

Knowledge is Power



KIRK GRUNDAHL

"Can an Asset Make Your Business Complacent?" by Kirk Grundahl

It is fairly self-evident that computer software has made a huge impact on what our industry is today. In 1978 when I first started in this business, the software that we were using was installed on a Prime Computer and we all had dumb terminals on our desks. The trusses were fairly simple to design and most of the joints required us to hand design the plating, as the software had not yet gotten to the point of having a good plating routine. One thing was certain—plating was more of an art than a science and it constrained our productivity to about 10 to 12 designs per day (which would have been a good day for me).

Today we are far beyond this. In a matter of seconds, the software can undertake and complete a design that would have taken us all day to do. This has led to the explosion in architectural features that can be built in to trusses and allowed builders to provide their customers with the housing styles that can set them apart in the market. It has also allowed all the complex parts of a roof to fit together quickly and easily. Our industry has completely changed the face of housing style and affordability forever. In fact, it is clear that trusses are the only product that can get the job done in many of the construction projects today, given the high demand for clear spans, open spaces and complex engineering.

This brings us to the key question at hand: Are we deriving the true value that we provide to our customers from the computer software and engineering prowess our industry has today? Let's frame this question differently: What business are we in? Doesn't the technical work we do cause us to be in the engineering technician or engineer-in-training business? Industry technicians take the construction data supplied by the customer and enter it into a computer program to undertake design work that is reviewed, revised and approved by a professional engineer. This looks exactly like a model for an engineering company. We have professional engineers delegating the design work and detailing to technicians, who return their work to the engineers to review and seal the finished product.

So what do companies get paid to do this work? Five years ago, the going billable market rate for an EIT in an engineering firm was \$65 per hour. The real issues follow:

- Let's say you employ five full-time technicians doing truss design work. They each work 2080 hours per year.
- Let's say that the going billable rate in your area for a recent engineering graduate working in

an engineering firm is \$65 per hour.

- At the end of the year, when you determine all the time expended in your technical department, have you achieved a revenue stream of \$676,000 for this work?
- To make the comparison more real, take a look at the revenue you generate from your truss operations and the part of that revenue that you would say is due to technical work you do. Let's say that is \$200,000. Then divide this by the number of people in the technical department (five) by the number of hours they worked (2080 times five equals 10,400) and determine your hourly rate for this work. Using this example the hourly rate would be \$19.23. Now determine what you are paying your people and see what type of return on investment you are making on the wages you are paying?

Do you think that this analysis might shock a few people in our industry? Let's ask a few more questions:

- Why do you think that builders want us to undertake the technical work and bypass building designers? Could it be because our hourly rates are much better than those of a building design firm?
- Why do you think that engineers want our industry to assume the responsibility for the roof and floor system? They are probably quite smart. They probably say to themselves, if they want to do this work for \$20 per hour or less, and take all the risk that goes with this, then we'll give them all this work. We'd rather do the \$150-per-hour work and make some money at it.
- Who is our competition for the typical roof and floor truss design and manufacturing work we undertake? Other truss plants? Stick framers? Builders? Engineers? Home designers? I would contend that in most cases the competition in our industry exists amongst ourselves, and that if we do not cost out our products correctly, we are not getting the value we deserve in the marketplace for the sophisticated technical and manufacturing work that we undertake.

So computer software developments, enhancements and sophistication are a great thing for our industry:

- They have made truss technician work incredibly easy.
- They have increased productivity beyond anyone's expectations.
- They have made complex truss building design very easy to truss and build.
- They have reduced the value of engineering in the market.

Is there any wonder why we cannot find the number of good technicians we need to undertake the business we have? We are willing to do it essentially for free, and there are a group of construction professionals that look at us incredulously and say if the truss industry wants to do it for free, we'll give them all the work they can handle.

Think about this and let me know the hourly rate for your technical department. I'll summarize all the hourly rates I receive and provide the average hourly rate for our industry if I get more than 50 of them. I hope we are pleasantly surprised.

Email your responses to Kirk a kgrundahl@qualtim.com or fax them to 608/274-3329.

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