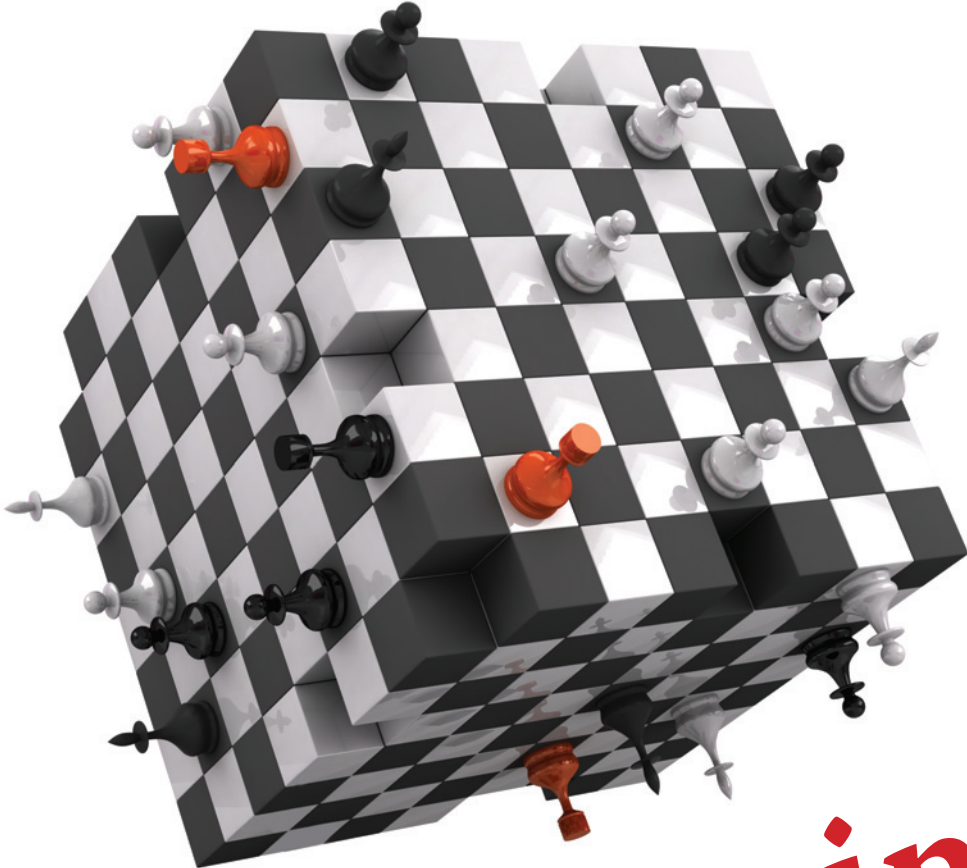


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F O R T H E P R O C E S S I N D U S T R I E S



Who's Winning?

The ARC/Control Top 50 Process Automation Companies



DECEMBER/2007

Top 50 Global Automation Vendors

	Total (in millions)	
		65,032.1
1	Siemens	8,602.2
2	ABB	7,671.0
3	Schneider Electric	5,500.0
4	Emerson Process Management	5,382.5
5	Rockwell Automation	3,641.0
6	Honeywell Process Solutions/Sensing & Control	3,080.0
7	Yokogawa Electric	2,681.9
8	Omron	2,633.8
9	Invensys	1,944.0
10	Mitsubishi Electric	1,863.1
11	GE	1,724.8
12	Danaher Corporation	1,535.5
13	Endress+Hauser	1,419.1
14	Spectris	1,411.8
15	Phoenix Contact	1,250.0
16	Cameron Valves & Measurement	1,177.9
17	Ametek EIG	1,016.5
18	Flowserve Flow Control Division	994.8
19	Metso Automation	882.7
20	Yamatake	867.4
21	MKS Instruments	782.8
22	National Instruments	710.0
23	Fuji Electric	666.7
24	Weidmuller	639.0
25	IMI Fluid Controls Severe Service PLC	613.1
26	Hitachi	570.1
27	Toshiba	552.9
28	Roper Industries Industrial Technology	550.0
29	Pepperl+Fuchs	446.5
30	Dresser Industrial	364.3
31	Teledyne Instruments	350.0
32	Horiba	310.8
33	Krohne	309.6
34	Aspen Technology	293.1
35	Burkert	234.0
36	Badger Meter	229.8
37	Samson	208.9
38	Advantech	200.0
39	ThermoElectron Measurement & Control (now ThermoFisherScientific)	198.3
40	MTL Instruments Group, plc	175.7
41	ICS Triplex (now Rockwell Automation)	139.0
42	OSIsoft	137.9
43	Parker Industrial	116.4
44	Vega	108.0
45	Tyco Flow Control	105.6
46	Management Science Associates	96.0
47	Mettler-Toledo	86.0
48	Matrikon	77.4
49	Magnetrol	62.0
50	Hollysys	60.0

Honorable Mention: SPX Valves & Controls, Microwave Data Systems (now GE), FMC, SupCon, Iconics, MTS, Pavilion Technologies (now Rockwell Automation), Cashco, Opto 22, Racine Federated/Preso, Dynasonics, Flotech, Pyromation

It's that time again—the time when we print in a few short pages, a snapshot of the health of the vendors who supply automation professionals with the tools of their trade. In a word, their health is good. End users are having excellent years in most of the process segments and in many of the discrete manufacturing segments, with the significant exception of automotive. And because end users are having excellent years, they're spending money with the automation suppliers, who are also having excellent years. At this point, the boom appears poised to continue for at least the time being.

This year, we've made a significant change. Instead of just doing a North American Top 50, with a nod of the head to global results, we've decided we need to produce two lists: A Global Top 50 that shows the real performance of the flat world of automation, and a North American Top 50, with numbers derived from global performance.

Defining Our Terms

Here's what we are including in our definition of the fifty largest companies:

- Process automation systems and related hardware software and services
- PLC business, as well as related hardware, software, services, I/O and bundled HMI
- Other control hardware components, such as third-party I/O, signal conditioners, intrinsic safety barriers, networking hardware, unit controllers and single and multiloop controllers
- Process safety systems
- SCADA systems for oil and gas, water and wastewater, and power distribution
- AC drives
- General motion control systems
- Computer numerical control (CNC) systems
- Process field instrumentation, such as temperature and pressure transmitters, flowmeters, level transmitters and associated switches
- Analytical equipment, including process electrochemical, all types of infrared technology, gas chromatographs for industrial manufacturing and related products
- Control valves, actuators and positioners
- Discrete sensors and actuators
- All kinds of automation-related software, from advanced process control, simulation and optimization to third-party HMI, plant asset management, production management (MES), ERP integration packages from the major automation suppliers and similar software
- All other automation-related services provided by the automation suppliers
- Condition-monitoring equipment and systems
- Ancillary systems, such as burner management

systems, QCSs for pulp and paper, etc.

What we're not including are:

- Pumps and motors
- Robotics
- Material-handling systems
- Supply chain management software
- Building automation systems
- Fire and security systems
- Processing equipment such as mixers, vessels, heaters, etc., as well as process design licenses from suppliers that have engineering divisions
- Electrical equipment, such as low-voltage switchgear, etc.

As with last year's list, we've found it nearly impossible to achieve a hard number for "process automation" only, so we're reporting all automation. We believe our numbers are even more accurate than last year, although that may show some companies that have lost or gained ground, when they really have not, because we are correcting for either over- or underestimating them last year. All automation companies are showing gains over 2005, because of the growth

of purchasing globally. The data is for 2006, as 2007 numbers are not yet available for many companies.

Strong Markets

The market for automation products is quite strong and may remain that way for as long as another six to eight years, perhaps as far out as 2015. Large capital projects are the main drivers behind this growth rate, especially in India and China.

The strength of the market is based primarily on the fact that the oil and gas sector continues to be strong, as the price of oil continues to inch ever upward. ExxonMobil reports that it has major capital projects scheduled out as far as 2012, at least. The longevity of the boom is likely to be attributable to the shortage of skilled manpower and contracting companies with which to do the projects that companies have scheduled.

This is not an isolated phenomenon, nor is it limited to North America and Western Europe. The shortage of talent, both individual and company, appears to be a global problem that will not resolve itself soon.

"Overall, the market is doing very well, and most companies are growing at a healthy rate. Most of the big suppliers are still growing in the double digits, which is the highest growth we've seen in almost twenty years.

Every global region is experiencing real growth, including the Middle East, Eastern Europe, the former Soviet Union and South America. The trouble spot is North America.

Key economic indicators are beginning to slide, and the automotive industry, which is not only one of the largest economic sectors in North America, but also the largest consumer of automation products, is underperforming substantially, with consolidation and layoffs looming.

Winners and Losers

On an industry-by-industry basis, the growth leader is the upstream oil and gas industry, with refining and petrochem close behind. Life sciences, food and beverages, and other regulated industries still strong, but not growing as fast as they were in past years. The electric power industry remains strong, as the price of energy is high. Water and wastewater activity is strong and will remain so, as infrastructure in North America reaches the end of its 30-year design life from the first very large buildout of pollution control plants in the 1970s. Continued water shortages globally will maintain the strength of this market segment, and all the major automation suppliers have offerings in it.

Rockwell Automation, GE Fanuc, Siemens and other major players in discrete automation have found that the real growth opportunities lie in process, batch and hybrid process automation and have moved strong offerings into this market. Rockwell's acquisition of Pavilion Technologies and ICS Triplex

Top 50 North American Automation Vendors

	Total (in millions)	20,153.2
1	Emerson Process Management	2,907.5
2	Rockwell Automation	2,338.9
3	ABB	1,737.0
4	Honeywell Process Solutions/Sensing & Control	1,555.0
5	Schneider Electric	1,180.0
6	Siemens	1,100.1
7	GE	992.9
8	Invensys	855.3
9	Danaher Corporation	730.2
10	Cameron Valves & Measurement	647.8
11	Ametek EIG	559.1
12	MKS Instruments	515.9
13	National Instruments	440.2
14	Roper Industries Industrial Technology	409.1
15	Flowserve Flow Control Division	378.0
16	Spectris	338.8
17	Phoenix Contact	312.5
18	Omron	303.5
19	Yokogawa Electric	265.5
20	Metso Automation	256.0
21	Endress+Hauser	234.2
22	Badger Meter	208.6
23	Teledyne Instruments	157.5
24	IMI Fluid Controls Severe Service PLC	128.8
25	Weidmuller	127.8
26	Aspen Technology	125.8
27	ThermoElectron Measurement & Control (now ThermoFisherScientific)	110.0
28	Mitsubishi Electric	100.1
29	Yamatake	86.7
30	Pepperl+Fuchs	84.8
31	OSisoft	80.3
32	MTL Instruments Group, plc	77.3
33	Dresser Industrial	61.8

Top 50 North American Automation Vendors

		2006 North America
34	Toshiba	59.7
35	Management Science Associates	57.6
36	Parker Industrial	50.7
37	Matrikon	47.2
38	Advantech	40.0
39	SPX Valves & Controls	35.8
40	Tyco Flow Control	35.2
41	Mettler-Toledo	34.4
42	Horiba	34.2
43	Krohne	34.1
44	Fuji Electric	31.9
45	Microwave Data Systems (now GE)	29.0
46	Iconics	28.9
47	Hitachi	26.7
48	FMC	26.0
49	Magnetrol	24.8
50	Burkert	22.2

Honorable Mention: ICS Triplex (now Rockwell Automation), Samson, Pavilion Technologies (now Rockwell Automation), MTS, Opto 22, Casco, Pyromation, Vega (OhmartVega), Racine Federated (Preso, Dynasonics, Flotech)

indicates how serious this move is for the PLC giant. The traditional DCS suppliers are thus seeing new competition in their backyard.

But the fastest growing segment of the market right now isn't products or systems; it is services. As we mentioned earlier, there is a standing lack of skilled labor, coupled with a wave of retiring baby boomers and a shortage of resources. This is causing end-user companies to seek the help of suppliers to provide more and more of the services that users used to perform in house. The trend toward main automation contractors handling big projects is also increasing.

In North America, the declining U.S. dollar and the increasing value of the Canadian dollar (higher than parity for the

first time in thirty years) has raised the specter of a recession, especially with the credit crunch caused by sub-prime lending in the housing market. Many economists, however, believe that the markets have already discounted those effects, and we're likely only to see a slowdown, rather than a full-fledged recession, in the late 2008 to early 2009 time frame.

We continue to see merger and acquisition activity, as is demonstrated by the latest entries in our Directory of Lost Companies Wiki. **i** (www.controlglobal.com/wikis/lost_companies/) Emerson's acquisition of Bristol Babcock and production management software supplier DMI, as well as the Rockwell acquisitions, Honeywell's acquisition of Enraf, and smaller acquisitions by companies at every level, indicate that automation companies have money and are not afraid to spend it. ABB is sitting on a pile of cash valued at over \$3 billion, and it has indicated that it is looking to make a major acquisition. Rumors abound.

While this sort of discussion tends to make end users nervous, it shouldn't. Companies with lots of cash and a booming market combine to make the current scene a buyers' market for end users.

In addition, the increasing connectivity of the entire enterprise and the new, game-changing technology of industrial wireless have the suppliers poised to bring even more functionality to the users, and profit greatly thereby.

Accompanying this article will be a 30-minute podcast presentation by Boyes and O'Brien inaugurating the new ARC/Control Process Automation Podcast Series **i** (www.controlglobal.com/voices/podcast_library.html). **C**

Walt Boyes is editor in chief of Control. **Larry O'Brien** is Director of Research at ARC Advisory Group.