

STRUCTURAL BUILDING COMPONENTS MAGAZINE

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Knowledge Is Power

Technical Support: Protecting, Enhancing & Growing Our Expertise by Kirk Grundahl

This graphic was in our August 2001 issue and has been used in a variety of presentations about our industry ever since. It is a very important graphic in that it defines our business marketplace from the point of view of the component manufacturer. Our primary business is easy to understand and acknowledge—manufacturing and distributing structural building components.

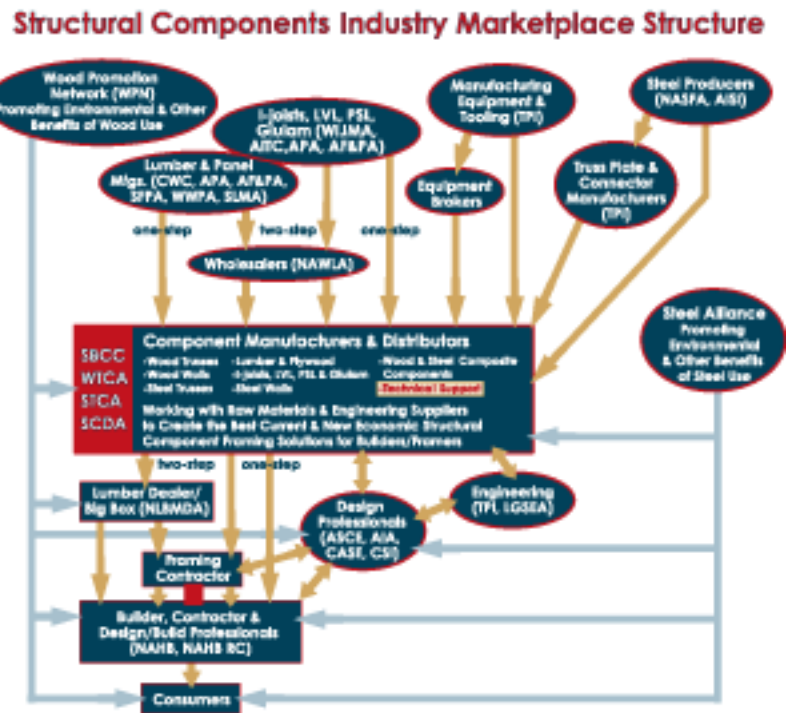
What is a bit more complicated are all the services that we provide beyond manufacturing and distributing structural building components. Our industry is heavily involved in the technical support of our customers. This technical support adds a great deal of value to the products we manufacture and deliver.

As we said previously, our marketplace is changing. There is a continual push to eliminate steps in the distribution process, or consolidate through merger and acquisition. This suggests that we are in an increasingly mature market because the only way to maintain acceptable margins is to eliminate someone else's or to consolidate several businesses.

Under this scenario, what should we be holding as precious? The logical answer is anything that adds value to our core business activity, diversifies our product lines, and provides the expertise that our customers can't find anywhere else.

On the technical support side of this equation, our industry must protect, enhance and grow our expertise. This may mean getting into building design at some point. In our graphic, this may mean consolidating the Design Professional (Building Designer) function into our businesses.

You may say that our industry has taken the position, through our "Design Responsibilities" document, that we are not building designers and that we design only single structural elements that carry a specific set of load conditions. This is absolutely the correct scope of work for the



products we manufacture and distribute. If, however, our customers ask us to carry out more work than this, like designing a header to help them construct a building, then we have moved one step toward becoming more than just a manufacturer and distributor, into the realm of the building designer. The point at which we do this is the point where we have taken on more design responsibility and more design risk. The question that then needs to be asked is whether we should also get compensated for this as it is outside of our normal scope of work and is no doubt an added value in the marketplace.

The flip side of this debate is if we decide that we are just a manufacturing and distribution industry and relegate or delegate our technical expertise to others in the downstream channel of distribution. What is likely to happen then? Well, this by definition means that those downstream have the capabilities of providing everything, e.g. the engineering, cutting, plate sizes, etc. that we need to merely manufacture components. It also means that if they can do this, they can provide this information to everyone in our marketplace and ask us to bid on this work. Will this ultimately mean that the low cost producers in each market will get all the work? How many companies can be the low cost producer in a particular market?

Going a bit further downstream, this hastens consolidation in local markets as one way to make an acceptable return on investment is to buy up the competition. One other option is for our current customers to buy up their supplier(s) or vice versa.

It's easy to see that our industry is on the brink of change. In its simplest terms, we will either add technical support value to each sale and get paid for it, or we will become a commodity product, at least until a new product comes along that changes our entire business (much like the truss plate changed the framing business back in the mid 50's).

The future of our business is in our hands. The real question is what kind of industry stewards will we be viewed as by history?

What Business Are We In?

Are we deriving the true value that we provide to our customers from the computer software to the technical prowess our industry has today? As business is currently conducted, industry technicians take the construction data supplied by the customer and input it into a computer program to take on design work that is prepared by a professional engineer. This business model looks exactly like the business model for an engineering company. Professional engineers delegating the design work and detailing to the technicians they supervise, who return their work to the engineers to review and seal the finished product.

In 1996 the going billable market rate for an EIT in an engineering firm was \$65 per hour. Following are the real issues:

- Let's say you employ five technicians doing truss technician work who all work full-time at 2,080 hours per year.

- Let's say that the going rate in your area is \$45 per hour for an engineer who's a recent graduate.
- At the end of the year when you determine 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 is due to technical work. Let's say that it's \$200,000. Then divide this by the number of people in the technical department, by the number of hours they worked, and determine your hourly rate for this work. Using this example the hourly rate would be \$19.23. Then determine what you are paying your people and see what type of return on investment you are making on the wages that you pay.

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 what a building design firm would ask?
- Why do you think that engineers want our industry to assume the responsibility for the roof and floor system?
- They probably think that if this group wants to do this work for \$20 per hour or less, and take all the risks that go with it, then let them have this work. They'd rather do the \$80 - \$90 per hour work and make some money.

Sophisticated computer software developments and enhancements 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 building design very easy to componentize and build.
- They have reduced the value of engineering in the market to virtually nothing.

Is there any wonder why we cannot find the number of good technicians we need to accept the business we have? We are willing to do it essentially for free, and there are a group of construction professionals who look at us incredulously and think that if they want 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 that you get for your technical department. I'll summarize the information that I receive if I get more than 50 responses. I hope we are pleasantly surprised.

WTCA Board of Directors Policy on Component Design Software Products

Background: The issue is whether the construction industry is best served, and whether component manufacturing industry is harmed, through the licensing of component design

software products (Software Products) to a person or entity other than a component manufacturer for its own design, manufacture and sale of structural building components.

Discussion: The component manufacturing industry has grown due to the fact that the products component manufacturers design and manufacture meet the needs and demands of the building construction industry. Product acceptance and the growth of the industry are attributable to the tremendous abilities of industry participants to design and manufacture trusses and components creatively, efficiently and cost effectively. In achieving the goal of providing builders and contractors with safe and economical products, each component manufacturer utilizes a unique combination of component design, raw material selection, manufacturing equipment, specifically trained labor and specifically defined manufacturing procedures. WTCA component manufacturer members have a unique set of experiences, are uniquely trained in the context of these experiences, and possess the requisite technical expertise to undertake their scope of work professionally in the context of their unique manufacturing environment. Utilizing Software Products without a sufficient understanding of the unique skills and characteristics of each manufacturer could negatively impact the actual performance or the perception of performance of components in the marketplace in very significant ways. The impact could also include reduced safety for truss plant workers, component installers and consumers.

Truss and component manufacturers are furthermore required to stand behind the products they manufacture and warrant that the products conform to the design and otherwise comply with industry standards and building code requirements. Not only is this a legal requirement, but also a matter of meeting customer expectations. The warranty provided by the component manufacturer includes that the product has been adequately designed as well as properly manufactured. Component manufacturers may also be called upon to indemnify and hold harmless customers and others from any property damage or bodily injury caused by the products they manufacture. If the design parameters for components are determined by and the components are designed by other than the component manufacturer, the component manufacturer will most likely be left with the following issues:

- No legal or effective way to insure that the design work is ultimately done correctly in the context of producing the manufactured product that must conform to the design and application requirements of the construction project, and
- The certainty that those persons doing the design are adequately capitalized and insured in case there are problems resulting from their designs.
- There is also a great deal of intellectual property tied up in the design and manufacturing of components. If the value of such intellectual property is allowed to diminish, which is almost certain if persons or entities other than component manufacturers are designing trusses and components, the likelihood of further investment in enhancing current technology and developing new technology with respect to the design of trusses and components will diminish as well. Ultimately, the reduction in value of intellectual property could lead to the reduction in value of component manufacturing commerce overall.<

Policy Support: From conversations with connector plate suppliers, we have received feedback that they generally agree with the component manufacturers about this policy and the discussion set forth above. Furthermore, it is understood that many if not all of the connector plate suppliers currently restrict by license or contract the use of Software Products for other than a

customer's own design, manufacture and sale of structural components.

WTCA Policy: The construction industry is not best served, and the component manufacturing industry will be harmed, if Software Products are leased to, sold to, licensed to or used by any person or entity that does not design, manufacture and sell components. The Software Products should therefore only be used by licensed component manufacturers for their own design, manufacturing and sale of structural components. Excluded from this policy would be any designers or design companies in business to design components only, under a specific contract with a component manufacturer. In such cases the licenses to use the Software Products should contain appropriate restrictions. (Revised April 2002)

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