

## ACSI's Advanced Weighing Control

The Advanced Control Solutions, Inc., batch control system incorporates a proprietary Automatic Preact Adjustment Algorithm for weighing control. The ACSI-developed algorithm ensures materials are weighed accurately, monitors the final weight of each material and, if necessary, makes adjustments to compensate for feeder degradation and material flow changes. The process is entirely automatic.

### ***Traditional Weighing Control***

In batching, multiple raw materials stored in various silos are weighed prior to mixing to fulfill recipe/formula requirements. Many systems start with fast feed from the silo to the scale, slow the feed as it nears the target material weight, then jogs the feed several times to come as close as possible to the target weight within the tolerance limits. This "jogging" process is repeated each time material is weighed prior to mixing.

### ***Precise Weighing Control***

Unlike a traditional system, the ACSI controller minimizes the number of jogs needed to get material weight as close as possible to the target weight with the goal of eliminating the jog cycle altogether. The ACSI Automatic Preact Adjustment Algorithm takes the guesswork out of the process by recording and statistically analyzing weighing performance. Deviations from target are recorded and accumulated. If the deviations start to trend out of tolerance and reach a predetermined value, the average of the over or under tolerance is added to or subtracted from the preact weight. With this adjustment made, the next weighed amount should be on target. The automatic preact adjustment strategy enables the control system to continuously adapt to changing material flow characteristics and different feeding devices.

Check out our website at [www.acsitledo.com](http://www.acsitledo.com).

### **Features**

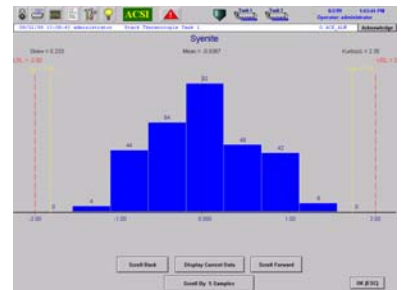
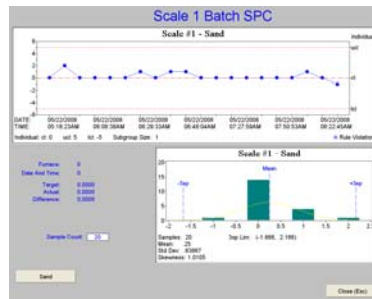
- Minimizes/eliminates jog cycle
- Improves weighing accuracy
- Minimizes/eliminates out of tolerance alarms

### **Benefits**

- Maximizes process efficiency
- Increases cycle speed and overall throughput
- Reduces equipment wear/tear
- Ensures homogeneity from batch to batch
- Decreases material waste
- Corrects to tighter tolerances
- Reduces need for operator intervention

### ***SPC Weighing Analysis***

SPC techniques are used for measuring and optimizing weighing performance. Data from the batching operation is collected and analyzed in real time to determine when adjustments are required. SPC techniques are the preferred method for benchmarking batch plant performance. X Bar and histograms shows the trend and distribution of recent material weights.



# ACSI 2009 Event Calendar

October 13-14, 2009  
**Glass Problems Conference**  
The Fawcett Center  
Columbus, Ohio

September 28 - October 1, 2010  
**Glasstec**  
Messe Düsseldorf  
Düsseldorf, Germany

**We look forward to see you at the upcoming shows in 2009 and 2010!**



## Recapping Glassman Europe 2009

ACSI Toledo's Katie Wright Marconi recently met up with ACSI Europe's Dave Douglas and Art Lawrence in Lyon, France to exhibit at the biennial *Glassman Europe* trade show.



The event took place May 13th -14th at the Cité Centre de Congrès Lyon. Exhibitors included suppliers of batch plants and equipment, melting furnaces and refractory materials, forming equipment, annealing lehrs, ware handling products, processing equipment, inspection systems and cold end handling and packing systems. Since France is a leading producer of container glass, a lot of interest was based around that sector of the glass industry.

As always, it was great to see our customers as well as meet new people within the glass industry.



## News From ACSI Europe

The next five months for ACSI Europe will consist of intense activity for our engineers, with several projects beginning their commissioning phase.

ACSI Europe engineers Mark Humphreys and Adam Harrison will be heading out to South Africa at the end of July for a cold check, then hot commissioning the PFG Float Glass line SP3, which will also see them back on site early this fall.

ACSI Europe's Dave Douglas will be traveling to Malaysia in August to commission a Working End and three Forehearth system at Malaya Glass, followed by upgrading of a Fiber system at Superglass in the UK.

ACSI Europe's Rob Haydon will be on site July-August commissioning a food industry installation for Cadbury and a line sortation system for Business Post in Swindon. He will also be on-site commissioning a similar sortation system for Business Post in Birmingham September-October. Rob will then meet up with Adam Harrison in Thailand for commissioning of Siam Glass Forehearths and for Bangkok Glass Melter and Forehearths.

ACSI Europe engineers will also be updating an existing ACSI control system for Stoelzle Glass in the UK this October.



## Meet ACSI's Jon Nash

**What is your job at ACSI:** Project Engineer

**Background:** Born in Ohio, Married, 3 kids, BSME and MSME degrees from UT

**Started with ACSI:** 2000

**Favorite Movies:** Groundhog Day, Bridges of Madison County, Jeremiah Johnson, While You Were Sleeping, The Bourne Identity 1 & 2, The Incredibles, Unforgiven, Christmas Vacation, My Cousin Vinny, The Matrix 1, The Lord of the Rings, The Good the Bad and the Ugly, Snatch, Rear Window, and Slumdog Millionaire

**Interests:** My kids, volleyball, pond hockey, foosball, racquetball, investing, politics, the outdoors, doing crossword puzzles in the backyard hammock, cooking, and puzzles

**Favorite quotes:** "Think like a man of action, act like a man of thought",

"If you're not living life on the edge, you're taking up too much space"

"Life is not a journey, growing old is a journey"

"Fluorescent lighting is bad for the soul"

"Find life here, now"

**Best day of my life:** Driving my kids to go sledding in the wintertime and listening to them sing Christmas songs in the back seat

**Recommended Readings:**

Personal Finance For Dummies & Into Thin Air

**Best thing about working at ACSI:**

Great people here, the interesting and challenging work, the great work environment, playing cards at lunch, and I don't have to fight city traffic every day

**What are you looking forward to this**

**summer:** Driving the family to across the country to Yellowstone



## Meet ACSI's Katie (Wright) Marconi

**What is your job at**

**ACSI:** Marketing/Technical Writing

**Hometown:** Perrysburg, Ohio USA

**Background:** BA from Miami University

**Started with ACSI:** March 2007

**Favorite Movies:** Gone with the Wind, Hoosiers, Varsity Blues, Harry Potter, Bridget Jones's Diary, Twilight, It, Old School, The Burbs, Ghostbusters, Amadeus, Beetlejuice, Animal House, and any National Lampoon's with Chevy Chase

**Interests:** Traveling, soccer, Political Science, French, Pilates, red wine, cooking, our puggle Lola, and my husband Nick

**Recommended Readings:**

When Character was King: A Story of Ronald Reagan, Water for Elephants, Ordinary People, A Thousand Splendid Suns, and The Five People You Meet in Heaven

**Best thing about working at ACSI:**

I absolutely love getting to meet fantastic customers from all over the world

**What are you looking forward to this**

**summer:** Working on the house, unwinding after our wedding, dining al fresco, and the new Harry Potter movie



Lola

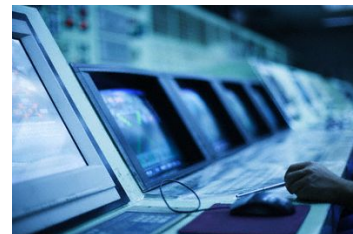


## ACSI Implements System Controls in Sadat City, Egypt

ACSI is now in the process of commissioning a second control system installation for Ianua, an Italian company located in Florence, Italy. Ianua's office is located in a building that was once a headquarters for the Allied forces. This second project for Ianua is being installed in Sadat City, approximately 70 kilometers north of Cairo, Egypt. The plant has licensed world-class production technologies from PPG Industries Inc., a global market leader in high-quality float glass.

The 220,000 square-meter state-of-the-art facility will have a production capacity of 600 tons of glass per day and will sell to both the local and exporter markets. The project includes advanced control of the entire Float Glass production line; Melter, Bath, Lehr, and Utilities. The system is based on Allen Bradley PLCs using Wonderware as the operator interface.

The ACSI engineers commissioning the project are Joshua Mompher and Steve Creighton. The Project Manager of the installation is Steve Nixon.






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through advanced control solutions



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