

# Document Imaging Report

## Business Trends on Converting Paper Documents to Electronic Format

2840 West 21st Street ● Erie, PA 16506 ● PH (814) 838-0025 ● FX (814) 836-9605 ● [www.documentimagingreport.com](http://www.documentimagingreport.com)

May 17, 2002

### THIS JUST IN!

#### **MERGER TO DRIVE 10% REDUCTION OF WORKFORCE**

Following the merger of **Captiva** and **ActionPoint**, the workforce of the combined company will be reduced by 10%. According to Captiva spokesperson Susan Lucek, this affects approximately 30 employees, mostly in the marketing and administration areas. "The marketing and administration of the company will be handled out of our San Diego office," Lucek told *DIR*. Not coincidentally, most of those affected by the reduction are current ActionPoint employees.

"No one wanted to see a reduction of this size," Lucek told *DIR*. "However, the fundamental business reasons that brought the two companies together are also the reasons you see this sort of termination."

Among those who will not be with the company following the merger is ActionPoint VP of Marketing John Stetak. Steve Francis, the current president and CEO of ActionPoint, is still slated to take over as COO of the combined company and continue in his duties as head of subsidiary **Pixel Translations**. "Of course, all of this is contingent upon the merger closing," stressed Lucek.

Lucek said the merger is still on track to close before the end of the second quarter if the **SEC** decides it does not want to review the S-4 form that was filed on April 26. Captiva was expecting an answer from the SEC this week.

For more information: **Captiva Corporation**, San Diego, CA,  
PH (858) 320-1000. DIR

### **EMC Takes Aim At Imaging Storage Apps**

**EMC** has done it, God love them. The multibillion storage vendor has discovered document imaging. Citing potential annual growth rates of 92% over the next five years for the fixed content storage market, EMC recently introduced its Centera platform. Centera is an innovative form of magnetic storage targeted at archival applications including the storage of electronic documents, digital X-rays, digital movies, e-mails, and check images.

EMC's legacy is in systems that store large amounts of transactional, or constantly changing, data. Like the giant database vendors who also specialize in transactional data, EMC is trying to expand its business. While database giants **Microsoft**, **IBM**, and **Oracle** have targeted applications to manage unstructured data including documents, EMC is targeting another area that also historically has been the domain of document management vendors—archiving. It seems that after years of relative obscurity following a much-hyped infancy, our market is enjoying a renaissance of sorts.

"EMC is just discovering a market that we've been in forever," Bill Zastrow, VP of corporate marketing at **Tower Technology**, told *DIR*. "I don't think their interest can do anything but help sales of our technology. If EMC's huge sales force is encouraging its customers to archive their information, that's good for business."

Tower is one of 30 companies that announced its endorsement of Centera on the day it was introduced. Other document management vendors who have endorsed Centera include **Documentum**, **Gauss**, **OTG**, **Hummingbird**, **IXOS**, **BancTec**, **Mobius**, and **J&B Software**. Multimedia and healthcare systems vendors announcing their endorsements included **Agfa Healthcare**, **Artesia**, **Avid**, and **Kodak Medical Imaging**. Big names like **Cap Gemini Ernst & Young**, **KPMG**, **Legato**, and **Quest Software** also have said they would support Centera.

According to A. J. Ragosta, a spokesperson for EMC, the company sees the market for fixed content storage

potentially reaching \$10 billion by 2005. He added that the partnerships will be a key part of EMC's strategy to penetrate that market. "We realize a hospital that needs a system for storing its X-rays is not going to call EMC," he said. "They are going to call Kodak or Agfa. We expect more than 80% of the sales of Centera to come through partners. Historically, the percentage of sales we've made through partners has been much lower."

Zastrow told *DIR* that Tower has actually been selling EMC SAN (storage area network) solutions for several years. "Traditional EMC solutions, such as SANs and NAS [network attached storage] are much more plug-and-play than Centera. Centera requires an application, like document management, to drive it, and that application has to have quite a sophisticated interface. We've been working with a Centera system for four or five months."



**"I don't think their interest can do anything but help sales of our technology. If EMC's huge sales force is encouraging its customers to archive their information, that's good for business."**

**Bill Zastrow, Tower Technology**

Integration issues were the main reason why **FileNET**, one of the world's largest vendors of fixed content solutions, was not on EMC's original list of Centera partners. "We were unable to commit development resources to an image services integration effort in the time frame requested by EMC for involvement in their beta program," a FileNET spokesperson told *DIR* via e-mail. "This product might be of long term interest to us depending upon EMC's execution."

Centera is available now and starts at just over \$200,000 for a system to store 5 terabytes of information. Initially, at least, this means it will probably be a fit only in high-volume document management systems. "We deal with the top 20% of the market, and we think Centera is a good fit for most of our customers," said Zastrow. "Of course our average sale is around \$1.5 million in software and services. To an imaging vendor that sells \$40,000 systems, an entry level storage cost of \$200,000 may be overwhelming."

Zastrow does not think the high cost of entry will last forever. "I think both the entry level price and capacity will come down as competitors emerge," he said.

### **The Bell Tolls For Optical**

As the barriers to entry come down, Zastrow believes that Centera-like technology will eventually eliminate the market for optical storage, which has traditionally played a

## **Document Imaging Report**

Business Trends On Converting Paper Documents To Electronic Format

*DIR* is the leading executive report on managing documents for e-business.

Areas we cover include:

1. Scanning
2. Forms Processing/OCR/ICR
3. Integrated Document Management
4. Content Management/XML
5. Document Output
6. Storage
7. E-Commerce

*DIR* brings you the inside story behind the deals and decisions that affect your business.

---

**Vol. 12, No. 10**

**Editor:** Ralph Gammon  
PH (814) 838-0025, Ext. 209  
FX (814) 836-9605  
ralphg@corrypub.com



### **Associate Publisher and Circulation:**

Martin Zapolski  
PH (814) 838-0025, Ext. 266  
FX (814) 835-0441  
DIR@corrypub.com

---

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

### **Corry Publishing, Inc.**

2840 West 21st Street  
Erie, PA 16506

**PH** (814) 838-0025

**Web:** [www.documentimagingreport.com](http://www.documentimagingreport.com)

**Copyright** © 2002 by Corry Publishing, Inc. Federal copyright law prohibits unauthorized reproduction by any means including photocopying or facsimile distribution of this copyrighted newsletter. Such copyright infringement is subject to fines of up to \$25,000.

Because subscriptions are our main source of income, newsletter publishers take copyright violations seriously. Some publishers have prosecuted and won enormous settlements for infringement. To encourage you to adhere to this law, we make multiple-copy subscriptions available at a substantially reduced price.

**Subscriptions:** \$597 per year (outside North America add \$33 postage)

prominent role in document imaging applications. "Going forward, we will sell optical storage only if the customer demands it," he told *DIR*. "Centera eliminates a lot of the messiness associated with optical in terms of mechanics, caching, and HSM [hierarchical storage management] software needed to make it work well."

Optical storage and document imaging have a long history. In the early 1980s when imaging technology was first being implemented, magnetic disks were too expensive to use for comparatively large document image files. So, when lower-cost optical storage technology was introduced, it was naturally married to document imaging. In recent years, magnetic storage prices have dropped dramatically, and increasingly, document images are being placed on magnetic storage systems, like SANs and NAS.

For long-term archival storage, however, typically involving documents in regulated industries such as insurance or financial services, optical storage still has its place. In these markets, the integrity and stability of magnetic storage is a concern. "NAS and SANs are revisable storage," said Zastrow. "You can change content stored on them and there is no way of telling when the content was put in and when it was changed. Magnetic has not historically met the requirements of long-term, legal best-evidence storage."

According to Zastrow, documents kept on optical storage, which can be formatted as WORM (write once read many), have traditionally followed paper and microfilm on the best-evidence food chain. "The only optical media that is true WORM is the 12-inch ablative media, but nobody really cares if it's true WORM or not," he said. "Today, most optical storage is done on 5.25-inch magneto-optical (MO) media in a manner we call logical WORM. With Centera, EMC is offering a form of logical WORM."

In the Centera system, a digital fingerprint is made for each file. The fingerprint is based on the characteristics of the file. If any of the file's characteristics are changed, either deliberately or through a glitch like a byte going bad, the file will no longer match up with its fingerprint. Centera actually keeps two copies of each file and if one is altered, a copy of the unaltered version is automatically made. "Centera answers some of the file integrity issues associated with magnetic storage," said Zastrow. "It also offers some speed-of-retrieval, price, and scalability advantages over optical."

As far as speed goes, according to Zastrow, the average retrieval time for a file from optical storage can be between 5 and 10 seconds. "Centera's average retrieval time is between one and two seconds. That's not as fast as SANs or NAS, which have sub second

average retrieval times, but it is considerably faster than retrieval from an optical or tape library."

To reduce the retrieval time from optical, large document imaging vendors like Tower have typically used some resourceful integration. This includes magnetic storage caching for frequently accessed files and maintaining the optical library for archival purposes only. Some sort of HSM software is typically employed to manage this process. Zastrow estimated that assembling this type of system could cost twice as much as using Centera technology. "I think a Centera solution will cost about 50% of what a similar-sized optical-based solution would cost and maybe 60% of what a similar-sized SAN solution would cost."

When it comes to scalability, EMC is advertising plug-and-play expandability for Centera. Centera is based on what the company is calling RAIN (redundant array of independent node) technology. In addition to four 160 gigabyte hard drives, each node contains a Pentium 3 processor. "Each node is actually a thin, blade-like server running our *CentraStar* software. This enables the nodes to talk to each other," explained EMC spokesperson Ragosta. "To increase Centera's capacity, you just add more nodes. As higher capacity hard drives and faster servers are introduced, you can just plug those in too."

According to Zastrow this sort of transparent upgrade capability will encourage document archiving. "With traditional optical solutions, users always have to be concerned that they are running out of disk space," Zastrow told *DIR*. "When they run out, they either have to replace a disk and put the full disk on a shelf somewhere, or add another jukebox. People are conscious of the effort this requires, and as a result, they typically try to conserve their optical space. Centera, because of its plug-and-play scalability, removes some of the barriers to document archiving."

So, Centera is being endorsed as a cheaper, more efficient, and just-as-reliable alternative to current optical storage. Centera's only drawback seems to be that currently it is sized to address just the high-end of the document imaging market. But, as Zastrow predicts, the price will come down as competitive offerings are introduced. And on paper, it seems like too good of an idea not to be copied. Assuming Centera and its offshoots work, optical storage, which was already on the ropes because of pressure from RAID and tape, soon could be receiving a knockout blow.

For more information: **EMC Corporation**, Hopkinton, MA, PH (508) 293-6884; **Tower Technologies**, Boston, MA, PH (617) 236-5500; **FileNET**, Costa Mesa, CA, PH (714) 327-3400. **DIR**

# Centera's Detractors Speak Out In Support Of Optical

Not everyone thinks **EMC's** Centera is the optical killer. **Plasmon**, which has staked its future on the next generation of magneto-optical (MO) technology [see *DIR* 4/5/02], dismisses Centera as just another hard drive solution. It cites the high cost of hard drive maintenance as a differentiating factor.

EMC spokesperson A.J. Ragosta diffused this argument. "Centera is a whole new paradigm for us," he said. "Its technology is basically self-healing. Twice per year an EMC-certified storage technician probably needs to check out a Centera system and replace any parts that need to be replaced, but that's considered regular maintenance and is included free for the first two years." This two-year free maintenance agreement is similar to what Plasmon offers for its optical libraries.

As far as initial investment goes, Centera is listed at approximately \$200,000 for a 5-terabyte solution. This includes both hardware and software. According to information we received from Plasmon, an optical library with 5.8 terabytes of capacity lists for \$117,000, with a list of approximately \$60,000 for the media to fill it. Software from **OTG** (the leading vendor of optical jukebox management software) to manage a library that size starts at \$35,000. (OTG is also offering Centera management software starting at \$31,000.) This brings the total cost of a 5.8 terabyte optical storage system to approximately \$212,000, which is pretty much in line with Centera's pricing.

Missing from this comparison, however, is the cost of backup for the optical system. The 5-terabyte Centera solution actually contains 10 terabytes of storage because Centera automatically backs up each file it stores. Plasmon VP of Sales and Marketing Robert Clark tried to tell us that files kept on optical storage are typically not backed up. However, several industry insiders told us this notion was ludicrous. "Even if it is slow-retrieving backup from tape, you need to have something," said Bill Zastrow, VP of corporate marketing at **Tower Technology**, a leading vendor of document imaging systems. "We even have some customers who run duplicate optical systems to ensure their business continuity should something happen."

Zastrow estimated that the total cost of an optical solution would be approximately twice as much as the cost of a similar-sized Centera system. When you factor in the cost of backup and the integration fees to set up that backup as well caching to improve

retrieval time for frequently accessed documents, you can begin to see how Zastrow came up with his estimate.

## **IBM Maintains Centera Lacks Flexibility**

So, if optical can't beat Centera on price, what's left? Performance. And according to **IBM**, EMC's chief competitor in the transactional storage market and also a major document imaging vendor, Centera's performance falls short because it lacks flexibility. "I don't understand the business problem that EMC is addressing with Centera," said Brett McIntyre, VP, content and information integration at IBM. "EMC is saying Centera can store large amounts of unstructured data. We have a solution today at **CNN** that manages 4 petabytes of unstructured data and CNN is happy with it."

IBM creates its large content management storage using a combination of hard disks, tape, optical storage, and the company's Tivoli storage management software. "Building a storage infrastructure with those types of tools give users the flexibility to move forward in whatever manner they need to," Dr. Tarek Makansi, director of strategy for IBM's storage products division, told *DIR*. "Customers want options such as the capability to include tape as part of their solution. Tape is much cheaper than the disk solution announced by EMC. To commit to a single type of device and a single set of functions associated with that device and not allow yourself to build a flexible infrastructure is very dangerous."

However, while IBM was slamming Centera on one hand, it seemed to validate it on another. The Big Blue reps admitted that some of the functionality included in Centera will also be included IBM's next generation storage offering—the StorageTank, which is targeted for release in 2003. "In Centera, EMC has included maybe two of the functions [digital fingerprinting and content-addressed storage] that will be included in StorageTank, which represents a file system-based storage platform," said Makansi.

## **Optical Storage Software Leader Embraces Centera**

Perhaps the best indicator of the validity of Centera and the real threat it poses to the existing optical storage market may be **OTG's** endorsement of it. Instead of trying to fight Centera, OTG has integrated to it. "*DiskXtender* [OTG's flagship software] is the agent deployed out in the network that pushes data to Centera and then provides seamless access right into the application," Amena Ali, senior VP of marketing and strategy for OTG, e-mailed *DIR*. "Centera doesn't do that. It's an intelligent box that perfectly complements what *DiskXtender* does."

In other words, OTG has taken a "don't even try and beat 'em, join 'em" approach to Centera. This willingness to embrace new trends has marked OTG's successful growth [see *DIR* 3/22/02], and we think other vendors with an interest in optical storage would do well to follow their lead.

For more information: **Plasmon**, Englewood, CO, PH (800) 451-6845; **IBM**, White Plains, NY, [www.storage.ibm.com](http://www.storage.ibm.com); **OTG**, Rockville, MD, PH (240) 747-6400. DIR

## Cardiff—First Forms Processing Vendor To Certify VRS

**Cardiff** recently became the first vendor to certify **Kofax'** VirtualReScan technology for use with its forms processing software. And after seeing the results of a study done by the analyst firm **Doculabs**, we do not think Cardiff will be the last. In a Doculabs study run on air bill forms, OCR character errors were reduced dramatically when VRS was employed vs. when it was not.

The air bills tested contained 12,500 total characters. Prior to using VRS, **Caere** OCR recognition software successfully interpreted 19.8% of those characters. After applying VRS, that rate rose to 54.6%. The air bills contained three fields. In the two less difficult fields, character accuracy rates of 92.3% and 92.7% were achieved with VRS. Prior to applying VRS, the accuracy rates were 33.8% and 36.1%, respectively.

According to Richard Medina, principal analyst at Doculabs who worked on the VRS testing, it is possible to achieve similar rate improvements by manipulating the image processing controls already present in most good forms processing software. However, he pointed out that VRS enables these results to be achieved in a much simpler fashion.

"Doculabs has identified five factors as affecting the throughput of a scanning application. "Those are scanner speed, image quality, input range, usability, and reliability," Medina told *DIR*. "VRS dramatically affects both an application's input range and its usability."

Medina defined input range as the spectrum of documents, both in terms of type and quality, that a scanning application can handle. An application's usability, he said, is based on how easy it is to use.

Kofax introduced VRS into the marketplace three years ago [see *DIR* 2/19/99], and since then, it steadily has been gaining acceptance. VRS, which is available as either pure software or a software/hardware combination, creates a bi-tonal image using the information in a grayscale scan. "Most of the image processing controls inherent in forms processing software work with only bi-tonal images, so using them, you are never going to be able to achieve the results you do with VRS," said Medina.

According to Medina, VRS is best suited for low- to medium-volume applications and is squarely in line with the recent trend toward distributed scanning. "VRS is so easy to set up that it enables nondedicated scanning professionals to produce higher quality scans than they could achieve using the controls in most forms processing applications," said Medina. [Editor's note: **FedEx** in fact, has cited the inclusion of VRS as being the deciding factor in its decision to buy more than 900 scanners from **Bell & Howell** to be installed in its pick-up and delivery stations worldwide. See *DIR* 9/7/01].

Medina concluded by saying that VRS addresses head-on two of the issues that have been slowing down scanning operations for years. "Everyone talks about the speed of the scanner, but when it comes to effective throughput, the ability to handle a wide range of documents in a manner that is easy and fast for the operator is far more important."

J.D. Moons, director of product marketing for Kofax' image processing business unit, told *DIR* that Kofax currently is seeking additional vendors to certify VRS. "Other vendors have used VRS in their applications, but Cardiff is the first one that has actually certified it, and the first to do joint marketing with Kofax," he said. "Because VRS appears like a driver to forms processing applications, it does not require any technical integration. The certification is the result of some tests we run to make sure there are no issues," he said.

Officially, VRS has been certified to work with *TELEform v8.0*, the latest version of Cardiff's flagship software. "It actually worked well with version 7," said Moons, "but there are certain things we requested Cardiff do in version 8 that make it work even better."

[Editor's Note: For a complete look at the white paper Doculabs wrote on VRS, go to [www.kofax.com/learning/whitepapers](http://www.kofax.com/learning/whitepapers).]

For more information: **Kofax Image Products**, Irvine, CA, PH (949) 727-1733; **Doculabs**, Chicago, IL, PH (312) 433-7793, FX (312) 433-7795. DIR

# KM Finding Its Niche

Knowledge management (KM) was a buzz that swept through the document management industry a few years back. It represented the ultimate end game for companies specializing in information storage, search, and retrieval. Documents are just one subset of knowledge. KM theoretically opens all sorts of new doors for vendors looking to expand from traditional document management applications.

Today's buzzword seems to be enterprise content management (ECM) [See *DIR* 5/3/02]. But that doesn't mean KM is dead. Rather KM seems to have settled into its niche, particularly around the Washington, D.C. area and the Federal government. *DIR* recently caught up with Brandon Weidner, the marketing director for the **KM Professional Society (KMPro)** and asked for his view on the current state of KM.

"KM is really a misnomer," Weidner told *DIR*. "You can't really manage someone's knowledge—that's brainwashing. The term KM refers to creating a learning organization. It involves creating an environment that is able to maintain and retain intellectual capital. This requires fostering a system where people contribute to a knowledge base or repository. They need to have an incentive to build on the information already in that repository as well as to use that repository for information they require before going randomly to someone in their organization."

According to Weidner, many of the concepts behind this definition of KM were actually developed by a Federal CIO council held a few years back. "It was a working group that included representatives from some of the largest consultant firms and most prominent think tanks in the Washington, D.C. area," he said. "KMPro is trying to promote some of the objectives developed at that council."

KMPro was founded in September 2001. It recently merged with the **Knowledge & Innovation Management Professional Society (KIMPS)** and Weidner estimated the combined organization has close to 2,000 members. "Our membership fees are only \$50 for an individual," Weidner told *DIR*. "That is not our major source of revenue. Our real focus is on KM training and certification."

KMPro has been offering training courses since October. The organization was actually started by Douglas Weidner (Brandon's father), a former chief knowledge engineer and senior technical fellow at **Northrop Grumman**. "My father was one of the pioneers in the Federal government's

KM initiative," said Brandon Weidner. "Previously he was offering training on an ad hoc basis to anyone that was interested. As the buzz around KM has grown, those interested have included government agencies, integration firms, as well as some commercial business. We think there is enough interest now to support a training- and certification-based organization that specializes in KM."

A KMPro certification workshop lasts for five days. "Unlike other training where you go through a week preparing for a test based heavily on recall, our training is heavily loaded with small group discussion," said Weidner. "Each group is given tasks and exercises that force the wallflowers to get involved. By the end of the week, the trainees should be both talking the talk and walking the walk of KM."

KMPro also offers a Masters Certification for trainees who perform follow-up projects like writing white papers or giving talks. "The requirements to earn a Masters are pretty subjective," said Weidner. "Originally, trainees had to perform this type of follow-up work just to be certified, but we found that a lot of people just want to take the five-day course and be done with it."

Weidner estimated that between 65 and 70 people had earned the KMPro certification since October. The list price of a certification workshop is \$4,000 per person, but group discounts are available. A group of 16 people from the same organization, for example, can attend a workshop for \$2,000 each.

Weidner said attendees so far have been split

## DOCUMENT MANAGEMENT VENDOR PROVIDING REPOSITORY PLATFORM

One of **KMPro's** vendor partners is **VIDAR** subsidiary **Bamboo Solutions**. VIDAR is a large format scanner specialist that launched Bamboo as a document management software vendor in 1999 [see *DIR* 4/16/99]. Bamboo will provide the software platform for the KMPro Learning Center.

"The Learning Center represents our knowledge-based repository and its design is based on KM practices we teach," said Weidner. "Bamboo's *WD3* software platform Web-enables those concepts for us."

Bamboo *WD3* Product Manager Mike Durham said his company is looking forward to developing a KM application. "Currently, we have installations of CAD management and grant management applications that we've developed with *WD3*," he told *DIR*. "We also have lease and job application tracking programs we are bringing to market. Working with KMPro will not only help us develop a very effective KM solution, it will give us some great exposure to the KM market."

For More Information **Bamboo Solutions**, Herndon, Virginia, PH (703) 471-7070.

between consulting professionals and middle- to upper-level managers whose organizations have an interest in KM. "We just certified almost 30 employees from the **National Security Agency**," he said. "We also have some pretty great things on the horizon with a couple of large consulting organizations."

In addition to working with end users and consultants, KMPPro also has a number of vendor partners who offer technology in areas like collaboration, document management, and survey development. "We hope everyone realizes by now that KM is not just about technology," said Weidner. "KM is a cultural change and technology vendors seem to now understand that they are providing a tool that is part of an overall process improvement. Part of our goal is help end users and consultants discover the right processes and tools to make KM succeed."

For more information: **KM Professional Society**, Vienna, VA, PH (866) 562-4256, FX (703) 757-4573 

## Video Converging With ECM

How important is video to the document management landscape? Well, according to the **Gartner Group**, by 2006, 80% of Global 2000 companies will support corporate applications that require live video and video-on-demand to the desktop. And who is going to support the video files used in these applications? According to executives at **Sawyer Media**, document management vendors are as good a place to start as anywhere.

"The technology to support rich media is coming of age at the same time enterprise-wide databases and enterprise applications are becoming an important part of what people do," Jonathan Steuer, VP of product strategy at Sawyer, told *DIR*. "And enterprise content is more and more being accessed through Web portals. To us, the future of corporate portals looks something like a customer-programmable, enterprise TV station mixed with an enterprise-wide document management system."

As its name belies, Sawyer Media was cofounded by veteran network newsman Forrest Sawyer. The company's goal is to bring what it calls "production storytelling capabilities," to the enterprise. Its mission statement reads, "Sawyer Media transforms the way companies communicate, market, and sell through the creation, management, and distribution of rich media."

"The most important point in that statement is that we do not help companies create media for media's sake," said Steuer. "We help companies market and sell. We have a business application focus."


According to Steuer, part of the attraction of the business market over the consumer market is that most large enterprises already have the network infrastructure in place to handle multimedia files. Part of Sawyer's strategy is to help its customers leverage this infrastructure by increasing their effective use of multimedia files, including video. "In the same way that it is taking real content management technology to improve enterprise collaboration and sharing of traditional documents, there is a demand for corresponding technology for managing the production and distribution of multimedia files," he said. "If the multimedia file controls aren't as easy to use as the document management controls, then no one will use them."

Does this mean there is an opportunity to combine the processes associated with multimedia file management with those of document management? "We have not done an implementation around a major document/content management system to date," Steuer told *DIR*. "Our opinion is that most organizations are not thinking about how to effectively manage rich media until they can create media products that are of value to their organization. Until then, integrating with an enterprise document management system doesn't make sense."

So, when will documents and multimedia files converge? "Well, if you go back to last spring and summer, things were pretty slow for us," admitted Steuer. "However, since December, interest in our products and services has really picked up. We are seeing a lot of companies spending money to validate whether or not media can help them with their business. And they are setting up pilots with the hope that they will scale them enterprise-wide over time."

According to Steuer, Sawyer currently has six customers. This includes what he said were the world's largest players in four different markets: financial services, networking, technology research, and biotech. "Geographically dispersed, large organizations can utilize video to reach both their large customer bases for advertising and their employees and partners for training and instruction," said Steuer.

Sawyer currently sells primarily a managed-services offering, but an installable software application is scheduled for release by the end of the year. "We are currently very open to partnerships, either with ECM consultants or software vendors," said Steuer. "We are convinced that our customers really need to manage their media files on an enterprise level to make them pay off."

For more information: **Sawyer Media**, San Francisco, CA, PH (415) 395-4000. 

# DIR MARKET WATCH

## For May 9, 2002

Public Company Names	Phone	Exchange	Symbol	Close Price	52-Week High	52-Week Low	P/E Ratio	EPS
1IMAGE Software, Inc.	(303) 694-9180	NASDAQ	ISOL.OB	0.51	1.00	0.38	7.29	0.07
Accelio Corp.	(613) 230-3676	NASDAQ	ACLO	2.75	3.20	0.98	N/A	-1.27
ACS, Inc.	(214) 841-6111	NYSE	ACS	52.52	57.05	34.02	33.35	1.60
ActionPoint, Inc.	(408) 325-3800	NASDAQ	ACTP	2.17	3.87	1.11	N/A	-0.38
Altris Software	(619) 625-3000	OTC BB	ALTS.OB	0.12	0.75	0.11	N/A	-0.04
Autonomy Corp., plc	44-1223-421-220	NASDAQ	AUTN	5.00	8.50	2.50	87.17	0.06
BroadVision, Inc.	(650) 261-5100	NASDAQ	BVSN	0.91	8.12	0.68	N/A	-2.76
Convera Corp.	(703) 761-3700	NASDAQ	CNVR	3.82	6.90	2.05	N/A	-20.08
DICOM Group, plc (in British pence)	49-761-45269-36	London	DCM.L	433	1000	400	19.05	23.10
Documentum, Inc.	(510) 463-6800	NASDAQ	DCTM	14.20	27.18	7.86	N/A	-0.65
FileNET Corporation	(714) 966-3400	NASDAQ	FILE	15.52	23.10	8.95	N/A	-0.27
Gauss Interprise Ag (in euros)	(949) 784-8000	XETRA	GSOG.DE	0.42	1.08	0.40	N/A	N/A
Global Imaging Systems, Inc.	(813) 960-5508	NASDAQ	GISX	19.15	21.30	5.86	15.96	1.30
Hummingbird Communications	(416) 496-2200	NASDAQ	HUMC	18.60	23.32	14.15	N/A	0.13
IKON Office Solutions, Inc.	(610) 296-8000	NYSE	IKN	11.08	14.25	5.95	33.79	0.33
ImageMax, Inc.	(610) 832-2111	OTC BB	IMAG.OB	0.26	0.75	0.11	N/A	-1.33
iManage, Inc.	(650) 356-1166	NASDAQ	IMAN	5.40	8.45	2.79	N/A	-0.64
INSCI	(508) 870-4000	OTC BB	INSS.OB	0.075	0.44	0.011	N/A	-0.16
Interwoven, Inc.	(408) 774-2000	NASDAQ	IWOV	3.82	24.14	3.11	N/A	-1.19
Itesoft (in euros)	N/A	Paris	ITFF.LN	1.31	1.70	1.00	N/A	-0.09
IXOS Software AG	(650) 294-5800	NASDAQ	XOSY	5.35	7.47	2.92	19.59	0.29
Lason, Inc.	(248) 597-5800	Pink Sheets	LSONQ	0.02	0.45	0.012	N/A	-8.46
Mitek Systems, Inc.	(858) 635-5900	NASDAQ	MITK	1.58	2.95	0.70	26.17	0.06
Mobius Management Systems, Inc.	(914) 921-7200	NASDAQ	MOBI	2.40	4.04	1.78	N/A	-0.22
On-Site Sourcing, Inc.	(703) 276-1123	NASDAQ	ONSS	3.35	3.75	1.41	13.32	0.25
Open Text Corp.	(519) 888-7111	NASDAQ	OTEX	23.06	31.79	17.90	38.45	0.60
Optika	(719) 548-9800	NASDAQ	OPTK	2.10	2.93	0.60	N/A	-0.07
OTG Software	(301) 897-1400	NASDAQ	OTGS	6.27	12.63	4.34	N/A	-0.24
PaperClip Software, Inc.	(201) 329-6300	OTC BB	PCLP.OB	0.16	0.19	.0023	N/A	N/A
Peerless Systems Corp.	(310) 536-0908	NASDAQ	PRLS	1.75	2.27	0.78	N/A	-0.73
Plasmon, plc (in British pence)	(952) 946-4100	London	PLM.L	96.40	96.50	48.00	9.72	9.62
ReadSoft (in Swedish Krona)	(858) 546-4438	Stockholm	RSOFB.ST	14.00	17.80	10.60	N/A	-2.76
Scan-Optics, Inc.	(860) 645-7878	OTC BB	SOCR.OB	0.33	1.00	0.20	N/A	-1.97
ScanSoft, Inc.	(510) 608-0300	NASDAQ	SSFT	6.43	7.30	1.10	N/A	-0.30
SER Systeme AG (in euros)	49-268-3984-0	Frankfurt	SESG.F	0.11	1.90	0.11	N/A	N/A
Sourcecorp	(214) 953-7555	NASDAQ	SRCP	29.16	44.50	22.08	N/A	-1.08
Staffware PLC	44-1628-786800	London	STW.L	410	463.50	342.50	N/A	-26.00
Stellent	(952) 903-2000	NASDAQ	STEL	5.17	42.90	4.21	N/A	-1.00
Top Image Systems, Ltd	(760) 918-1660	NASDAQ	TISA	2.63	4.90	0.99	N/A	-0.44
TMSSequoia	(405) 377-0880	OTC BB	TMSS.OB	0.21	0.35	0.16	N/A	-0.04
Vignette Corporation	(512) 306-4300	NASDAQ	VIGN	2.45	11.35	2.05	N/A	-5.50
Xenos Group (in Canadian dollars)	(905) 709-1020	Toronto	XNS.TO	1.25	2.70	0.90	N/A	-0.58
Xerox Corporation	(203) 968-3000	NYSE	XRX	8.15	11.45	6.00	N/A	-0.49

**2840 West 21st Street • Erie, PA 16506 • Phone (814) 838-0025 • Fax (814) 836-9605 • <http://www.corrypub.com>**

### Document Imaging Report

Business Trends on Converting Paper Documents to Electronic Format

- 1 year (24 issues) @ \$597
- 2 years (48 issues) @ \$1097

### Mass Storage News

Opportunities and Trends in Data Storage and Retrieval

- 1 year (24 issues) @ \$597
- 2 years (48 issues) @ \$1097

### SCAN: The DATA CAPTURE Report

Premier Management & Marketing Newsletter of Automatic Data Capture

- 1 year (24 issues) @ \$597
- 2 years (48 issues) @ \$1097

Name \_\_\_\_\_ Title \_\_\_\_\_  
 Company \_\_\_\_\_  
 Street \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone (\_\_\_\_) \_\_\_\_\_ Fax (\_\_\_\_) \_\_\_\_\_  
 E-Mail \_\_\_\_\_

Please  enter /  renew the following subscription.  
 (Add \$33 on all orders outside of Canada and the United States.)

**Payment Enclosed** (Remit to: Corry Publishing, P.O. Box 270, North East, PA 16428-0270.)

**Charge My Credit Card** (Charge will appear as Corry Publishing.)  
 \_\_\_\_\_ AmEx \_\_\_\_\_ Visa \_\_\_\_\_ MC \_\_\_\_\_ Discover \_\_\_\_\_

card number \_\_\_\_\_ expire date \_\_\_\_\_

**Bill My Organization** (Purchase order # optional.) \_\_\_\_\_

