# If It Wasn't On Fire, You Wouldn't Have To Put It Out!

*How to Avoid Crisis Management, Firefighting and Daily Heroics*

By Jay Arthur

Most companies reward their firefighters…the men and women who rush in to put out the fires caused by everyday operations. The people who stay late and work weekends to fix things that shouldn't be broken in the first place. Companies almost never reward the people who organize their work so that they never make mistakes or have problems, people who work 8-to-5 and spend weekends with their families. Why is that? The simple answer: *absence blindness*—managers can't see what isn't there. They can see the fires and the people who put them out, but they can't see the *absence* of a fire. When I worked in the phone company we wondered about the people being promoted. A joke that began to circulate: "Who gets promoted in a fire house? *the Dalmatian*, because it has been to every fire."

It takes a special kind of management mind to see and recognize the people who *fix their work processes and environment to prevent fires.* These unsung business heroes know that *if it wasn't on fire, you wouldn't have to put it out*.

Firefighting is high-octane, adrenaline-fueled fun. It racks up overtime hours like crazy. It rewards arsonists. It causes burnout. And, it's a foolish waste of time and money.

Imagine a world where everyone can sleep soundly all night because they're not worried about some graging forest fire at work. Imagine a world where people work normal hours and have a life outside of work. Imagine a world where customers stop calling to complain and start calling to rave about your product or service. Imagine a world where you don't need a help desk, because your product or service is so flawless and intuitive that people don't need help to use it. Such a world is possible, but you will want to shift your focus from fighting fires to fixing the process that caused the fire. You will want to shift your focus from blaming people to blaming processes.

## Every Business Suffers From the Same Three Problems

There are three silent killers of productivity and profitability—**delay, defects and deviation**. Sluggish, error-prone processes start fires. Processes let people make mistakes that cause fires. There are seven tools that will put out these fires, but you have to stop being an adrenaline junkie.

Quitting any addiction is hard and firefighting is such a common one that no one seems to notice. Absence blindness at work.

**Delays**

Do you find yourself waiting in doctor's offices, grocery lines, restaurants, and retail stores? Do you think: "Why is it taking so long? I could show them how to change a few things that would make my life simpler and faster."

Your customers are thinking the same thing about you.

When there are too many delays, customers start to escalate their needs, embroiling staff and managers in reprioritizing work. This is another kind of fire that gives one a sense of doing something meaningful, but if there wasn't any delay, there wouldn't be a need to scurry around or shuffle customers in the queue.

Google, Amazon and Apple have taught customers that they can get whatever they want, whenever they want it. Need some information? Google it. Need some music? Download it from the iTunes store. Need a book? Download it to your Kindle. Is there an app for that? Check your smartphone. In other words, customers want everything NOW and don't understand if you can't deliver it NOW. Who wants to wait 2-4-8 hours for a furniture delivery or telephone repair? No one. Who wants to wait an hour to see their doctor or spend hours in an emergency room? No one. The future belongs to those who can eliminate the wait.

**Eliminate the Wait**

Every time you set your product or service down, it takes time to put it down safely and it takes time to remember where you put it and what you were doing when you pick it up again. These "set it down" and "start back up" activities take time, lots of time that could be eliminated just by never setting it down in the first place. And the wait time between set down and start up could be eliminated as well.

If you've ever been to an emergency room or doctor's office and had to explain your concern to one or more nurses and at least one doctor, you realize how annoying this can be. The elapsed time between checking in with registration, seeing a nurse and finally seeing a doctor can take 15-60 minutes.

Every product and service business could be a lot faster, but most companies are so busy fighting fires caused by delays that they don't make the time to eliminate the wait.

When most people think about speeding up a process, they immediately start looking for lazy employees slacking off.

**Tip: The problem isn't your people; you have a lazy product or service.**

Just like a patient in an emergency room, the thing (product or service) going through the process is idle 90% of the time. When you shift your focus to the *gaps between actions*, you'll quickly discover ways to eliminate most of the delays in your business. And, you'll discover that *it's not the big that eat the small; it's the fast that eat the slow.* Speed is the new killer app.

There are two main causes of delay: 1) waiting and 2) unnecessary movement. Usually, the product or service spends a lot of time waiting between action steps. People and materials usually have to move too far too often which causes unnecessary movement and delay. Remove these delays and you'll quickly accelerate far beyond your competition and your customers will love you for it.

Every action step is preceded by or followed by delays or movement. It is in these gaps that we can find ways to simplify and streamline any process to make it wildly more effective. There are two tools we can use to diagnose these issues: 1) value stream mapping (delays) and 2) spaghetti diagramming (unnecessary movement).

**Value Stream Mapping**


Value Stream Mapping (VSM) uses Post-it® Notes to show the process flow. I use square Post-its for actions and arrow-shaped Post-its for the gaps between actions. A small team of people can usually diagram the current workflow in an hour or less. When we start putting times on each of the actions and arrows, members quickly find that most of the delay is in the arrows. Often, one or two arrows consume most of the total delay.

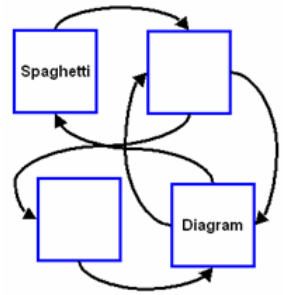
**The 3-57 Rule:** After years of examining processes, I have found that people are only working on the product or service for *3 minutes* out of every hour. The other *57 minutes* are consumed by delay. Eliminate the 57 minutes and magic happens.

Studies by Stauk and Hout (*Competing Against Time*, 1990) found that a 15 minute per hour reduction in delay will *double productivity and boost profit margins by 20%*. So, it's not unusual to double or quadruple productivity and increase profits by 50% or more. All with an hour or two spent diagraming the process flow.

**Great News:** Eliminating delays also prevents defects, mistakes and errors. Not having to pick a product up or put it down eliminates the chances for error. You can't miss a step or duplicate a step if you never put it down.

Video: www.qimacros.com/breakthrough-improvement-excel/value-stream-mapping-computer-operations/

### Spaghetti Diagramming




Spaghetti Diagramming also uses Post-it notes, but this time to diagram a workspace and show how the product or service, people and materials move around in it. Again, an hour or two analyzing the movement of people and materials in the workspace will identify ways to reduce unnecessary movement by 50% or more. This will also reduce mistakes and errors. It's harder to misplace something when it doesn't have to move too far.

Video: www.qimacros.com/breakthrough-improvement-excel/spaghetti-diagram/

Application of value stream mapping and spaghetti diagramming will simplify and streamline any work process, accelerating results and eliminating errors. All you need are some Post-it notes, a flip chart and a couple of hours with the right people.

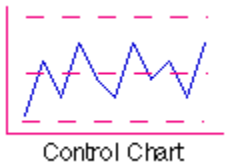
## Reducing Defects, Mistakes and Errors

Eliminating delays will reduce defects, mistakes and errors by as much as 50%. But you'll need some other tools to eliminate the remaining 50%. To reduce defects, you'll want to shift your focus from the gaps between steps in the process to the steps themselves. You'll need tools to *count and categorize* the types of defects. You'll need tools to monitor performance over time. The first thing you'll need is a way to count the number of defects that occur over time.

Video: www.qimacros.com/breakthrough-improvement-excel/reducing-defects-excel/

### Count Your Defects, Mistakes and Errors

Most people use simple line or column charts to monitor business performance. Unfortunately, these charts can't tell you the first thing about whether the process is stable and predictable or not. To analyze stability you will need a tool called a control chart.




Control charts analyze variability in the data and figure out what conditions constitute an unstable condition. By definition, unstable conditions should only happen 3 times out of 1,000 (0.3%); so if they show up within 20-30 data points, it's unlikely that they are part of a stable process. The goal is to use control charts to measure, monitor and improve the process to make it stable if it isn't already. The QI Macros can create these charts for you easily and identify unstable conditions.

Processes are either stable and "in control," or unstable and "out of control." When a process is out of control, you can use *root cause analysis* to find out why it went out of control and implement changes to keep it in control.

Once you start improving your processes, you will want to use control charts to *monitor* the process, because defects, mistakes and errors will happen so *infrequently* that you won't be able to detect an increasing error rate with your five senses. The only way to detect out of control conditions will be with a control chart.

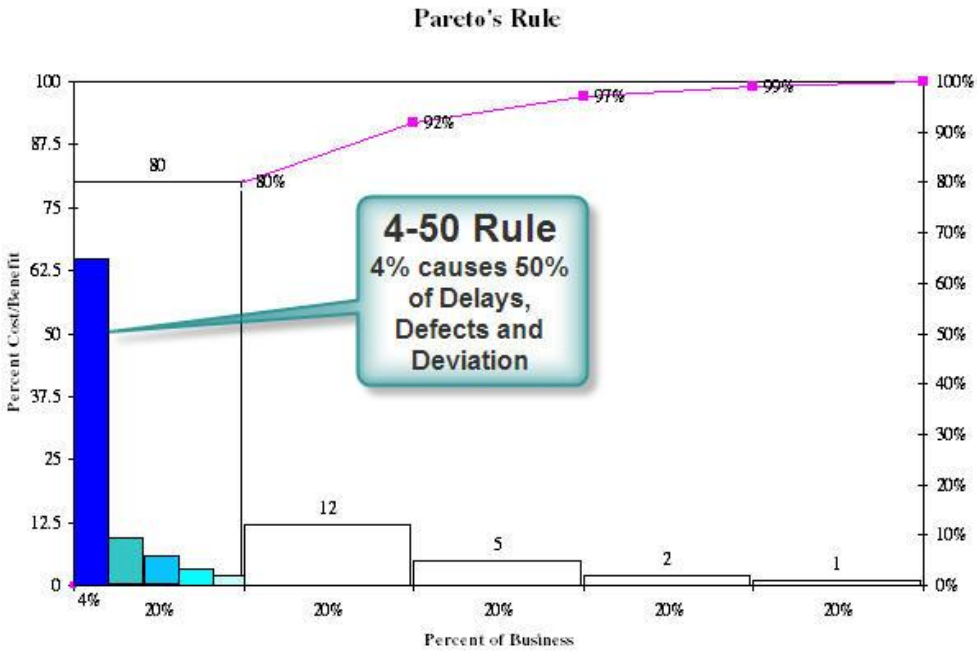
Video: www.qimacros.com/breakthrough-improvement-excel/control-chart/

**Categorize Your Defects, Mistakes and Errors**

Once you've determined your error rate, you'll want to categorize the types and costs of defects. You'll want to fix the worst first. The tool we use to determine the worst of the worst is the Pareto chart.

A Pareto chart sorts the errors in descending order so that the left-most bar is the worst of the worst. Sometimes, we have to dive deeper into the first bar to see if there's a Pareto within it.

**The 4-50 Rule**: 4 percent of any business causes over 50 percent of the mistakes, errors, defects, waste, rework and lost profit. That's just one step out of 25.

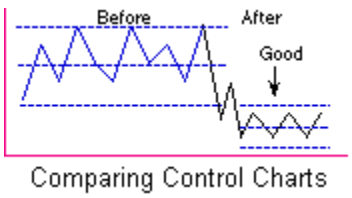



Video: www.qimacros.com/breakthrough-improvement-excel/pareto-chart/

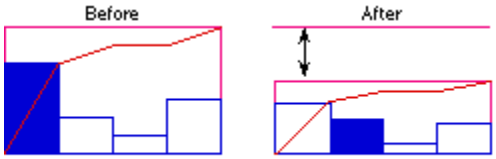
Once you've determined the most frequent or most costly type of error, you can convene a team of experts to figure out the root cause of the defect, mistake or error. When laser-focused on just the "big bar," teams can usually find the root cause in an hour or two and determine what to do to prevent it.

**Tarpit:** Trying to solve more than one problem (bar) at a time.

After implementation, it's simply a matter of validating that the change created the desired effect. Did it reduce the error rate? Did it reduce or eliminate the "big bar" on the Pareto?



Comparing Control Charts



Comparing Pareto Charts

Video: www.qimacros.com/breakthrough-improvement-excel/denied-claims-case-study/

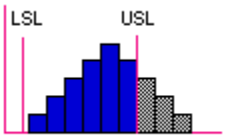
## Reducing Deviation (Variability)

Eliminating delays and defects will help eliminate variability in a product or service, but not all of it. I call this variability "deviation" because the product or service deviates from the customer's expectations. Is the product a little too big or small; fat or thin; dense or porous; long or short? Is your food too hot or cold; spicy or mild? These problems can all be solved easily, but we'll need some tools to evaluate the deviation and monitor it once it's been reduced or eliminated. We'll want to know how stable and predictable the process is and how capable it is of meeting customer expectations. Again, we will use a control chart to measure deviation over time and bring the process under control.


Control Chart

### Capability

Once the process is stable, we can use histograms to determine if the process is capable of meeting customer expectations. Histograms produce those "bell-shaped" curves we talk about. If the bell fits inside of the customer's specifications, then the process is capable of meeting their needs. The following histogram shows some of the data being above the upper specification limit (USL).



Histogram

There are two ways to focus this kind of improvement effort:

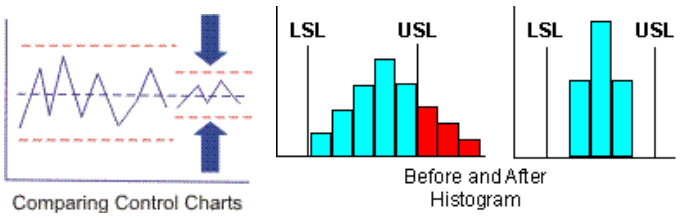
- Center the data between the upper and lower specification limits (USL/LSL).

- Reduce the *spread* (i.e., deviation) of data

In the example above, simply centering the data would still leave points above and below the specification limits. In this case, you would want to both center the process *and* reduce the spread.

Video: www.qimacros.com/breakthrough-improvement-excel/histogram/

Again, once you've narrowed the focus using data, you can convene a team of experts to figure out how to reduce or eliminate the spread and off-centeredness. Once they've implemented the solution, you can use the control chart and histogram to verify that the process has improved. In the example below, you can see that the process is now centered on the histogram and the spread has been reduced.




**Two Types of Firefighters**

I hope that you can see that there are two types of firefighters: one that heroically fixes daily operational problems and one that quietly fixes process problems that *cause all of the fires.* While one is exciting, the other can seem somewhat boring. But you have to decide if you'd rather be on fire or plug the leaks in your cash flow and start making big money.

Customers get tired of dealing with constant firefighting. If they can find a better vendor, they will.

Not having to fight fires all of the time means that you don't have to spend money on it. You eliminate the rework and repair costs which means more profit.

Aren't you tired of firefighting, crisis management and daily heroics? Isn't it time to start spending more time on fire prevention? Isn't it obious:

**If it wasn't on fire, you wouldn't have to put it out.**

Learn how to become a fire preventer. Take my free, Breakthrough Improvement with Excel training at www.biqixl.com.

Jay Arthur teaches people how to use Excel and the QI Macros to eliminate the problems caused by delay, defects and deviation.