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Information technology — Software product evaluation —

Part 5:
Process for evaluators

Technologies de l'information — Évaluation du produit logiciel —

Partie 5: Procédés pour les évaluateurs

Reference number
ISO/IEC 14598-5:1998(E)

Contents

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialised system for worldwide standardisation. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organisation to deal with particular fields of mutual interest. Other international organisations, 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. 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.

International Standard ISO/IEC 14598-5 was prepared by Joint Technical Committee ISO/IEC JTC1, *Information technology*, Subcommittee SC 7, *Software engineering.*

ISO/IEC 14598 consists of the following parts, under the general title *Information Technology - Software product evaluation* :

- *Part 1: General overview*
- *Part 2: Planning and management*
- *Part 3: Process for developers*
- *Part 4: Process for acquirers*
- *Part 5: Process for evaluators*
- *Part 6: Evaluation modules*

Annex A forms an integral part of this part of ISO/IEC 14598. Annexes B, C, D, E and F are for information only.

Introduction

Software products are becoming more and more important in all domains of industry and services. It is therefore necessary to be able to evaluate the quality of these software products.

Software products are extremely varied. They are produced to fulfil very diverse requirements in terms, for example, of functionality. Their context for use can also be very varied such as in the case of application software in a management information system, of software embedded in other products or of game software, to cite a few examples.

Potential benefits from evaluation are:

- the developer can use the results of the evaluation of its product to identify corrective actions, in order to improve the product or to make decisions about the evolution strategy for the product;
- for the supplier of a product the benefit from an evaluation can be to get confidence in the value of the product; in addition the evaluation report can be used for commercial purposes;
- for software product acquirers, evaluation results may be used as objective data on which to base acquiring decisions;
- for the industry at large, the spread of software product evaluation will help the use of quality as a marketing argument.

The primary purpose of software product evaluation is to provide quantitative results concerning software product quality that are comprehensible, acceptable to and can be depended on by any interested party.

The evaluation process is described as a step-wise procedure that allows expression of evaluation requirements in terms of quality characteristics as defined in ISO/IEC 9126. The evaluation takes into account various documents that can be considered as part of the software product, e.g. design documentation, test or validation reports, source code or user documentation. It is recommended that the evaluator uses a library of evaluation modules that define evaluation methods. These evaluation modules could be standardised, although no provision for that is proposed in this standard. The evaluation leads to the production by the evaluator of an evaluation report.

This evaluation process is a generic abstract process that follows the model defined in ISO/IEC 9126. Therefore, this process is applicable within all primary life-cycle processes defined in ISO/IEC 12207. Specific supporting life-cycle processes defined in ISO/IEC 12207 are directly related to the evaluation process. They are quality assurance, verification, validation, joint review and audit.

The tailoring process defined in ISO/IEC 12207 is built in the evaluation process defined in this standard by allowing the user to specify and design the evaluation activities.

The evaluation process described here may be used to test the conformity to standards such as ISO/IEC 12119.