



Your Company Name

System Quality Assurance Checklist

Date

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Revision History

Date	Version	Author	Change

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1 Project Management (PM)

System Topics	Yes/No	Comments
Procedural Controls		
<ul style="list-style-type: none"> Project planning organizational policy is available. 		
<ul style="list-style-type: none"> Procedures available for establishing and reviewing project plans, commitments, complexity, costs, efforts, resources, facilities, personnel assignments. 		
<ul style="list-style-type: none"> Procedures available for work breakdown. 		
Resources		
<ul style="list-style-type: none"> PM assigned. 		
<ul style="list-style-type: none"> PM can negotiate work commitments. 		
<ul style="list-style-type: none"> PM trained in project planning and estimating. 		
Documented Activities		
<ul style="list-style-type: none"> Project activities documented, e.g., statement of work, project plans, resource estimates, risk assessment, facilities, work breakdown structures, metrics, project status, control, management, and contract reviews, etc. 		
Tracking and Oversight		
<ul style="list-style-type: none"> Policies exist to track project and oversight. 		
<ul style="list-style-type: none"> Project uses procedures to track actual time, funding, costs, and QA results, work size and complexity, scope, corrective action, changes, commitments, agreements, plans, schedules, risk, and resources. 		



2 Methodology

System Topics	Yes/No	Comments
Software Methodology		
<ul style="list-style-type: none"> • Management has a formal methodology for software development projects and/or enhancement projects. 		
<ul style="list-style-type: none"> • Requirements used to establish software engineering and management. 		
<ul style="list-style-type: none"> • Allocated requirements change when adjustments are made to project plans, work products, and activities. 		
<ul style="list-style-type: none"> • Methodology allows for a formal and approved set of designs based on requirements. 		
<ul style="list-style-type: none"> • Methodology supports construction based on approved design information. 		
<ul style="list-style-type: none"> • Methodology supports integration of software elements into a working product. 		
<ul style="list-style-type: none"> • Methodology ensures formal testing of software components at specific process phases. 		
<ul style="list-style-type: none"> • Methodology ensures release and support of the final product. 		
<ul style="list-style-type: none"> • Measurements are used to determine the status of the completed activities throughout projects. 		
<ul style="list-style-type: none"> • Guidelines, standards, and/or procedures are used for product enhancements and replacements. 		
<ul style="list-style-type: none"> • Release process for enhancements includes full documentation of new functions by updating operating manuals and release notes. 		
Application of Written Controls		
<ul style="list-style-type: none"> • Plans and methodology support the use of standards, procedures, and guidelines for: <ul style="list-style-type: none"> ○ Defining software requirements. ○ Designing and building software. ○ Integration of software components. ○ Testing of components and integrated product. 		



System Topics	Yes/No	Comments
<ul style="list-style-type: none"> ○ Release and product support. 		
<ul style="list-style-type: none"> ● Projects follow a written organizational policy for project planning. 		
<ul style="list-style-type: none"> ● Projects follow a written organizational policy for managing requirements and design information. 		
Technical Reviews During Development		
<ul style="list-style-type: none"> ● Plans and methodology ensure technical reviews for: <ul style="list-style-type: none"> ○ Requirements. ○ Designs. ○ Coding. ○ Product test plans and scripts. ○ Analysis of test results. ● Review outcomes help support improvements to the software process. 		
Testing		
<ul style="list-style-type: none"> ● Planned testing activities include: <ul style="list-style-type: none"> ○ Unit testing. ○ Integration testing. ○ System testing. ○ Release testing. ● All test documents are approved prior to use. ● Process exists that assures errors found during testing are corrected and re-tested. ● Test documents contain test cases with defined inputs, defined outputs, observed results, tester ID, and recorded errors. 		
Requirements Information		
<ul style="list-style-type: none"> ● Information exists about reusable software products or components, which describes the functions and capabilities of the reusable entity. ● Reusable entity information is used during the software process for new and evolving products. 		
Design Information		
<ul style="list-style-type: none"> ● Design information exists on reusable software products or components. 		



System Topics	Yes/No	Comments
Code Listing		
<ul style="list-style-type: none"> Existing code information on the reusable software conforms to established code management practices. 		
Performance and Maintenance History		
<ul style="list-style-type: none"> Performance and maintenance history records are available. 		
<ul style="list-style-type: none"> Performance and maintenance records of reusable products are used to support the software process. 		
Purchased Software Products and Services		
<ul style="list-style-type: none"> A formal organizational practice exists for selecting and managing product and service suppliers during the course of a project. 		
<ul style="list-style-type: none"> Selection procedures include analysis of suppliers proven capabilities. 		
<ul style="list-style-type: none"> Practices require purchased product specifications and documentation be evaluated prior to purchase. 		
Compatibility with Bundled Product		
<ul style="list-style-type: none"> Purchased components are tested to assess compatibility with the bundled package. 		
Virus Free Entity		
<ul style="list-style-type: none"> Evaluation practices for purchased products assure freedom from virus infection. 		
Source Code		
<ul style="list-style-type: none"> Source listings conform to written standards for: <ul style="list-style-type: none"> Header information File naming Program description Revision record Coding style Modularity Annotation Variable definition Parameters for interaction. 		



System Topics	Yes/No	Comments
Hardware Methodology		
<ul style="list-style-type: none"> • A formal methodology, endorsed by management is used for all hardware development projects and/or enhancement projects. 		
<ul style="list-style-type: none"> • Methodology allows for approved requirements based on known processing needs. 		
<ul style="list-style-type: none"> • Requirements are used to establish a basis for hardware engineering and management use. 		
<ul style="list-style-type: none"> • Project plans, work products, and activities are modified when requirements change. 		
<ul style="list-style-type: none"> • Methodology requires formal and approved documentation. 		
<ul style="list-style-type: none"> • Methodology ensures a rigorous practice for hardware element integration into a working product. 		
<ul style="list-style-type: none"> • Methodology enforces a rigorous practice for testing hardware components at predetermined phases. 		
<ul style="list-style-type: none"> • Methodology enforces formal practices for release and support of the final hardware product. 		
<ul style="list-style-type: none"> • Measurements are used to determine the status of the activities performed for managing requirements and design information throughout projects. 		
<ul style="list-style-type: none"> • Hardware project plans document activities to be performed. 		
<ul style="list-style-type: none"> • Measurements are used to determine progress against planned activities. 		
<ul style="list-style-type: none"> • Adequate resources are provided for planning a hardware project. 		
Application of Written Controls		
<ul style="list-style-type: none"> • Plans and methodology enforce the use of standards, procedures, and guidelines for: <ul style="list-style-type: none"> ○ Defining hardware specifications. ○ Designing and building hardware. ○ Integration of hardware components. ○ Testing of components and integrated product. ○ Release and support of product. 		



System Topics	Yes/No	Comments
<ul style="list-style-type: none"> ○ Installation procedures and testing diagnostics. 		
<ul style="list-style-type: none"> ● Projects follow a written organizational policy for project planning. 		
<ul style="list-style-type: none"> ● Projects follow a written organizational policy for managing hardware specifications and design information. 		
Technical Reviews		
<ul style="list-style-type: none"> ● Plans and methodology ensure technical reviews for: <ul style="list-style-type: none"> ○ Requirements. ○ Designs. ○ Drawings and specification analysis. ○ Product test plans, scripts, and results. ○ Engineering notebooks and logs. ● Project managers review progress against planned activities. 		
Testing		
<ul style="list-style-type: none"> ● Planned testing activities include: <ul style="list-style-type: none"> ○ Integrated Committee testing. ○ Functional hardware unit testing. ○ Hardware release testing. ● Test documents are approved prior to use. ● Mechanism exists that assures errors found during testing are corrected and re-tested. ● Reviewed test results are used as a basis for release. ● Product errors found during testing are used as feedback for the improvement of hardware processes. 		
Purchased Hardware Products and Services		
<ul style="list-style-type: none"> ● Selection procedures include analysis of suppliers proven capabilities. ● Practices require that purchased product specifications and documentation be evaluated prior to purchase. 		



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System Topics	Yes/No	Comments
Compatibility with Bundle Product		
<ul style="list-style-type: none">Purchased components are tested to assess component compatibility with the bundled hardware.		

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3 Testing

System Topics	Yes/No	Comments
Procedural Controls		
<ul style="list-style-type: none"> • Policies exist for the testing process. 		
<ul style="list-style-type: none"> • Testing procedures describe: <ul style="list-style-type: none"> ○ Test document development and its management. ○ Testing types and levels required. ○ Features and attributes. ○ Test outcomes and acceptability. 		
<ul style="list-style-type: none"> • Procedures describe which organizational groups are responsible for: <ul style="list-style-type: none"> ○ Testing. ○ Reviewing results. ○ Distribution of results. ○ Maintenance of documentation. ○ Release of products based on test results. ○ How testing errors are recorded, tracked and resolved. ○ Where and when to use approved tools for testing. ○ How to manage testing information within a testing tool environment. ○ How software tools used in the testing process are evaluated and selected. 		
Test Document and Structure		
<ul style="list-style-type: none"> • Testing documentation contains the following information: <ul style="list-style-type: none"> ○ Document title. ○ Document version. ○ Accountability signatures. 		
<ul style="list-style-type: none"> • Test plans contain the following information: <ul style="list-style-type: none"> ○ Identification of component to be tested. ○ Resource requirements. ○ Schedules. ○ Prerequisites for testing. 		



System Topics	Yes/No	Comments
<ul style="list-style-type: none"> • Test documentation contain the following information: <ul style="list-style-type: none"> ○ References to design and requirements documentation. ○ Data and test equipment specifications. ○ Test environment description. ○ Features and attributes. ○ Criteria for acceptance and release of test components. 		
<ul style="list-style-type: none"> • Finalized test cases contain the following information: <ul style="list-style-type: none"> ○ Documented test cases with defined inputs, expected outputs, and actual outputs. ○ Traceability of test cases to specifications. ○ Error log. ○ Actual results (not merely pass / fail) recorded where appropriate. ○ Results summary. ○ Analysis. ○ Approval / release (before and after execution). ○ Tester identification and date. 		
<ul style="list-style-type: none"> • Test tracking records contain the following incident information: <ul style="list-style-type: none"> ○ Tracking identifier/number. ○ Traceability to test case. ○ Corrective action taken. ○ Results of retest. ○ Timing (dates) of all activities. 		
Testing in the User Environment		
<ul style="list-style-type: none"> • Organization performs pre-release testing in the user environment. 		
<ul style="list-style-type: none"> • Organizational prepared procedures describe how testing will be performed. 		
<ul style="list-style-type: none"> • Instructions for documenting test activity and results. 		
<ul style="list-style-type: none"> • Organization corrected the product or informed customer of known product limitations. 		



System Topics	Yes/No	Comments
Software		
<ul style="list-style-type: none"> • Software development procedures exist for software testing activities. 		
<ul style="list-style-type: none"> • Test documents exist for: <ul style="list-style-type: none"> ○ Unit level testing. ○ Integration level testing. ○ System level testing. 		
<ul style="list-style-type: none"> • Test cases are approved prior to testing. 		
<ul style="list-style-type: none"> • Test cases are traceable to requirements and design specifications. 		
<ul style="list-style-type: none"> • Testing results are used to adjust or correct functions or operations. 		
<ul style="list-style-type: none"> • Procedures explain how corrected, enhanced, or modified software is tested for product feature effectiveness. 		
<ul style="list-style-type: none"> • Regression testing is performed for enhancements and feature and function corrections. 		
<ul style="list-style-type: none"> • Original test documents and records are used for regression testing purposes. 		
Hardware		
<ul style="list-style-type: none"> • Hardware testing procedures are used for the following (where appropriate): <ul style="list-style-type: none"> ○ Components. ○ Sub-units. ○ Fully assembled units or systems. 		
<ul style="list-style-type: none"> • Hardware compatibility testing procedures are used for bundled software products. 		
Product Maintenance		
<ul style="list-style-type: none"> • Procedures describe how repaired, enhanced or modified hardware is tested and its effectiveness. 		
<ul style="list-style-type: none"> • Original design documentation and test cases are used to support regression testing. 		
<ul style="list-style-type: none"> • Periodic hardware tests are performed to assure that performance specifications are valid. 		



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System Topics	Yes/No	Comments
User Manual		
<ul style="list-style-type: none">User manuals are reviewed and tested for correctness prior to release and distribution.		

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4 Configuration Management (Cm)

System Topics	Yes/No	Comments
General		
<ul style="list-style-type: none"> Projects follow a written organizational policy for implementing configuration management. 		
<ul style="list-style-type: none"> Configuration Management training is provided within the organization. 		
Planned and User Activities		
<ul style="list-style-type: none"> A configuration management plan exists and is used. 		
<ul style="list-style-type: none"> Resources and funding were allocated for CM planning and activities. 		
<ul style="list-style-type: none"> CM Plans include activities for the following: <ul style="list-style-type: none"> Identify CM items. Base-line and version items. Control changes to items. Establish and manage repositories. Report status of items. 		
<ul style="list-style-type: none"> Responsibility for coordinating and implementing configuration management exists. 		
<ul style="list-style-type: none"> Training was provided for individuals configuration management activities, including objectives, procedures, and methods for performing their activities. 		
<ul style="list-style-type: none"> Defined procedure for access privileges have been set and are used. 		
<ul style="list-style-type: none"> CM tools are used for CM implementation. 		
<ul style="list-style-type: none"> CM tool users have been trained for their use. 		
Glossary of Items		
<ul style="list-style-type: none"> Configuration items are defined. 		
<ul style="list-style-type: none"> A configuration management library repository exists for the work product baselines. 		
<ul style="list-style-type: none"> The repository is used to manage and control access to the CM items. 		



System Topics	Yes/No	Comments
Change Management		
<ul style="list-style-type: none"> • Procedures exist for change requests and problem reports for configuration items/units initiated, recorded, reviewed, approved, and tracked. 		
<ul style="list-style-type: none"> • Methods exist to restore previous work items in case of problems. 		
Version Management		
<ul style="list-style-type: none"> • Procedures describe a methodology for establishing versions. <ul style="list-style-type: none"> ○ Major releases. ○ Maintenance releases. ○ Individual hardware / software items. ○ Custom work. • Version management procedures ensure traceability to documentation and records. 		
Status of CM Items		
<ul style="list-style-type: none"> • Status of configuration items and units are recorded. • Configuration management report activities are communicated to respective groups and individuals. • Status information is provided to management. • Base audits are performed. 		

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5 Documentation and Records Management

System Topics	Yes/No	Comments
Control of Records		
Documents that Direct Work Activity		
<ul style="list-style-type: none"> • Policies and procedures are used to manage and maintain documentation. 		
<ul style="list-style-type: none"> • Review of procedures and policies are performed periodically. 		
<ul style="list-style-type: none"> • Responsibilities are defined for reviewing / approving new and/or revised documents. 		
<ul style="list-style-type: none"> • A notification / distribution process exists for newly approved documents. 		
<ul style="list-style-type: none"> • Outdated and superseded documents are removed from circulation and destroyed. 		
<ul style="list-style-type: none"> • Procedures include mechanisms for version control of policies and procedures. 		
Technical Documentation		
<ul style="list-style-type: none"> • A procedure exists for managing technical documents associated with computer products and services. 		
<ul style="list-style-type: none"> • Format and content standards exist for technical documents. 		
<ul style="list-style-type: none"> • Procedures exist for review and approval of these documents. 		
<ul style="list-style-type: none"> • Procedures exist for making these documents available for use within the organization. 		
<ul style="list-style-type: none"> • Procedures exist for archiving and/or retention of these documents? 		
User Documentation		
<ul style="list-style-type: none"> • Procedures exist for management and control of manuals. 		
<ul style="list-style-type: none"> • Procedures exist to inform end users how to operate and use the computer products. 		
<ul style="list-style-type: none"> • Format and content standards exist for user documentation. 		



System Topics	Yes/No	Comments
<ul style="list-style-type: none"> Procedures exist that define how users will be notified of manual changes. 		
<ul style="list-style-type: none"> Procedures exist that define how user manual changes are to be kept in sync with product or system changes. 		
Supporting Records		
<ul style="list-style-type: none"> Procedures exist that define how to manage and control supporting records, e.g., technical reviews, problem resolution, error logs. 		
<ul style="list-style-type: none"> Procedures exist that define what supporting records need to be maintained. 		
<ul style="list-style-type: none"> A record retention schedules exists and is used. 		
Electronic Documents and Records		
<ul style="list-style-type: none"> A policy exists for managing electronic records. 		
<ul style="list-style-type: none"> Procedures exist for managing electronic records: <ul style="list-style-type: none"> Maintain audit trails. Sign electronic documents. Retention life of document. Record access and administration. 		

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6 Security

System Topics	Yes/No	Comments
General		
Security Policies and Procedures		
<ul style="list-style-type: none"> • A policy exists for the following security items: <ul style="list-style-type: none"> ○ Computer security goals. ○ Use of passwords. ○ Roles and responsibilities. ○ Virus protection. ○ Disaster recovery. • Password procedures describe non-compliance consequences. • Responsibilities exist for implementing and administering security functions. • Employees are trained in computer security policies and rules. • Computer security administrators are trained to fulfill their functions. 		
Security Administration		
<ul style="list-style-type: none"> • Security measures are designed to mitigate unauthorized changes, theft, and threats. • Procedures exist to implement the following: <ul style="list-style-type: none"> ○ Logical and physical security. ○ Establish and maintain access. ○ Detect and report incidents. ○ Compliance evaluation. 		
Security Tools		
<ul style="list-style-type: none"> • Security tools are evaluated relative to the security goals. • Approved tools are periodically evaluated for suitability. • Tools are made available to the individuals administering security. 		



System Topics	Yes/No	Comments
Software Virus Program		
<ul style="list-style-type: none"> • Programs are available to prevent the introduction of viruses. 		
<ul style="list-style-type: none"> • Virus programs provide proactive detection and elimination. 		
Backup and Recovery		
<ul style="list-style-type: none"> • A program exists to backup mission critical work products, tools, and files. 		
<ul style="list-style-type: none"> • Procedures exist for periodic backup. 		
<ul style="list-style-type: none"> • Procedures provide for systematic recovery during a disaster. 		
<ul style="list-style-type: none"> • The disaster recovery procedures have been tested. 		

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7 Training and Education

System Topics	Yes/No	Comments
General		
Controls		
<ul style="list-style-type: none"> • A training policy exists. 		
<ul style="list-style-type: none"> • Policies and procedures describe the following:: <ul style="list-style-type: none"> ○ Job descriptions. ○ Training requirements for each job description. ○ Training and education to maintain and improve skills. 		
Training and Education Records		
<ul style="list-style-type: none"> • Organization maintains records of training and education. 		
<ul style="list-style-type: none"> • Records are maintained and are up to date. 		
<ul style="list-style-type: none"> • Management reviews records to ensure objectives. 		
Training and Education Plans		
<ul style="list-style-type: none"> • Employee training and education plans are maintained. 		
<ul style="list-style-type: none"> • Management reviews employee training plans. 		
<ul style="list-style-type: none"> • Training and education plans identify the skills required with a schedule to satisfy them. 		
Training and Education Responsibilities		
<ul style="list-style-type: none"> • Someone (or a group) is assigned responsibility for training and education. 		
<ul style="list-style-type: none"> • Sufficient resources have been provided to carry out the training and education program. 		



8 Maintenance

System Topics	Yes/No	Comments
General		
Procedural Controls		
<ul style="list-style-type: none"> • Procedures exist for product maintenance. 		
<ul style="list-style-type: none"> • Procedures exist for: <ul style="list-style-type: none"> ○ Listing reported problems. ○ Problem analysis. ○ Problem resolution. 		
<ul style="list-style-type: none"> • Support maintenance procedures exist for: <ul style="list-style-type: none"> ○ Contracts. ○ Support escalation for mission critical applications. 		
Reporting of known problems		
<ul style="list-style-type: none"> • Procedures exist to notify customers of known problems. 		
<ul style="list-style-type: none"> • Procedures exist to proactively provide notification for problems relating to: <ul style="list-style-type: none"> ○ Data collection. ○ Data processing. ○ Display information. ○ Computer security. ○ Safety. 		