5S Facilitator’s Guide

Using 5S to help achieve a Visual Workplace.
Congratulations!

If you are embarking on 5S workplace organization and/or visual workplace as part of a Lean implementation, or if you are mid-stream in these efforts and looking for a means to accelerate your progress, this manual is for you. While 5S and visual workplace are among the first tools to be utilized in a Lean implementation, both are susceptible to backslide or backlash if implemented in a vacuum without employee buy-in.

The objectives of this guide are

- to provide the basic technical know-how of 5S
- to provide concrete examples – take-aways – from a variety of different workplace environments ranging from factory floors to sales offices to hospitals
- to acquaint you with effective 5S methods and materials to support your implementation
- to share key points to assure that these valuable tools are in a manner that creates employee buy-in and ongoing participation.

- Key points will be boxed for emphasis and easy identification.
  (This is an example of visual management!)
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5S Workplace Organization

5S derives its name from five Japanese words beginning with the phonetic “s” sound. We’ll explain these in greater detail, but the table below provides a quick reference description of each S, including the actual meaning of the Japanese “S” as well as the anglicized version. Some companies add a 6th anglicized “S” to emphasize safety. However, while safety is a critical concern, it is actually one of many results of 5S implementation.

<table>
<thead>
<tr>
<th>Japanese “S”</th>
<th>Japanese Meaning</th>
<th>Anglicized Version</th>
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<tbody>
<tr>
<td>1. Seiri</td>
<td>Remove all items from the workplace that are not immediately needed for the work.</td>
<td>Sort</td>
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<tr>
<td>2. Seiton</td>
<td>Place needed items (material, information, tools) in a location that supports the worker.</td>
<td>Set in Order</td>
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<td>3. Seiso</td>
<td>Make the workplace spotless, free of contaminants, dirt and foreign material.</td>
<td>Scrub, Sweep, Straighten</td>
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<td>4. Seiketsu</td>
<td>Create a standard means for keeping the workplace clean and orderly.</td>
<td>Standardize</td>
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<td>5. Shitsuke</td>
<td>Make a commitment to order and cleanliness.</td>
<td>Sustain</td>
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5S is a five-step process in which each step is a prerequisite for the next. For example, it is impossible to implement S2, (place all needed items in the best location to support the worker), if S1 (sort out unneeded items) has not been done first.

S1: Sort

The first of the 5 S’s is often called red-tagging because it calls for a simple red tag to be placed on items that are not needed for work. This is a two-part process in which employees identify what is not needed, and managers and supervisors then take responsibility for disposition of those items.

Sort—Two Part Process

Part 1: Identification of unneeded items. Employees red-tag the following kinds of items to indicate that they should be removed:

- Unneeded or excess tools on hand—many duplicate tools in a tool box, duplicate staplers or markers in an office
- Outdated information—old manuals, files, notices
Sort—Two Part Process (continued)

Unused machines, office & factory equipment

Extra furniture—shelving, desks & cabinets

Excess material, such as excess floor-stock in a factory

A special category of seldom-used items should also be identified, such as parts or production fixtures.

Boxes of junk or cluttered cabinets may be red-tagged with a single tag including a note that a more careful sorting needs to occur.

For common areas such as supply rooms or shared space for multi-shift operations, a small team of employees should be assigned to share decision-making.
Sort—Two Part Process (continued)

- When implementing 5S, one of the biggest mistakes made by management is failure to involve employees from the start. Sorting must be done by the employees who do the work in a specific area. If supervisors, managers or visitors from other departments do the sorting, employees will feel disrespected and will not buy in.

- Have red tags available for employees to place while they work, rather than just tagging in an event. This way, improvement will be mixed in to the work day and will eventually become part of a regular routines

- Supervisors should not place red tags, but should encourage employees to identify items to sort. If supervisors tag, employees will hold back.

- Supervision should never unilaterally remove tags from red-tagged items without proper evaluation and discussion with employees. This will stifle employee participation, a critical part of sustaining 5S.

- Expect that some employees will express concern about sorting. Listen carefully to any concerns, but don't be afraid to remove items that are clearly not needed.

Part 2: The second part of the sort process is evaluation and disposition of unneeded/red-tagged items that need to be placed in a specified 5S holding area for evaluation. It is the manager’s job to make space available for this holding area. Make the holding area large – you’ll need it. Don’t throw out or sort out yet. Experienced employees should perform an evaluation of the items in the 5S hold area, ensuring the best decision regarding final disposition of tagged items. This greatly reduces the risk of accidentally tossing items of value and takes the pressure off employees who may fear blame if they make mistakes during tagging.
Sort—Two Part Process (continued)

• Safety first. If red-tagged items are very heavy or are connected to utilities, have the removal done by certified persons using appropriate equipment.

• Red-tagged holding areas should be dispositioned every day.

• Make the red-tag hold area public. Some items which are unneeded in one area may actually be needed in another.

• Permanently remove items that are planned for disposal. Don’t move them to another area. This is just “pushing the dirt around.” If disposition does not occur, employees will sense a lack of management commitment.

S2: Set in Order

S2, Set in Order, deals with organizing the items that are needed in a way that best supports the employees doing the work. If you have followed both the technical and key points for S1, Sorting, there will extra space everywhere, reducing crowding, which is one of the most common complaints of both office and factory employees. A gain of 33% is not unusual on the first try. In addition, there will be initial buy-in from employees, since most of their ideas have been implemented.

At this point, there is an opportunity to better organize the work. This is a progressive improvement where items already nearby are placed as close to the point of use as possible. Next, items that are needed regularly, but are currently stored far away, can be moved close to the point of need. Infrequently used items might be kept nearby, but out of the way of high-use items that are needed every day.

BEFORE. Machine parts are all stored in an unorganized stack. Two pieces needed for a particular job are almost never found together.

AFTER. Tool shadows are used to organize all the parts so it’s impossible to make mistakes during setups.
S2: Set in Order (continued)

BEFORE. The garbage compactors and the cardboard compactors are used by many different people daily and are often confused, allowing garbage to contaminate the recycling program. In addition, the compactor can be overfilled causing additional problems.

AFTER. Custom signs and labels were made to properly identify the garbage and cardboard compactors to eliminate confusion. In this photo, a custom-made sign makes employees aware of the cardboard overflow warning indicator light.

BEFORE. An unorganized board with no direction can lead to confusion and mistakes.

AFTER. Color-coded, custom visuals on magnetic strips give direction and eliminate confusion.

BEFORE and AFTER. It's easy to see how effective visuals will increase communication and organization in your workplace.
S2: Set in Order (continued)

S2 applies to both large and small areas. Small areas may be a bookshelf or a bench or desktop. In the small areas, you should aim for locating items within inches of your reach and line of sight. Larger areas should cut the number of steps. Aim for a big reduction in steps, perhaps 50%, in larger areas. A simple tool to document before and after improvements to large S2 improvements is a spaghetti diagram, a graphical representation of the steps taken and distance traveled to do a particular job (see diagram below). As employees draw before and after diagrams, the improvement is compelling and creates buy-in.

This type of organization creates a highly repeatable work environment in which:
- needed items are close by for easy access
- time previously lost to searching and walking has been greatly reduced
- searching is eliminated
- mistakes caused by misplaced items are prevented
- accidents are avoided because there is adequate space for all operations as well as conveyance and storage of material.

As with S1, the employees who do the work must be the ones to identify set locations for needed items.

- Often, while organizing the new work area, employees will reconsider items that they first thought they needed, and will go back to S1 to sort those out.
- Organization of shared areas like supply closets or common areas for multi-shift production should be done by a team representing all users of the areas.
- Organizing items for ease of use is not a one-time activity. “set” does not mean “Set and forget.” Item locations will likely be reset from time to time as employees exercise the new setup. This is not a problem, but an example of continuous learning and improvement that supervisors must foster. If items are set and then are discovered to be in the wrong place, there must be an ongoing correction process or employees will become disengaged and buy-in will be lost.
- Measure the improvements as they are made in order to demonstrate the power of workplace organization. Time and energy that is no longer wasted on searching, walking, bending, etc., can now be used productively. This also creates buy-in.
- Think ergonomics and safety. When setting locations, organize workstation height to make the job easier: low height for heavy tasks, higher for detailed tasks. Set a standard for material container weight, and reduce bending and reaching by storing items above the knees and be below the shoulders.
S3: Scrub, Sweep, Straighten

Work areas that contain contamination such as dust, dirt or oil are prone to cause product defects, equipment and process malfunction, as well as safety hazards to employees. Clutter is also a form of contamination that builds by the minute in the form of extra parts from previous jobs, old paperwork, packaging material, junk mail – an endless list of useless items that are by products of work. A poor S3 condition also hides problems under dirt and clutter, allowing a small but potentially damaging abnormality to grow into a big problem before it is uncovered.

S3 identifies and removes these items, but also creates means for daily (or more frequent) removal. A checklist can be customized for a particular area, highlighting the areas to be scrubbed, swept and sanitized on a regular basis. Notice the same checklist can be used to monitor S2 as well, i.e., are needed items all properly located?

- A custom checklist, developed by employees to cover key points for needed items and cleanliness, is much more meaningful than a boilerplate checklist (see Initial Cleaning Plan on p. 10). To create buy-in, make the checklist useful to employees, not a report card from managers.

- S3 activity often uncovers problems that have been hidden by clutter, dust or grease. These discoveries are gold nuggets that should be fixed on the spot. For example, an oil leak or clogged filter fixed on the spot may add years to the life of a machine. Management should encourage employees to flag these discoveries and then provide resources to correct problems.
Initial Cleaning Plan

Date: ________________________________ ___________

Department ________________________________ ______

Contact ________________________________ ______

Phone ________________________________ ______

Email ________________________________ ______

TARGET AREA  _____________________________________________________

<table>
<thead>
<tr>
<th>TASK</th>
<th>LOCATION</th>
<th>WHO</th>
<th>WHEN</th>
<th>MATERIALS/TOOLS NEEDED</th>
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S4: Standardize

Standardizing a method for maintaining order and cleanliness is critical to 5S. Without a clear standard, there can be no way to create accountability, monitor adherence or make improvements. The standard must be known and practiced in order for 5S to be an effective process. While the checklist from S3 may define the key points of order and cleanliness, S4 puts a structure to the process (who, what, where, when, how) to ensure that every employee understands and adheres to the standard. Management’s role in S4 is to be sure that standards are maintained by all.
S4: Standardize (continued)

A simple, but effective means to monitor the practice of S4, standardize, is shown in the illustration below. Two color-coded cards are used by management to show support for the 5S process.

- One card (yellow) is used to note an Improvement Opportunity. The card contains an abbreviated checklist for S1-S3, but also provides room for a personal comment noting the area for improvement and providing encouragement. This card is placed in the area observed and is noted for follow-up to check on progress. When the problem has been eliminated, the yellow card is removed.

- The second (blue) “5S Achievement” card is left in an area where exceptional workplace organization exists. Space for a personal thank you is provided. This card remains for a short period, perhaps a week.

To support employees with 5S and help to manage the change to better workplace organization, management must participate in this way. This is management’s way of showing support, clarifying standards, and generally staying in touch with the improvement process.

Management can use yellow Improvement Opportunity cards and blue 5S Achievement cards to monitor the process of S4, Standardize.

- As with all of 5S, the definition of cleanliness (and the checklist) will change and improve over time, particularly if it is created by employees and used by them to maintain their standard – or to improve it. This is their contract for improvement.

- Management has a responsibility to provide resources to ensure that S3 can be maintained. Items like brooms, dustpans, trash cans and cleaning agents must be at hand (with set locations, of course) so that clean up is easy. Management must also allocate time each day to permit cleaning and organization to occur.

- Markings and signage are critical components of 5S, and should be readily available to employees who are making 5S improvements.

- Management must commit to “time in Gemba” every day. A good start is ½ hour per day.

- If management does not actively support the S4, Standardize, then the standard will not be practiced by all, and workplace organization will quickly degrade.
S5: Sustain

Sustain involves the improvement process to maintaining order and cleanliness. The most common complaint about S5 is “we couldn’t sustain it.” The two major causes of this failure are

- Employees are not involved in every step of the process
- Management naively assumes that employees will instantly understand the value of 5S and will practice it.

5S may begin as an event, but thereafter is a never-ending daily process in which the 5th S, Sustain, means not only sustaining the gains, but also to keep improving workplace organization. At the beginning of a 5S process there is a need to actively promote the 5S process, as an on going means to continuous improvement. This is because most people are not especially well-organized, and are, in fact, well-practiced at poor organization. Bad habits die hard. To make the situation more challenging, 5S is often the first improvement activity undertaken by a business, so both employees and supervisors are unsure if it will stick. Without constant encouragement, early adopters will be quickly overwhelmed.

Examples of sustaining activities include the blue and yellow cards discussed in S4. Also, devices such as before and after improvement forms, such as the 7 Deadly Wastes form shown below, can be used. Adding a few words to amplify the before and after photos is a powerful way to publicly acknowledge 5S efforts and also share good ideas among employees.

The 7 Deadly Wastes form is one example of a way to aide in continuous improvement. It allows you to identify an improvement team, display before and after pictures, specify the waste and show the savings via simple calculations.
S5: Sustain (continued)

An improvement bulletin board in a central location is another sustaining activity. Posting good ideas regularly provides a public thank you, and lets employees know that management understands and is supportive of the 5S process. A company newsletter is another great way to support the development of 5S activities.

Finally, if 5S is to become part of every employee's workday, management must update policies and job descriptions which might inadvertently undermine 5S.

• Understanding that 5S is a way to make work easier, better, faster, cheaper (and safer) is an important mindset to instill at the beginning of the process. When 5S is treated as an end in itself and not a means to support continuous improvement, it quickly stagnates.
PROJECT CHECKLIST

Organize your 5S teams, assign responsibilities and set completion deadlines.

Select your 5S team; list names:

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### Sort

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<tr>
<th>Owner</th>
<th>Due Date</th>
<th>Complete</th>
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1. Set boundaries for the area
2. Identify a Red Tag Area within close proximity to the work area
3. Take BEFORE pictures of the area
4. Develop sorting and disposition rules
5. Sort, tag and remove unneeded items
6. Take AFTER pictures of the area

Waste can be hiding as:
- Excess tools & equipment (totes, bins, shelves)
- Unnecessary furniture (carts, desks, chairs, cabinets)
- Outdated information (documents, manuals, samples)
- Obsolete or excess material/inventory

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### Set in Order

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1. Team members that work in the area set locations for the value-added items
2. Place needed items in locations that eliminate unnecessary motion
3. Think ergonomics and safety
4. Create a border and address for each item that casts a shadow
5. Measure and document the improvements made
6. Take AFTER pictures

Look for improvements and demonstrate the power of workplace organization:
- Missing information
- Time spent searching
- Eliminating obsolete information
- Walking or bending

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### Shine

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1. Team identifies opportunities to improve cleanliness
2. Cleaning supplies/tools are gathered
3. Sources of contamination are identified and eliminated
4. Area is cleaned
5. Develop daily/weekly/monthly checklists to maintain cleanliness
6. Create standard work instructions for all cleaning processes
7. Create a smart place for cleaning items that include borders and ID labels
8. Take AFTER pictures

Cleanliness must become a part of our standard work and should include:
- Transportation equipment
- Work surfaces
- Racks, desks, chairs, walls and lights
- Equipment, tools, fixtures

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### Standardize

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1. Develop a standard 5S tool kit/cart
2. Create standard work instructions and train team on all workplace processes
3. Develop 5S audit procedures (who, what, where, when, and how?)
4. Implements management feedback system to evaluate adherence to standards
5. Establish a visual display to communicate 5S progress and current levels

Tool Kits should include products for maintaining borders, ID labels, work instructions and cleanliness.
Abnormal conditions should be visible at a glance.
A formalized feedback system with ownership and accountability will encourage continuous management participation.

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### Sustain

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1. Create a 5S area map and assign owners for accountability
2. Create a storyboard to illustrate the workplace organization journey
3. Benchmark ideas from other departments, divisions and industries.
4. Schedule quarterly team meetings to review current state and identify progress
5. Display all 5S communications, audits and feedback locally in each area

Management support/communication is crucial to the sustenance of an organized workplace; use many means to communicate:
- Newsletters
- Dedicated 5S facilitators
- Employee feedback and suggestion programs
- Benchmarking

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