



## The Purpose of a CMMI<sup>®</sup>-based Quick-Look Appraisal

A CMMI<sup>®</sup>-based Quick-Look Appraisal (CMMI<sup>®</sup>-QLA) provides a low-cost, objective view of the capability maturity of processes at a site with respect to the selected version of the Capability Maturity Model Integration. It is a rapid way of providing evidence from which to prioritise improvement activities, requiring limited expenditure of effort, planning or money. While it restricts the scope of investigation in favour of speed and economy, it adheres to the SEI's team approach to appraisal. This ensures credibility of the findings and recommendations.

The Quick-Look can be used as an interim check before a full-scale Class A or B appraisal using the SEI's CMMI-based Appraisal Method for Process Improvement (SCAMPI<sup>®</sup>). It can also serve as input for a Process Action Team, or an Engineering Process Group (EPG), to highlight improvement goals in terms of the CMMI<sup>®</sup>, for one or a limited set of Process Areas.

The Quick-Look appraisal contributes the viewpoint of experienced external appraisal team leaders to contrast and compare an organisation's practices against those processes considered most important by the CMMI<sup>®</sup>, with respect to the relevant maturity level of the organization. By employing local staff as appraisal team members it builds credibility in the objectivity of the findings and commitment to change.

Through preliminary discussion of the scope and purpose, the Quick-Look also incorporates senior management's views and provides recommendations for both management and technical levels regarding those areas that are the highest priority for improvement action. In addition, the Quick-Look has the essential features of SEI-style appraisals: generating buy-in for performance improvement by...

- ◆ using a collaborative and consensus-based approach that focuses on objective evidence and enquiry of those most closely involved to generate suggestions for how practices can be improved;
- ◆ collecting and presenting feedback, cross-referenced with the CMMI<sup>®</sup>, to those same people.

## Features of the Quick-Look Appraisal

The Quick-Look (or 'Class C') Appraisal is a shortened version of a full-scale appraisal using the SEI's CMMI-based Appraisal Method for Process Improvement (SCAMPI<sup>®</sup>), addressing 25% or more of the CMMI<sup>®</sup> practices. It uses a similarly reduced effort for information gathering compared to a full-scale appraisal (3 days information gathering on-site with a small team versus 8-10 days with a team of up to 10). Hence the results of the Quick-Look Appraisal are advisory and should not be considered equivalent to the outcome of a full appraisal. A Quick-Look Appraisal may focus on a single maturity level, or a selected set of Process Areas.

Nevertheless, the Quick-Look Appraisal has all the essential features of a full-blown appraisal. These include: information gathering by an appraisal team incorporating local site members; interviews with software practitioners and project managers; examination of artefacts of the systems & software development and maintenance process; and a summary briefing outlining the picture of the site's practices as represented by the evidence presented to the team.

### Participants

Appraisal participants (a sample of about 30 technical staff and project leaders from the site)

- attend interviews with the appraisal team
- bring to the interviews artefacts of their normal work processes
- complete a process maturity questionnaire (optional – see below under 'Interviews').

Important note: The site personnel involved should be familiar with long-term process improvement based on the CMMI<sup>®</sup>. It is recommended that the appraisal participants receive an orientation session on the topic from site members of the appraisal team or attend Software Measurement Services' workshop "Introduction to the CMM<sup>®</sup> Integration for Systems Engineering/ Software Engineering/ Integrated Product and Process Development" (CMMI<sup>®</sup> SE/SW/IPPD) or equivalent prior to the appraisal.

### Interviews

The friendly and collaborative interviews consist of open-ended questions from the appraisal team regarding the software processes currently in use. Supplementary questions elicit suggestions for process improvement action. Example questions might be:



*“What process practices have been most beneficial to your work?”*

*“What changes in process practice would you like to see?”*

For an ongoing improvement programme, example questions might be:

*“What aspect of the improvement programme has helped you the most?”*

*“What changes in the improvement programme would you like to see?”*

Participants are asked to bring with them to the interviews artefacts typical of their daily software work. E.g.:

- process data collected and acted on
- process artefacts in current use (not created especially for the appraisal)

If considered beneficial, a special questionnaire cross-referenced to the CMMI<sup>®</sup> may be completed by selected participants. The questionnaire responses are gathered and tabulated by the local Appraisal Team Members before the Quick-Look Appraisal on-site period. The summary responses may be used during the Just-In-Time Appraisal Team Training and interview preparation period to tailor interview questions to the site’s terminology and to look for examples of process documents for team review.

## Quick-Look Appraisal Team

The Quick-Look Appraisal is generally conducted by a team of 3-5 members

2 experienced external consultants provided by SMS, who act as Appraisal Team Leader and Deputy Appraisal Team Leader

1 Site Coordinator or other experienced person from the site to be appraised or a sister site of the same organisation

1 or 2 experienced software professionals from the organisation to be appraised

### **Role of Appraisal Team Members:**

Local Appraisal Team Members:

- prepare for the appraisal, co-ordinate and schedule activities for the most efficient use of participants’ time;
- provide on-site support and clarification of site procedures and terminology;
- serve as the focal point after the appraisal to initiate an action plan for improvement.

### **Pre-requisite for team members:**

Ideally, all local Appraisal Team Members would have prior knowledge and experience of the CMM<sup>®</sup> as provided by appropriate training. In some circumstances, and provided that a minimum of two experienced external assessors are included in the appraisal team, it may be reasonable to relax this pre-requisite. Appraisal Team Members should not have managerial responsibility for any of the staff to be interviewed during the appraisal, as this is not conducive to open and objective discussion of issues.

## Preparation

Preparation for the Quick-Look Appraisal will be carried out during the weeks before the on-site period (typically 1 day of effort by an external consultant and 3-5 days for the Site Co-ordinator and local Appraisal Team Members). Contact between the Appraisal Team Leader and local team members will be maintained via phone/fax/e-mail etc. Preparation involves:

- agreeing the process-scope, the organisational-scope and the objectives with senior management
- logistics for the appraisal
- planning (selecting participants, scheduling their interviews)
- materials preparation and gathering process documents to be reviewed by the team.



Preparing and carrying out the appraisal are facilitated using an assessment kit adapted for the Quick-Look Appraisal. This kit includes:

- An Appraisal Coordinator's Handbook
- Guidance for Appraisal Team Members
- Planning and scheduling templates
- CMMI<sup>®</sup> observation forms for information gathering/collection of evidence.

## Quick-Look Appraisal Outputs

The final day of the on-site appraisal period includes preparation and presentation of a Findings Briefing.

The Findings Briefing contains one or more slides for each Process Area (PA) addressed within the scope of the appraisal. It will contain the teams' observations and typically will be structured as follows:

PA – PA Name
PA Goals
Goal 1 – Goal N
<i>Quick-Look appraisal observations:</i>
Strengths according to CMMI <sup>®</sup>
<input type="checkbox"/>
Weaknesses according to CMMI <sup>®</sup>
<input type="checkbox"/>
Consequences
<input type="checkbox"/>
Suggestions for Improvement
<input type="checkbox"/>

The briefing slides will contain prioritised recommendations for process improvement actions and will address CMMI<sup>®</sup>-specific issues as well as general organizational issues.

Following the Findings Briefing, it is usual to include a discussion of the next steps with the senior management team.

As an option, a report of 7-10 pages detailing the appraisal results and process improvement action recommendations can be prepared by the external consultants at additional effort and cost.

## Confidentiality Rules

SMS consultants follow the standard confidentiality provisions for appraisals, namely,

1. The specific results of the appraisal shall be proprietary to the site to be used by the site as it chooses.
2. Software Measurement Services will not release or otherwise identify the results of the site's appraisal.
3. No appraisal findings will be attributed to specific projects or individual participants.
4. Written information supplied to the appraisal team by participants, such as responses to questionnaires, will not be identified as to source to anyone not on the appraisal team.

Notwithstanding the above, SMS reserves the right to mention a reference to the organisation concerned among the list of clients with whom SMS has worked.