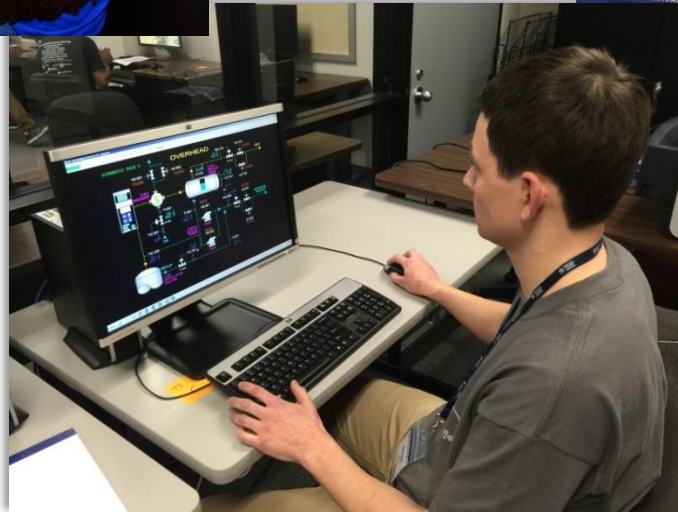
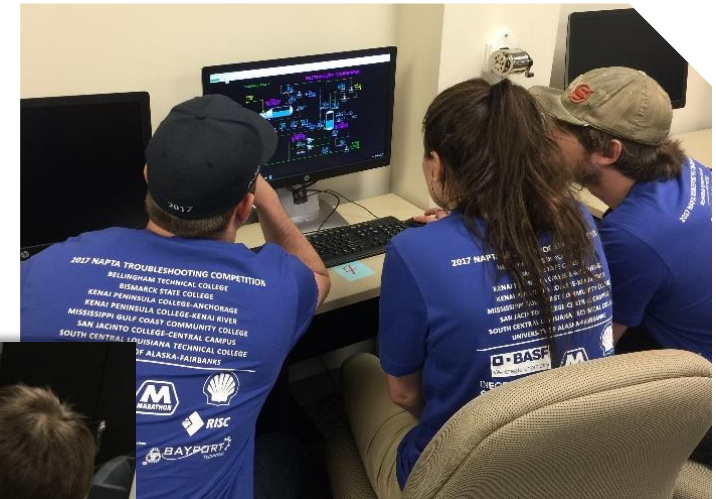


NAPTA Troubleshooting Competition

Changes & Other Information



Preparing for the Troubleshooting Competition



Session Objectives

- Definition of Troubleshooting
- Competition Structure & Format - ***Changes***
- Competencies Needed for Success
- Coach a Troubleshooting Team
- Insider Tips
- Resources Colleges Need to Compete

Current TSC Format

- Qualifying Round held on home campus
- Top 10 teams advance to the Final Round
- Team structure consists of 4 persons – Captain and 3 members
- No alternates
- Teams may compete at the Finals level with 3 team members

Proposed TSC Format (Option A)

- Qualifying Round held on home campus
- Top 20 teams advance to the Semi-Final Round
- 2.5-day event – Registration opens Thursday, April 23rd
- Top 10 Semi-final teams advance to the Final Round
- Final Round of Competition Saturday April 25th
- Team structure consists of 4 persons – Captain and 3 members
- No alternates
- Teams may compete at the Finals level with 3 team members

Proposed 2020 Format (Option B)

- No Qualifying Round held on your local campus
- 2.5-day event – Registration opens Thursday, April 23rd
- Open (all teams) Round held on Friday, April 24th
- Top 10 teams advance to the Final Round
- Final Round of Competition Saturday April 25th
- More Comprehensive Industry Networking Time
- Awards Dinner Saturday Evening

Proposed 2020 Format (Option B) cont'd

- Teams will be comprised of 4 members
- No alternates – Teams may compete with 3 members at the national level
- **Registrations accepted in order received**
- Registered teams will be capped at **40**

2020 Format Update

- Registration opens November 1, 2019
- Register your college name and number of teams ONLY
- **Max 2 teams per college for Case B.**

Note: Names do not have to be submitted with the initial college registration. Team member information will need to be received no later than Monday, February 24th.

Competencies for Success

- Process Equipment Knowledge
- Process Control Knowledge
- Team Work and Communication
- Use of a Troubleshooting Methodology
- Simulator Experience
- Use of Operating Procedures
- Time Management Skills

Coach a Troubleshooting Team

➤ **Knowledge**

- ✓ Process science (pressure, temperature relationships, heat exchange, mass balance, etc.)
- ✓ Process equipment and control systems
- ✓ Read P&IDs

➤ **Team Selection**

- ✓ Begin your team formations now – Don't wait until January!
- ✓ Student commitment
- ✓ Team work
- ✓ Communications skills
- ✓ Dedicated, hard working
- ✓ Hold intramural competition to choose best team(s)

➤ **Practice, Practice, Practice**

- ✓ Paper
- ✓ Simulator

Resources Required

- Student commitment to traveling and competing at the Finals Competition
- Time outside of class to study, prepare and practice
- Opportunity to run “mock” competition
- Access to a process simulator to practice computer simulations
- Learning a troubleshooting method/completing troubleshooting class.

Insider Tips

- Team communication and dynamics
- Know how to use the simulator
 - ✓ Operate from the graphics
 - ✓ Faceplates
 - ✓ Trends
 - ✓ Alarms & alarm acknowledgement
- Not all scenarios start at 1:00
- We introduce variability to avoid the “steady state” of normal design
- Not just one thing can go wrong, but not everything has the same priority
- Know how to use procedures

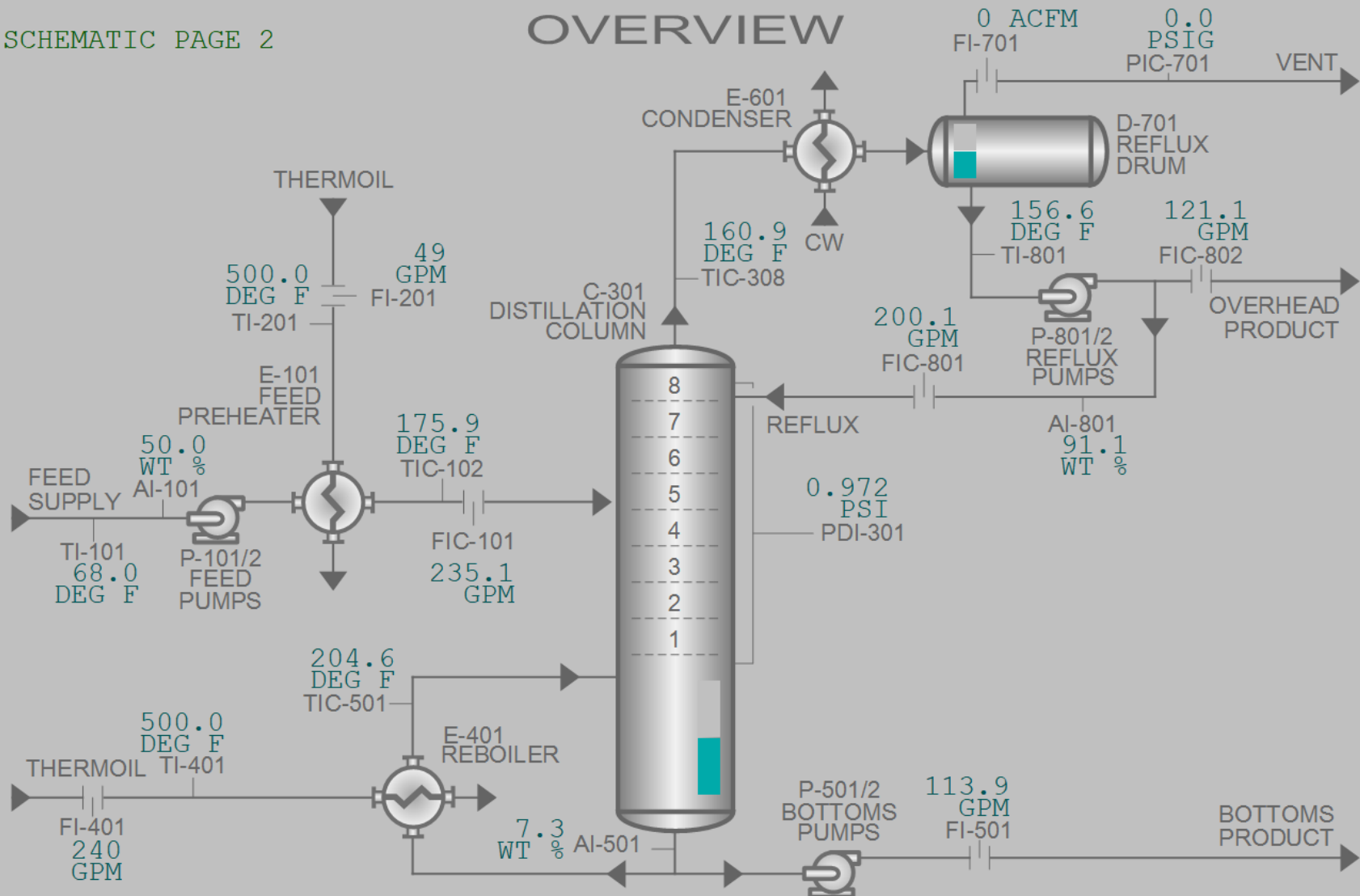
Let's Troubleshoot!

- Divide Into Teams of 4
- Complete the Worksheet
 - ✓ Review Process Information
 - ✓ Gather Data
 - ✓ Identify Probable Cause(s)
 - ✓ Determine Compensating and Corrective Action(s)
- Group Discussion & Debrief on Exercises

Let's Troubleshoot

SCHEMATIC PAGE 2

OVERVIEW



More Information to Come

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Questions

