

# The Visual Workplace

Gwendolyn Galsworth, Ph.D., Founder and President,  
QMI/Visual-Lean Institute

The visual workplace is not about posters and signs. The visual workplace is the language of Lean production made visual.

The purpose of the visual approach is to identify and eliminate deficits in information through visual solutions covering all work venues and intentional environments. A visual workplace is a self-ordering, self-explaining, self-regulating, and self-improving work environment where what is supposed to happen does happen, on time, every time because of visual devices.

Visual devices and visual systems are everywhere. Look at a map of your state. Mark a route from where you are now to the next large city. The route is your critical path. Could you get there without visual devices and systems (which include the map)? At what cost? Would you even think to undertake the trip? Then why would you allow that same condition to prevail in your company? Visuality installs vital information in a visual format along and deeply within the critical path (the flow) of your work so that you can tell whatever you need to know simply by looking.

## Lean Alone Is Not Enough

Many companies attempt to convert from traditional to new manufacturing, relying exclusively on Lean tools. They focus on reducing the time component of a process—reducing time as a cost factor in order to increase profit margin—which means reducing cycle time.

Time-based improvement is critical to your enterprise transformation and your profit margins. The Lean strategy and its complement of Lean tools, such as cellular design, takt time, Standard Work, pull systems, line leveling, and load balancing, are important to these outcomes. Cellular design, for example, creates discrete fields of production that are defined by the value that gets added there. Material, people, and information follow a path through the physical environment that, iteration after iteration, begins to describe the least-cost flow. We call this flow line the product's critical path.

While rapid improvement of a product's critical path will generate impressive and immediate gains, these improvements will erode if

they are not embedded into the physical environment itself. England's Rolls-Royce realized this lack of sustainability only after nearly a decade of pouring resources into its critical path conversions.

How do you sustain the hard-won gains of Lean? How do you ensure that the principles of Lean become a way of life in the enterprise? What will you do when your event-based breakthroughs have run their course? And what do you do when sustainment is not even the question because there are so many fundamental barriers in the work culture that Lean is out of reach. These are crucial, real-world questions that workplace visibility can resolve. Indeed, they are why workplace visibility exists.

## Starting with the Visual Where

There is one simple reason why a visual workplace is needed: People have too many questions. Most of these questions are not asked. Unasked questions usually do not get answered. And when people don't get their questions answered, they generally don't do anything or they make up an answer. Sometimes that is a good thing for the company, but more often it is not.

Visuality in the workplace ensures that the answers to vital questions are installed enduringly by design into the work environment for full access at any time, as close to the point of use as possible. You merely need to listen to the questions you are asked to recognize opportunities for visual solutions. Soon, you discover the most frequent question in a nonvisual workplace involves the word *where*—where are my tools, where is the material, where are the dies, where is the report, where is the work order, where are the parts, etc. It is the first of six core questions that must be answered.

The journey to a visual workplace begins in the same place—by installing the visual answer to the *where* question in the physical work environment.

## The Visual Workplace Continuum

As shown on the visual continuum in Figure 1, an effectively implemented visual workplace is a series of discrete layers or levels of

visually shared information: visual order, visual standards, visual displays, visual metrics, visual controls, and visual guarantees (or *Poka-Yoke* devices). Each of these six levels is further divided into complementary applications in Figure 2.

Complementary to visual order, for example, is customer-driven visual order. That is, once you install the visual answers to the *where* questions in your work area, look at the area again through the eyes of customers and suppliers and begin to answer their questions visually.

Level 2 focuses on the visual answers to the five other core questions: the visual *what, when, who, how many, and how*. This makes the details of customer tolerances and values available at a glance, along with the standard operating procedures that make them possible. You implement visual standards.

Level 3 provides supervisors, managers, and schedulers with powerful displays (production control boards) that clarify and link performance within each department and across the organization as the enterprise takes on the challenges of the Lean conversion.

Level 4 visibility links visual metrics to performance, quickly followed by visual problem-solving tools if those metrics need to improve. Visual controls on Level 5 build the information about your standards more deeply into the process of work itself, structuring those details through size, number, and volume. And visual triggers or pull systems are in perfect complement with that. Since the visual *where* was implemented at the start of this journey, the challenge of installing pull systems and kanban, their enablers, will be greatly reduced.

Level 6 completes the continuum with visual guarantees (*Poka-Yoke* systems) when information on the attribute level is visually installed into the process of work itself. At this point, visibility becomes non-visual or invisible, it is so deeply imbedded into the landscape of work.

Now let's focus on visual order (the visual *where*) in establishing visibility as a builder of enterprise excellence—not, as many people would have it, simply an enabler of or handmaiden to Lean.

### The Start of the Journey Is the Destination

Frequently, an effective implementation of the *visual where* produces a 15% to 30% increase in productivity on the cell or departmental level. But that effectiveness requires that management not take shortcuts.

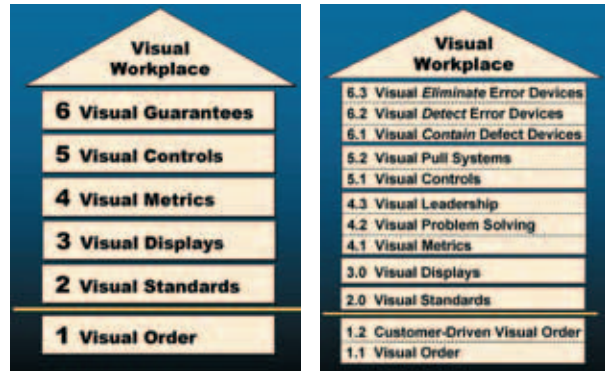


Figure 1. (Left) Visual Continuum. Figure 2. (Right) Visual Continuum featuring complementary applications.

One of the most fundamental errors managers make about visual order, the first step of what should be a rich and productive organizational journey, is to commandeer for themselves the simple task of implementing the *visual where*. Such managers mean no harm; they reason that because the task is so simple and obvious, they can do it themselves and save operators for other tasks.

Look again, managers. The very simplicity of installing the visual *where* represents a compelling and unique organizational opportunity—to crack the code on time, to empower the workforce on the value-adding level by breaking the inertia of the command-and-control tradition, and to carve out a new role for supervisors. And you still get the productivity gains—only now they last.

**1. Cracking the code on time.** It is an open secret that many companies loudly proclaiming the importance of continuous systematic improvement rarely provide actual time for improvement. Instead, the workforce is expected to eke out snippets of time and make magic happen. And if they don't, organizers complain about inertia, the inherent laziness of people, and the difficulties of change management. In all of that, they are wrong.

The problem these companies have is with the unavailability of improvement time. It is a false paradigm. Too many companies assume time must be used only for production; to do otherwise would betray a first principle of business that "time is money." But until a company learns it can liberate time for improvement (distinguished from time for production), it will remain a prisoner of the myth that there is not sufficient time during a given work week for both production and improvement. If managers hold to that belief, unfounded though it is, so will the workforce. The result is that improvement only happens if pushed by management or limited to structured event-based change, such as kaizen blitzes.

Implementing the visual *where* provides the savvy company with a way to reverse this misconception. You can do this by formulating an official improvement time policy that states the organization's commitment to provide a set and exclusive amount of time for improvement to each associate in the initiative. The amount can range from fifteen minutes to two hours weekly—the choice is the company's. Once the policy is published, managers, supervisors, and associates alike dig in and figure out how to operationalize that policy. They search for where the time is hiding, and they find it and use it. It is a revealing focus.

Once the time code is cracked, improvement can become a daily practice that is also often deeply inventive. This shift happens as associates on the value-adding level pick the low-hanging improvement fruit of installing the visual *where*. This leads us to that second hidden outcome: empowering the workforce on the value-add level by breaking the inertia of the command-and-control tradition.

**2. An empowered workforce.** When managers decide to install the visual *where* themselves, they unintentionally rob the organization of a second invaluable opportunity: inverting the top-down command-and-control pyramid by inviting the entire value-add workforce to help.

It is because installing the visual *where* is so elementary yet useful to day-to-day performance that operators implement it. This is the operator-led approach. Operators decide, design, explore, and experiment. And they use their allotted improvement time to do so. You can only engender an empowered workforce if you provide the workforce with powerful tasks to undertake.

To implement visual order, ask the most valuable group in the enterprise—value-add associates—to help crack the code on time. Get them to use, intentionally and repeatedly, a small portion of their work day (15 to 20 minutes) to improve their own work area and workflow by getting the workplace to speak the answers of questions those same associates want and need to know. The dialogue is between associates and their own work. This is genuine empowerment, providing the company with a new core competency that prepares it for more transformative change in the future.

**3. Caught in the middle no more.** The third benefit in keeping the visual *where* is the exclusive improvement domain of value-adding associates: Supervisors and managers are left with nothing to do, which allows these tireless warriors to redefine their roles and align with the leadership practices of the new excellent enterprise. They become leaders of improvement.

Billionaire Ross Perot said it perfectly, "Inventories can be managed. People must be led." That is a significant transition for many traditional managers and it requires new knowledge. Leaders of improvement:

- Share vision and values
- Teach tools and coach behaviors
- Measure as a means of driving improvement (not just monitoring performance)
- Install mechanisms that establish and stabilize standards (workplace visibility is key)
- Visually capture their own need-to-know and need-to-share
- Make regular improvement contributions of their own

This is the shift in paradigm that you want to happen while value-adding associates are visually reinventing their work areas. But instead, companies frequently push managers and supervisors to put 5S in place quickly. The first mistake such companies make is seeing the outcome of 5S as neat, clean, and orderly instead of the first visual step on the journey to workplace visibility. In their failure to realize the link between 5S and visual, they see no reason to let the workforce do it. Therefore, they have no need of an improvement time policy. They also continue to look outside the immediate workday for empowerment opportunities. And without engaging the workforce in improvement activity, supervisors, and managers are consigned to keep doing it. In such an organization, the Lean initiative will forever stay separated from visibility, or visibility will be used strictly to enable Lean instead of standing as a strategic partner in enterprise transformation and work culture liberation.

A large home service repair company has committed to converting its fleet of more than 9,000 trucks to visibility, with an anticipated savings of three to five minutes per visit per truck that rolls up into a minimum benefit of \$2 million to \$3 million per year. The pilot program encompassing 100 trucks has already exceeded that projection. And this does not even take into account the other ancillary benefits of visibility across 9,000 trucks, such as increased parts accuracy.

Hitchcock Industries/Minneapolis, a leading aluminum casting forge servicing aerospace OEMs, launched a full rollout of visibility this spring, along with visual leadership development outcomes for all managers and supervisors. Hitchcock executives anticipate the

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enterprise will be ready to undertake an aggressive conversion to Lean in early autumn.

### Achieving Enterprise Excellence

A company's journey to visuality can span two to five years and touch every level and operation in an enterprise, including office and support functions. One of the problems of the rush to Lean is that some companies are faced with cultural barriers that require resolution before Lean outcomes can be undertaken. Many Lean aficionados may disagree and recommend you first bulldoze an environment into the future by aggressive and repeated blitz applications. But even applications of the modest visual *where* can transform an otherwise recalcitrant workforce into one that is aligned, ready, and even eager for Lean.

The Lean paradigm alone will not take you the distance to enterprise excellence. The outcome you seek is not a Lean enterprise but a visual-Lean enterprise. Determining and then improving a product's critical path represents a vital improvement outcome, but it is only one of them. The enterprise on its way to excellence needs to address both Lean and visual tasks equally.

*To learn more, Gwendolyn is speaking at the Continuous Improvement Conference, April 10–13, in Kansas City, Missouri. For more info visit [www.printing.org/ciconference](http://www.printing.org/ciconference). Gwendolyn Galsworth, Ph.D. is founder and president of QMI/Visual-Lean® Institute, a training, consulting, and development firm, specializing in the technologies of the visual workplace. With nearly thirty years in the field of visuality, Dr. Galsworth is author of a number of books, including: Visual Systems, Visual Workplace Associate Handbook, Visual Workplace/Visual Thinking (Shingo Prize Research Recipient), Smart Simple Design, and the newly released, Work That Makes Sense. For more information, visit: [www.visualworkplace.com](http://www.visualworkplace.com).*