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FOR IMMEDIATE RELEASE

CASCADE SOLUTIONS ANNOUNCES BatchEM™ SOLUTION SERIES FOR BIOTECH/PHARMA MANUFACTURERS

Software Provides Cascade Customers and OEMs with Simple Skid-Based Equipment Management Alternative to Traditional Server-Based Recipe Management Systems

CHICAGO, IL – September 23, 2004 – Cascade Solutions, an engineering services firm specializing in the biotechnology and pharmaceutical markets, today announced a new solution series, **BatchEM™**, designed to streamline equipment recipe management. The series, which is part of Cascade's deliverables to clients, allows seamless integration of batch management and skid-based equipment. The software significantly simplifies the complex task of recipe management throughout a processing plant.

"End users and equipment vendors will find a lot of value in having flexible, user-configured recipes for OEM-supplied equipment," said Dennis Brandl, former secretary on the ISA S88 committee and a consultant specializing in batch control. "They will be able to use completely automated S88 recipes that are optimized for their standalone systems. This product brings the power of S88 recipe-based control to skid-mounted equipment."

Over the last 12 months, Cascade's development team has implemented and validated this versatile solution for large, multi-national pharmaceutical and biotechnology firms that have very modular processes requiring skid-based equipment.

"We developed **BatchEM™** to solve some common customer needs," explained John Sever, president of Cascade Solutions. "Not only can we provide process engineering for the skid to ensure optimum performance, but additionally, through modular design, help them manage the equipment flexibly and efficiently. The payoff to the customer is a comprehensive solution that does not require a dedicated batch server. So it simplifies the overall design and implementation, is less expensive, and extremely modular and efficient."

Features

As part of the solution series provided by Cascade Solutions to automate common customer processes and operations, such as clean in place (CIP), centrifuges, bioreactors and fermentators, **BatchEM™** includes the following key features:

- Intuitive operator interface
- Point and click recipe changes and setpoint changes
- Drag and drop recipe creation and configuration
- Easy to use batch creation wizard
- Real time process and batch status
- Automatic BatchID assignment for batch reporting and tracking
- Comprehensive data management package for batch reports
- Adheres to ISA S88 industry standards

Return on Investment

The **BatchEM™** solution series allows customers to achieve greater utility with lower asset investment with each processing equipment skid. A flexible recipe for each product and product variation minimizes errors attributed to manual interaction by production personnel which could potentially contribute to loss of product.

The **BatchEM™** solution incorporates existing instrumentation, controls and manual operational procedures into an overall modular design capable of executing automated recipes. Unlike traditional batch offerings, the **BatchEM™** solution does not require the purchase of a dedicated batch server, and typically utilizes the existing control hardware and HMI software, thus making it an excellent choice for both existing and new process skids.

Availability

The **BatchEM™** solutions provide end users with several different options to take advantage of both new and existing process equipment. The **BatchEM™** solution is platform independent and works with the existing controller platform and HMI. In most instances, the **BatchEM™** solution will not require additional I/O, allowing the Cascade Solutions engineering services team to implement the solution as part of a routine process turn-around. New systems can be equipped with **BatchEM™** in the field or in conjunction with an original equipment manufacturer (OEM) supplier for an integrated factory acceptance tested solution.

About Cascade Solutions

Headquartered in Tinley Park, Illinois, Cascade Solutions provides expertise in integrated process, electrical and automation engineering as well as data management and IT services. The company's target markets are highly regulated process industries that are intensive in documentation requirements, including pharmaceutical, biotechnology, food and beverage, and chemical.

Founded in 1994, the company has a staff of more than 40 committed, profit-sharing employees with offices in Tinley Park, IL and San Francisco, CA. For more information, visit www.cascadesolutions.com or call 708-802-6000.