

## President's Message



ROGER J. GIBBS

### "Truss Design Evolution: Understanding the Value of WTCA's Truss Technician Training" by Roger J. Gibbs

I hope to take you through a journey that many of us seasoned people in the industry will remember. I hope this journey stirs up some memories. I'm sure that those who remember will agree with me that those were the simple days.

I remember when I first started in the truss business. The design, or I should say profile, of a truss was rather simple. We did not do a design for each truss; rather we had a set of standard truss drawings that was supplied to us by our connector plate company. For those drawings that were not in our standard book, we simply made a phone call to the plate company's truss designer. The designs were simple and all you needed to create a cutting list was a calculator or one of the simple charts that most of the connector plate companies supplied. Ah, those were the simple days.

The industry did have computers, but they were cost prohibitive for most truss manufacturers. Those who could not afford computers had a choice of using a device that the phone handset fit into that connected to the main frame at the plate supplier. Again, this system was also cost prohibitive to most truss companies.

Then came what I consider a great invention for the industry. As a matter of fact, I still see a lot of these sitting on people's desks, but they are no longer being used for what they were purchased for. I'm referring to the calculator with the magnetic strip that gave the cutting list you required. What a neat tool—all I want to know is how many of you got mad at the magnetic strips because they wouldn't read all the time? Ah, those were the simple days.

Our industry didn't have this magnetic strip calculator machine very long before computers became available in the early 1980s. This started the evolution toward where we are today. This computer brought us some neat stuff. The ability to input a truss, see what the truss looked like and then have the truss analyzed. It was a miracle! We were getting lazy and having the computer do the work for us. It even generated a good-looking cutting list and shop drawing for the shop production people. But, like most people in this industrialized nation of ours, we didn't stop at this point and just design routine trusses—that would be far too simple where computers are involved. We went into the marketplace and said we now have computers that will design ANYTHING! Boy, the industry jumped on the band wagon and now look what we have today. We have proven that we can design and build virtually any type of truss.

Today, people can sit down at a computer terminal and, by inserting the data necessary for the software to analyze the truss, can optimize that truss to maximize the most efficient use of wood fiber and labor, and minimize bracing. Furthermore, they can produce a set of instructions for the shop as well as placement plans for the builder. And there is still more. We now have the software programs to track all the necessary information on that truss, job, etc.

Our industry is no different than any other in today's technology-driven marketplace; we are outdoing ourselves every minute, every day. We want the computer to do more with less thought from us. Is this achievable? In the future can we expect to feed a CAD drawing from a specifier into our software and get out the information we need to correctly build all structural members for that building? I don't know, but I believe we will give it a solid try and will probably succeed. One warning though—as the old saying goes “garbage in, garbage out.” Who says the CAD designer did their work correctly? Look at the prints we get today, are they correct 100 percent of the time? Some in our industry think we can just pull people off the street and put them to work in front of a terminal. People need to be trained and understand the outcome of the work they undertake. It is like math, if a student doesn't understand how to add 2+2, a calculator will not help him understand the important principles behind mathematics. The calculator and the computer are simply tools that help with speed.

Our industry has come a long way in 20 years and this is only the tip of the iceberg. Twenty years from now will we look back and say to ourselves “Ah, those were the simple days,” or are we going to say, “Right now, these are the simple days”?

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