TOP 20 automatic data

The ADC market took a significant hit in 2009, but the recovery may already be underway.

By Bob Trebilcock, Executive Editor

capture suppliers

Reality bites, and in 2009, the automatic data capture business was bit hard. The total market for industrial automatic data capture (ADC) solutions came in at roughly $15.2 billion in 2009, according to Massachusetts-based VDC Research Group (www.vdcresearch.com), down about 15.5% from the more than $18 billion spent on industrial ADC in 2008.

But it was a tale of two years, and a modest recovery may already be underway, buoyed by investments in RFID technology and 2D imaging solutions, according to Drew Nathanson, VDC's director of research operations. The emphasis is on the word "modest." "There is still a lot of uncertainty about the economic recovery and that impacts this market," says Nathanson.

The ADC market includes handheld and stationary bar code scanning and imaging devices, bar code printers, consumables like bar code labels and RFID tags, RFID solutions for the supply chain, and ruggedized mobile computing solutions for the factory and warehouse.

As Nathanson notes, the recession didn't hit the ADC industry until the fourth quarter of 2008. And while there is no question that solution providers declined through much of 2009, all of the categories VDC tracks began to grow again modestly by the end of the year. Emphasis again on the word "modest."

With business on the ropes, most major players focused on maintaining the status quo; there were no major mergers or acquisitions last year, and no real departures from technologies or markets.

Likewise, the 2009 market leaders included familiar faces: Once again,

Top 20 ADC suppliers by revenue
($ millions)

Rank	Company	Total 2009 Revenues	Web site
1	Motorola	$1,074.0	www.motorola.com
2	Zebra	$434.3	www.zebra.com
3	Intermec	$365.0	www.intermec.com
4	Datalogic/PSC	$328.4	www.datalogic.com
5	Honeywell (HHP)	$308.0	www.honeywell.com
6	SATO	$223.0	www.satoamerica.com
7	TEC	$166.9	www.tecamerica.com
8	Psion Teklogix	$155.1	www.psionteklogix.com
9	SAVI	$147.9	www.savi.com
10	Avery Dennison	$123.4	www.averydennison.com
11	Printronix	$113.8	www.printronix.com
12	Denso Wave	$110.4	www.denso-wave.com
13	LXE	$89.0	www.lxe.comw
14	Vocollect	$85.5	www.vocollect.com
15	Datamax-O'Neil	$73.2	www.datamaxcorp.com
16	Siemens	$63.5	www.usa.siemens.com
17	Casio Computer	$59.9	www.casio4business.com
18	Mobilecompia	$54.5	www.m3mobile.co.kr
19	Bluebird Soft	$51.2	www.mypidion.com
20	Unitech	$38.1	www.ute.com

Source: VDC Research Group

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—David Krebs, VDC's director of mobile and wireless computing practice

Motorola (www.motorola.com/us) led with an estimated $1.074 billion in revenue. Motorola was followed by Zebra Technologies (www.zebra.com) with $434.3 million. The top five was rounded out by Intermec Technologies (www.intermec.com), which recaptured the No. 3 spot with $365 million, Datalogic/PSC (www.datalogic.com) with $328.4 million, and Honeywell with $308 million, according to estimates provided by VDC. Printer maker SATO, which had been No. 3, dropped to No. 6 with $223 million.

Collecting the data

This is *Modern*'s ninth-annual look at the leading manufacturers of ADC hardware and solutions. Because the industry includes public and private companies, this is the second year in a row that we asked VDC Research Group to compile the data: Since their analysts are covering this technology every day, they are closer to the market.

To make our list, companies must sell in North America, though the chart includes worldwide revenues. *Modern* does not include resellers, systems integrators or other companies that do not manufacture ADC hardware. Since our readers are primarily focused on supply chain solutions, we do not include companies whose primary focus is the retail checkout counter or non-industrial settings, like hospitals, libraries or resorts. Nor do we include companies that only manufacture consumables like bar code labels and RFID tags.

While the overall market for ADC solutions totaled $15.2 billion, each of the industry segments experienced their own dynamics last year that may have been different from the overall market.

Mobile computing

The market for ruggedized mobile computers reached $1.9 billion in 2009, says David Krebs, VDC's director of the mobile and wireless computing practice. Approximately $500 million of the market is attributed to solutions on the plant or DC shop floor, or in port and yard applications, while stationary devices for lift trucks accounted for about $180 million in 2009. Both figures represent significant declines from 2008, with the handheld market down about 24% and the lift truck-mounted market down by roughly 31%, a figure that comes close to mirroring the decline in lift truck sales last year.

However, the market has begun to improve. Krebs estimates that the market for handheld devices will grow by a compound annual growth rate (CAGR) of 8.4% through 2014, with the lift truck market growing by 5.8% per year.

The economy, rather than any new technological development, dominated the news in this space last year. "Business conditions across the board were very challenging," says Krebs. "And, when it comes to the warehousing, manufacturing and logistics space, these are increasingly mature markets. While there is some growth in emerging markets, the replacement and upgrade market is driving much of the business, not expansion."

However, Krebs is watching the impact of smart phone technology on ruggedized mobile computers. "The rapid growth of the iPhone and Android operating systems in the consumer market is beginning to impact the industrial market," says Krebs. At the same time, he adds, most of the initial applications have to do with field service. "While the products they design for those environments could impact warehouse products, I think the warehouse is one of the last places you'll see these devices take hold," he says.

The market for wearable computers, a category that includes voice recognition technology, totaled $175 million last year, a drop of about 10% from 2008. Adoption of voice and wearable solutions saw a big run-up in 2007 and 2008, especially in consumer packaged goods industries. While Krebs continues to see a great deal of interest in voice, it is still a niche market.

"One of the challenges to adoption has been the high cost of dedicated voice terminals versus a voice-enabled mobile computer," he says. "Still, we're seeing interest, especially in multi-modal environments that leverage voice, bar codes and other ADC technologies."

Scanning and printing

The markets for bar code-related hardware saw some of the most significant

declines in 2009. Handheld scanners dropped 22.6% from 2008 to $627.5 million, the second drop in a row, while the market for industrial fixed scanners declined by 25% to $660.4 million, according to Tom Wimmer, director of VDC's AIDC and RFID practices. Meanwhile, the market for industrial printers, which includes bar code printers and the RFID printer/encoder market, declined by 22% to $1.6 billion. While all three markets have begun to recover, Wimmer is predicting five-year compound annual growth rates of between 5.6% (printers) to 6.1% (handheld scanners).

The one bright spot was in the 2D and camera-based imaging space, which grew by an estimated 20% last year. "What that says to me is that end users are beginning to get excited by imaging technology and the benefits it can provide," says Wimmer. Imaging technology allows end users to capture more data using 2D bar code symbology or capture images for merchandise returns, work-in-process or quality control.

As with the mobile computing and voice spaces, there was very little business news. And, as with mobile computing, the most important trend is the interest in multi-modal data collection. "We continue to see new processes driven and controlled by bar codes being complemented by voice and RFID," says Wimmer. "These are viable solutions in the materials handling space, and it's going to continue to grow."

Top 20 ADC suppliers and what they make

Rank	Company	Bar code printers	Handheld scanners	Stationary scanners	RFID	Mobile computers
1	Motorola		✔	✔	✔	✔
2	Zebra	✔			✔	
3	Intermec	✔	✔		✔	✔
4	Datalogic/PSC		✔	✔		✔
5	Honeywell (HHP)		✔	✔		✔
6	SATO	✔			✔	
7	TEC	✔			✔	
8	Psion Teklogix				✔	✔
9	SAVI				✔	
10	Avery Dennison	✔			✔	
11	Printronix	✔			✔	
12	Denso Wave		✔	✔		✔
13	LXE				✔	✔
14	Vocollect					✔
15	Datamax-O'Neil	✔			✔	
16	Siemens				✔	
17	Casio Computer					✔
18	Mobilecompia					✔
19	Bluebird Soft					✔
20	Unitech				✔	✔

Source: VDC Research Group and *Modern Materials Handling*

RFID

If there was one major bright spot in the ADC market last year, it was RFID. How good was business? "It's going gang-busters," says Nathanson. "The RFID industry certainly bounced back quicker than the bar code, mobile computing and printer industries."

The total RFID market came in at roughly $3.6 billion, including an estimated $3 billion in the industrial and transportation space. That was up about 7% from 2008, says Nathanson, who expects the market to grow at a compound annual growth rate of 19.5% to $7.5 billion by 2014. By the end of 2009, many suppliers were reporting full pipelines, with some backlogs in the RFID tag and transponder markets.

The key driver is early adopters are seeing real value from the additional data that can be placed on an RFID chip versus a bar code, from the visibility that comes from tracking an item throughout the supply chain or its life cycle, and from reductions in theft and counter-fitting. "Apparel manufacturers, in particular, are looking to RFID to track their product from the point of manufacture through the point of sale so they know when something enters the supply chain and when it is removed," says Nathanson.

Just as companies are combining bar codes and voice to create and control new processes, RFID is being used with sensors to not only track the location of an item in the supply chain, but to monitor important environmental conditions, like the temperature in the cold chain, and even carbon emissions for sustainability.

"Companies that made an early commitment to RFID now see it as a competitive advantage," says Nathanson. "They are using the down economy as an opportunity to continue to invest and get new economies over their competitors." ☐