SLOVENSKI STANDARD
SIST EN ISO 11073-30200:2005

01-november-2005

Zdravstvena informatika ï Komunikacija medicinskih naprav na mestu oskrbe ï 30200. del: Transportni profil ï Kabelsko priključ en (ISO/IEEE 11073-30200:2004)

Health informatics - Point-of-care medical device communication - Part 30200: Transport profile - Cable connected (ISO/IEEE 11073-30200:2004)

Medizinische Informatik - Kommunikation patientennaher medizinischer Geräte - Teil 30200: Transportprofil - drahtgebundene Übertragung

Informatique de santé - Communication entre dispositifs médicaux sur le site des soins - Partie 30200: Profil de transport - Connexion par câble (ISO/IEEE 11073-30200:2004)

Ta slovenski standard je istoveten z: **EN ISO 11073-30200:2005**

ICS:

35.240.80	Uporabniške rešitve IT v zdravstveni tehniki	IT applications in health care technology

SIST EN ISO 11073-30200:2005 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 11073-30200

August 2005

ICS 35.240.80

English Version

Health informatics - Point-of-care medical device communication - Part 30200: Transport profile - Cable connected (ISO/IEEE 11073-30200:2004)

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Medizinische Informatik - Kommunikation patientennaher medizinischer Geräte - Teil 30200: Transportprofil - drahtgebundene Übertragung

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Foreword

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INTERNATIONAL STANDARD

ISO/IEEE 11073-30200

First edition
2004-12-15

Health informatics — Point-of-care medical device communication —

Part 30200: Transport profile — Cable connected

*Informatique de santé — Communication entre dispositifs médicaux sur le site des soins —
Partie 30200: Profil de transport — Connection par câble*

Reference number
ISO/IEEE 11073-30200:2004(E)

Health informatics — Point-of-care medical device communication — Part 30200: Transport profile — Cable connected

Sponsor

IEEE 1073™ Standard Committee

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IEEE Engineering in Medicine and Biology Society

Approved 30 January 2000

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Abstract: A connection-oriented transport profile and physical layer suitable for medical device communications in legacy devices is established. Communications services and protocols consistent with specifications of the Infrared Data Association are defined. These communication services and protocols are optimized for use in patient-connected bedside medical devices.
Keywords: bedside, Infrared Data Association, IrDA, legacy device, medical device, medical device communications, MIB, patient, SNTP

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Published 15 December 2004. Printed in the United States of America.

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Print: ISBN 0-7381-4519-X SH95303
PDF: ISBN 0-7381-4520-3 SS95303

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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.

A pilot project between ISO and the IEEE has been formed to develop and maintain a group of ISO/IEEE standards in the field of medical devices as approved by Council resolution 43/2000. Under this pilot project, IEEE is responsible for the development and maintenance of these standards with participation and input from ISO member bodies.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. Neither ISO nor the IEEE shall be held responsible for identifying any or all such patent rights.

ISO/IEEE 11073-30200:2004(E) was prepared by IEEE 1073 Committee of the IEEE Engineering in Medicine and Biology Society.

IEEE Introduction

This introduction is not part of ISO/IEEE 11073-30200:2004(E), Health informatics — Point-of-care medical device communication — Part 30200: Transport profile — Cable connected.

ISO/IEEE 11073 standards enable communication between medical devices and external computer systems. They provide automatic and detailed electronic data capture of patient vital signs information and device operational data. The primary goals are to:

— Provide real-time plug-and-play interoperability for patient-connected medical devices

— Facilitate the efficient exchange of vital signs and medical device data, acquired at the point-of-care, in all health care environments

"Real-time" means that data from multiple devices can be retrieved, time correlated, and displayed or processed in fractions of a second. "Plug-and-play" means that all the clinician has to do is make the connection — the systems automatically detect, configure, and communicate without any other human interaction.

"Efficient exchange of medical device data" means that information that is captured at the point-of-care (e.g., patient vital signs data) can be archived, retrieved, and processed by many different types of applications without extensive software and equipment support, and without needless loss of information. The standards are especially targeted at acute and continuing care devices, such as patient monitors, ventilators, infusion pumps, ECG devices, etc. They comprise a family of standards that can be layered together to provide connectivity optimized for the specific devices being interfaced.

ISO/IEEE 11073-30200:2004(E) defines a communications transport profile. This profile is for a cable-connected local area network (LAN) for the interconnection of computers and medical devices. This standard is suitable for new device designs, but is particularly targeted to modifications of legacy devices.

The term "legacy devices" refers to equipment that is

— Already in use in clinical facilities
— In active production at the facilities of medical device manufacturers, or
— Beyond the initial stages of engineering development

Specifically, this standard describes connection-oriented communications services and protocols consistent with standards of the Infrared Data Association (IrDA), adapted as appropriate for ISO/IEEE 11073 applications and optimized for use in patient-connected bedside medical devices.

ISO/IEEE 11073-30200:2004(E) is one part of the family of ISO/IEEE 11073 standards. It is compatible with the upper layer ISO/IEEE 11073 standards.

The primary users of this standard are technical personnel who are creating or interfacing with a medical device communications system. Familiarity with the ISO/IEEE 11073 family of standards is recommended. Familiarity with communications and networking technologies is also recommended.

This standard is intended to satisfy the following objectives:

a) Allow compatibility with existing medical device communications designs to minimize design risk, contain product costs, and simplify field upgrades
b) Specify hardware and software elements that are available from multiple vendors
c) Make use of other computer industry communication technology to allow for continuous cost decreases
d) Meet the requirements of IEEE Std 1073™-1996
e) Be compatible with the current published and draft ISO/IEEE standard upper layers

Notice to users

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Errata

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Interpretations

Current interpretations can be accessed at the following URL: http://standards.ieee.org/reading/ieee/interp/index.html.

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CONTENTS

1. Overview 1

1.1 Scope 2
1.2 Purpose 2
1.3 Standards compatibility 2
1.4 Audience 2

2. References 2

3. Definitions, acronyms, and abbreviations 4

3.1 Definitions 4
3.2 Acronyms and abbreviations 6

4. Goals for this standard 7

5. Architecture 7

5.1 Topology 7
5.2 Layering 9

6. Physical layer 9

7. Data link layer 10

7.1 IrLAP frame 10
7.2 Procedure model 11
7.3 Minimum data link layer requirements 12

8. Network layer 15

8.1 Discovery information 15
8.2 Information access requirements 17
8.3 Minimum IrLMP multiplexer requirements 19

9. Transport layer 20

9.1 Maximum transfer unit 20
9.2 Transport service requirements 21
9.3 MDDL service 22

10. Time synchronization 22

11. Labeling and conformance requirements 23

11.1 Labeling requirements 23
11.2 Conformance requirements 23

Annex A (normative) Physical layer 24

Annex B (informative) Maximum cable length 35

Annex C (informative) Modular connectors 37