

**Health informatics - Digital imaging and communication
in medicine (DICOM) including workflow and data
management (ISO 12052:2006)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 12052:2011 sisaldab Euroopa standardi EN ISO 12052:2011 ingliskeelset teksti.

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English Version

Health informatics - Digital imaging and communication in
medicine (DICOM) including workflow and data management
(ISO 12052:2006)

Informatique de santé - Imagerie numérique et
communication dans la médecine (DICOM) incluant le
déroulement des opérations et la gestion des données (ISO
12052:2006)

Medizinische Informatik - Digitale Bildverarbeitung und
Kommunikation in der Medizin (DICOM) inklusive Workflow
und Datenmanagement (ISO 12052:2006)

This European Standard was approved by CEN on 10 March 2011.

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Foreword

The text of ISO 12052:2006 has been prepared by Technical Committee ISO/TC 215 “Health informatics” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 12052:2011 by Technical Committee CEN/TC 251 “Health informatics” the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2011, and conflicting national standards shall be withdrawn at the latest by September 2011.

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This document supersedes EN 12052:2004.

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Endorsement notice

The text of ISO 12052:2006 has been approved by CEN as a EN ISO 12052:2011 without any modification.

Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
2 Terms and definitions.....	1
3 Symbols and abbreviations	2
4 Requirements.....	2
4.1 Provisions.....	2
4.2 Conformance.....	2
5 Overview of the content of the DICOM standard.....	2
5.1 Document structure.....	2
5.2 PS 3.2: Conformance.....	3
5.3 PS 3.3: Information Object Definitions	5
5.4 PS 3.4: Service Class Specifications	5
5.5 PS 3.5: Data Structure and Semantics.....	6
5.6 PS 3.6: Data Dictionary.....	6
5.7 PS 3.7: Message Exchange.....	6
5.8 PS 3.8: Network Communication Support for Message Exchange	7
5.9 PS 3.9: Retired (Formerly Point-to-Point Communication Support for Message Exchange)	7
5.10 PS 3.10 Media Storage and File Format.....	7
5.11 PS 3.11: Media Storage Application Profiles	8
5.12 PS 3.12: Storage Functions and Media Formats for Data Interchange	9
5.13 PS 3.13: Retired (Formerly Print Management Point-to-point Communication Support)	9
5.14 PS 3.14: Grayscale Standard Display Function	9
5.15 PS 3.15: Security and System Management Profiles	10
5.16 PS 3.16: Content Mapping Resource	10
5.17 PS 3.17: Explanatory Information	10
5.18 PS 3.18: Web Access to DICOM Persistent Objects (WADO).....	10
Bibliography	11

Introduction

ACR (the American College of Radiology) and NEMA (the National Electrical Manufacturers Association) formed a joint committee in 1983 to develop a Standard for Digital Imaging and Communications in Medicine. The third release of this work received the name DICOM, for Digital Imaging and Communications in Medicine. This DICOM Standard was developed according to the NEMA Procedures in liaison with other Standardization Organizations including ISO/TC/215, CEN TC251 in Europe and JIRA in Japan, with review also by other organizations including IEEE, HL7 and ANSI in the USA. Several countries have been actively involved in the development of the DICOM Standard — in particular Canada, Germany, France, Italy, Japan, Korea, Taiwan and the United States of America. Contributions were received from more than 20 other countries. DICOM is used in most healthcare institutions worldwide where patient imaging is performed. Most imaging devices and imaging related information systems products support it.

Within health informatics, this International Standard addresses the exchange of digital images and related information between both medical imaging equipment and systems concerned with the management of that information.

This International Standard facilitates interoperability of systems claiming conformance. In particular, it:

- addresses the semantics of commands and associated data; for devices and systems to interact, there must be standards on how they are expected to behave in response to commands and associated data, not just the information which is to be moved between devices and systems;
- is explicit in defining the conformance requirements of implementations of this International Standard; in particular, a conformance statement has to specify enough information to determine the functions for which interoperability can be expected with another system claiming conformance;
- facilitates operation in a networked environment and in the area of media interchange;
- is structured to accommodate the introduction of new services, thus facilitating support for future medical imaging applications.

Even though this International Standard has largely facilitated the implementations of Picture Archiving and Communication Systems (PACS) solutions and integrated digital imaging departments, use of this International Standard alone does not guarantee that all the goals of such solutions will be met. This International Standard facilitates interoperability of systems claiming conformance in a multi-vendor environment, but does not, by itself, guarantee interoperability.

This International Standard has been developed with an emphasis on diagnostic medical imaging as practiced in radiology, cardiology and other imaging disciplines.

Health informatics — Digital imaging and communication in medicine (DICOM) including workflow and data management

1 Scope

Within the field of health informatics this International Standard addresses the exchange of digital images, and information related to the production and management of those images, between both medical imaging equipment and systems concerned with the management and communication of that information.

This International Standard is intended to facilitate interoperability of medical imaging equipment and information systems by specifying:

- a set of protocols to be followed by systems claiming conformance to this International Standard.
- the syntax and semantics of commands and associated information data models that ensure effective communication between implementations of this International Standard;
- information that shall be supplied with an implementation for which conformance to this International Standard is claimed.

This International Standard does not specify:

- the implementation details of any features of this International Standard on a device or systems for which conformance is claimed;
- the overall set of features and functions to be expected from a larger system implemented by integrating a group of devices and systems each claiming conformance to this International Standard;
- a testing/validation procedure to assess an implementation's conformance to this International Standard.

Within health informatics, both medical imaging systems and equipment concerned with the management and communication of medical image data may also be required to interoperate with systems in other areas of health informatics. The communication of these data with these other areas may be in the scope of other standards.

2 Terms and definitions

For the purposes of this document, the terms and definitions in DICOM Standard, PS 3 apply.