

This is a preview of "ISO/IEC 15939:2007". [Click here to purchase the full version from the ANSI store.](#)

Second edition
2007-08-01

Corrected version
2008-10-01

Systems and software engineering — Measurement process

Ingénierie des systèmes et du logiciel — Processus de mesure

Reference number
ISO/IEC 15939:2007(E)



© ISO/IEC 2007

This is a preview of "ISO/IEC 15939:2007". [Click here to purchase the full version from the ANSI store.](#)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO/IEC 15939:2007". Click here to purchase the full version from the ANSI store.

Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
1.1 Purpose.....	1
1.2 Field of application	1
1.3 Tailoring this International Standard	1
1.4 Conformance	1
1.5 Limitations	2
2 Terms and definitions.....	2
3 Application of this International Standard	7
3.1 Purpose and outcomes of the measurement process.....	7
3.2 Overview of this International Standard.....	7
3.3 Organization of this International Standard.....	10
4 Description of the activities	11
4.1 Establish and sustain measurement commitment.....	11
4.2 Plan the measurement process.....	12
4.3 Perform the measurement process	16
4.4 Evaluate measurement.....	18
Annex A (informative) The measurement information model.....	20
Annex B (informative) Measurement process work products	28
Annex C (informative) Example criteria for selecting measures	30
Annex D (informative) Example criteria for evaluating an information product.....	32
Annex E (informative) Example criteria for evaluating the performance of the measurement process	35
Annex F (informative) Example elements of measurement planning	36
Annex G (informative) Guidelines for reporting information products	37
Bibliography	38

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.

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 15939 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

This second edition cancels and replaces the first edition (ISO/IEC 15939:2002), which has been technically revised.

This corrected version of ISO/IEC 15939:2007 contains new cross-reference numbering in Figure 1, 3.3 and Figure B.1, which was incorrect in the original version. It also updates all references to ISO/IEC 15288 and ISO/IEC 12207 to the second editions, which have now been published.

This is a preview of "ISO/IEC 15939:2007". [Click here to purchase the full version from the ANSI store.](#)

Introduction

Measurement supports the management and improvement of processes and products. Measurement is a primary tool for managing system and software life cycle activities, assessing the feasibility of project plans, and monitoring the adherence of project activities to those plans. System and software measurement is also a key discipline in evaluating the quality of products and the capability of organizational processes. It is becoming increasingly important in two-party business agreements, where it provides a basis for specification, management, and acceptance criteria.

Continual improvement requires change within the organization. Evaluation of change requires measurement. Measurement itself does not initiate change. Measurement should lead to action and not be employed purely to accumulate data. Measurements should have a clearly defined purpose.

This International Standard defines a measurement process applicable to system and software engineering and management disciplines. The process is described through a model that defines the activities of the measurement process that are required to adequately specify what measurement information is required, how the measures and analysis results are to be applied, and how to determine if the analysis results are valid. The measurement process is flexible, tailorable, and adaptable to the needs of different users.

The measurement process defined in this International Standard, while written for system and software domains, can be applied in other domains.