



PAUL HAHN

Taking Control of Your Bottom Line

Back in the 1980's I was working as a field surveyor in Seattle Washington. One of our projects was quality assurance on a freeway bridge in West Seattle, WA. The prime contractor was Peter Kiewit and Sons (PKS). It was the first of many Heavy and Highway projects I got a chance to work on and was a tremendous learning experience. One day on this jobsite I was waiting outside the job trailer for the party chief to gather some information when I looked across the road and saw, what I believed to be, a cameraman filming a porta-potty. This filming went on for several minutes and curiosity finally got the best of me. I went over and asked why this fellow was making such a film. He pointed out that he was not filming the John, but a forklift working a few feet away. The forklift was unloading some forms from a flatbed. When I asked him why he was doing that, he replied that PKS was performing a "motion study". Since I had no idea what a motion study was, I kept asking questions, which he was kind enough to answer. He explained that by studying the efficiency (or inefficiency) of an operation; their operations/efficiency experts could figure out how to perform that task more productively. They also studied the way people performed tasks, how other machines were being utilized and how operations could be improved. The purpose of all of this effort was to streamline operations, reduce costs, increase the competitiveness of their

bids and improve their bottom line. Although I forget some of the details all these years later, I never forgot the concept of "continuous process improvement". It is a concept widely applied in the manufacturing arena.

Years later, this concept led me to study the movement of survey teams. I wanted to identify the inefficiencies that slowed them down. Part of the findings had to do with the equipment

impact that various levels of technology had on the productivity of surveying field crews. We called this effort "Productivity Studies". Whatever you call it; the effort brings great rewards. The results are often quite surprising in their scope and magnitude. Among the many things that I discovered during this research; I found that applying old procedures to newer technology robbed their operators of up to 50%

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being used and the other part had to do with the movement and procedures of the people. I also used video capture and a fairly large sample of field crews to generate statistics and draw conclusions. From this study I prepared and published a document called a "Time Study" (consequently, one of my partners in that effort was Machine Control Online Editor: Randy Noland). Later in my career I further investigated and documented the

of the potential productivity increase. This was most often a training issue but unwillingness to change played a huge role as well.

It is natural to continue with proven approaches and procedures when they have been successful in the past. You often hear "that's the way we have always done it" even from some of the most successful firms around. Others never stop asking "how could we do this better?" We tend to learn mostly from

mistakes but how many take the time to question procedures and research potential improvements when things are working well in the present? You don't need to be one of the leading contractors in America, like PKS, and have teams dedicated to continuous process improvement to make changes for the better. You just need to open your mind and observe your operations with a critical eye. I am not saying that it doesn't help to be a big successful company with lots of resources, but how do you suppose these big companies got so big and successful? What inefficiencies are at play in these areas of your operations? How do you eliminate them for future success and growth?

Unfortunately, most of your regional competitors will not help you out as their discoveries are looked upon as proprietary competitive advantages. However, there are published studies to refer to. There are also testimonial case studies from contractors willing to endorse technology solutions. Many of these resources are found on this website. Others can be found through machine control manufacturer's websites. Caterpillar, Leica, Trimble and Topcon have excellent websites that contain case studies, application stories, productivity studies and even return on investment analyses. Your local dealers are willing to provide demonstrations and rent to own programs so you can try

new technology on your jobsites and in your typical working environments.

It is so easy to become consumed with the job-at-hand during the busy times. Regardless of how many resources are at your disposal, you must be curious enough and open-minded enough to ask how and where you can improve your operations. Even if you are not ready to film your porta pottys, tremendous lessons can be learned from these investigations and all will impact your bottom line. ■■

Paul Hahn has more than 30 years of experience, and has held senior management positions at Carl Zeiss, Nikon, Geotronics, Spectra Precision, and Trimble, and is now a consultant.

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