

Software engineering — COSMIC-FFP — A functional size measurement method

ICS 35.080

National foreword

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**Software engineering — COSMIC-FFP —
A functional size measurement method**

*Ingénierie du logiciel — COSMIC-FFP — Méthode fonctionnelle de
mesure de taille*



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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.

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Introduction

Software is a major component of many corporate budgets. Organisations recognise the importance of controlling software expenses and analysing the performance of the budgets allocated to software development and maintenance in order to benchmark against the best in the field. To do so, measures and models using these measures are needed.

Measures are needed for analysing both the quality and the productivity associated with developing and maintaining software. On the one hand, technical measures are needed to quantify the technical performance of products or services from a developer's viewpoint. Technical measures can be used for efficiency analysis; to improve the performance of designs, for instance.

On the other hand, functional measures are needed to quantify the performance of products or services from a user's or owner's perspective; for productivity analysis, for instance. Functional measures must be independent of technical development and implementation decisions. They can then be used to compare the productivity of different techniques and technologies.

The Full Function Points (FFP) method was proposed in 1997 with the aim of offering a functional size measure specifically adapted to real-time software. Since then, measurement practice in many organisations and field tests demonstrated that this functional size measurement method not only had the ability to capture the functional size of real-time software, but also to capture the functional size of MIS and system software.

These field test results, coupled with the feedback received from organisations which used it, motivated the authors to improve the method. Many improvements were also inspired by the work of the Common Software Measurement International Consortium (COSMIC). The results of these efforts were published in May 2001 as version 2.1 of the COSMIC-FFP Functional Size Measurement Method.

The COSMIC-FFP Functional Size Measurement Method aims to meet these needs of

- a) software suppliers facing the task of translating customer requirements into the size of software to be produced as a key activity in their project cost estimating and,
- b) customers who want to know the functional size of delivered software as an important component of measuring supplier performance.

