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Dominating the corporate news....

....this past month in the ADC industry, were five mergers and acquisitions. Nothing earth shattering occurred (like Disney/ABC or Westinghouse/CBS), but these moves were significant nevertheless.

- Zebra acquired Utah-based Vertical Technologies Inc. on July 6. VTI is a six-year-old, privately-held, software company which develops and markets products -- for both entry level and higher end users -- for bar code printing, scanning and tracking. The company will continue to operate from its Sandy, Utah headquarters, and David Carter, founder and president, will stay on to manage Zebra Technologies VTI.

  The purchase price was 110,000 shares of Zebra stock (then trading at about $50, and moving up to $62 by August 4) plus approximately $4 million in cash paid over three-and-one-half years.

  VTI has sold a total of 10,000 software packages. Revenues for the past twelve months were $2 million. According to Zebra President Ed Kaplan, VTI sales are currently on a "very steep ramp," and annual revenues -- even without the acquisition by Zebra -- were projected to be $10 million "in the near future."

  Kaplan adds that this purchase is his company's first entry in an area outside of printers and supplies. "Zebra has been exploring opportunities to become the supplier of bar code solutions to small and medium size businesses," he said. "Our aim is to firmly establish the Zebra name in the PC retail channel and to expand our sales opportunities by providing easy-to-use solutions to bar coding by small users."

  Kaplan confirmed that Zebra is currently exploring other possible acquisitions. "We are looking at ways to expand our products and channels," he explained, "and we expect to do more acquisitions soon. We want to stay in bar coding within a range of printing technologies, perhaps including consumables. It must be a logical extension of our core business." Kaplan would not be specific, and he left the door wide open to other types of opportunities that his company might pursue.

- On July 19, Telxon acquired Virtual Vision (Redmond, WA) -- a developer of

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digital, head-mounted systems -- for an undisclosed price after the assets of Virtual Vision were placed in Chapter 11 bankruptcy. While Virtual Vision has been primarily involved in the consumer market, Telxon expects to apply its unique technologies -- in optics and wireless capabilities -- to the industrial marketplace.

According to Telxon: "Virtual Vision has developed 'augmented reality' which superimposes video or data images onto the viewer's real world view. Unlike 'virtual reality,' which is completely immersive, augmented reality also allows the users to see the existing real world environment."

[If nothing else, we will have to expand our vocabulary to keep up with all of these new ADC technology developments.]

- PSC purchased (on July 27) the technology and rights to SureCube, a carton measuring system, from Woodworth Intellectual Properties (BurrRidge, IL). The SureCube automatic high speed laser system is a device to accurately measure the height, width, and depth of individual cartons as they move along high-speed conveyors. The new system will be integrated with the high-speed, fixed-position bar code laser scanners which are part of the LazerData line acquired by PSC late last year (*SCAN* Jan 95).

- Lowry, a full-service VAR and systems integrator of bar code systems -- with thirty sales offices around the US -- acquired Data Recall, a VAR covering the West Coast. Terms were not disclosed. The July 25 acquisition brings Lowry's total annual revenues to more than $60 million.

- All of the above mergers were "friendly" deals between willing parties. Currently underway is an attempted "hostile" takeover of Wallace Computer (Hillside, IL) by Moore Corporation (Toronto, Canada). Moore, founded in 1882, is the world's largest designer and manufacturer of business forms and related products, systems and services, with annual sales of $2.4 billion. Moore's interest in the ADC market is mostly focused through its Pressure Sensitive Systems unit, which has been featuring its linerless roll labels for the past two years (*SCAN* June 95).

  Wallace Computer (1994 sales of $588 million) manufactures forms, labels and ribbons -- including bar code labelling software for PCs -- and is an aggressive competitor to Moore. Founded in 1908, Wallace is also a reseller of thermal, laser and impact printers, and automatic label applicators.

  Moore's July 31 bid of $56 ($1.3 billion) boosted Wallace's shares by over $14 (33%) the next day. According to news reports, Wallace had previously turned down several private merger offers by Moore -- prompting Moore to go directly to the shareholders with this tender offer. Wallace's Board of Directors is fighting the Moore takeover. Indications are that this struggle may get messy.

As expected....

....Jerome Lemelson came roaring back in his patent suit against Ford Motor Company by filing a July 10 response to last month's finding by Magistrate

Phyllis Halsey Atkins (*SCAN* July 95). Magistrate Atkins had recommended that "summary judgement be entered in favor of Ford based on Lemelson's undue delay in prosecuting his patent claims in the patent office."

Lemelson totally rejected Magistrate Atkins' position that there was "unreasonable delay" in filing new claims based on old patent applications. His position was that she "incorrectly resurrects the long ago discredited 'late claiming' defense." In his 30-page response, Lemelson raised many other legal points -- with dozens of supporting citations -- to discredit the magistrate's report and to convince the US District Court judge in Reno to rule in his favor.

In the document, Lemelson's attorneys describe him as "America's most prolific living inventor, with nearly 500 patents." They point out that "every significant automotive company in the world, save the 'Big Three' is licensed" under his patents. They cannot understand why "punishment should befall one of the most creative inventors since Thomas Edison."

[Not all of Lemelson's recent activities have been devoted to inventing new products or defending his patents in court. Through his Lemelson Foundation ("to make the public aware of the contributions of inventors") he is also creating a new Lemelson persona.

But even here, his efforts are touched by controversy. Among its other donations -- e.g., MIT and the Smithsonian Institution -- the Lemelson Foundation had been giving sizable gifts to National Public Radio for reporting on science and technology. That support dried up when an NPR report aired which discussed some of the legal problems surrounding Lemelson's patents.

In an article in the August 10 issue of the *Chronicle of Philanthropy* -- a bi-weekly newsletter with 30,000 subscribers -- Lemelson is quoted as saying he has been involved "in so many lawsuits -- and worked with so many lawyers that he does not know exactly how many court battles he has pursued." In the first public statement we have seen attributed to him in reference to his current legal wrangle with Ford, Lemelson admitted, in the *Philanthropy* piece, that if he loses he may be forced to "get out of the lawsuit business." He stated: "If that happens, I'll put much more time in on the foundation and on inventing tomorrow's products."]

The saga continues...

<u>**The grumbling is increasing**</u>....

....among the ADC vendors facing <u>two industry trade shows in Chicago</u> each year. The first question being asked is whether the size and scope of the auto ID business justifies two shows every six months. Even if the answer is "yes," the second question is: "Should they both be in Chicago?"

Among the two dozen ID Expo exhibitors we queried during the past few months, the answers to the first question were mostly ambivalent. The gist of the replies boiled down to this: "If we can continue to draw good crowds with lots of new prospects every six months, why not have two shows?"

To the second question, however, the responses were almost universally negative. "Most visitors to the Chicago shows are from the midwest and we are exhausting the possibilities," one exhibitor told *SCAN*. Another exhibitor griped: "We are ignoring the rest of the country and not reaching a major part of our market." A company president complained: "We are getting to the point where we [the manufacturers] are just talking to our channels [VARs, dealers, distributors]."

We have decided to open these issues to a serious on-the-record debate on these pages during the coming months.

Our first participant is Advanstar Expositions, the owner/manager of the ID Expo show. During the past three months, we have had several long conversations with Bill Windsor, Advanstar's President, to get his company's perspective. "Maybe there is some grumbling," he conceded, "but 85% of all of the exhibitors at ID Expo 95 have already signed up for 1996 and that's the highest percentage of early sign-ups we've ever had. International attendance was strong and we had a ton of first-time attendees -- more than at any ADC trade show."

Windsor has a ready explanation for why overall attendance at ID Expo 95 was down 5%. "There was no decline in the number of <u>companies</u> that attended," he noted, "but they did not send as many multiples from each company. We think they are splitting up; one goes to ID Expo, one goes to SCAN-TECH."

As a result of our conversations, Windsor and his staff prepared a nine-page report to reply to specific questions raised by some exhibitors. Highlights from that report (which was sent to *SCAN*) include these items:

- "Advanstar has a significant commitment to the automatic identification market." The company publishes two of the leading ADC magazines (*Auto ID News and Auto ID News Europe*); in addition to ID Expo, it runs three regional ID Info shows in the US [soon to become four -- see below] and Scantech Europe; it maintains the "ultimate database" of auto ID companies; and it is the "largest US-owned exhibition company," producing eighty events annually.

  [Reed Exhibition (Norwalk, CT), the owner/manager of the rival SCAN-TECH show, calls itself "the world's largest organizer of trade shows." Reed Exhibition is owned by Dutch-based Reed Elsevier.]

- Regarding attendance, the key concern of many exhibitors, Advanstar wrote: "The real factor in our lower 1995 attendance [down 5%] was a decline in the 'local market'; we were down in total numbers by over 15% from Illinois, Indiana, Michigan, Ohio and Wisconsin....Since SCAN-TECH has moved into our Chicago market with its one annual show, this decline in the local market is both understandable and unfortunate....

  "If Reed had continued to move SCAN-TECH around the country, we have no doubt that ID Expo 95 would have set a new attendance record for us and that SCAN-TECH would have continued to be successful as well. One thing must be perfectly clear: Reed's actions caused exhibitors at ID Expo to see fewer people in 1995 than they did in 1994."

- "In a wide variety of surveys, Rosemont [the ID Expo site] has been overwhelmingly specified as preferable to McCormick Place [the SCAN-TECH venue]....The cost to exhibitors is significantly lower at Rosemont than at McCormick Place."

- In addressing the issue of whether there should be two shows in Chicago, Windsor pointed out that ID Expo has been at Rosemont for six consecutive years. He emphasized: "Reed's move of SCAN-TECH into our well-established Chicago market is not in the best interests of the industry....Last May, I projected that the two shows would see reduced attendance from the 'local market,' and that's exactly what we experienced this year."

- As to the more significant question of whether the industry can support two large shows in the US, Windsor responded with a resounding "Yes." He feels that the auto ID industry is increasing in size and scope and there is "a surprisingly small overlap [in attendees] between ID Expo and SCAN-TECH." Windsor also declares: "Competition between ID Expo and SCAN-TECH is good for the industry. Both shows work harder and smarter to do the best job for our customers. Competition will definitely keep costs down."

<u>*Comment*</u>

The solution that gains enthusiastic support from almost every vendor we have approached is quite straightforward: Have ID Expo and SCAN-TECH alternate years in Chicago; during the years not in Chicago, Advanstar and Reed would select venues in other parts of the country that are fertile ground for ADC exposure. (Remember: One of the most successful SCAN-TECH events was in Philadelphia in 1993.)

Reed and Advanstar are prohibited from resolving these issues directly between themselves (the anti-trust/restraint of trade laws are quite explicit about this). We suggest, therefore, that the responsibility to act for the greater benefit of the industry falls squarely in the lap of AIM/US as the representative of the largest number of exhibitors.

[We do recognize that there is a potential problem, since the trade association is not a disinterested party. According to the terms of the sale of SCAN-TECH to Reed in 1993, AIM/US continues to receive income from Reed based on that show's gross revenues.]

If these questions are resolved, it will not only be a win-win-win situation for Advanstar, Reed and the vendors, but the greatest winner will be the user community which is being short-changed by the current scenario.

[We plan to continue this forum, hopefully with input from Reed Exhibitions, AIM/US, ADC vendors and ADC users. All comments are welcome.]

<u>**The general optimism**</u>....

....and enthusiasm about the advent of new applications for <u>2-D symbologies</u> seems to have abated.

Witness the comments of two respected observers of automatic data capture:

- Russ Adams, Technical Editor of *Automatic ID News*, looked toward the future of ADC in the July 1995 tenth anniversary issue and speculated:

  "If a customer's computer could call a supplier's computer as easily as a person using a telephone, there would be no clear advantage to using high-density symbologies as a portable data file. By 2005, every computer in the world will be accessible to every other computer via a Universal Resource Locator (URL). In fact, there is a host of computer technologies on the horizon that will make 2-D codes only a transitional step. With greater access to radio-based data communications, one will be able to access any database from anywhere on the planet. Low orbiting satellites will allow a person on a loading dock to read a 1-D bar code and get the quality control results for that item from the supplier's computer in an instant."

- Kevin Sharp, Technical Editor of *ID Systems*, wrote in his August 1995 "Feedback" column:

  "Two-dimensional codes perform fundamentally different jobs than linear ones. If you can accomplish what you want with 'standard' linear bar codes, do it....Only when circumstances drive you out of the linear world should you consider a 2-D application. Here are three reasons you might pursue 2-D: <u>Tiny space</u>...on items too small to accommodate linear symbologies; <u>Unavailable data</u>...in places you might not economically serve with an on-line database; <u>Privacy</u>...you may not want some data stored in a central database."

A recent study by Kurt Salmon Associates (KSA) -- the Atlanta-based, management consulting firm -- for the Uniform Code Council (UCC) and Voluntary Interindustry Communications Standards Committee (VICS) examined the "emerging high capacity data encryption technologies." The study explored four of these methods: 2-D symbols; RFID; Proximity devices (Smart Cards, magnetic strip media, etc.); and Imaging (OCR, Vision Systems).

The KSA report includes the following conclusions:

1. Electronic Data Interchange (EDI) and linear bar coding seem to meet most business needs. "Two dimensional symbols and some of the other technologies that were examined could suit some specialized application areas....However, the enhancement of the communication infrastructure and the ability to access database information in a more timely manner using present bar coding and EDI could also satisfy the needs of many of the application areas identified in the study."

2. Users will accept new technologies only when current technology doesn't meet business needs. "The existing infrastructure of legacy systems will remain in place, continue to grow and coexist with new technologies."

3. There is no single technology that will satisfy everyone's business needs. "Two dimensional symbols offer extended capacity at a relatively inexpensive cost. However, they lack the read/write capability which may be advantageous in certain supply chain processes."

4. The UCC and VICS should examine several issues before adopting any new technology. "The longer the marketplace waits for the evolution of 2-D

technology, the better the symbology selection is likely to be."

The KSA study summarizes: "There is no one solution to business needs for high capacity data encryption. The enhancement of existing communication infrastructures, systems, and business practices should be examined before any new technologies are implemented."

Comment

While 2-D technology is undoubtedly carving out some significant market niches, we have not yet seen it adapted to the substantial, bread-and-butter, global applications -- e.g., UPC/EAN, transportation, government programs, document tracking -- that have driven linear bar codes over the past twenty years.

It has become apparent that some marketing forecasts were wildly optimistic when they predicted that 2-D would be equal in sales to linear bar codes soon after the turn of the century. Venture Development Corporation, on the other hand, is sticking by its more conservative forecasts. A year ago, the Massachusetts-based market research company predicted that sales of 2-D products would be $40 million in 1997. VDC's Senior Analyst Girish Rishi recently told SCAN that he believes the total 2-D revenues for the year 2000 would not exceed $167 million.

Since 2-D symbologies are expected to carve out new markets -- e.g., small parts marking, transportation, personal identification, advance shipping notices -- these lowered expectations will have an effect on any forecasts of the overall growth of the ADC industry.

Another ADC industry milestone....

....was achieved in July with the tenth anniversary of *Automatic ID News* magazine.

Originally the brainchild of Publisher Doug Edgell -- who tackled this emerging industry in 1985 with the zest and enthusiasm he brings to every project -- *Auto ID News* has become a very important source of information for its 75,000 readers and an effective advertising medium for the growing roster of ADC vendors.

Soon after its founding, the magazine was sold to Harcourt Brace Jovanovich which went in and out of bankruptcy and emerged as Edgell Communications (named for Doug's father). In 1992, the company's name was changed to Advanstar Communications. Doug had left in 1991 to start his own publishing "empire," Edgell Enterprises.

Under the stewardship of Mark David -- who has been the editor of Auto ID News since 1986 -- the magazine's excellent staff has tracked the major applications of automatic data capture during a period of rapid growth.

The industry is fortunate to have two highly regarded journals -- *ID Systems* magazine celebrated its tenth anniversary in 1991 -- which have achieved the success and maturity that comes with responsible continuity.

Expanding its national coverage....

....of the ADC industry through its regional ID Info events, Advanstar Expositions (Cleveland, OH) has added Boston as its fourth venue.

Advanstar is enthusiastic about the ID Info series. The company refers to the two-day conferences and exhibitions of bar code, RFID, RFDC and EDI as a "regional solution" to real-world ADC problems.

These events began with Atlanta in September 1994; opened in Philadelphia last March; and will debut in San Jose on November 2-3. The cycle will continue with Atlanta (Sept 6-7, 1995), Philadelphia (Feb 21-22, 1996), Boston (Oct 96), and San Jose (Nov 1996).

The addition of Boston to next year's itinerary will expose the northeast US and eastern Canada markets to ADC technology. According to Advanstar's President Bill Windsor, this fourth site rounds out the planned national coverage of ID Info conferences.

Some people....

....just find it difficult to hold down a steady job.

Take Ben Nelson, for example. After "only" 42 years with Markem (Keene, NH), he has decided to "semi-retire." Just when he was beginning to find his way around that 84-year-old company.

> Markem, a privately-held firm, was founded in 1911 to produce a line of machines for marking the insides of shoes. The company has grown to $180 million in sales and now provides a wide range of systems to solve identification problems for a broad variety of products.
>
> Although less than 10% of Markem's business is directed to automatic data capture applications -- mostly through its Scanmark division -- the company has always been active in the ADC industry (through the efforts of Ben Nelson). Markem now recognizes that all of its divisions are involved with bar codes and auto ID, so it has decided to break up the Scanmark operation and reassign its staff and functions to the other sales groups.

As for Ben Nelson, his future schedule doesn't sound like a typical retirement. "I'll be 69 next October," he told *SCAN* recently, "and it's time to spend more time with my family, my antique tractors, one lung engines, writing and more public speaking. I'll never fully retire, I enjoy the people and the industry too much. I have six more lectures/presentations this year and fourteen lined up for 1996, plus I'll be going to several trade shows, writing my column, finishing my book, and gathering data for the second edition (hopefully)."

Effective August 11, he will be known as Nelson Associates, at Box 61, East Swanzey, NH 03446-0061; 603/352-0470; E Mail: BAuto ID@AOL.COM.

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PUBLISHER/EDITOR: George Goldberg • ASSOCIATE EDITOR: Jeff Goldberg • CIRCULATION DIRECTOR: Teddy Allen

INTERNATIONAL EDITOR: Paul Chartier • United Kingdom Office P.O. Box 7 • Cirencester GL7-1HY England
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