

This is a preview of "ISO/IEC 14143-1:2007". [Click here to purchase the full version from the ANSI store.](#)

Second edition
2007-02-15

Information technology — Software measurement — Functional size measurement

Part 1: Definition of concepts

*Technologies de l'information — Mesurage du logiciel — Mesurage de
la taille fonctionnelle*

Partie 1: Définition des concepts

Reference number
ISO/IEC 14143-1:2007(E)



© ISO/IEC 2007

This is a preview of "ISO/IEC 14143-1:2007". [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.

© 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 14143-1:2007". [Click here to purchase the full version from the ANSI store.](#)

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 14143-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and system engineering*.

This second edition cancels and replaces the first edition (ISO/IEC 14143-1:1998), of which it constitutes a minor revision.

ISO/IEC 14143 consists of the following parts, under the general title *Information technology — Software measurement — Functional size measurement*:

- *Part 1: Definition of concepts*
- *Part 2: Conformity evaluation of software size measurement methods to ISO/IEC 14143-1:1998*
- *Part 3: Verification of functional size measurement methods* [Technical Report]
- *Part 4: Reference model* [Technical Report]
- *Part 5: Determination of functional domains for use with functional size measurement* [Technical Report]
- *Part 6: Guide for use of ISO/IEC 14143 series and related International Standards*

Introduction

Organizations engaged in software engineering have struggled for years in search of acceptable quantitative methods for measuring process efficiency and effectiveness, and for managing software costs, for the systems they acquire, develop, enhance or maintain. One critical, and particularly elusive, aspect of this measurement requirement has been the need to determine software size. Numerous software sizing methods have been proposed in the past. These included numbers of source lines of program code and various measures derived from the technical characteristics of the software.

These methods can have limitations in that they:

- cannot always be applied early in the software development process;
- cannot always be applied uniformly throughout the software's lifetime; or
- cannot always be meaningfully understood by users of the software.

The concepts of Functional Size Measurement (FSM) are designed to overcome these limitations by shifting the focus away from measuring how the software is implemented to measuring size in terms of the functions required by the user. In 1979, Allan J. Albrecht of IBM was the first to publicly release a method based on such concepts, known as Function Point Analysis.

Since the public release of Function Point Analysis, many sizing methods have been developed based on Albrecht's and other concepts. As these various sizing methods were developed without common agreement of the fundamental concepts of FSM, it was natural that inconsistencies amongst the methods would develop. These inconsistencies lessen the ability and attractiveness of any of these methods to be used as a standard method for the functional sizing of software.

This part of ISO/IEC 14143 defines the fundamental concepts of FSM, thereby promoting the consistent interpretation of FSM principles.

The text in this part of ISO/IEC 14143 has been formatted in order to facilitate the checking of a candidate software sizing method for conformance to this part of ISO/IEC 14143.