The **system management standard** applies to executive managers, mid-managers, and program office managers. It should be noted that for mid-managers and program office managers it is possible that both the process management standard and the system management standard may reasonably apply. Both the **process management standard** *and* the system management standard are based on the expectation that excellence is the result of standardizing and then testing a best known practice[1] and using structured analysis of results to learn and improve.

The primary expectation of the system management standard is that managers will have articulated and documented their primary program outcomes—what they are expected to achieve—and will have defined **key systems** that are the primary drivers of their program success. When one or more key systems is defined, managers should have a defined approach and deployment[2] to accomplish desired outcomes, represented by a system map. All key systems must deconstruct work flows to show principal activity groups—consisting of milestones or check gates[3]—that represent the value add "steps" toward achieving the defined outcomes. Each should be associated with defined success criteria, or "requirements".

While linear and explicit tasks often cannot be defined within a system, greater reliability of results can be achieved in several ways. First, control of the system is achieved through the development of the causative and influencing factors of success. This may include barriers analysis and standardization of work or work outputs through development of procedures, check sheets, training activity, and best practices. Reliable system outputs also depend on the development of system goals, with requirements that define success, and that match with an approach, deployment, and a system of oversight. In this way it is entirely possible that systems will be able to have the same predictable positive results as standardized process.

For managers, the identification of primary systems is a similar activity to the identification of key processes, and its purpose is to challenge each leader in an organization to adopt systematic best practices, and to align and improve those practices for the good of the organization. These primary program outcomes will define their **systems**, and the "aim" or purpose of each. As a double check, they should be able to link their systems to the categorical types of value-creating processes that deliver products and services to their organization's customers. The model follows:

[1] "Best known practice" is a new but easily understood term. It is not the same as best-in-class or best practice, and there is no presumption that it connotes an industry-leading practice. Instead, it is an extension of the manager's fundamental role in standardizing work and is an affirmation that the manager has studied the work being performed and defined and documented what is believed to be the best practice at that time.

[2] Reference is made here to definitions made in the Baldrige Excellence Framework 2015-2016, pages 47-48.

[3] The terms "milestones" and "check gates" conceptually replace the terms "activity" and "tasks of a standard process flowchart." Different terms are used because the definition of work performed within each milestone or check gate of a system is often not linear and explicit.

Systems Purpose and Structure
0 – The system is named and has known purpose, but no structure. Specific system actions, events, and activities respond to outside influences and may be based on political agendas or individual judgments, without regard to analysis or past learning experience.
1 – The system has some documentation but is not mapped. There is some recognition of the system cycle with some of the **principal activity groups**[4] recognized or documented and mapped.
2 – The system is defined and documented at the high level and mapped. The system map includes all principal activity groups and some of its specific contributing tasks and activities. Output requirements exist for the system as a whole.
3 – The system has a defined approach and a planned deployment. There is a pattern and purpose specific to each principal activity group. The map has been in place for at least one year and is used for management analysis and planning. Tasks, activities, and contributing factors have been developed for some but not all of the principal activity groups. Requirements exist for the system as a whole, and for several subcomponents. Leadership has some evidence that the system operates as designed, using indicators and other performance measures.
4 – Leadership has mapped and documented the system, covering all tasks, accountabilities, and contributing factors. Major intervening variables and system risks have been identified. There is a comprehensive system map that shows all activity groups, and demonstrates order, pattern, and purpose. Milestones are known and tracked for the identified system delivery cycle. Deployment is specific to the means used to manage the system and to ensure its continuing operations according to design. Leadership has indicators and other performance measures in place for all principal activity groups. There is evidence of the use of this system management structure for two or more years.
5 – There is documented evidence of an ordered system that delivers uniform and predictable quality outputs over multiple operational cycles. The ordered system is supported by a system map and supporting documents covering all tasks, accountabilities, and contributing factors. Major intervening variables and system risks have been identified. The system map links to process maps as necessary, to accomplish organizational goals, and requirements statements for process inputs or outputs are built into systems requirements. System deployment is specific to the means used to manage the system and to ensure its continuing operations according to design. Operational deployment is supported by responsibilities and accountability for each contributing resource group, and through the use of indicators and performance measures for all principal activity groups. There is evidence of the use of this system management structure for three or more years.

[4] **Principal Activity Groups** are coherent groups of business activity that produce a definable value-add output. They could also be described as milestones or check gates.

Goal Directedness Through Measures and Feedback	Management of Intervening Variables and Risk	Alignment, Evaluation, and Improvement
0 – The system has no clearly defined outcomes, and no expectations for its performance. Its hoped-for outcomes are ambiguous.	0 – Intervening variables and risk have not been identified or are unknown.	0 – There are no systematic efforts to learn and improve. The resources and personnel that constitute the system do not recognize its existence.
1 – The existence and use of currently defined systems can be linked to some objective and positive organizational performance.	1 – The principal **intervening variables**[5] in the system cycle have been identified, and response scenarios are known.	1 – Some documented history of systems evaluation and change. Resources and personnel who contribute are informed of the system and its purpose.
2 – There is some structured feedback on system performance that is based on documented system output requirements, and to its defined purpose. Much of feedback may be subjective or milestone related. Output requirements can be shown to be linked to requirements of system stakeholders and customers. There are no output requirements specific to each principal activity group.	2 – Intervening variables have been identified for all principal activity groups, and response scenarios documented. The organization conducts at least annual risk analysis and has documented responses to principal risks.	2 – System leadership is connected to the resources and personnel, and they are aware of its approach, structure (map), and their role in delivery of contributing tasks and activities. Accountability and responsibility[6] for actions within each principal activity group is known. The system of deployment is linked to management activity.
3 – Executive managers regularly receive and review performance feedback, including subjective feedback and objective performance measures. This performance feedback is specific to the system as a whole, and to many of its principal activity groups. **Performance feedback** includes indicators regarding timely completion of milestones, and quality of delivery of defined requirements. There is some definition of subordinate process interface, with defined requirements for system inputs and process outputs. There are defined requirements for these system inputs and outputs, and feedback systems exist to capture relative performance in these areas. Performance feedback, taken as a whole, shows a satisfactory level of performance in all areas and some improvement in key areas.	3 – Contingency plans for principal intervening system variables have been documented and deployed, at least in some instances. An annual system risk identification review is conducted, and results are documented. Root cause analysis is performed to analyze risks. Other possible tools include FMEA, SWOT, business environmental analysis, technical, hazard, and failure assessment. Risk is analyzed in terms of likelihood, consequence, and timeframe.	3 – The designated system undergoes structured annual evaluation, improvement, and change, and all of its contributing and participating personnel are at least informed and consulted. Specific responsibilities and accountabilities[7] for each principal activity group have been defined. Organizational learning through operations of the system are showing successive refinements and change in performance feedback, and in risk identification and management.
4 – Objective and measurable feedback/results are linked to this organizational system, covering all tasks, accountabilities, and contributing factors, and to system inputs from subordinate processes and to process outputs from the system. There are demonstrated positive levels of performance in many or most measured areas.	4 – Both risk analysis and risk management planning are used, and there is documented evidence of implementation of risk management. Root cause analysis and other tools are used to design risk management plans, and to identify and manage risks.	4 – There is annual analysis of system effectiveness and development of lessons learned. Update and change are considered annually, both in systems operations and in the risk management plan. Responsibilities, accountability, consultation, and informing roles have been identified for each primary activity group, and for dependent tasks and activities.
5 – Performance feedback and objective measures are linked to this system and all of its defined activity groups. Positive levels and trends exist for the entire system and for all of its principal activities. Several indicators and measures are available for each defined activity group. There is evidence that the performance of this defined system has improved and contributed to improving organizational outcomes over three or more years.	5 – Risks are actively managed by the risk manager and the risk owner, and progress is reported to management on a regular basis. System design and structure has been modified to lessen the impact or occurrence of intervening variables and risks. There is documented evidence of the use of analysis to lessen risk and system impacts. There is documented evidence of systems learning and improvement. There is evidence of systematic risk identification, tracking, analysis, and controls or mitigations in place.	5 – There is evidence of continuous systematic annual improvement, participated in by all defined systems personnel. There are measurable, positive results on outcomes and in each activity group, with demonstrated positive relationship to all dependent processes.

[5] **Intervening variables** are the categorical variables in system cycles that require adjustments to the known and expected pattern of performance—they are akin to common cause variation in processes.

[6] As in project management, the principal activity groups of a system will benefit by the use of a RACI (responsible, accountable, consulted, informed) model that ensures the progressive completion of successive dependent tasks.

[7] The responsibilities and accountabilities for each principal activity group consist of linkage to organizational positions or groups. They ensure that personnel know roles and accountability during the value creation cycle of each system step.