

Where to Apply Model Based Control

Many of our customers have experienced benefits such as energy savings, greater overall stability, increased quality & repeatability, and decreased defects after implementing ACSI's Model Based Control. However, Model Based Control should be applied selectively to avoid high costs and ineffective use.

MBC should be implemented the following areas:

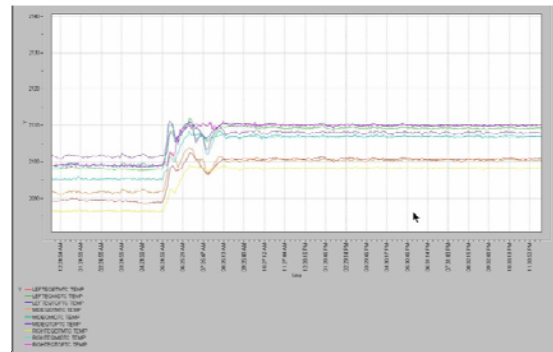
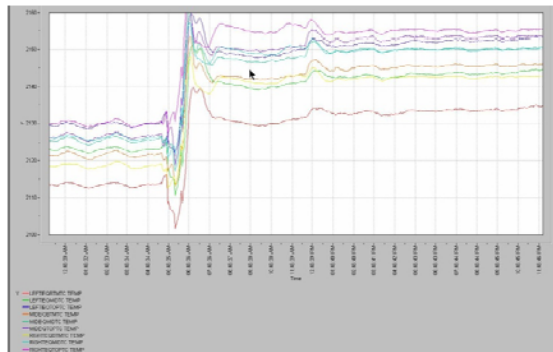
- **Loops that are dead time intensive**
PID does not understand dead time, which results in oscillation. MBC understands & accounts for it when making adjustments. The MBC understands what the typical dead time is and waits before continuing with adjustments.
- **Places where it is essential for the control system to understand the relationships between/among loops**
- **Areas where feed forward signals would increase productivity and decrease process variation**
- **Anywhere delay time, changing loop dynamics or non-linear responses make for a tough control problem**

A few of the ideal loop applications include:

- Melter Temperature
- Working End Temperature
- Forehearth Temperature
- Glass Level Control

The two figures below show the 9-point grid temperatures during job changes. These two forehearths are essentially equal to one another in size, tonnage, and pull rate, and the same setpoint changes have been made. The results are dramatic and show the ability of Model Based Control to quickly stabilize the temperature during job change, thereby minimizing the time it takes to return to steady operation.

Figure 1: Job Change with Optimized PID Tuning Figure 2: Job Change with Model Based Control



ACSI Toledo
8750 Resource Drive
Sylvania, OH 43560 USA
++1-419-843-4820

ACSI Europe
1 The Byres
Wicklesham Lodge Farm
Farringdon.
OXON
SN7 7PN . UK.
++44-1367-245475

Check out our
website at
www.acsitolledo.com



ACSI Training Series: Basics of HMI Application

ACSI is offering a 3 day training course on the basics of HMI applications, at our Sylvania, Ohio location, May 15th-17th, 2012.

This training class is intended for Plant Engineers, Maintenance Technicians, and Electricians who need to maintain, troubleshoot, backup or make modifications to an existing Wonderware® InTouch application. Trainees may bring a copy of an existing InTouch application from their facility to use during class labs. (For daily training agenda, please email katiemarconi@acsitoledo.com.)



Cost: \$1,500.00 per person

To register or request additional information please contact: Katie Marconi

Phone: (419) 843-4820 or Email: katiemarconi@acsitoledo.com

Quarterly Newsletter Company Survey Question

How should we celebrate ACSI's 20th Anniversary?

Drink bourbon and do some trap shooting out back :) ~Josh Kline

Call Brad Bowe and have him bring fake Rolex watches back from China for everyone ~Rick Baechle

Everyone gets 20 days paid vacation ~Colton Krupp

Take a cruise! ~Derek Kieffer

A party of course! ~Karen Walder

ACSI sponsored cookout and everyone bring 20 of their friends! ~Dean Cable

A friendly roast of Steve Nixon with Dave Douglas from ACSI Europe acting as Roast Master :) ~Katie Marconi

We all fly to England and have an anniversary party at the English office. ~Jon Nash

How about a Bags tournament, two man teams, we play to twenty and winners get twenty bucks each ~Frank Lepkowski

ISNetworld

ACSI has always maintained a safety-oriented workplace and recently the Company formalized its commitment to safety by becoming a registered Contractor/Supplier with ISNetworld (www.isnetworld.com).

Through this process, ISN's clients can be confident that ACSI's Health & Safety policies, OSHA records & insurance coverage have been independently reviewed and certified to meet their requirements, both now and in the future.

About ISN (from ISN's website): ISNetworld is the global resource for connecting corporations with safe, reliable contractors/suppliers from capital-intensive industries. ISN collects self-reported conformance information from contractors/suppliers, verifies its accuracy, and then reports the results in an easy-to-follow format. This allows corporations to select those resources that best meet internal and governmental requirements, while providing contractors/suppliers the opportunity to centralize their conformance information, saving time and gaining presence in the marketplace.



Collect. Verify. Connect.

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2012 Events

October 1-3, 2012
The Glass Problems Conference
Hilton Cincinnati Netherland Plaza
Cincinnati, Ohio

October 23-26, 2012
Glasstec
The Dusseldorf Fairgrounds
Dusseldorf, Germany
www.glasstec-online.com



We look forward to seeing you at the upcoming shows!

ACSI's Annual Chili Cook Off

ACSI's 4th Annual Chili Cook Off, hosted by engineer Jon Nash, took place on February 29th, 2012. ACSI employees prepared their favorite chili recipes to be judged by their coworkers. The ACSI lunch room was filled with crock pots & crackers galore and as Diana Davis would say "Ya gotta have beef, and ya gotta have spice!" Boy did we ever and more! Frank Lepkowki's chili, a crowd favorite, contained a lot of his secret ingredient, beer, while Jon Nash made his with exactly 239 beans. Josh Kline used Habanero peppers instead of chili powder to spice up his pot and Karen Walder added some extremely nutritious Cranberry Beans to hers. Joel Helbig won last year with a savory white chicken chili, but did not defend his title this year.



With a total of 12 entries there could be only one victor! And the winner is...ENSON YU!!



When asked to reflect upon the competition, here is what Enson had to say about his big win... " *This feels fantastic! Chinese people also can win western food cooking contests!!*" And his secret ingredient... " *The secret is a secret, no telling!*"

Congratulations Enson Yu and thanks to everyone who participated!!

Meet ACSI's Enson Yu

Hometown: QiQiHar, China
Education Background: Bachelor of Science in Electrical Engineering
Started with ACSI: May 8th, 2011
Interests: Singing, Volleyball, and Pool
Favorite Movies: Crouching Tiger Hidden Dragon
Favorite Summertime Time Activity: Volleyball and BBQ
Best thing about working at ACSI: Good teamwork. We are all like family and this is the most important thing for me, because most of my family is not with me and it feels like home



ACSI USA
8750 Resource Park Drive
Sylvania, OH 43560 USA
Phone: 419-843-4820
Fax: 419-843-4821
Email: stevenixon@acsitoledo.com

ACSI

ACSI Europe Ltd.
1 The Byres
Wicklesham Lodge Farm,
Farrington.
OXON. SN7 7PN. UK
Phone: +44-1367-245479
Email: davedouglas@acsieurope.com

improving performance
through advanced control solutions

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Editor: Katie Marconi, 419.843.4820
katiemarconi@acsitoledo.com.
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