What a headache. This is the thought we all have at some point stemming from the stress of work, or the blue light emitting from our screens. In the case of the NAPTA (North American Process Technology Alliance) Troubleshooting Competition participants, a headache might come from striving to be one of the best process technology students in the country — a standing that would position them well for an exciting, complex and in-demand job in the fuel and petrochemical industries.

To fight a headache, we may reach for a bottle of aspirin and rarely think of the fuels and petrochemicals that went into making it. From the bottle, to the pill’s coating, there is a reliable manufacturing process that make it all possible. At the heart of this process stands a person that troubleshoots complex issues, works well in teams, and safely reacts to stressful situations. Enter the process technician.

Process technicians keep an eye on the performance of plant equipment and process conditions. They safely operate pumps, compressors, and other plant equipment, making changes to the operating process as needed to maintain product quality. They also operate control room instrumentation systems and are responsible for collecting samples of products for laboratory testing.

While some of these positions require only a high school diploma to get started, an individual may need to acquire a degree, such as an associate degree in process technology, to continue to rise in their career. Strong technical and problem-solving skills are essential for process technicians and one of the best ways to demonstrate these skills is by competing against peers to troubleshoot real problems.

With the petrochemical industry expecting to invest $4 billion in 2019, this will lead to more job opportunities over the next few years. Furthermore, the oil, natural gas and petrochemical industries workforce expects nearly 1.3 million job opportunities by 2025, and close to 1.9 million by 2035 with process technicians being a part of this overall job demand.

In order to support this job demand and fill retirement gaps, our industries have partnered with community colleges and NAPTA to deliver a diverse and skilled pipeline of process technology graduates. Which by the way can make anywhere between $20-30/hour once they start in our industries. Through collaboration of industry, educational institutions, government, and others, NAPTA supports the development of a diverse, qualified process technology talent pool to meet workforce needs in North America. Driven by this mission, they put on events such as the Troubleshooting Competition to ensure that students across the country are getting properly educated and exposed to the wonderful opportunities in our industries.

Coming from a manufacturing facility myself, I was most impressed by the way the students handled the real-life situations that were posed to them: technical issues, shift changes, teamwork, and fake problem trails that may lead you to solve a problem that really isn’t the root cause. These are all very real examples in the manufacturing environment, which is chock full of complex issues, all married with rewarding interpersonal dynamics to master.
What I saw was inspiring, people from all different backgrounds coming together to showcase their technical skills and soft skills under pressure. The students showed their capability and desire to enter the growing and dynamic fuel and petrochemical industries, and it is was a great event to support. Events like these leave me confident and excited for the future of our industries’ facilities.

Just remember – the next time you’re reaching for something that makes your daily life possible, whether it is a cure for a headache, or a cold bottle of water on a summer’s day – there is a community of talented instructors, passionate students and skilled process technicians that make it all possible.