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# Systems and software engineering — Measurement process

*Ingénierie des systèmes et du logiciel — Processus de mesure*

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# Foreword

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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.

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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.

# 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.