



BEST Center - BAS X Workshop Agenda

Systems Integration and Interoperability

Metropolitan Community College, Omaha, NE

May 31-June 3, 2022

May 31 Tues:

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| 8:00-8:20 | Introductions – Larry Chang, BEST Director |
| 8:20-8:50 | What is BEST? – Peter Crabtree, BEST PI |
| 8:50-10:00 | Project & Hardware Intro – Robert Nirenberg, BEST Co-PI and workshop lead, Metropolitan CC

An overview of the project to be accomplished over the workshop, where it will be similar to industry training and where it won't, and a short discussion of the Contemporary Controls BASView3 and why it was chosen for this project. |
| 10:00-10:15 | Break |
| 10:15-12:00 | Networking 101 – A practical approach to teaching necessary BAS networking skills w/o an entire networking class |
| 12:00-1:00 | Lunch

BACnet International & The Global BACnet Community - Andy McMillan, President BACnet International |

1:00-3:00	Introduction to BACnet and other communication protocols – Discussion of the BACnet communication protocol, its current major competitors in North America, and how it works over an owner’s network.
3:00-3:15	Break
3:15-3:35	Demonstration of BACnet implementation in BASView3
3:35-4:30	BACnet implementation Lab – Participants will ‘discover’ BACnet devices to their BASView3 controller and ‘learn’ BACnet data points into their controller.
4:30-5:00	Day 1 Debrief
5:00	Return to hotel; dinner on your own

June 1 Wed:

8:00-8:15	Day 2 overview
8:15-9:00	What are BAS Alarms?
9:00-10:00	Alarm Implementation Lab Exercise
10:00-10:15	Break
10:15-10:45	Why are Histories/Logs/Trends ESSENTIAL to a BAS?
10:45-12:00	History Implementation Lab
12:00-1:20	Lunch and Lesson Plan Sharing
12:15-12:35	<i>Modbus over EIA-485 – Connie Keen, Wake Tech, NC</i>

- 12:40-1:00 *Measuring Health and Comfort –
Jenny Brinker, NE Wisconsin Tech*
- 1:20-2:20 Data Centers: an Overview – Paul Ehrlich
- 2:30-3:00 Travel to CyrusOne Data Center
- 3:00-5:00 CyrusOne Tour & Presentation
- 5:00 Return to Hotel; dinner on your own

June 2 Thur:

- 8:00-8:30 Day 2 Debrief & Day 3 Overview
- 8:30-9:15 Graphics in the Modern BAS – User interfaces
and Dashboards
- 9:15-10:00 Graphics and Dashboards Lab Activity
- 10:00-10:15 Break
- 10:15-10:45 Presentation by Contemporary Controls –
Joe Stasiek
- 10:45-12:00 Continue Graphics and Dashboards Lab
- 12:00-1:00 Lunch and Lesson Plan Sharing
- 12:15-12:35 *Installation and Setup of DDC Zone Controls
– Rob McNabb, Northshore Tech, LA*
- 12:40-1:00 Lesson Plan TBD

1:00-1:30	What Functions do Schedules Serve in BAS?
1:30-2:30	Schedules Lab Activity
2:30-2:45	Break
2:45-3:45	How Programming Differs Between Controller Level and Head-End
3:45-4:45	Head-End Programming Lab Activity
4:45-5:00	Day 3 Debrief
5:15-6:45	Dinner with Speaker <i>Solutions for Mitigating the Effects of Air Conditioning on Climate Change – Sean Huberty, Lansing CC, MI</i>
6:45	Return to Hotel

June 3 Friday:

8:00	Start report outs
1:00	End, takeaway lunch and depart for airport