

# Vollum Award Winner Spells Out Some Lessons He's Learned

A number of engineers who heard the acceptance speech of this year's Howard Vollum Award winner, Phil Crosby, during the recent Tektronix Technical Achievement Awards Banquet felt other employees could also benefit from his words. For the sake of space, we've deleted Phil's opening remarks in which he thanked several people. Here are the "rules" he passed on to the banquet audience.

... This introduces the heart of what I want to talk about here. I don't believe there has ever been an industry that has grown as fast and as reliably as electronics. I have had the good fortune to be able to contribute to this industry for a long time.

Part of this is because I've been working for a company that helped provide the means of staying current, but another part is due to certain behaviors I've learned over the years. Those behaviors have helped me to learn the things I need to stay current.

I don't always follow the rules I've learned, but I should. I'd like to pass some of them on to those of you out there who really like to build stuff, in hopes that you will have as much fun building stuff as I've had.

## *"Always tell the truth; there's less to remember."*

This is from my "Hawaiian Rules" T-shirt (which also states, "Speak softly and wear a loud shirt.") There have been a number of times when people have gone way beyond the outer limits of optimism and gotten very tangled up. Often, a proof of unfeasibility was either not attempted or, worse yet, ignored. Don't get involved in this sort of thing. It just clutters up your mind.

## *"Fess up when you don't know, or when you've screwed up."*

This second one is derived from the first, but deserves additional comment. We don't work in isolation. We depend on other people, both to get things done and to learn from. They would much rather communicate with a human being rather than with a god. If you don't know something, maybe someone else does. If you screwed up and talk about it, maybe someone else won't make the same kind of mistake later. Maybe there's a pattern in making certain kinds of mistakes that is waiting to be recognized.

## *"If you don't know, ask. If they don't know, maybe you can work it out together."*

There are remarkable differences in the ways people think about things. In solving problems together, you are given the opportunity to look into someone else's mind. Often, they may have a way of looking at certain things that is simpler, more elegant, or best of all, orthogonal. We are all blind to some extent, and this industry is a multifaceted elephant. If we become familiar with the modes of thought that others employ, it may even be possible to "borrow their heads" when they aren't there!

Following this thread, it is often useful to find multiple ways of visualizing a situation. It is in those derivative ways of thinking — Keith Slavin is particularly good at this — that significant simplification or profound elegance may be found. When you find it, share it. It's the closest thing we have to what others call art.

## *"Bet on the future — it usually gets here ahead of schedule."*

Identifying the major agents of change and predicting their effects give you a vision of what you will have to learn to do well. Some of us started betting on digital video 25 years ago and we have seen how much it has transformed our landscape. The process continues.

## *"Recast the past."*

Look at those things that were difficult or clever in the past and see what they will look like tomorrow. One design that I did last year includes a "trick" that I first saw on a Tek 531 scope. Different medium, same idea. It is important to extract the essence of an idea from its means of implementation and see what it can do in a new environment.

## *"Make yourself available."*

My performance reviews sometimes used to say something like, "Phil spends a lot of time helping others solve difficult problems, but he should spend more time doing his assigned task." Well, there are only so many hours in the day, and it sometimes isn't appreciated how much help we give (and get). I've found that, although my train of thought may be on a siding while I process an interrupt, it often carries less excess baggage when I start it up again. So we should learn to find ways to push back on the notion that we are supposed to function independently. To modify a well-known phrase only slightly, "We should learn to think outside of our boxes."

As Bob Dylan has said, "You have to serve somebody." It may be the devil. It may be the Lord. It may be Tektronix. As members of a company, we're here to help. We can and should help each other. We can and should reinforce each other. And we will grow in the process. Thank you.

