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**BSI Standards Publication**

## Data quality

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Part 63: Data quality management: Process measurement

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## National foreword

This British Standard is the UK implementation of ISO 8000-63:2019.

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A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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## Data quality —

Part 63:

### Data quality management: Process measurement

*Qualité des données —*

*Partie 63: Gestion de la qualité des données: Évaluation du processus*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 184, *Automation systems and integration*, Subcommittee SC 4, *Industrial data*.

A list of all parts in the ISO 8000 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

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## Introduction

The ability to create, collect, store, maintain, transfer, process and present information and data to support business processes in a timely and cost-effective manner requires both an understanding of the characteristics of the information and data that determine its quality, and an ability to measure, manage and report on information and data quality.

ISO 8000 defines characteristics of information and data that determine its quality, and provides methods to manage, measure and improve the quality of information and data.

When assessing the quality of information and data, it is useful to perform the assessment in accordance with documented methods. It is also important to document the tailoring of standardized methods with respect to the expectation and requirements pertinent to the business case at hand.

ISO 8000 includes parts applicable to all types of data and parts applicable to specific types of data.

ISO 8000 can be used independently or in conjunction with quality management systems.

There is a limit to data quality improvement when only the nonconformity in data is corrected, since the nonconformity can recur. However, when the root causes of the data nonconformity and their related data are traced and corrected through data quality processes, recurrence of the same type of data nonconformity can be prevented. Therefore, a framework for process-centric data quality management is required to improve data quality more effectively and efficiently. Furthermore, data quality can be improved through assessing processes and improving under-performing processes identified by the assessment.

This document specifies a process measurement approach that is appropriate for use when assessing process maturity. This approach can serve when an organization is looking to improve the maturity of data quality management.

This document can be used on its own or in conjunction with other parts of ISO 8000.

This document is intended for use by those actors that have a vested interest in information or data quality, have a focus on one or more information systems and have a concern for both inter- and intra-organization views, throughout all phases of the data life cycle.

[Annex A](#) contains an identifier that unambiguously identifies this document in an open information system.

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# Data quality —

## Part 63:

# Data quality management: Process measurement

## 1 Scope

This document specifies a structure for process measurement stacks that organizations can instantiate to measure the characteristics of processes for data quality management. This structure consists of goal, sub goal, question, indicator and metric. The instantiated stack consists of content that is determined by a chosen model for assessing the maturity of the processes under consideration.

The following are within the scope of this document:

- the fundamentals of process measurement;
- the inspection plan and inspection order by which to perform measurement;
- the structure of the measurement stack;
- the role of the chosen maturity model in instantiating the stack.

The following are outside the scope of this document:

- methods for inspecting implemented processes;
- methods for generating measured values from the inspection of processes;
- how to choose a suitable maturity model.

This document can be used in conjunction with, or independently of, quality management systems standards.

NOTE ISO 8000-8 specifies concepts and methods for measuring information and data quality.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 8000-2, *Data quality — Part 2: Vocabulary*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8000-2 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>