The Process Professional Portfolio

Performance Improvement through Process Innovation

Overview to Assessment

Release 1.8

Part 1 of 6 in the series
Process Professional Assessment
a component of the
Process Professional Portfolio

The Process Professional Portfolio

A range of products offering process definition, process assessment, performance improvement and supplier management for the systems and services development, maintenance and support environment.

This document is part of the *Process Professional Assessment* series.

Process Professional Assessment

A fully featured methodology for process assessment which represents a key element of the *Process Professional Portfolio.*

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1. Introduction

1.1. Purpose of this Overview

This overview provides an introduction to the *Process Professional* assessment method and details the document structure included in the product.

1.2. Intended Readership

This overview is for managers and staff who wish to gain an understanding of the basic concepts behind capability assessment. It does not presume any previous knowledge of the subject.

1.3. References

This document is a component of the *Process Professional Assessment* document set. Detailed guidance on undertaking an assessment may be found in the guidance documents that comprise the remaining elements of the document set (see section 4 for a description of each of the parts.

To assist the reader, a glossary of terminology is available in the *Process Professional Portfolio* Glossary.

Process Professional Assessment is fully supported by the *Process Professional Assessor* series of products, which contains further documentation on the use of the products.

ISO/IEC 15504 is the standard for *Information Technology - Process Assessment.* This method complies with the requirements of that standard. The standard is referred to as ISO15504 throughout the remainder of this document set.

The method described in this document set, when implemented with the Capability Maturity Model (CMM®), fulfils the requirements of the Software Engineering Institute's CMM® Appraisal Framework, Version 1.0. The CMM® for Software Version 1.1 is the assessment model supported.

The method described in this document set, when implemented with the Capability Maturity Model Integration (CMMI®) Version 1.2 fulfils the requirements of the Software Engineering Institute's Assessment Requirements for CMMI® (ARC) Version 1.2 for Class A appraisals and also indicates how the method is used for Class B and C appraisals.

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2. Introduction to Assessment

2.1. What is an Assessment?

Capability assessment is the systematic analysis of a business against the elements of a business model to provide a report and action plan either for improvement or as part of a supplier management exercise. Whilst differing in detail, assessments for improvement purposes and assessments for supplier management can be defined as having the following major stages:

Initiation: Defining the need for the assessment and its purpose

Preparation: Planning the assessment and communicating the approach to all affected staff if required.

Assessment: Capturing the data and reviewing relevant supporting evidence.

Analysis and Reporting: Analysing the data and informing the relevant personnel of findings.

Closure: Examining the assessment performance against the assessment purpose.

Capability assessment at its simplest is a measurement tool. It can be compared to the dashboard in a car where the instruments help you drive but they don't do the driving for you. Equally each specific assessment yields significant data but it is the *analysis* of the information and the subsequent actions that produce results. The analysis that follows assessment therefore turns the raw data into a report and action plan. The power of assessment lies in the quality of the information it provides to form the basis for the analysis.

A major feature of assessment is the ability to utilise focused targets for performance and to analyze any gaps between the target and actual performance. The next two sections outline how assessment and target setting may be used for improvement and supplier management.

This overview describes the main concepts of *Process Professional Assessment*. It explores the approaches required for internal improvement as well as external supplier management. The documents signposted in this overview further define the method and guide all those involved through the different paths, tasks, responsibilities and competencies required.

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2.2. Using Assessment for Improvement

Implementing sustainable improvement requires staff to recognise opportunities for improvement and change their behaviour to match. Improvement is therefore about building and maintaining a culture for change. Assessment is a flexible tool that can be used as part of process management programmes to achieve one or more outcomes as follows:

Skill transfer: Internal benchmarking of a successful project can guide others to adopt similar approaches.

Unlocking opportunity: Assessment allows staff quality time away from current pressures to consider the details of how they can work in smarter ways.

Motivation for change: Assessment actively encourages staff (participants and assessors) to own the improvements captured.

Pinpointing improvement: Assessment is systematic in its probing of activities giving a hitherto unattainable completeness in identifying opportunities.

Exploring needs: The underlying assessment model (see Section 3 "The Assessment Model") provides key elements to be explored not only for improvement purposes but also to build new approaches to match new ventures.

Analysing improvement: Repeated assessments provide trend information that disclose which improvements provide impact and the scale of such impact.

Improvement opportunities are captured firstly from participants and then by analysing the full set of results from the assessment. Here the focus is on the internal operation of individual business processes and the results or outcomes they produce. Further improvement opportunities that occur across processes are also exposed due to the structure of the underlying model.

An important feature in obtaining information is the confidentiality of results. For improvement data capture, it is important that participants do not feel intimidated or concerned that their individual comments will be used in evidence against them. Here a clear definition of which parts of the assessment will be available to specific levels of the organization has to be carefully set, communicated and observed.

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The assessment method is specific in capturing the overall strengths and weaknesses of the organization assessed from the staff interviewed. This is valuable in gauging the priority of observations from participants and assists in the preparation of the action plan.

2.3. Using Assessment for Supplier Management

The objectives of supplier management can be summarised as:

- Providing a basis for informed comparison of suppliers and their approaches.

- Tailoring of both parties' processes to best achieve a project's goals.

- Implementing a closer working relationship between suppliers and acquirers.

Capability assessment represents a major innovation in how suppliers and acquirers can work together. It forces a more open discussion of the capability and approach to be used than has previously been typical. This can considerably enhance negotiations in the early stages of projects to ensure a solid understanding of each party's responsibilities and expectations.

Process Professional Assessment allows an acquirer to set a target capability against processes that they believe necessary to achieve a specific type of project or product. This target may then be used to assess the capability of specific suppliers for individual projects.

There will not usually be a simple comparison of one organization's results against another since each organization may be using different processes. The reality is that the evaluation proceeds with very much more information on which to base decisions and discuss alternatives than has been typical to date. Equally, other acquisition criteria are also necessary for consideration such as the financial stability of the organization.

2.4. Who Does What in an Assessment?

Process Professional Assessment produces enrolment and empowerment of staff within the change process. To achieve this, assessments must be conducted in a professional and planned manner by all the key personnel identified. The main roles in an assessment are:

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The Sponsor who provides the resource and commitment to conduct the assessment

The Lead Assessor who project manages the assessment and who ensures that a conformant assessment is carried out

Assessors who capture the data, analyze it, and present the findings

Participants who provide the information during the assessment

These people take part in the five main assessment stages: Initiation, Preparation, Assessment, Analysis and Reporting and Closure. Each of these stages comprise the activities in the table below. Since different people become involved at different times, Figure 1 shows which activities apply to which personnel and also shows which document they should refer to for further details of their role.

1. **Initiation** • Initiating the assessment	2. **Preparation** • Determining the assessment scope • Planning the assessment • Preparing affected personnel
3. **Assessment** • Gathering information • Assessing capability	4. **Analysis and Reporting** • Analysing information and identifying improvement opportunities • Consolidating the findings • Disseminating the findings
5. **Closure** • Closing the assessment	

2.5. Brief Summary of Assessment Activities

Initiating the Assessment: Ensures that the assessment purpose is clearly defined, the business case is sound and the resources are committed to complete the assessment satisfactorily.

Determining the Assessment Scope: Identifies the organizational unit or units and the assessment model elements that will be assessed to enable the assessment purpose to be met.

Planning the Assessment: Plans the detailed conduct of the assessment, the resources required, training needs, risks and quality strategy to ensure a successful assessment.

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Preparing Affected Personnel: Identifies key personnel involved in the assessment and ensures that they all understand the purpose of the assessment and how to perform their role in it.

Gathering Information: Gathers the information required to meet the requirements defined in the assessment scope.

Assessing Capability: Determines capability for each assessment model element assessed.

Analysing Information and Identifying Improvement Opportunities: Assesses the strengths, weaknesses and improvement opportunities for each assessment model element assessed.

Consolidating the Findings: Consolidates the findings analysis to ensure that they fulfil the assessment goals.

Disseminating the Findings: Presents the assessment findings to all relevant personnel to ensure that they are understood and to gain commitment to any required follow-up actions.

Closing the Assessment: Ensures that the assessment purpose has been fulfilled and that feedback on lessons learned and improvement opportunities are recorded and acted upon.

Throughout the assessment, the progress and performance of the assessment itself are monitored and managed.

Figure 1
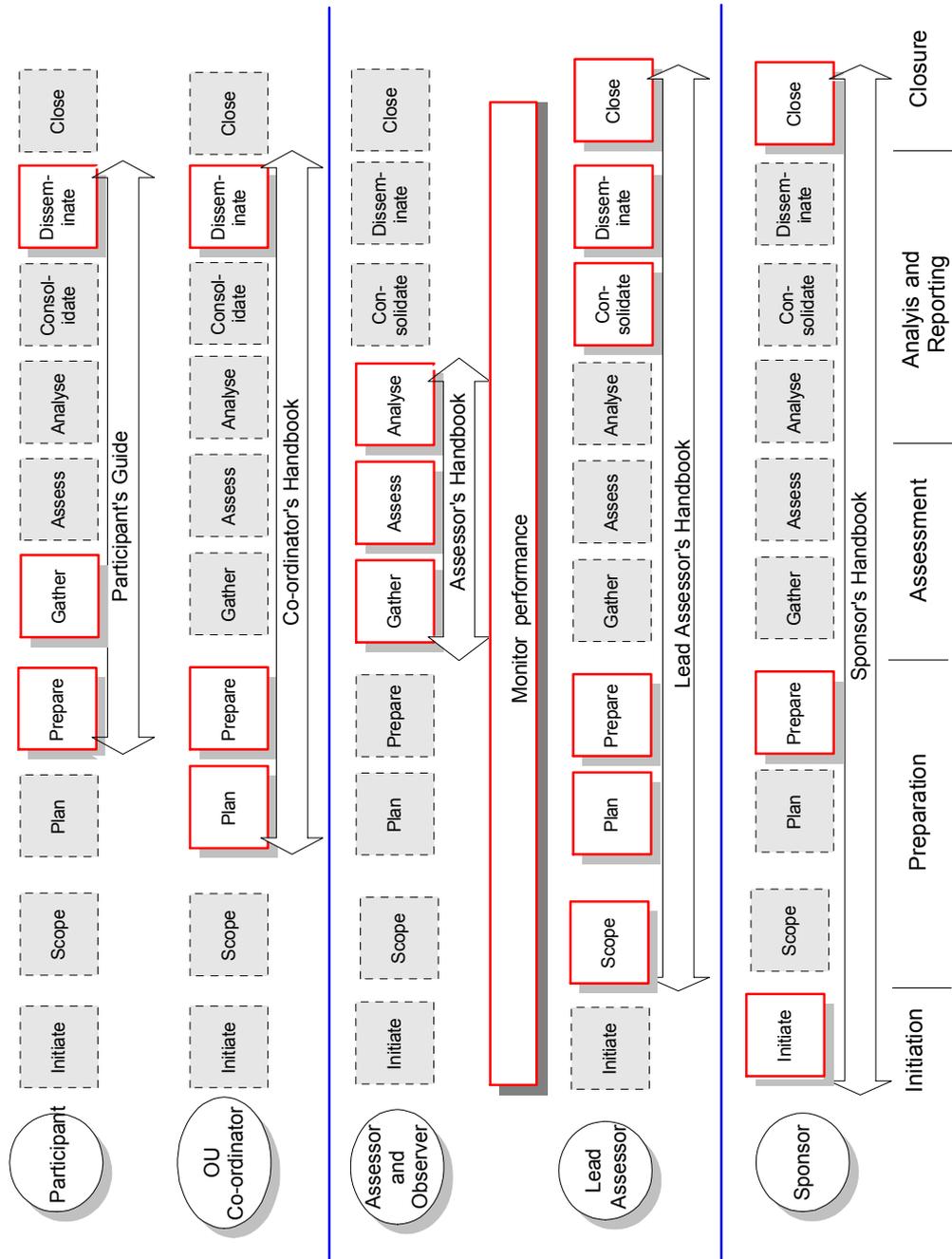
2.6. Effort requirements for an Assessment

The resource requirement for an assessment depends on the purpose of the assessment and its scope. The minimum is one assessor and one participant per element assessed. However if higher confidence in the results is important or the assessment model is the Software Engineering Institute's Capability Maturity Model (CMM®), or CMM® Integration model then two or more assessors are required

Equally, groups of participants such as a whole project team may be interviewed at the same time, either to minimise the elapsed time of the assessment or to strive for a consensus view on performance.

A detail of the effort required is found in the Lead Assessor's Handbook.

2.7. Assessment Support

The *Process Professional Assessor* series of products provide support for assessments. These PC, server, Intranet or Internet-based tools provide mechanisms for recording the data captured, analysing the data and producing the assessment reports.

3.   The Assessment Model

3.1.   Introduction

All assessments use a model that describes the basic elements that define either the mechanisms by which an organization performs its business or the results and outcomes that flow from these. Each element, and its component parts, can therefore be examined to produce a complete and repeatable set of investigation results.

A model is necessary to provide a point of reference for benchmarking similar business areas and providing repeatability between assessors and assessments.

Process Professional Assessment may be used to support self-assessment with a variety of different assessment models. These fall into two categories:

3.1.1.   Process Models

These models are based upon defining the specific processes that an organization deploys to meet its goals and are used to assess the capability of these processes within the organization. Examples of process models are those based upon ISO15504, the Software Engineering Institute's Capability Maturity Model (CMM®) version 1.1, the Software Engineering Institute's Capability Maturity Model Integration (CMMI®), Version 1.1.

The *Process Professional Process Model* contains experience gained in more than ten years of applied research and industrial / commercial application, coupled with guidance from the considerable breadth of experience from a cross-section of industry. It fully meets the requirements of ISO15504.

3.1.2.   Business Excellence Models

These models are based upon defining the criteria by which an organization attains excellence in its performance and specific measures of excellence in terms of the results or outcomes of that performance. Examples of these models are the Malcolm Baldrige Award model, the European Foundation for Quality Management's Business Excellence Model and the Australian Quality Award model.

4. Description of the *Process Professional Assessment* Document Set

In addition to this **Overview**, this document series comprises:

4.1. Assessment Sponsor's Handbook

4.1.1. Purpose of Handbook

The **Assessment Sponsor's Handbook** describes the actions to be undertaken to initiate a process assessment and to ensure that the assessment results are acted upon.

4.1.2. Intended Readership

The **Assessment Sponsor's Handbook** is provided primarily for the assessment Sponsor. The Sponsor is an individual, internal or external to the organization being assessed, who wants the assessment to be performed and who provides the commitment and financial or other resources to enable it to be carried out. The processes for identifying an assessment purpose and scope, and selecting key resources should also be read by Lead Assessors.

4.2. Lead Assessor's Handbook

4.2.1. Purpose of Handbook

The **Lead Assessor's Handbook** describes the activities that the Lead Assessor performs to manage an assessment and ensure that it is conformant. In particular, it addresses:

- verifying the assessment purpose, scope, assumptions and constraints
- selecting the assessment approach, support tools and techniques
- selecting and preparing the assessment team
- planning the assessment
- using the results for improvement or supplier selection
- managing the progress of the assessment
- measuring the success of the assessment
- consolidating and disseminating the findings
- closing an assessment.

4.2.2. Intended Readership

The **Lead Assessor's Handbook** is provided primarily for Lead Assessors. However it will also be of interest to other assessment team members.

4.3. Assessor's Handbook

4.3.1. Purpose of Handbook

Each **Assessor's Handbook** describes the steps involved in an assessment and provides detailed guidance on performing these steps. It also describes how to:

- gather the required information

- assess capability against the assessment model

- analyze the findings and identify appropriate actions.

Different Assessor's Handbooks are provided depending on the assessment model being used for assessment. Currently available are the ISO15504 Assessor's Handbook, the CMM® Assessor's Handbook, The Business Excellence Assessor's handbook and the CMMI® Assessor's Handbook.

4.3.2. Intended Readership

The **Assessor's Handbook** is provided for members of the assessment team.

4.4. Co-ordinator's Handbook

4.4.1. Purpose of Handbook

The **Co-ordinator's Handbook** provides guidance on the logistics of preparing for, and running, a process assessment.

4.4.2. Intended Readership

The **Co-ordinator's Handbook** is provided for the Assessment Team Co-ordinator and the Organizational Unit Co-ordinator.

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4.5. Participant's Guide

4.5.1. Purpose of Guide

The **Participant's Guide** provides a brief overview of the assessment process for assessment participants and guidance on the steps they should take to prepare for an assessment.

4.5.2. Intended Readership

The **Participant's Guide** is provided for participants in an assessment.

4.6. Support Kit

4.6.1. Purpose of Kit

The **Support Kit** provides forms and examples that support the use of *Process Professional Assessment.* Use of items within the kit is explained within the relevant handbooks.