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Information technology — Process assessment — Guide for process improvement

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National foreword

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

In exceptional circumstances, when the joint technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide to publish a Technical Report. A Technical Report is entirely informative in nature and shall be subject to review every five years in the same manner as an International Standard.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC TR 33014 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

This first edition technically revises clauses of ISO/IEC TR 15504-4:2004.

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Introduction

This Technical Report provides guidance on using process assessment as part of a complete framework and method for performing process improvement as part of a continual improvement activity. The guidance covers:

— invoking a process assessment;

— using the results of a process assessment;

— identifying improvement actions aligned to business goals;

— cultural issues in the context of process improvement;

— dealing with management issues for process improvement.

The overall goal of this Technical Report is to strengthen these needed abilities for continual improvement of processes in organizations. Organizations too often struggle with process improvement because of lack of focus on necessary process improvement abilities. This Technical Report will help an organization ensure benefits are realized from process improvement. It will also help an organization prepare for success with specific process improvement initiatives, programmes or projects. The Technical Report also describes the process improvement basics vital for performing a process improvement programme or project.

ISO/IEC TR 33014 deals with process improvement on three levels:

— Strategic, what goals to achieve, the motivation and direction.

— Tactical, how to achieve the goals of process improvement.

— Operational, how to perform the process improvement.

ISO/IEC TR 33014 has three improvement perspectives:

— Process perspective: Process improvement as a programme or project.

— Organizational perspective: Improvement of organizational improvability in order to ensure success with improvement projects.

— Project perspective: Improve a project´s improvability and reach improvement success.

This Technical Report is part of a set of International Standards designed to provide a consistent and coherent framework for the assessment of process quality characteristics, based on objective evidence resulting from implementation of the processes. The overall aim is to establish a framework for consistent and reliable assessment covering processes employed in the development, maintenance and use of systems across the information technology domain, and to the delivery and management of services employing IT-based systems. The set of standards, as a whole, addresses process quality characteristics of any type. Results of assessment can be applied for improving process performance, or for identifying and addressing risks associated with application of processes.

The set of International Standards ISO/IEC 33001 – ISO/IEC 33099 defines the requirements and resources needed for process assessment. The overall architecture and content of the set is described in ISO/IEC 33001.

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Information technology — Process assessment — Guide for process improvement

1 Scope

This Technical Report provides informative guidance on using process assessment as part of a complete framework for performing process improvement as part of a continual improvement activity. It also provides guidance on how to strengthen and maintain the organization's abilities to ensure success with continual process improvement.

This Technical Report does not presume specific organizational structures, management strategies, life cycle models or development methods.

This Technical Report has its focus on continual process improvement, and the support for succeeding in continual process improvement – organizational improvability. Improvability is addressed both at the organizational perspective and at the project perspective. The organizational perspective is for large process improvement programmes and project perspective is for process improvement projects.

In the case of process improvement, the concepts and principles are appropriate for the full range of different business goals, application domains and sizes of organization, so that all types of organizations may use them. It is the same in the case of improvability.

Although the focus for this Technical Report is continual process improvement based on using process assessment as part of a complete framework and method for performing and ensuring success with continual process improvement, this Technical Report can also be used in related areas. One such related area is where continual improvement of processes takes a part in the development of the business. An example of this is when a process improvement initiative is identified in IT Service Management (ISO/IEC 20000). Continual process improvement can also be used to strengthen an organization's ability to carry out the improvement of services.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9000:2005, *Quality management systems — Fundamentals and vocabulary*

ISO/IEC 33001:—[1], *Information technology — Process assessment — Concepts and terminology*

[1] To be published.

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