Supplier Assessment Checklist

A Checklist For Assessing Software Supplier Compliance With ISO/IEC 90003:2014

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Checklist for Assessing Software Vendors for Compliance with ISO/IEC 90003:2014 Software engineering: Guidelines for the application of ISO 9001:2008 to computer software

Section 1

Background

Many companies have asked SEPT- "Do you have a checklist to use with our software suppliers to determine if they meet the requirements of Standard ISO/IEC 90003:2014"? These companies stated they wanted a checklist that contained only basic requirements and no suggested artifacts. After determining our customer's needs SEPT has developed this checklist to meet that requirement. SEPT also produces a checklist for internal use within an organization to determine compliance with ISO/IEC 90003:2014. These two checklists are designed to be used as companion documents:

- 1. The Evidence Product checklist to be used internally within an organization
- 2. The Supplier Assessment checklist to be used for supplier qualification and in supplier audits and reviews.

Introduction

The purpose of this document (Checklist) is to assist a company to determine if their "software" supplier(s) meet the requirements of Standard ISO/IEC 90003:2014 Software engineering: Guidelines for the application of ISO 9001:2008 to computer software. This document is designed to be used to:

- determine if a potential supplier has in place the key software process (artifacts), or
- qualify a supplier as approved for use, or
- provide a checklist for audit or review of a supplier.

The steps we used to develop this document are very similar to the ones used to produce the base line evidence product document.

The process of defining what is necessary for compliance with a quality management process standard such as "ISO/IEC 90003:2014" is often confusing and laborious because the directions contained in the standards are unclear or ambiguous. To aid in determining what is actually "required" by the document in the way of physical evidence of compliance, the experts at SEPT have produced this checklist. All our checklists are constructed around a classification scheme of physical evidence comprised of policies, procedures, plans, records, documents, audits, and reviews. There must be an accompanying record of some type when an audit or review has been accomplished. This record would define the findings of the review or audit and any corrective action to be taken. For the sake of brevity this checklist does not call out a separate record for each review or audit. In these checklists, "manuals, reports, scripts and specifications" are included in the document category. When the subject standard references another standard for physical evidence, the checklist does not call out the full requirements of the referenced standard, only the expected physical evidence that should be available.

The author has carefully reviewed the document "ISO/IEC 90003:2014 Software Engineering: Guidelines for the application of ISO 9001:2008 to computer software " and defined the physical evidence required based upon this classification scheme. If a document is called out more than one time, only the first reference is stipulated. Additionally, there are many references to ISO/IEC 12207 in ISO/IEC 90003:2014 so ISO/IEC 12207 required items have been included and are denoted by a (#). There are occasional situations in which a procedure or document is not necessarily separate and could be contained within another document. For example, the "Design and Development Verification Procedure" could be a part of the "Design and Development Procedure". The author has called out these individual items separately to ensure that the organization does not overlook any facet of physical evidence. If the organization does not require a separate document, and an item can be a subset of another document or record, then this fact should be denoted in the detail section of the checklist for that item. This should be done in the form of a statement reflecting that the information for this document may be found in section XX of Document XYZ. If the vendor organizational requirements do not call for this physical evidence for a particular item, this should also be denoted with a statement reflecting that this physical evidence is not required and why. The reasons for the evidence not being required should be clearly presented in this statement. Further details on this step are provided in the Detail Steps section of the introduction. The size of these documents could vary from paragraphs to volumes depending upon the size and complexity of the project or business requirements assigned to the vendor.

General principles of this requirements checklist.

This checklist was prepared by analyzing each clause of this document for the key words that signify a policy, procedure, plan, record, document, audit, or review.

Artifact	Number required by 90003	Number required by 12207
Policy	1	0
Procedure	8	36
Plan	2	40
Record	24	60
Document (Including	15	31
Manuals, Reports, Scripts		
and Specifications)		
Audit	1	8
Review	21	38

This checklist specifies evidence that is unique. The information was transferred into checklist tables, based on the type of artifact. **Note:** All documents cited in ISO/IEC 12207 and required are denoted with a (# - ISO/IEC 12207 item): If the document is required by ISO/IEC 90003 it is under lined. An item can be underlined and have a # if required by both standards. These notations are listed in the footnotes for each section.

Using the Supplier Checklist

When a company is planning to use "ISO/IEC 90003:2014" (and by implication ISO 9001:2008) standard as a Supplier assessment tool, the company should either:

- 1. Send the checklist (to the vendor for completion and return (or post on an extranet site)
- 2. Take the checklist for completion on site as part of a supplier assessment or audit

If the Supplier's present process does not address an ISO/IEC 90003:2014 or ISO/IEC 12207, standard product, then this question should be asked: Is the evidence product required for the type of business of the supplier? If in the view of the supplier the evidence is not required, the rationale should be documented and inserted in the checklist and quality manual. This rationale should pass "*the reasonable person rule*." If the evidence is required, plans should be prepared to address the missing item(s). This checklist can be used to test a supplier's software processes from both a certification viewpoint (ISO/IEC 90003) and implementation of good practice (ISO/IEC 12207). However, it is unlikely that any organization will be fully compliant, so a user of the checklist should apply a pragmatic view of the results. After considering other commercial factors such as cost, experience, and supplier reputation, the organization must still ask the following question: "With this amount of non-compliance, should the company still do business with this supplier"? This is a question of the risk a company is prepared to take.

Detail Steps

A supplier should compare the proposed output of their organization against the checklist. In doing this, they will find one of five conditions that exist for each item listed in the checklist. The following five conditions and the actions required by these conditions are listed in the table below.

	Condition	Action Required
1.	The title of the documented evidence	Record in checklist that the organization
	specified by the checklist (document,	is compliant.
	plan, etc) agrees with the title of the	
	evidence being planned by the	
	organization.	
2.	The title of the documented evidence	Record in the checklist the evidence title
	specified by the checklist (document, etc)	the organization uses and record that the
	disagrees with the title of the evidence	organization is compliant, and the
	planned by the organization but the	evidence is the same although the title is
	content is the same.	different.

3.	The title of the documented evidence specified by the checklist (document, etc) is <i>combined</i> with another piece of	Record in the checklist the title of the evidence (document, etc) in which this information is contained.
	evidence.	
4.	The title of the documented evidence specified by the checklist (document, etc) <i>is not planned</i> by the organization	Record in the checklist that the evidence is not required and the rationale for this decision.
	because it is not required.	
5.	The title of the documented evidence called out by the checklist (document, etc) is not planned by the organization and should be planned by it.	Record in the checklist when this evidence will be planned and reference a plan for accomplishing the task.

Components of the Checklist

This checklist is composed of 4 sections:

- Section 1. Background and Introduction
- Section 2. Supplier summary information
- Section 3. Supplier Assessment checklist for all evidence types by clause.
- Section 4. "About the Author"

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Section 2 Suppler Information

The following information records basic information concerning the supplier - Section 3 records the findings. Add additional items to suit your organizational needs.

Type of Assessment:	Qualification	Review	Audit	Other
Supplier Details				
Company Name				
Address				
E Mail address				
Telephone				
Fax			•	
Website				
Product Range Summary				
ISO 9001 Certification Body (if relevant)				
Date of Certificate				
Scope of Certification				
Date of (Last) Assessment				
Completed by				
Title/Role				
Email address				
Additional Data				

Section 3 ISO/IEC 90003 Supplier Assessment—Compliance Check List

Note: Section 3 items are in order of Policy, Plan, Record, Document, Audit, Reviews

ISO/IEC 90003:2014 Clause	Item	Supplier	Not Required/	Comments
Number and Name		Compliance	Rationale	
4 Quality management system				
4.1 General requirements	 Software Life Cycle Model Document Procedure# 			
	Quality <u>Management</u> <u>System</u> <u>Document</u>			
	Quality <u>Management</u> <u>System</u> <u>Processes Used</u> <u>Document</u>			
	<u>Software</u> <u>Development,</u> <u>Operation and</u> <u>Maintenance</u> <u>Processes Used</u> <u>Document#</u>			
	<u>Software Life</u> Cycle Model Document#			
	• Quality Management System Document Review			

Section 3 ISO/IEC 90003 Supplier Assessment—Compliance Check List

Note: Section 3 items are in order of Policy, Plan, Record, Document, Audit, Reviews

ISO/IEC 90003:2014 Clause	Item	Supplier	Not Required/	Comments
Number and Name		Compliance	Rationale	
	Quality <u>Management</u> System <u>Processes Used</u> <u>Document</u> <u>Review</u>			
4.2 Documentation requirements				
4.2.1 General	• Documentation Procedure#			
	Quality Policy			
	 Tools, Techniques, Technologies and Methods Used Document Procedure# Documentation Plan# <u>Process</u> <u>Planning,</u> 			
	Operation and Control Records			
	Quality Management System Records (All)#			
	Quality Manual Document			

Section 3 ISO/IEC 90003 Supplier Assessment—Compliance Check List

Note: Section 3 items are in order of Policy, Plan, Record, Document, Audit, Reviews

ISO/IEC 90003:2014 Clause	Item	Supplier	Not Required/	Comments
Number and Name		Compliance	Rationale	
4.2.1 General (cont.1)	Quality <u>Objective</u> <u>Document</u>			
	 Tools, Techniques, Technologies and Methods Used Document# 			
	Quality Manual Document Review			
	Quality Objective Document Review			
	Quality Policy <u>Review</u>			
4.2.2 Quality manual	<u>Process</u> <u>Interaction</u> <u>Description</u> <u>Document</u>			
	Process Interaction Description Document Review			
4.2.3 Control of documents	Document <u>Control</u> Procedure			