



**Johnny Ash, a process technician at Preformed Line Products in Rogers, Ark., won SimTech Challenge in 2019.**  
Johnny Ash photo



**The SimTech Challenge logo was adapted using Paulson's corporate logo, showing a "thinking brain" inside the logo mark with decades of company founder Don Paulson's knowledge and research that makes up SimTech.** Paulson Training Program Inc. photos

# VIRTUAL CHAMPS

## SimTech Challenge honors top plastics technicians

By Don Loepp  
Plastics News Editor

**J**ohnny Ash is the Michael Phelps of injection molding. Or maybe the Joey Chestnut. Whatever analogy works best for describing the top plastics technician in the world.

Throw a tough molding challenge at Ash, and he'll fix it in a jiffy. Usually faster than anyone else in the world.

We know that thanks to the SimTech Challenge, a contest that Paulson Training Program Inc. first introduced two years ago at NPE2018. Ash won the contest's top prize in 2019, and he's still a regular on top of the leaderboard.

Paulson Training is a family-owned company that makes interactive plastics training courses, offers e-learning programs and conducts seminars. It came up with the contest to help spread the word about its SimTech injection molding machine simulator.

In the process, the company ended up tapping into the competitive side of thousands of plastic technicians.

### Solving problems for fun

For the contest, each month Paulson Training comes up with a challenging molding problem that entrants need to solve. Then they optimize the all-virtual project in as few shots as possible while following good molding practices. There's no charge, and all the work

is done remotely. The only requirement is a valid email address.

"It can be a variety of things," President Karen Paulson said. "There's one, two or three problems, and usually the cycle is not optimized to some degree. So you have to solve the problems, and you have to optimize the machine."

Good molding practices include having the melt temperature within 2° F of the front zone barrel temperature, having the cushion size less than 10 percent of the screw back distance, and the transfer from velocity control to pressure control (the VPT setpoint) between 94-96 percent.

"In addition to any problems that you have to solve, you have to make sure that those three things are in line," Karen Paulson said.

"Now, depending on how complicated we want to make the challenge, sometimes we might have those things already done for you. On the harder ones, we may have none of those three things set, so you have to do that in addition to solving all the problems."

The contests are conducted monthly, and the website has a live leaderboard where entrants can track their results. The top performer in all the monthly contests is crowned the industry's top injection molder.

### Crowning the champion

Even for Ash, the 2019 winner, the challenges haven't been easy. The 56-year-old is a process technician



**Heather Wegner, process improvement lead at Orbis Corp.'s Monticello, Iowa, molding plant, has been entering the challenge for about five months and has finished as high as third place.** Orbis Corp. photo



**Michelle Parr Paulson, director of marketing communications for Paulson Training.**



**Karen M. Paulson, president of Paulson Training.**

from Seligman, Mo. He's worked at Preformed Line Products' Rogers, Ark., plant for 32 years, the past 22 in injection molding.

"They started the contest in 2018 at NPE, and I did one of the challenges and took third place. A year or so later, I started another one," Ash said. "I just wanted to see how well I would do, test my knowledge. I was really surprised by how well I did."

The number of entrants varies month to month. Typically there are about 800. To date, more than 10,000 people have entered the challenge at least once.

Ash credits his former boss, Steve Leden, a plastics engineer, with teaching him to truly understand how plastics work.

"He was good at making you think. That's what helps me out a lot," Ash said.

Monthly winners get a \$500 credit for Paulson training, which anyone at their company can use, plus a hat and a T-shirt. Not to mention some major bragging rights.

Ash admits he has a competitive streak, and he enjoys solving plastics molding problems the way others like putting to-

gether jigsaw puzzles.

"I like fixing stuff. When the operators have problems, it makes me feel good to help them out. And hopefully they can learn some things from me when we're doing it. It's all about learning as much as you can," Ash said.

### Real-world challenges

While all the molding is virtual, Ash said the challenge is very much like solving real-world plastics problems. That's an opinion shared by Heather Wegner, process improvement lead at Orbis Corp.'s Monticello, Iowa, molding plant. She's been entering the challenge for about five months and has finished as high as third place.

"I do have some passion about understanding injection molding, knowing how to troubleshoot problems," Wegner said. "I have always been interested in the mechanics of how things work. I'm a detail-oriented, meticulous person. I like to dig deep. I've been like that as long as I can remember," she said.

She won a \$200 certificate for Paulson training, which she's eager to use. "I'm always interested in ex-

panding my knowledge," she said.

Wegner, 34, started at Orbis at age 20. On the job, she enjoys getting molds to run in a repeatable process. In the contest, she's doing the same thing.

"It does get a little stressful, when they have a monthly contest that they rate 'very difficult.' As an experienced processor, I know that some changes should have a specific result, but sometimes things don't go the way you think they should," Wegner said. "I think it's fun. Maybe I'm just kind of a nerd," she joked.

### Training and prizes

Some companies, including Jones Plastic & Engineering LLC, use the SimTech Challenge internally. Tonia Brown-Thomason, human resources manager at the company's Camden, Tenn., plant, has been encouraging her process technicians to participate every month.

"Camden is in remote rural Tennessee; I don't have processors knocking on my door walking in and wanting jobs. We have to grow our own pool. We have to build our own talent. So SimTech helps us do that," Brown-Thomason said.

She offers prizes to the top performers in the plant.

"I tell them, 'You know you can win money if you enter.' It motivates them to try. And they don't realize they're learning the whole time. It's a win-win," she said.

Brown-Thomason encourages entry-level workers to enter the contest, too, hoping it will start them on a path to more training and advancement.

"I'm definitely on board with finding hidden gems in the company," she said. "We really enjoy the program. I hope it continues on and on for a long time."

### Engaging customers

Michelle Parr Paulson, director of marketing communications at Paulson Training, is happy with what the SimTech Challenge is accomplishing.

"They're fun to do, and it's a great way to engage customers and offer them a free way to learn something," she said. "It's a nice little value-add that Paulson can do. As long as people are engaged and actively participating, we'll keep doing this with them."

The company touts SimTech as a cost-effective way for technicians and operators to practice machine setup and solve molded part problems. Michelle Parr Paulson explains that it is like training a pilot on a flight simulator: It's easier to play with the controls when it's all virtual and there's no danger of crashing.

"Basically it's an injection molding machine on a computer," Karen Paulson said. "Once you take the training and you have the knowledge, instead of going right out to start practicing on a real machine, you practice on the simulator."

The simulator was created as a training tool, using decades of data and research compiled by her father, company founder Don Paulson.

"Basically it's Don's brain in a computer, which is why the logo for SimTech is his head — a profile of his head with some gears in it," Michelle Paulson said.