

**Office of the  
Government Chief Information Officer**

**QUALITY PLANNING PROCEDURE**

**[Q2]**

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**TABLE OF CONTENTS**

**1. PURPOSE .....1-1**

**2. SCOPE.....2-1**

**3. REFERENCES .....3-1**

3.1 STANDARDS.....3-1

3.2 OTHER REFERENCES .....3-1

    3.2.1 *OGCIO Documentation*.....3-1

    3.2.2 *Bibliographies* .....3-1

**4. DEFINITIONS AND CONVENTIONS .....4-1**

4.1 DEFINITIONS .....4-1

4.2 CONVENTIONS .....4-1

**5. PROCEDURE.....5-1**

5.1 RESPONSIBILITY .....5-1

    5.1.1 *Project Manager*.....5-1

    5.1.2 *Professional Development Team*.....5-1

5.2 RISK ASSESSMENT.....5-1

5.3 THE PLANNING PROCESS .....5-1

5.4 CHANGE CONTROL AND CONFIGURATION MANAGEMENT .....5-2

**6. DOCUMENT .....6-1**

6.1 STANDARD QUALITY PLAN .....6-1

**1. PURPOSE**

Quality Planning Procedure is a standard procedure for the project manager to define the quality-related requirements including the tasks, standards, responsibilities and resource requirements at project planning of a System Development Life Cycle (SDLC) project.

A standard Quality Plan which makes reference to various procedures, standards and practices defined as the Quality System in the Quality Manual for an SDLC project is used as a framework for project quality planning. The project manager shall make use of this procedure and framework to tailor the plan to suit the project purpose. With the aid of this procedure, the project manager shall be able to define the Project Quality Plan specific to his/her project and ensure compliance to the Quality System.

This procedure is also used as a supplement to the quality planning activities of PRINCE.

## 2. SCOPE

This procedure applies to all SDLC projects and covers planning of the quality related tasks and requirements for all phases in the SDLC as stipulated in the Information Systems Procedures Manual (ISPM).

The standard Quality Plan defines in general the distribution of responsibilities for quality related tasks and the standard implementation of OGCIO Quality System (i.e. what should be done). It is presented in the form of a template (i.e. a skeleton plan) which integrates existing guidelines, standards and procedures covering the entire SDLC. While most of these can be applied without change, variation (including changes, addition, replacement and deletion) can be defined by the project manager in the Project Quality Plan according to the special characteristics of the project provided that they are documented and approved by the appropriate authorities.

The Project Quality Plan defines the specific implementation plan for the project on what will be done, and for subsequent Quality Assurance Review at near end of each project phase on what has been done, to ensure that quality requirements are met. It is used by the project manager for quality monitoring and control purposes.

**3. REFERENCES**

3.1 STANDARDS

- ISO9001-1994 International Standard : Quality Systems - Model for quality assurance in design/development, production, installation and servicing.
- AS3563.1-1991 Australian Standard : Software Quality Management System
- IEEE Std 1028-1068 IEEE Standard for Software Reviews and Audits (ANSI)

3.2 OTHER REFERENCES

3.2.1 OGCIO Documentation

<u>Standard/Procedure</u>	<u>Ref. No.</u>
Information Systems Procedures Manual (ISPM)	P1
SSADM Practitioner standards and guides	S3, S4, G15, G16
Practitioner Guide on Project Management	G38
Quality Assurance Review Procedure	Q3
Guidelines for Application Software Testing	G20

3.2.2 Bibliographies

- Quality Assurance Manager Handbook, QAI
- Establishing Quality Control, Quality Assurance Practices Manual (Volume 1), QAI
- K.Daily, Quality Management for Software, NCC Backwell Limited, 1992
- William F. Perry, Quality Assurance for Information Systems, QED Technical Publishing Group, 1991

#### 4. DEFINITIONS AND CONVENTIONS

##### 4.1 DEFINITIONS

Quality Planning	A procedure which defines the quality-related tasks at the commencement of a new project to meet the quality requirements.
Quality Plan	A quality plan defines how the product will be created and shows how the right quality will be built in.
Quality System	It is a defined framework of quality-related practices for OGCIO and is documented in the Quality Manual.

##### 4.2 CONVENTIONS

SDLC	The Systems Development Life Cycle (SDLC) is a model adopted by OGCIO for application system development.
PRINCE	Projects in Controlled Environment, a project management methodology adopted by OGCIO for application system development.
SCM	The Software Configuration Management (SCM) is a key process adopted by OGCIO in managing software development, operation, maintenance and enhancement.

## 5. PROCEDURE

### 5.1 RESPONSIBILITY

#### 5.1.1 Project Manager

The project manager is responsible for the preparation of Project Quality Plan, assigning project tasks and quality related tasks, and implementation of the plan.

#### 5.1.2 Professional Development Team

The team is responsible for the creation, maintenance and reviewing of this procedure, and providing general advice to the preparation and implementation of the Project Quality Plan.

### 5.2 RISK ASSESSMENT

The project manager shall assess the project risk to identify the risk areas of the application system development project at the planning stage of project.

### 5.3 THE PLANNING PROCESS

The project manager shall prepare the Project Quality Plan at the beginning phase of the project.

A standard Quality Plan is provided in this manual for quality planning. Using the standard Quality Plan as a framework, the project manager can apply the information that obtained from the risk assessment to decide if variations are required to tailor for the application project. The Project Quality Plan shall be prepared in such a way that is appropriate to the nature, risk exposure and specific requirements of the application project. The project manager shall specify requirements on the use of quality tools, external standards or external expert review in the plan. In addition, the dates for technical approval and internal quality review shall be specified and recorded in the Project Quality Plan.

The deviations from the standard plan made by the project manager for the Project Quality Plan such as addition of quality requirements, modifications/tailoring/waivers on existing standards or methodologies should obtain formal endorsement from the relevant authority and be recorded on the Project Quality Plan. Those standards/methodologies which are modified/tailored/waived, together with the parties granting the tailoring/waivers should be stated and highlighted in the 'Remarks' section of the Project Quality Plan. These supports/approvals shall be documented/filed in the project file as evidence for Quality Assurance Review and future reference.

The Senior Technical (for PRINCE project) or the fund controller (for non-PRINCE project) shall appoint a reviewer (preferably in the rank of SSM or equivalent and independent of the project) for the formal Quality Assurance Review and enter the name of reviewer onto the Project Quality Plan. The Project Quality Plan shall then form part of the Project Plan. The resource requirements and the cost for the quality related tasks (if applicable) should be included in the project plan and schedule.

After the plan (as part of the Project Plan) has been approved by OGCI management and accepted by the user, it will then be used by the project manager for controlling and monitoring the project quality. Copies of the plan shall also be distributed to the parties concerned. A copy of Project Quality Plan shall send to Professional Development Team. Besides, project manager has the discretion to attach the Project Quality Plan as an appendix in the Project Initial Document if he/she thinks appropriate.

For project with special characteristics and it is envisaged during the quality planning that the standard QAR checklist will not be applicable, project manager shall co-ordinate with the QAR reviewer to prepare in advance a special QAR checklist for the project at the project initiation stage. The tailoring of the QAR checklist should be stated in the 'Remarks' section of the Project Quality Plan. A copy of the tailor-made QAR checklist shall be sent to the Professional Development Team after its finalization.

#### 5.4 CHANGE CONTROL AND CONFIGURATION MANAGEMENT

Following the approval and issuance, the Project Quality Plan shall become a baseline of the project / project phase, any future change shall only be made in accordance with the change control and version control procedures in PRINCE and SCM respectively. Subsequent changes on the plan and approvals shall be documented and kept in the project file and copies to the Professional Development Team.

## 6. DOCUMENT

### 6.1 STANDARD QUALITY PLAN

A standard Quality Plan is a standard form (QR/QP) that makes reference to the existing OGCIO standards, procedures and guidelines used in the Quality System for a typical SDLC project. It is used as a framework for project quality planning.

The standard Quality Plan consists of 7 pages.

Page 1 and 2 are used for entering the Project particulars. The Project Manager shall enter the Project Details, define the responsibilities of project team members and OGCIO personnel, summarize risk findings, quality objectives and other quality concerns such as the addition of quality requirements, the modifications/tailoring/waivers on existing standards or methodologies, the authority which grants the modifications/tailoring/waivers of the project.

Based on the project phase, nature, characteristics and risk exposure, Project Manager shall define the quality objective of the project/project phase.(i.e. the attributes and requirements that can be used to measure the quality of the project/project phase). Details such as the following should be stated in the 'Remarks' section for future reference :

- technical approval;
- internal quality review; and
- endorsement or consent from the relevant party or support group for not using or deviating from the standard.

Page 3 to 6 provides a framework of input criteria and output products by making reference to the major standards and guidelines applicable to a typical SDLC project. The Project Manager can tailor the plan by adding to it project specific standards and guidelines or deleting those which are not applicable to the project according to the specific characteristics and requirements of the project. Endorsement or consent from the relevant party or support group for not using or deviating from the standard should be attached for future reference.

The Project Manager should note that the standards listed in this form may not be exhaustive, it is the Project Manager's responsibility to ensure the applied standards and guidelines are included in the Project Quality Plan.

Page 7 is used for the planning of formal Quality Assurance Reviews. Project Manager shall add to the list if formal external independent reviews are required on specific items (e.g. independent security audit for high risk project).

Subject to formal approval, the completed plan shall become the Project Quality Plan and shall be included as a formal quality product for future quality monitoring and control.