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BSI Standards Publication

Data quality

Part 150: Master data: Quality management framework

bsi.

National foreword

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75% of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of normative document:

— an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50% of the members of the parent committee casting a vote;

— an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed every three years with a view to deciding whether it can be transformed into an International Standard.

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.

ISO/TS 8000-150 was prepared by Technical Committee ISO/TC 184, *Automation systems and integration*, Subcommittee SC 4, *Industrial data*.

ISO 8000 is organized as a series of parts, each published separately. The structure of ISO 8000 is described in ISO 8000-1.

Each part of ISO 8000 is a member of one of the following series: general data quality, master data quality, transactional data quality and product data quality. This part of ISO 8000 is a member of the master data quality series.

A complete list of parts of ISO 8000 is available from the Internet:

`http://www.tc184-sc4.org/titles/DATA_QUALITY_Titles.htm`

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Introduction

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

ISO 8000 defines characteristics that can be tested by any organization in the data supply chain to objectively determine conformance of the data to ISO 8000.

ISO 8000 provides a framework for improving data quality that can be used independently or in conjunction with quality management systems.

There is a limit to master data quality improvement with the data-centric approach where only the data found defective is corrected. When data errors and their related data are traced and corrected, or root causes of data errors are removed through processes for data quality management, recurrence of the same data errors can be prevented. Therefore, a framework for process-centric data quality management is required to improve data quality.

For this purpose, this part of ISO 8000 specifies fundamental principles of a master data quality management, and requirements for implementation, data exchange and provenance. This standard also contains an informative framework that identifies processes for data quality management. For reader's better understanding, the framework in detail, its functional model and a business scenario with examples are provided in Annexes B, C and D, respectively. This framework can be used in conjunction with or independently of quality management systems standards, for example, ISO 9001.

This part of ISO 8000 is intended for use by organizations that have multiple systems that share master data and/or that share and exchange data with other organizations and therefore need to manage the quality of their master data.

Although the framework has been developed based on the experience of data quality management applied in industries such as finance, telecommunication, and public institutions, it is expected that this framework, with appropriate extension, can also be applied to mechanical design or manufacturing data.

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Data quality —

Part 150:
Master data: Quality management framework

1 Scope

This part of ISO 8000 provides fundamental principles of a process-centred approach to master data quality management and requirements that can be used by an organization to implement master data quality management. It also contains an informative framework that identifies processes for master data quality management. This part of ISO 8000 can be used in conjunction with or independently of quality management systems standards, for example, ISO 9001.

The following are within the scope of this part of ISO 8000:

- fundamental principles of master data quality management;
- requirements
  - implementation requirements;
  - data exchange requirements;
  - provenance requirements;
- master data quality management framework
  - top-level and lower level processes;
  - roles.

The following are outside the scope of this part of ISO 8000:

- data quality evaluation and certification methods;
- taxonomy of data;
- data quality maturity model.

This part of ISO 8000 is intended for use by organizations that have multiple systems that share master data and/or that share and exchange data with other organizations and therefore need to manage the quality of their master data.

2 Normative references

The following referenced documents are indispensable for the application 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.

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