

## Real Quality Assurance for Executive Managers and Administrators

*A presentation by Peter Baston*

### Background

I grew up in two very different worlds: Europe, where we had huge amounts of resources but seemed to accomplish very little, and Africa, where the reverse was true—we had very few resources and



accomplished the seemingly impossible. I studied systems engineering, which says you look at the system as a whole to discover how and why it operates as it does. What I saw was that in Africa we were continually looking for ways to improve our operations. To ensure we would continue to work smarter, we developed and followed best practices—because we couldn't afford to correct mistakes, we had to do it right the first time, every time.

When I discovered the work of W. Edwards Deming, whom many consider the founder of Quality Assurance in the US, I understood that in Africa we had practiced Quality Assurance—religiously, systemically and systematically. Deming's work became my bible of operations and has remained so for 40 years on three continents. The Shewhart/Deming iterative 4-step quality assurance cycle of continuous improvement—Plan-Do-Check-Act, then start over again at Plan—is the operating principle of virtually all quality assurance systems.

It's simple, and it works—but only if QA is applied religiously, systemically and systematically. You cannot isolate one function of a company or a process and apply QA only there and expect success. QA is a system that embraces the entire operations of a company. QA is a business strategy, a risk management methodology and a profit driver. Quality Assurance programs should be viewed metaphorically as the seat-belt that no company should operate without.



Paradoxically, when I came to the US, I discovered that very few companies operate in a true QA environment. There are many reasons why Deming is revered in Japan and virtually unknown in the US. One is that for many years we enjoyed an extremely successful economy. When profits were easy to come by and seemed to grow as plants do, by a law of nature, there was little incentive to expend concentrated energy on maximizing them. Another is that Quality Assurance properly practiced is neither simple nor formulaic: it requires long-term commitment, long-range planning and the patience to tolerate delayed gratification. In a boom economy, blitz-style reorganizations and instant gratification are the norm. Yet another is that until recently, there were few consequences for companies that did not practice good QA.

We tame \$10 elephants.



## QA and Insurance: Pre 2008 and Post 2008

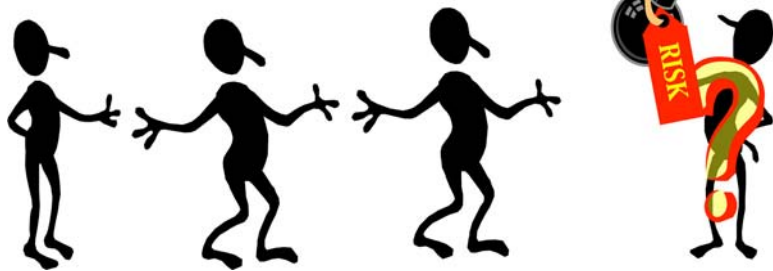
One reason that there were few consequences for companies that did not practice good QA is that up until about 2008, it was relatively easy to obtain good insurance to protect against product failure. Every company that attends the seminars at which I deliver this presentation has a risk analysis profile. Often that profile is supported by the declared presence of QA programs, generally attested to by voluminous submissions of documentation. The risk analysis profile enables the company to obtain General Liability and Errors and Omissions insurance coverage—without which it could not operate.

Instead of validating the risk analysis profiles of individual companies and industries, ensuring that the calculated risk assessments were accurate, insurance companies aggregated their risks and offset them by bundling them up and reinsuring them. In theory, in a bundled package

of policies, there would be a statistically even distribution of good and bad risks that reinsurers could average and value. Business insurance was offered and priced based on the actuarial risk of claims occurring and reinsured in packages. In essence, prior to 2008 risk management was accomplished by handing off the risk:

businesses passed their risk on to insurers and insurers passed their risk on to reinsurers. Neither businesses nor insurers performed real risk assessment—why should they bother, since they were passing it on? In fact, since no profiles were being validated, there was no sound basis for any risk valuation. These bundles were risk bombs waiting to go off, and they were simply passed along ever higher up the food chain, all the way to the top of the industry—the master reinsurers.

Pre-2008



2008



In 2008, a series of events completely changed the way in which master reinsurance companies looked at risk analysis profiles supported by documentation. As with every good game of pass the hand-grenade or Russian Roulette, eventually there is a loser. The unvalidated risk analysis profiles of industries and companies proved to be totally inaccurate and claims escalated to stratospheric proportions. The master reinsurers started to reject claims, on the quite correct assumption that many of the risk analysis profiles on which risk assessments had been based and coverage granted were bogus, thus invalidating coverage.

Senior executives are well aware of what it will do to their bottom line if they cannot count on claims against standard General Liability and Errors and Omissions policies being paid. Either the company will end up self-insuring against whole categories of claims, or insurance premiums will skyrocket. Either way, cost and risk could reach levels that jeopardize the operation of any company.

## QA and Risk Management.

A true risk management profile is a total reflection of the risk potential of the company as a whole. It must be based not on paper declarations, but on the actual operations of the company. Deming’s original work made two simple points that are still valid today:



1. The greater the influence of Quality Assurance programs on the operations of the company as a whole, the lower the potential risk, the lower the cost to offset that risk, and therefore the lower the insurance premium.
2. The smaller the influence of Quality Assurance programs on the operations of the company as a whole, the higher the potential risk, the greater the cost to offset that risk, and therefore the higher the insurance premium.

Look at this photograph of a small corner store in Asia and ask yourself if the sign that declares it an ISO 9001:2000 Certified Company can really be true.



Photograph courtesy of Michael Bolton, DevelopSense.



Unfortunately in many overseas countries language and cultural differences have created an environment where you can literally buy a complete QA/QC package, including signs and certificates, without any adherence to QA best practices or activities of any sort . This is especially problematic for western companies who attempt to offshore work and services without doing credible due diligence on their prospective partners. Though the impetus for offshoring is an attempt to cut costs, offshoring may actually increase costs by opening up huge liability for the western company.

## So What Is Real QA?

Real Quality Assurance is a systematic methodology for doing things right. In many ways, QA is a state of mind. We say that “Quality Assurance is the assurance of quality—all encompassing, never ceasing.” Let’s break that down: the Merriam-Webster dictionary defines assurance first as an “act or action.” To assure is to make a positive promise that others can have confidence will be fulfilled.

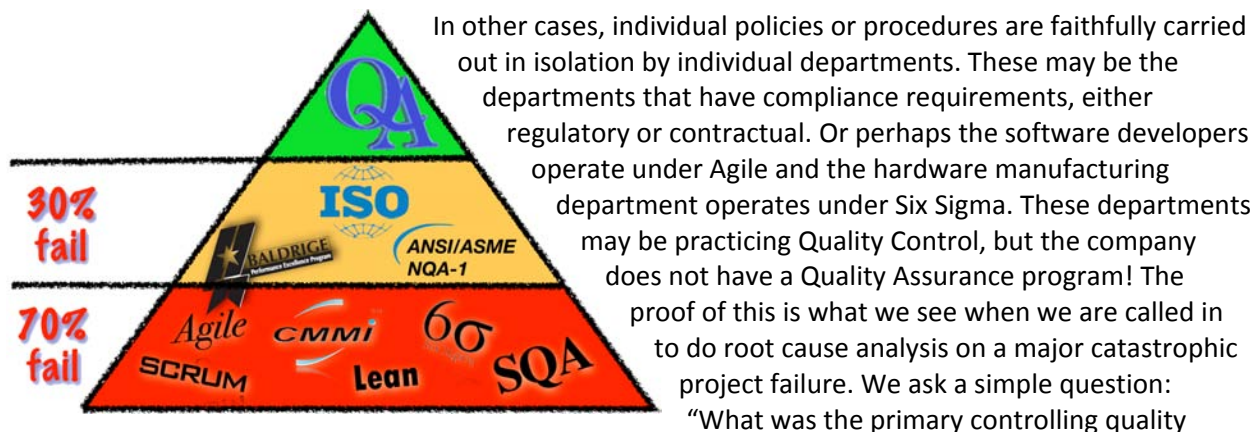
### Real Quality Assurance Is ...

- ▶ A systematic methodology for doing things right
- ▶ A state of mind
- ▶ A reflection of the total operations of the company as a whole
- ▶ The assurance of quality—all encompassing, never ceasing

“All encompassing” emphasizes that a promise of quality must be a reflection of the total operations of the company as a whole. We have all heard it said in jest that “the operation was a success, but the patient died.” In this case, it might be said that one aspect of the total treatment was executed with excellent quality—but it cannot be said that the customer was satisfied with the results of the treatment! Finally, “never ceasing” emphasizes that QA is a continuous and active process.

## QA is a Program, Not a Manual

Quality certification programs like ISO and Baldrige for a long time relied on documentation to demonstrate that a company was applying QA in its operations. Unfortunately, this fueled a focus on documentation to the detriment of action. Most QA programs that exist today are really manuals of documented policies and procedures. Often, the entire manual simply sits on a shelf and is dusted off when the auditor comes.





assurance program that you were using during this failed project?” The most frequent answer is some sort of specific QC protocol. This is a good indicator that there really was no company-wide QA program in place. Companies that adhere to a QA program as described in this presentation rarely have to analyze failed programs.

## Quality Assurance is Not Quality Control

Quality Assurance is a radically different approach from enforced Quality Control. At a psychological level, QC attempts to enforce seemingly arbitrary rules for human behavior—which we know is not

often a successful approach. QA, on the other hand, as exemplified in the works of Deming, promotes organizational structures that encourage employees to act in certain ways. I will point you back to Deming’s 14 Points for Management, often cited as the source for a QA program, but less frequently read. Point 8 begins “Drive out fear”; Point 12 talks about a worker’s “right to pride of workmanship”; the last point ends with “The transformation is everybody’s job.” If one actually reads these points, it is clear that Deming is speaking of creating a culture of quality in which companies can “cease dependence on inspection to achieve quality” because quality is built into the product in the first place.

QA	versus	QC
methodology	drives	paperwork
people	not	statistics
continuous cycle	produces	individual outputs
	≠	

Quality Assurance is about delivering customer and employee satisfaction, whereas Quality Control is often associated about complying with an external mandate such as regulatory compliance requirements. You could argue that QA is driven by internal culture of collaboration whereas QC is dictated by outside sources. In a true QA program, the methodology for doing things right is developed from the shop floor up, and it always drives the paperwork rather than being altered to accommodate the paperwork. People and their actions always are the focus of the program; the statistics are a byproduct that is a useful tool and not the measure of success. A true QA program is never “completed” because it is about continuous improvement, not about inspecting individual outputs.

We represent the Plan–Do–Check–Act cycle as a spiral, because we believe that real QA is a repetitive process that is always looking for further improvement by a continuous re-examination of the complete activity. Tremendous problems are caused by QC systems such as Baldrige that take the opposite viewpoint and mandate that what is happening in the real world is irrelevant, the written record is all that counts. Many importers are now supporting the legal claim that if the product is defective but the paperwork is correct, then the product is correct—and this is a large issue for the QA/QC industry

### Consistency

Consistency of practices is one of the most important indicators that a company is practicing real Quality Assurance. This is a fundamental but simple principle. At the very beginning of this presentation, I said that true QA is both systemic and systematic. If this is so, then the evidence that QA is being practiced will be pervasive throughout an organization. Any manager or administrator can check this by simply

looking at any practice or problem and checking four aspects of any activity. When we do a process audit, the first thing we do for any process is ask four questions:

1. You **say** you are running a Quality Assurance program: describe it to us.
2. Show us the **written** documentation that supports your statement.
3. Show us your **MIS/IT** system and allow us to verify that, at all stages the programmed workflow, activity logs, and web records support your original statement
4. Allow us to visually observe as you **do** the work you have described.

We call this the Say–Write–IT–Do cycle. Very simply, if the answer to any one of those four questions is consistent with the answers to the other three, it gets a green light; if not, it gets a red or amber light.

You can perform this check on any activity, it's a very simple check that takes little time, and anyone can ask the questions (it doesn't have to be an expert in the field). Companies that practice real QA will have lots of green lights, whereas companies that don't will have lots of red lights. Paradoxically, this simple test is at the same time much easier to perform, far more detailed and generally more actionable than an ISO floor audit.

## Why Should You Care?

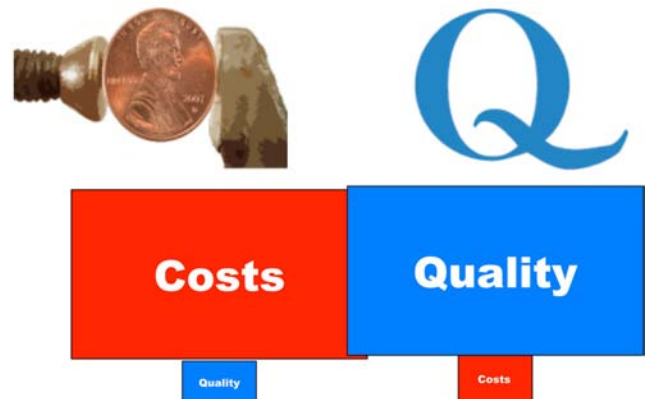
It's true that at the beginning of this presentation, I talked about "religiously" practicing Quality Assurance. QA may be my personal religion, but the reason that companies who have real QA programs practice it is because, when practiced correctly, Quality Assurance improves the bottom line.

Deming's Point 5 is: "Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs." Both Shewhart and Deming, although they were trained as scientists and statisticians, were pragmatists who focused on the practical and the operational. Deming's work in Japan in the 1950s and onward was about rebuilding the Japanese economy. His Japanese students recognized this and developed a formula that demonstrates in stark terms the connection between quality and profits. They determined that:

- a) When people and organizations focus primarily on quality, quality tends to increase and costs fall over time. This was represented formulaically as:

$$\text{Quality} = \frac{\text{Results of work efforts}}{\text{Total Costs}}$$

- b) When people and organizations focus primarily on costs, costs tend to rise and quality declines over time.



Let's expand a little bit on those two premises. First, we look at the right side of the equation and determine that it is also one definition of profit. Then, we have said that QA must be applied

consistently across all departments. But it also must be applied consistently across all phases of a product life cycle. So if we add these two factors to the original formula, we end up with:



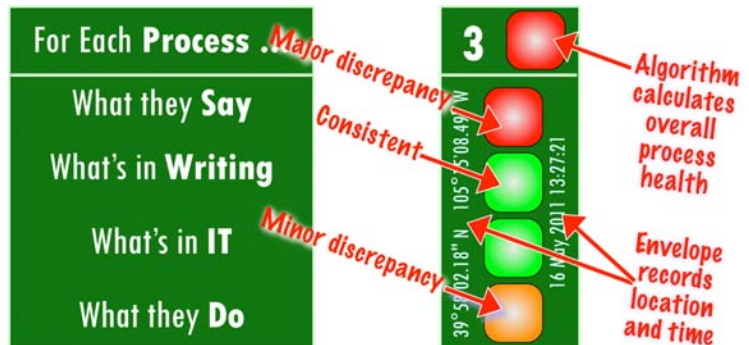
### An Example

How do I know this is so? Let me cite an example from my own experience. Many years ago Fluor-Daniel became involved with Nation’s Bank to develop a best practices, Quality Assurance system for its loan portfolio group. Initially, the QA system started in the construction loan division, but it soon spread across the entire bank. Simply, Nation’s found it in their best interest to develop real best practice procedures to support their clients’ utilization of the loans they were receiving. An independent review of the activities of the best practice quality assurance initiative inside the bank, supported by Fluor, found that these efforts accounted for a steady 14–20% increase in the group’s profit margins.

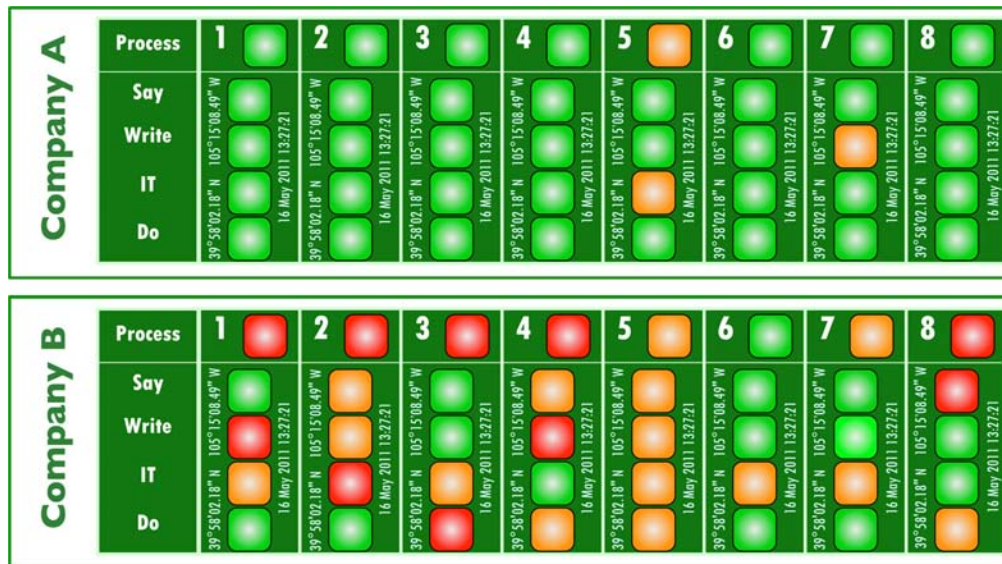
The positive impact of real Quality Assurance can be measured against the corporate bottom line, and the formula is still relevant today in all industries.

### Assessing a Company’s QA Program

Previously, we described a simple four-step process analysis that we use during process audits. We called it the Say–Write–IT–Do cycle. Performing this kind of analysis is a quick and easy way to tell if a company is adhering to best practice of any kind, especially QA. To analyze processes in this way, you do not have to know the jargon, understand highly technical issues of any kind, or have had extensive training at the highest level of any specific QA or QC program.



We use a simple web-based system to collect the results of individual process analyses, which can be logged on a mobile device. When a log entry is created, the entry envelope automatically associates each record with a location and a time. Coupled with a model of the workflow, the system uses an algorithm to calculate the overall process health based on the Say–Write–IT–Do scores.



The results of the analysis of individual processes are aggregated at any desired level (department, division, etc.) Above is a comparison of the display of results from two different companies. You can see at a glance which company is on relatively sound footing and which one is in trouble. Would it surprise you to know that Company B entered bankruptcy shortly after this snapshot was taken?

### Integrated Quality Assurance



I'm going to recap what I've said:

- ▶ QA is a state of mind
- ▶ QA is a system that embraces the entire operations of a company
- ▶ QA is a business strategy
- ▶ QA is a risk management methodology
- ▶ QA is a profit driver.

With the technologies available today, Quality Assurance can easily be integrated into the information systems of any company. A simple dashboard like the one illustrated above can become a continuous monitoring system that not only alerts management when a process is veering off track, but also reassures funding sources and insurers that a company is actively practicing QA, and that it's QA system is in good health.

Ultimately, however, it's the first bullet that counts. When QA is integrated into the culture of a company, waste is radically reduced and profits increase. It's that simple.