on the corporate data processing scene, ingenuity was running rampant. This revolutionized the young imaging world with the first microcomputer-based document imaging systems.

For the most part, these systems were small and had limited use until large capacity optical platter storage devices came along. Due to its nature of being PC based, the imaging application software could now run on a wider range of computers without re-programming. Since imaging standards were still developing at this time, different versions of bit-map images continued to be an issue for imaging software systems.

When the TIF (Tagged Image Format) file became popular, many software vendors rushed to use it as a standard. This format evolved over a period of several years and vendors adopted it at different stages of maturity. This created many "flavors" of TIF to which each software vendor added their own personal touch to make the bit-map image more efficient. The end result – proprietary systems – continue to plague the document imaging industry.

Many companies were sold on document imaging systems based on its ability to archive and retrieve documents quickly, often, and for a long period of time. Cost and benefit models were created based on the dollar savings of subsequent docu-

ment retrievals and storage costs over the life of the document. This caused companies to make large investments in the initial conversion of these documents into digital form.

As document imaging systems aged, the useful life of this imaging investment was quickly becoming shorter than the life of the documents being served. This was due in part to the lack of upward compatibility or continued future use of these initial imaging systems and their related digital image files in the "world class" network systems of today.

Companies who were early adopters of digital imaging technology were faced with a critical decision. *Do they give-up on their original investment in the conversion of digital imaged documents?* Some of those who answered "yes" found that the initial cost benefit model did not prove itself and discontinued digital imaging. Others who answered "yes" found their documents' useful lives ran in three or five year cycles, matching the useful life of the proprietary imaging system and allowing them to pull-the-plug on the old system.

Most companies were forced to answer "no" and looked for ways to convert these incompatible digital images and document index files. These companies looked at the original conversion cost plus the subsequent conversion costs and deter-

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mined that the document imaging system could continue to be cost effective, and in most cases, improve the benefits.

After thorough analysis, companies found the cost of converting the old proprietary digital images and indexes added only a fractional amount of cost to the original conversion cost and produced a greater use benefit by managing more documents under the new imaging system. This resulted in shortening the cost benefit payback period of the new system.

Many of the document imaging system vendors of the 80's do not exist today. Others may exist but stopped supporting these early products in the middle 90's. Some vendors had upgrade programs and paths for customers within their own product line, but not to an "open" file system accessible by competitive vendors.

The most challenging effort in converting proprietary document imaging systems to newer "open" systems of today is finding the appropriate knowledge. Data processing and imaging service bu-

reaus are being called to fill this knowledge chasm. Since these service bureaus have traditionally solved data and image migration challenges, they are the likely providers of these proprietary imaging systems conversions. As in the data processing industry with each bureau having a specialty, imaging service bureaus will likely follow this pattern. Just as data processing service bureaus might specialize in converting Data General mini-computer files to IBM mainframe, imaging service bureaus will provide data and image hardware/software conversions from Canofile to FileNet, Kodak KIMS to PaperClip, etc.

Traditional service bureaus expanded their knowledge by performing subsequent data conversions using the experience they obtained from initial conversion projects. Imaging service bureaus will expand their knowledge of older and newer imaging systems using this same technique. What was the target or "convert to" imaging system in one engagement might be the source or "convert from" imaging system in the next. There will be instances where the knowledge

of converting data and images expands geometrically with each conversion project performed.

The digital document imaging market is estimated to be at least a billion dollar a year business. Service bureaus who can take advantage of these proprietary imaging systems conversions will be saving their customers millions of dollars in conversion costs when they migrate to newer systems.

About the author

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Mr. Krautter and his firm have provided document conversions of data and image for many organizations over the past 39 years, and most recently for clients who have proprietary imaging systems and require special image and index processing.

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