

oday's process control market is undergoing change. Competition for market share exists across the board among instrumentation and control companies. Many companies seek to increase market share by going the acquisition route, while others choose organic product development. Both choices have pluses and minuses — which course is better often depends on details about the product or company involved.

One major force that has caused change for instrumentation companies in the past 10 years is globalization. Globalization refers to the fact that the companies must now compete on an international playing field, rather than simply within their country or region. Even companies that prefer to maintain a domestic focus may find business taken away from them by international competitors.

Globalization is made possible by a variety of technological changes. Advances in communication make it possible to instantly correspond by e-

mail or phone with virtually anyone worldwide. Advances in transportation make it feasible to travel almost anywhere on the globe to discuss business or promote products. Today, it is also much easier to ship goods almost anywhere on the planet than it was 10 or 20 years ago.

As a result of the demands of globalization, many companies are under pressure to expand their reach and to compete in broader markets. One way that many companies choose to expand is through acquisition. By acquiring a company that already competes in a market and already has distribution channels, the acquiring company can potentially save millions of dollars in research and development investment. This is also a way to save time, since developing a product through organic growth can take years.

While going the acquisition route has its advantages, it also has some disadvantages. The cultures of the two companies may differ. Distribution channels may not mesh. Product lines may not be complemen-

tary, or may even be competing. Customers of the acquired company may resist buying from the new company. Overlapping departments may require layoffs, potentially generating morale problems.

The focus of this article is on strategies that companies can use to insure that potential problems that may arise during the acquisition process do not undermine the success of the acquisition. It especially focuses on the importance of *integration* as a way to ensure harmony between the two companies. This concept also applies to creating harmony within divisions or departments of an existing company.

The concept of integration refers to the extent to which the components of a company and organization are playing the same tune, or on the same page. Companies who are in the business of expanding by acquiring companies run the risk of creating a collection of inconsistent, and in some cases, incompatible product lines. An analysis of process control companies finds that those companies that integrate their diverse divisions and acquired companies with

32 September, 2002 Flow Control

#### **Merger Mania**

Here is a partial list of key mergers and acquisitions in the fluid handling industry in the past decade or so.

Company	Ownership Change	Year	Comment
ABB Process Automation (OH)	Bought by ABB of Norwalk, CT	1990	Was a subsidiary of Combustion Engineering
AEG Automation Systems	Taken over by Cegelec	1996	
AEG Schneider Automation	Bought by Groupe Schneider	1996	
ARI Industries	Operating Unit of Okazaki Manufacturing in Japan		Manufacturer of temperature sensors
Badger Meter/Ultrasonic Flowmeter Division	Bought by Eastech Flow Controls	2001	
Brooks Instrument	Bought by Emerson Electric	1996	Manufacturer of thermal, variable area, magnetic, Coriolis and other types of flowmeters
Combustion Engineering	Bought by ABB (Norwalk, CT)	1990	
Daniel Industries	Bought by Emerson Electric	1998	Manufacturer of ultrasonic and turbine flowmeters

# **MERGE AHEAD**

Dieterich Standard	Bought by Emerson Electric	1996	
Direct Measurement Corp.	Bought by FMC Corp.	1996	
Eckardt	Bought by Siebe	1994	
Elsag Bailey	Bought by ABB		
EMCO	Bought by Applied Energy	2001	Manufacturer of vortex, ultrasonic, turbine and positive displacement flowmeters, and mass flow controllers
Fischer & Porter	Bought by Elsag Bailey, then by ABB		Instrumentation supplier
Flow Research (Florida)	Bought by Peek Instruments/Polysonics		Manufacturer of impeller type meters; Polysonics also manufactures ultrasonic and other types of flowmeters; Not the market research co.
Foxboro	Owned by Invensys		
Gas Measuring Technology	Bought by The RMG Group of Germany		GMT was a manufacturer of turbine gas flowmeters
Hartmann & Braun	Bought by Elsag Bailey	1995	Ŭ
HG International AS	Now integrated into Brunata A/S		Brunata specializes in district heating
In-Line Measurements	Bought by Honeywell	1996	Ŭ
Intellution	Bought by Emerson Electric	1995	
Josef Heinrichs GmbH & Co. Messtechnik	Integrated into Bopp & Reuther	1955	
Leeds & Northrup MAX DCS	Bought by ICS	1994	
Measurex	Bought by Honeywell	1997	
Milltronics	Bought by Siemens	2000	
Moore Products	Bought by Siemens		
MTI	Agilent Technologies		MTI was a gas chromatograph manufacturer
Profimatics	Bought by Honeywell	1995	
Setpoint	Bought by Aspen Technology	1996	
TI Process Automation	Bought by GSE Systems	1994	
Triconex	Bought by Siebe	1994	
Universal Engineered Systems	Bought out by Neptune and liquidated by Willibrator	1968-1982	Open channel flowmeter and telemetry manufacturer; Made Palmer Bowlus flume
Universal Flow Monitors/Vortex Flowmeters	Bought by Asahi/America	1997	
Water Specialties	Bought by McCrometer	1999	

www.FlowControlNetwork.com September, 2002 33



the rest of the company will be in a more favorable competitive position. By contrast, companies that fail to absorb newly acquired companies or divisions into the company as a whole will struggle to compete in today's globalized marketplace.

#### Specialization of Knowledge

One reason it can be difficult for companies to offer solutions in a wide

variety of areas, such as refining, wastewater and food processing, is that knowledge has become so highly specialized. This specialization leads to fragmentation rather than integration. The medical industry is a good example. Doctors today specialize in narrow areas like eyes, heart, feet, bones, etc., but may have very little understanding of how to treat ailments in the rest of the body. They also may not fully understand what impact their treatment has on the general health of the patient. This is the result of specialization.

Of course, no one wants to have their heart surgery done by a general practitioner. One good reason for specialization is that our medical knowledge base is always expanding, and it takes a great deal of effort to come up to speed even in one narrow area. In addition, experience is important in treating patients, and someone who doesn't specialize may not get enough experience in one area to do a good job.

Clearly, there is a need for specialization. However, specialization may have some unintended consequences. In the case of medical knowledge, it means that our knowledge of how to treat illnesses is highly fragmented. The knowledge exists in the minds of thousands of doctors who specialize in very narrow areas. These doctors for the most part talk to their colleagues in their same profession. The knowledge also exists in textbooks, but these again are a large collection of books about highly specialized topics. Nowhere is all this detailed knowledge put together into a system. In addition, there is no guarantee that all these knowledge items are consistent with each other, or that treatments prescribed in one area will not have a negative impact on another area.

### Specialization in Process Control

The situation is almost exactly parallel in process control. Just like the medical profession, the process control industry has spawned a group of



Circle 43 or Request Info Instantly at www.flowcontrolnetwork.com

34 September, 2002 Flow Control

highly specialized engineers and managers who mainly focus on a narrow area of expertise. This is true for both supplier companies and user companies. However, it is especially true for user companies. For example, the Chem Industry Web site at www.neis.com lists 28,274 sites in 56 categories under Chemical Suppliers. Categories include ceramics, coatings, cosmetics, dyes, detergents, plastics, etc. Clearly, the chemical industry has become very highly specialized.

As a result of the specialization, process engineers need to become highly specialized in their knowledge. Just as medical doctors have to specialize in a very narrow area to be proficient in that area, so chemical and other process engineers end up specializing in a very narrow portion of their industry. This means that knowledge about the chemical industry exists in small pieces in the minds of thousands of specialists who know a lot about a very narrow area. This knowledge also exists in textbooks that are just as narrowly defined.

This specialization is not necessarily a bad thing. Anyone who wants to do chemical research or who is involved in the manufacturing process has to have both the knowledge and experience to do a good job. And with the amount of knowledge that is required today to excel in one area, it may be very difficult to become an expert in more than a narrow field within chemistry or some other industry. Chemical companies are not going to hire generalists to perform highly specialized functions.

## Achieving Integrated Knowledge

While specialized knowledge can be very desirable, it can also be beneficial to link different "islands of knowledge" together into a system. When this is done, a much more powerful structure emerges. Instead of a fragmented collection of isolated pieces of knowledge, a system of knowledge exists. Instead of a collection of addresses, there is a database. Here are some of the steps involved in bringing together a fragmented body of knowledge.

- 1. A common set of definitions is adopted.
- 2. Underlying assumptions in dif-

- ferent areas are reconciled.
- 3. A common methodology is adopted.
- 4. Similar values are imposed on the different areas.
- 5. The consequences of treatment or action taken in one area for other areas is taken into account.



Circle 33 or Request Info Instantly at www.flowcontrolnetwork.com

www.FlowControlNetwork.com September, 2002 35



#### **Integrated Companies**

Companies who are seeking to integrate their different divisions, or who are trying to absorb an acquired company into an existing framework, can take a similar set of steps to promote internal integration. Some of these steps are as follows.

Adopt a common set of definitions for key terms within the company. Having a common set of industry and product definitions is essential in order to compare data meaningfully among divisions of the company. For example, in segmenting the world for sales purposes, it is important that a common definition of "Europe" is used.

**2** Reconcile key assumptions, especially hidden ones. Certain

key decisions may be based on hidden assumptions. For example, if the vice presidents in a company have different ideas about how to carry out the CEO's priorities, or if they have priorities of their own, conflict occurs. A good example is conflicts that occur between the U.S. presidents and their Cabinet members. Reconciling assumptions is one way to avoid these types of conflicts.

Adopt a common methodology for different divisions.

This has to do with strategies across divisions, with product development and with how customers are treated. Customers may become confused, for example, if different divisions of the same company have different methods for resolving prob-

lems. It is also important to understand how the strategy of one division can affect another division.

Impose similar values on different divisions. This has to do with the value placed on keeping customers versus finding new ones, the amount of money spent on research and development, whether new products are developed organically or acquired and distribution channels. Of course, some companies may choose to focus their research and development efforts in a single area if this is the most promising one.

Take into account the consequences of treatment or action in one area on a different area. For example, how sales in one division might affect sales in another division

# We won't be beat on price or delivery!

When it comes to getting quality liquid level switches fast and economically, all you need to do is call Whitman Controls. We will ship our standard liquid level switches within 24 hours. This includes both horizontal and vertical types in a wide variety of materials. That's on the level!

Our exclusive *Red Seal* exceeds NEMA VI specifications for submersion and will save you time and money. Call today or visit our Web site to discover what the Whitman+Advantage™ can give you – quality, price, and value that can't be beat.



Circle 135 or Request Info Instantly at www.flowcontrolnetwork.com



Before buyers can visit, they need to know your Web site address.

Market your Web address to 40,000 decision makers using our DotCom Directory to Fluid Handling Web Sites. (See page 84.)

Call 908 788-0343 x115

Rate per insertion 1X 3X 6X 9X 12X DotCom listing \$775 \$725 \$675 \$625 \$575

36 September, 2002 Flow Control

sion. If a company has two divisions that sell competing products, it is important to find a way to harmonize the goals and activities of the two divisions. This is a familiar problem for flowmeter companies that sell both new technology and traditional technology flowmeters, for example.

A company that has competing products should ideally find a way for both product lines to live happily together. This can be done by coordinating the strategies and marketing for both product areas. Even if the decision is just to let the two divisions compete, this works best if both divisions are aware of this policy.

Find a satisfactory way to deal with the issue of brands. Some companies choose to eliminate brand names that customers have developed loyalty to. While customers may

While customers
may eventually
develop loyalty to a
new brand, this is a
process that can
take years.

eventually develop loyalty to a new brand, this is a process that can take years. Companies that keep the brand names of acquired product lines have often been more successful in retaining market share than companies that do away with existing brand names. Market research may be required to determine brand loyalty in a particular case.

If the above steps are taken, the company has created a single, integrated point of view that serves as the operating basis for the divisions of the company. Doing this is a very important step towards creating a single, unified company, where before there was a fragmented group of companies or divisions.

#### **About the Author**

Dr. Jesse Yoder is president of Flow Research (www.flowresearch.com), which he founded in 1999. He has been a writer and analyst in process control since 1986. Yoder has written over 40 market studies, and is currently completing a 12-volume series of studies on the worldwide flowmeter market. Flow Research (Wakefield, MA) has recently introduced a new quarterly update service called the Worldflow Monitoring Service. You can contact Dr. Yoder at 781 245-3200, or jesse@flowresearch.com.

#### Mass Flowmeters

# Now It's Time to Reduce Costs!

## **Series 4200 Mass Flowmeters for Gas Monitoring**

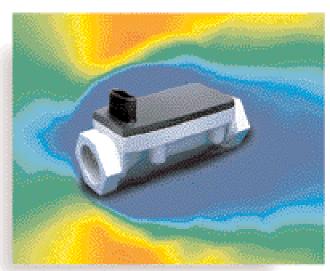
- Under \$100 in production quantities
- UL 913 recognized to measure air, natural gas, methane and propane
- 20 millisecond response time
- Very low pressure drop

Make TSI your Strategic Partner and bring your product to market faster.

#### TSI Incorporated

500 Cardigan Road , Shoreview, MN 55126 USA

Tel: 1 651 490 3849 E-mail: flowmeters@tsi.com Web: www.tsi.com





#### See Us at ISA, Booth #231

Circle 44 or Request Info Instantly at www.flowcontrolnetwork.com

www.FlowControlNetwork.com September, 2002 37