

# Document Imaging Report

Business Trends on Converting Paper Processes to Electronic Format

4003 Wood Street ● Erie, PA 16509 ● PH (814) 866-2247 ● <http://www.documentimagingreport.com>

May 16, 2008

## THIS JUST IN!

### TOP IMAGE REBOUNDS WITH STRONG QUARTER

In the second half of 2007, **Top Image Systems (TIS)** talked a lot about its strong pipeline, as it finished up the year with a pair of disappointing quarters. Finally, in the first quarter of 2008, some of TIS' pipeline came to fruition, and the company recently reported record quarterly revenue of \$9.3 million. Also, in the wake of an extensive restructuring [see *DIR* 3/7/08], TIS had an operating profit of \$400,000.

The Tel Aviv, Israel-based ISV's business was especially strong in the Asia-Pacific region, which accounted for approximately 35% of the quarter's revenue. TIS CEO Ido Schechter cautioned that this was boosted by a one-time \$1.5 million deal with a Chinese bank. "Also, much of the Asia-Pacific revenue was driven by lower-margin deals, related to AsiaSoft's legacy VAR business," said Schechter. [AsiaSoft is a Singapore-based business that TIS acquired last year; see *DIR* 7/20/07.] "We are in the process of transitioning that business to selling more *eFlow* [TIS' flagship capture product].

"We are becoming a major player in Asia-Pacific. This includes many positive trends in mainland China, where we are making headway in the insurance, government, and banking verticals. Also, our partnerships with major players like **IBM** and **Fuji Xerox** are starting to bear fruit. Finally, the quarter included a deal with **Citibank**, for a system being installed in its mainland China office, with plans to roll out systems at its offices in India, Taiwan, and Korea by the end of the year."

For more information:

<http://www.topimagesystems.com>;

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## EOB Processing: The Next Frontier For IDR?

Automated EOB (explanation of benefit) processing often has been spoken of as one of the next big applications for IDR (intelligent document recognition). Granted, it's only applicable in the health care industry, so EOB processing does not have the universal market potential of other IDR applications like invoice processing or the digital mailroom. However, EOBs drive financial transactions in an industry worth over \$1 trillion annually in the United States; so there is clearly some significant opportunity.

For those of you not familiar with the acronym, EOBs are forms sent out by insurance companies ("payers" in health insurance speak) designed to literally "explain" their payments for claims. Both patients and health care providers, such as doctors' offices and hospitals, receive EOBs. Document imaging vendors are concerned primarily with the EOBs that providers receive. EOBs can include information on multiple claims and arrive with large checks.

To balance their financial systems, health care providers have to extract the data from EOBs. Once this data is extracted, providers can analyze it and begin pursuing any secondary claims or disputes related to payments. Obviously, automating this data extraction through IDR and OCR has the potential of reducing manpower costs. Perhaps even more importantly, automation has the potential to speed up the revenue cycle at health care providers by enabling them to settle their disputes and secondary claims more rapidly.

Like an invoice, an EOB clearly fits the profile of a variably structured form. In other words, all EOBs contain approximately the same type of data, however, it often appears in different places and in different formats, depending on the insurance company that has created the EOB. For example, for the same basic data, one insurer might use the term "patient ID number," and another might use "account identification code."

In addition, EOBs typically include tables with detailed information on each claim, similar to the way invoices

often include line item details. The number of lines used to address a claim can vary, which can make these tables very complex to understand—even for a person looking at them, not to mention a software application. In fact, it has been suggested more than once that payers intentionally make their EOBs difficult so that providers will have trouble disputing payments. [One source we spoke with called this an “urban myth.”]

The market for EOB processing software seems to be divided into three segments. The first is hospitals or health care facilities, which are ultimately receiving the payments and EOB data. The second is service bureaus that are contracted by health care providers to manage their financial transactions. The third are banks that operate in much the same manner as the service bureaus. Of course, banks can also subcontract service bureaus.

Despite an apparent market for automated data capture from EOBs, and vendors that have been touting technology in this area for close to five years, we have still seen very little adoption. This could be about to change. Consistently improving IDR technology, along with a better market understanding and integration with health care financial management systems is definitely driving an increased interest in automated EOB capture. Similar to the way invoice processing finally took off a few years ago after several false starts [see *DIR* 8/17/07 and 9/7/07 for our complete analysis of the maturation of the invoice market], it seems EOB processing is poised for a tipping point some time soon. *DIR* recently caught up with several of the leading players and leading prospective players in the EOB processing space, and here’s what we came away with.

### **SaaS offering emerges as an early leader**

One of the early market leaders in automated EOB capture seems to be Vernon Hills, IL-based **Concuity**, which advertises itself as a health care revenue management firm. Founded in 2000, Concuity’s bread-and-butter is a hosted contract management application that basically performs mathematical equations for providers based on their contracts with insurance companies. *ClearContracts* is designed to let providers know if they’re being properly compensated.

“Obviously, getting data from EOBs is very central to what we do,” said David Rodriguez, director of product marketing for Concuity. “Three years ago, we introduced *EOB Pro* [a hosted automated EOB processing application], and we strongly suggest our customers employ it to convert all their paper payments into electronic data streams. *EOB Pro* is designed to feed *ClearContracts*, which helps providers with underpayment analysis and denial management.”

According to Rodriguez, about 15 hospitals are using *EOB Pro*, which is a hosted version of **CereSoft’s EOBAgent**. CereSoft is a Silver Spring, MD-based ISV that was one of the pioneers in unstructured forms processing. As far back as 2002, we ran a story documenting some of its early success in

## **Document Imaging Report**

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### **Vol. 18, No. 10**

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*DIR* is published 24x per year, on the 1st & 3rd Fridays of the month, by:

**RMG Enterprises, Inc.**

4003 Wood Street

Erie, PA 16509

PH (814) 218-6017

<http://www.documentimagingreport.com>

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the EOB market [see *DIR* 10/18/02].

"Aside from its technology, we liked that CereSoft is a little bit smaller than some of the other organizations doing EOB processing and not part of a larger banking institution," said Rodriguez. "We've seen banks start to gobble up some of the EOB processing specialists, and we didn't want to get involved with a company that was going to be acquired by a bank. We wanted to work with an agnostic vendor. A lot of hospitals we do business with use a certain bank to process their financial transactions and might not want to have to go through another one for EOB processing."

Rodriguez said the primary reason for Concuity's success in EOB processing is its integration with *ClearContracts*. "We typically work with large organizations like **UPMC** and the **Cleveland Clinic**," he said. "The large majority of their payments are coming in electronically, so they have a hard time justifying investment in EOB processing as a standalone system. However, when installed in conjunction with a contract management system, the combination helps a provider more quickly identify underpayments and denials, which makes it easier to come up with an ROI."

#### **Low-volume payers offer entry point**

**AnyDoc Software** is another player in the EOB processing space. According to Michael Fitch, director of strategic markets for AnyDoc, the automated data capture specialist has a handful of EOB installations at a combination of health care providers and service bureaus. Fitch believes the EOB market is still sorting itself out as users struggle to understand the implications of HIPAA and how it will affect the number of electronic payments they receive.

"One of the biggest opportunities we are seeing is in automating the payments from lower-volume payers, which are less inclined to pay through EDI," said Fitch. "When you look at the manual labor expended on these payers, in comparison to the revenue they generate, it's very disproportionate."

"Even if higher-volume payers aren't using EDI, if their payments are coming in every day, providers or service bureaus typically have people that specialize in data entry from their forms. These people get to know where data is located and the nomenclature used for specific fields. With the lower-volume payers, you don't have enough repetition for data entry operators to develop any expertise. That's where our *QuickApp* technology can be valuable."

"*QuickApp* basically enables a data entry supervisor

to set up a template in a couple steps. The operator manually identifies the items in one column; after that, *QuickApp* should be able to determine which other fields need to be extracted and will apply the appropriate rules."

"*QuickApp* is evolving into a good entry point for us, as once users see how it works for their lower-volume payers, they start asking about our *AnyDoc* EOB product, which can provide fully automated capture of forms from higher-volume payers. Most of our current EOB processing customers are using both products."

AnyDoc offers EDI standard 835, XML, or ASCII formatted output, which can be fed into health insurance financial management systems. "We also have the ability to cross check EOB data against a claim or an 837 electronic claim format. Of course, it gets complicated when you send out a claim that might have five service lines, but you receive an EOB back that has only three. Sometimes the payers combine lines or split them, which might be the case if you have secondary billers involved."

Fitch estimated that if you take government Medicare and Medicaid payments out of the equation, 40%-60% of EOBs are still coming in as paper. "We are definitely seeing an uptick in interest in our EOB processing technology," he said. "I think increasing EMR [electronic medical records] adoption has something to do with it. From our standpoint, EOBs offer a great way to introduce automated data capture into a health care organization that typically has a multitude of forms processing opportunities. If you look around hospitals, there are a lot of small pockets of data entry."

#### **BancTec introduces EOB outsourcing**

**BancTec** is another software vendor we talked with that is making a serious investment in EOB processing. However, BancTec is incorporating its EOB software in its *RemitCycle 360* service bureau offering "which automates and unifies the administrative and financial events between providers, payers, and banks." BancTec is marketing its services primarily to financial institutions and has brought in former **Cerner** EDI specialist Richard E. Mobley as VP of its Healthcare Services Division.

"I look at my position with BancTec as providing me the opportunity to conquer one of the last unaddressed paper problems on the business side of health care," Mobley told *DIR*. "Statistics show that today, still about 60% of health care payments are made with paper. This includes EOBs, as well as payments from individuals for deductibles or co-pays."

BancTec's solution is similar to Concuity's in that BancTec is also offering a contract management solution. "The 360 piece of the name comes from our ability to receive claims data from a provider, key enter it, and get it ready to submit to a clearinghouse or a payer on behalf of the provider," said Jeff Brown, VP of BancTec's Business Process Outsourcing (BPO) practice in the Americas. "After all the adjudication takes place in the payers' system, they issue an EOB, which we receive, image, and extract data from. We then submit the data to our administrative engine."

BancTec's administrative engine manages tasks like converting the payment information to an EDI 835 format that can be submitted electronically to a provider's financial management system. It can also help providers manage exceptions like denials, underpayments, and secondary billing.

BancTec is marketing its EOB processing service in an area where it already has a strong presence. "We are targeting financial institutions that have corporate treasury management practices that support the health care industry," said Brown. "Historically, EOB processing has always been a sticky point in the relationship between providers and these financial institutions.

"The providers want to transfer to the banks all the responsibility for receiving their payments, but the financial institutions have had trouble effectively managing EOBs. Right now, the most common level of service is that the bank will receive the EOB and a check, deposit the check, and let the provider post the EOB data to its own system. To add value, a couple large banks recently purchased service providers that specialize in creating 835 data streams from EOBs.

"These service providers have tried using automated data capture but are primarily utilizing offshore keying. Due to the complexity of EOBs, this is a very labor intensive process, which means that keyers are handling relatively low volumes. It's our opinion that the only way for a service bureau to generate any significant profit through EOB processing is to have a highly efficient automated data capture process. This way, you are only keying a small percentage of the data."

BancTec also has payment processing technology

for managing capture of data from EDI transactions, co-payments, deductible payments, and secondary payments. "Through our software, banks can offer providers a dashboard where they can view all their payment information on a day-to-day basis," said Brown.

BancTec has been building its RemitCycle 360 architecture for more than a year. At the time of our interview, BancTec was working with several

partners and had landed one major provider account. "RemitCycle 360 is really an extension of the wholetail lockbox services we already offer to financial institutions," said Brown. "Depending on volume, we can offer EOB processing for as little as 15 cents per claim, to as much as 35

cents per claim, which includes all our back-end processing."

Concluding, Brown explained the primary areas of cost justification for automated EOB processing for health care providers. "The first is a significant decrease in administrative expense for the labor involved posting data from the forms," he said. "The second is in reducing the delay between the time a claims payment is received and the time it is posted. We offer a 24-hour turnaround. From what we've seen, it currently takes providers an average of between seven and nine days.

"Because of the faster turnaround time, our service increases the speed with which providers can send out secondary claims and make appeals. Often, there is a deadline for when an appeal can be made, and if the provider is taking a week to post the claim, not to mention research it, that window for appeal can close. There is a lot of slippage in this area that we can help eliminate.

"Other times, an appeal might be for such a small amount that a provider might decide it's not worth the administrative costs of researching it. By reducing their administrative costs, RemitCycle 360 will enable providers to go after more claims."

### ***The bar has been set***

There is no question that automated EOB processing is potentially a strong market for IDR technology. However, there is also no question that results so far have been mixed at best. In addition to the vendors we quoted in this story, we talked to several others that offer EOB solutions. These

**"It's our opinion that the only way for a service bureau to generate any significant profit through EOB processing is to have a highly efficient automated data capture process."**

**— Jeff Brown, BancTec**

include **Kofax**, which told us it has 20 EOB capture installations sold through a combination of channels, including partnerships with Cerner and Indianapolis-based reseller **Optiform Imaging Systems**, as well as an OEM deal with a large ISV. **Peladon**, **Paradatec**, and **EMC Captiva** also have sold EOB processing software, but they mostly indicated they've only scratched the surface of what they hope to achieve in this market.

That said, more than one vendor promised us that their pipeline in the EOB capture space is strong and that we can expect big news in the upcoming months. We will definitely be keeping our ears open.

Noel Flynn, Peladon's VP of business development, may have summed it up best, when we asked him why adoption of automated EOB processing is so far behind invoice processing. "It's been our observation that most invoice processing applications are only capturing summary data," said Flynn. "There are very few in which line-item capture is being done. Effectively capturing EOBs, with all their columns and tables, is even more difficult than capturing line items from invoices."

The bar has clearly been set. We are looking forward to seeing which IDR vendors are able to effectively clear it.

For more information: <http://www.banctec.com>;  
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## Smart Moves Into CEO Position

### ***Dennis retires after almost 12 years at scanner vendor Visioneer.***

After guiding the company through its transition from a consumer scanner vendor to a player in the document imaging market, Murray Dennis has retired as CEO of **Visioneer**. Dennis had been with Visioneer since 1996. He joined as a VP and was promoted to president and CEO in 2001. Larry Smart, who owns Visioneer, and had served as president prior to Dennis' appointment, has been re-appointed as CEO. Smart was already serving as chairman.

"Next month would have marked 12 years for me at Visioneer," Dennis told *DIR*. "About two years ago, I got to thinking, 10 years is a long time to be at one company. But, at the time, I didn't think I had the company where I wanted it to be. The last two

years, we've accomplished a lot, including continuing to build our *OneTouch* architecture to where it is now becoming a standard in the industry. This should protect Visioneer from the commoditization you often see in hardware markets.

"Also, our recently formed partnership with **Böwe Bell & Howell Scanners** will help move our product line into the higher volume segments. Finally, the management team I left in place, from Bill Kouzi [Visioneer's senior VP of sales and service], on down, is as good an executive team as you'll find in the industry.

"I've actually been planning my retirement since the beginning of the year, but didn't think our PartnerVision conference [in February] was the right place to announce it. Now is the right time. We are coming off a record quarter of royalties for **Xerox**, and you always want to leave on a high note."

When we talked with Dennis, he was busy overseeing an addition to his home. "Right now, I am assuming the role of general contractor," he joked. "I also will be taking on consulting projects, as I figure out what my next step is going to be."

### ***No drastic changes***

Smart acknowledged that he doesn't expect too much to change at Visioneer. "When something like this happens, everybody is always looking for something sensational," Smart told *DIR*. "I can tell you, this is the least sensational change I can imagine. I was a primary force behind developing our current strategy, and I don't intend a lot of changes. Our staff is as strong as it has ever been, and I don't plan any organizational changes.

"Visioneer is a strong player in the document imaging market. We're continuing to grow our market share, albeit, we're growing much faster in Europe than in the United States. We've been profitable almost every quarter, except for a disastrous period in 2006. However, we've turned the corner. At the same time, you always want to grow faster and make more money."

### ***A look back***

Smart first came to Visioneer in 1997, when he was appointed chairman of the then publicly traded company. He had previously served as CEO of a pair of hard drive manufacturers, **Micropolis** and **Maxtor**, from 1994-1997.

Visioneer was founded in 1992 as a developer of desktop imaging software. In the mid-1990s, it began selling scanning hardware to seed the market with its software. Under Smart's direction, with Dennis spearheading sales, Visioneer leveraged its patented

*OneTouch* button-scanning technology to become a leading vendor of consumer scanners.

In 1998, Visioneer generated approximately \$80 million in revenue, with \$65 million coming from hardware. However, with the consumer scanner market becoming more commoditized, the company was losing money, and at the end of 1998, Smart engineered a deal to merge Visioneer's software business with **ScanSoft**, an imaging and OCR software developer that was a wholly owned subsidiary of **Xerox**. At the same time, Visioneer's hardware business was sold to **Primax**, a \$400 million Taiwanese hardware manufacturer that was serving as Visioneer's primary OEM partner [see *DIR* 12/18/98].



Larry Smart,  
Chairman & CEO,  
Visioneer.

With Smart maintaining a seat on the board, the software entity maintained the public listing and eventually evolved into **Nuance**, a voice recognition and imaging ISV. Nuance now has annual revenue of more than \$600 million and a market cap greater than \$4 billion.

Smart left Visioneer in May 1999, and Dennis was appointed president. The company continued to sell lots of consumer scanners, but in a market succumbing more than ever to price pressure, Visioneer continued to lose money. In 2001, Primax decided it wanted out and sold the company to Smart, with whom it had maintained a relationship.

After the sale, Dennis maintained the CEO title, and working closely with Smart, began to position Visioneer for a transition to the document imaging scanner market. The first signs of this transition began to show up in 2002 with the introduction of some new products and a focus on recruiting imaging VARs [see *DIR* 11/1/02]. Visioneer's big break came in 2003, when Dennis orchestrated the licensing of the Xerox brand name for Visioneer scanners [see *DIR* 9/5/03].

The Xerox deal, along with a VRS bundling agreement with **Kofax**, as well as some aggressively priced new duplex scanners, served to put Visioneer on the map as a document scanner vendor in 2004. In 2005, Dennis hired Don McMahan to lead Visioneer's sales efforts, shortly after McMahan had left competitor **Fujitsu Computer Products of America (FCPA)**. Also, in 2005, Visioneer acquired TWAIN development specialist **JFL Peripheral Solutions** and increased its marketing of *OneTouch* capabilities for document scanning.

By early 2006, Visioneer was touting more than 800 certified VARs and a third-place standing among vendors in the fast-growing workgroup scanner segment. "Visioneer entered the market in 2002 and became the third-ranked market share player in the workgroup segment by 2005," noted industry analyst Susan Moyses of **Moyses Technology Consulting**. "That is a pretty strong entrance considering FCPA's dominance in that space and stiff competition from the likes of **HP** and **Canon**. Since then, Visioneer's share has stabilized, but the company commands a fairly steady piece of the pie—between 10-20% of the market."

### **Increasing focus on software**

It is this "stabilization" in a market that has also stabilized somewhat after several years of explosive growth that seems to concern Smart. To stay ahead of the game, over the past couple years, Visioneer, under Dennis' direction, has put increasing resources into ramping up the JFL business and creating some advanced *OneTouch* options and capabilities. We detailed these efforts in our Feb. 22, 2008 edition, in which we provide full coverage of PartnerVision 2008. We even went so far as to speculate that Visioneer could potentially reinvent itself as a software company.

"If you look at where Visioneer has brought value over the past 10 years, it's been primarily in the software area," Smart noted. "Not that we don't have good hardware, but it's the ease-of-use driven by *OneTouch*, which is all software, that is our differentiator. The vast majority of our current development work is on software. We are striving to add value through software. Going forward, we have to figure out how we are going to play in the market with our software."

Smart plans to increase Visioneer's focus on partnerships. "We need to aggressively pursue more partnerships like the Xerox and Böwe Bell & Howell relationships," he said. "I've been a CEO for 25 years. I have worked with a lot of companies in different industries and done a lot of partnerships."

"We are going to be looking for partners in every direction, from increasing our VAR channel, to adding more ISVs to our *OneTouch* program, to even potentially licensing our *OneTouch* technology to MFP vendors. There are a whole host of devices sold by a lot bigger guys than us that *OneTouch* could add value to."

Smart added that his appointment as CEO is more than an interim appointment, and that he plans to stay at the position at least one or two years.

For more information: <http://www.visioneer.com/>

# Tools Vendor Adapts To Evolving Market

A lot of forces have come together to propel document imaging into the mainstream market. Not the least of those is improved ease-of-use. Of course, ease-of-use to an end user or a reseller often means harder work for software developers, according to Jack Berlin, president CEO of toolkit developer **Pegasus Imaging**.

“Developmental tools continue to get closer to applications all the time,” said Berlin, who founded Pegasus as an imaging compression specialist back in 1991. “You no longer have to be a C+ developer to work with our tools. Now, we have more user interface discussions with customers than deep-level programming discussions. Using our technology to enable imaging functionality is much more straightforward than it used to be.

“With some of our visual tools, all you need to do is draw a box and a message shows up asking which properties you’d like to activate. This type of functionality has expanded the number of people writing applications. Everybody has the power that only C+ programmers used to have.”

## **A WWF-based SharePoint solution**

One market where ease-of-use could be a primary driver is image-enablement of *SharePoint*. At March’s **AIIM 2008** show in Boston, Pegasus showed us some of its initial work in this area. It involved integrating imaging technology with **Microsoft’s** Windows Workflow Foundation (WWF).

“Our WWF integration offers a simple way for users to manage their images in *SharePoint*,” said Berlin. “Initially, we’ve enabled bar code reading within WWF. This allows users to automatically create meta data for images being stored in *SharePoint*. Our plan is to introduce OCR very soon. Eventually, we’d like to introduce all our imaging tools into WWF, including image clean-up, PDF creation, and advanced compression. We are trying to get to the point where someone with a workflow designer tool can literally drag and drop an object on their desktop to create an imaging workflow process.”

## **Support a key differentiator**

As we mentioned, improved ease-of-use and faster implementation has come at a cost to developers. “It used to be that you had a buffer of C-level programming between your tools and the operating system,” said Berlin. “Now, if Microsoft sneezes, we get a cold. However, for an organization like ours, which has a deeper development staff than some of the other tools vendors, this can be an advantage.

“Our ability to support our clients and react quickly to their issues justifies their continuing to do business with us. Support is the number one reason people switch to us. They know our support will help them stay ahead of the curve.



**Jack Berlin,**  
president and  
CEO Pegasus

“I laugh when I hear customers talk about price discounts our competitors are offering. When they end up having to pay their IT staff to support their implementations, how much are they really saving? Customers need to consider their total cost of ownership before deciding on a tools vendor. They have to weigh the cost of their own development efforts vs. being able to leverage our development and support.”

## **TMS integration continues**

Pegasus, which is based in Tampa, has been a player in the imaging tools market since it was founded. In 2004, it greatly increased its document imaging presence with the \$3 million acquisition of Stillwater, OK-based TMSSequoia. TMS was a recognized leader in areas like image and forms enhancement, image viewing, and color processing.

“In addition to great technology, we picked up a lot of great customers with TMS,” said Berlin. “TMS was struggling because it was such a small company with a public listing. At the time of the acquisition, a lot of its customers actually called and thanked us, because they didn’t know what was going to happen there.

“That acquisition really got us into the document imaging market hardcore. Before that, medical imaging had been our top selling vertical. We’ve just passed three years of owning TMS, and we are more than halfway through integrating its technology completely into our offerings. We’ve been upgrading the TMS tools from C+ , and the customer base has been very receptive.”

## **A variety of viewers**

Former TMS Chief Scientist Rick Scanlan has joined Pegasus and is helping direct the company’s implementation of AJAX (Asynchronous JavaScript and XML) protocols into its image viewer. In the imaging world, AJAX enables clientless viewing through a Web browser. Pegasus’ *ImagXpress* software can be used to convert TIFF files into PNG, GIF, or JPEG files that can be accessed through the AJAX viewer. AJAX technology enables viewers to download, through a Java script, only the tiles that make up the piece of an image that a user is viewing. This can lead to a more efficient Web-

based image viewing experience.

"There is room in the market for a variety of client solutions, from no-client, to thin, to thick," said Berlin. "An AJAX viewer is great for a random or lightweight user looking to avoid the security problems associated with downloading a thin client or installing a thick client. It's great for applications like check viewing, where all you want to do is see the image and maybe print it.

"However, users that want to do stamping, annotating, and heavy duty processing are typically more concerned about security than download size. A true thick client makes sense for them. If they're doing sophisticated processes, they're probably not going to want to wait for the server to reload an image each time they move to a different part of it. They want to download the PDF or TIFF file and work with it at the desktop."

### Compression concerns

Berlin, whose company began as a compression specialist, also bemoans the fact that AJAX-based viewing can negate the use of some of the high-compression technology that is now available. "None of the browsers support viewing files compressed with JBIG2," he said. "So, users end up working with files that are eight times larger than they could be. Working with a thick PDF viewer that supports advanced compression can provide a much more efficient viewing experience."

According to Berlin, adoption of advanced compression like JBIG2 and MRC (mixed raster content) has been slow but steady. "What we're driving at, and where everybody should be aiming,

is to get maximum compression of image data with a full-text overlay that enables searching and meta data creation," he said. "One of the biggest obstacles we've seen to achieving this is that applying a lot of advanced compression has traditionally slowed down the imaging process.

"For example, JPEG 2000 is very slow. It takes nine to 10 times longer to create a JPEG 2000 file than a JPEG file. That's a hard pill to swallow in an industry where scanners advertise 200 ppm capture. JPEG 2000 has succeeded in medical imaging, where you need to reduce very large files with a lossless format, but the volume of files isn't nearly as high as in document imaging.

"At Pegasus, we are starting to look at JPEG XR as a potential document imaging format. It's an HD photo format that's a lot faster than JPEG 2000. And if Microsoft includes viewing support in IE, it could be very attractive. It will always be our goal to build the fastest open-standard compression technology on the market. In fact, even though the JPEG standard has been out there forever for anyone to develop to, we still sell a lot of JPEG compression, because we do things with it that other people can't."

Berlin added that while he is seeing increased adoption of PDF (which supports JBIG2) over TIFF (which only supports Group 4 compression), it's still about 50/50 in terms of new installations. "The fact is, there remain a lot of legacy imaging applications that only support TIFF viewing," he said. "For these users, going to an external PDF viewer is probably not considered an upgrade."

For more info: <http://www.pegasusimaging.com/>

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