



SURFACE VEHICLE RECOMMENDED PRACTICE

J4001™

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Implementation of Lean Operation User Manual

RATIONALE

SAE J4001 serves as a common starting point for the implementation of lean operations. It has been revised to include definitions of 5S and all acronyms.

1. SCOPE

SAE J4001 provides instruction for evaluating levels of compliance to SAE J4000. Component text (Sections 4 to 9) from SAE J4000 is included for convenience during the evaluation process. Applicable definitions and references are contained in SAE J4000.

SAE J4000 tests lean implementation within a manufacturing organization and includes those areas of direct overlap with the organization's suppliers and customers. If applied to each consecutive organizational link, an enterprise level evaluation can be made. SAE J4001 relates the following approximate topic percentages to the implementation process as a whole:

Table 1

Element 4	Management/Trust	25%
Element 5	People	25%
Element 6	Information	25% (combined)
Element 7	Supplier/Organization/Customer	
Element 8	Product	
Element 9	Process/Flow	25%

SAE J4001 is to be applied on a specific component basis. Each of the 52 components tests part of, one, or multiples of the specific requirements of lean implementation. Implementation throughout an organization may be measured by evaluating all of the components. The level of compliance for each component relative to best practice may be used as a reference by an organization to compare itself to current best practice in establishing lean operation. Examples of current best practice are available in SAE publication RR003.

An organization may evaluate only selected components without affecting validity of results.

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SAE WEB ADDRESS:

Full document details: SAE J4001_202109

For more information on this standard, visit
https://www.sae.org/standards/content/J4001_202109

Documents

Document Sharing Hub

2. REFERENCES

2.1 Applicable Documents

The following publication forms a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

SAE RR003 Automotive Lean Enterprise Conversion Best Practice Examples

SAE J4000 Identification and Measurement of Best Practice in Implementation of Lean Operation

3. HOW TO SURVEY A COMPONENT

Certain information for each component is needed to evaluate the level at which conduct of that component is taking place. The levels of conduct are:

Level 0 The component is not in place at all or there are major inconsistencies in implementation.

Level 1 The component is in place but there are minor inconsistencies in implementation.

Level 2 The component is fully in place and effectively implemented.

Level 3 The component is fully in place, effectively implemented and exhibits improvement in execution over the past 12 months.

Each component will call for its own set of specific attributes within an organization. Levels 2, 3, and 4 conduct for a component will consist of differing specifics within different organizations. The evaluator will determine the specific component attributes for the organization being evaluated. Following each of the SAE J4000 components (Sections 4 to 9) are generic evaluation criteria for that component. After determining the applicable specific component attributes for the organization and obtaining the required information, the component is assigned a level of conduct and an explanation of the evaluator's analysis is recorded. The evaluation shall include the evaluator's written observations, including the specific component attributes determined and supporting the level assigned.

4. MANAGEMENT/TRUST

4.1 Continuous Progress in Implementing Lean Operating Methods is the Organization's Primary Tool in Pursuing its Strategic Objectives

L0 Lean methods are not included as part of the organization's operating philosophy.

L1 Advantages of lean techniques are recognized but are not a priority.

L2 Attainment of organization's strategic objectives are dependent upon successful lean progress and are addressed as such in its operating plan.

L3 L2 plus evidence of improvement in execution over the past 12 months.

4.2 Structured Policy Deployment Techniques are Used to Plan the Organization's Lean Deployment Actions

L0 No formal policy deployment mechanism exists.

L1 Business planning exists within the organization but without an adequate deployment mechanism.

L2 Policy deployment is formalized, including specific lean policy objectives, with accountability for completion and timing extending through the entire organization.

L3 L2 plus evidence of refinement over the past 12 months.

4.3 Lean Progress Targets are Defined and Have Been Effectively Communicated

L0 Lean targets are not included in the organization's planning process.

L1 Lean targets are defined but not communicated.

L2 Lean targets are defined and included in all levels of operating targets.

L3 L2 plus evidence of refinement over the past 12 months.

4.4 Knowledge of the Philosophy and Mechanics of Lean Operation Has Been Obtained and Effectively Communicated.

L0 No requirement exists within the organization as to knowledge of the subject.

L1 Informational-level knowledge is expected.

L2 Formal, scheduled training in the appropriate lean techniques is required at all levels within the organization.

L3 L2 plus evidence of improvement in execution over the past 12 months.

4.5 The Organization's Senior Managers Are Actively Leading the Deployment of Lean Practices

Senior managers are the senior managers on-site at the location being evaluated.

L0 Senior management is disconnected from the operating workforce with only incidental contact; little or no direct involvement. Contact is primarily through organizational chart arrangement.

L1 Involvement consists primarily of periodic operating reviews in large group settings.

L2 Regularly scheduled review of team lean accomplishments, review of team-applicable sections of policy deployment plan with teams and individuals, at all levels within the organization.

L3 L2 plus evidence of improvement in execution over the past 12 months.

4.6 Lean Progress is Reviewed by Senior Management Against Planned Targets on a Regular Basis

Senior managers are the senior managers on-site at the location being evaluated.

L0 Targets are not in place or progress against lean targets is not reviewed.

L1 Lean targets are included in review process but given a low priority

L2 Progress against lean targets is included in scheduled operating reviews, at all levels within organization.

L3 L2 plus evidence of improvement in execution over the past 12 months.

4.7 Meaningful Incentives that Reward Organizational Lean Progress Are in Place

- L0 No recognition of lean progress contribution exists within the organization.
- L1 Recognition of lean progress contribution is present within organization.
- L2 Members of the organization are recognized for and share directly and individually in the financial benefits of lean progress. Benefits shared are specifically attributable to lean progress within the organization.
- L3 L2 plus evidence of improvement in execution over the past 12 months.

4.8 Individual Managers' Performance is Evaluated and Rewarded Relative to Lean Progress

- L0 No accountability for lean progress is required.
- L1 Accountability for lean progress is an incidental part of managers' evaluation.
- L2 Accountability for lean progress is a requirement of and forms a major portion of each manager's performance evaluation and basis of reward.
- L3 L2 plus evidence of refinement over the past 12 months.

4.9 A Non-Blaming, Performance Oriented, Process-Driven Organizational Atmosphere Exists

Section 4.9 is a prerequisite for lean implementation.

- L0 The component is not in place.
- L2 The component is in place.

4.10 There is Regular, Direct Personal Involvement by Senior Managers with the Operating Workforce Concerning Lean Practices

Senior managers are the senior managers on-site at the location being evaluated.

- L0 Senior management is disconnected from the operating workforce with only incidental contact; little or no direct involvement. Contact is primarily through organization chart channels.
- L1 Involvement consists primarily of periodic operating reviews in large group settings.
- L2 Frequent, scheduled review of team lean accomplishments, review of team applicable section of policy deployment plan with teams and individuals.
- L3 Senior management interacts daily and directly with each level of the operating workforce. Level 3 includes personal recognition of team and individual lean accomplishment and personal instruction in lean curriculum by senior managers, to all levels of the organization.

4.11 Consistent Policy for Disposition of Individuals Made Surplus by Lean Progress is in Place and Followed

Section 4.11 is a prerequisite for lean implementation.

- L0 The component is not in place.
- L2 Publicized policies of workforce management are in place and being followed, with a continuing history sufficient to establish stability and believability by organization.