



International
Standard

ISO/IEEE
11073-10471

**Health informatics — Device
interoperability —**

Part 10471:
**Personal health device
communication — Device
specialization — Independent living
activity hub**

Informatique de santé — Interopérabilité des dispositifs —

*Partie 10471: Communication entre dispositifs de santé
personnels — Spécialisation des dispositifs — Concentrateur
d'activités pour une vie autonome*

Second edition
2024-09

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This second edition cancels and replaces the first edition (ISO/IEEE 11073-10471:2010), which has been technically revised.

The main changes are as follows:

- added current value sensors (temperature, humidity, utility usage);
- added humidity alert sensor;
- added support for location sensors;
- added support for Base-Offset-Time;

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- added new location identifiers;
- incorporated location identifiers from ZigBee Home Automation and Health Care profiles;
- added new appliance identifiers;
- changed from bit string to simple OIDs to report events;
- updated the example to simple OID;
- changed supplementary types to have upper 11 bits for location and lower 5 bits for number to support more codes within partition;
- updated the version of this device specialization;
- updated the association details based on new version;
- updated the wording in 6.3 regarding the Not Allowed and Observational;
- added systematic names;
- tamper detected flag made a general health status flag for all sensors;
- enumeration codes provided to other systems (ZigBee);
- location RefId discriminator changed from parentheses ((3)->_3);
- encounter object added.

A list of all parts in the ISO 11073 series can be found on the ISO website.

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Abstract: Within the context of the ISO/IEEE 11073 family of standards for device communication, a normative definition of communication between personal telehealth independent living activity hub devices and compute engines (e.g., cell phones, personal computers, personal health appliances, set top boxes) in a manner that enables plug-and-play interoperability is established in this standard. Appropriate portions of existing standards, including ISO/IEEE 11073 terminology, information models, application profile standards, and transport standards are leveraged. The use of specific term codes, formats, and behaviors in telehealth environments restricting optionality in base frameworks in favor of interoperability are specified. A common core of communication functionality for personal telehealth independent living activity hubs is defined in this standard.

Keywords: IEEE 11073-10471™, independent living activity hub, medical device communication, personal health devices

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PDF: ISBN 978-1-5044-9825-8 STD26246
Print: ISBN 978-1-5044-9826-5 STDPD26246

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Introduction

This introduction is not part of IEEE Std 11073-10471-2023, IEEE Standard for Health informatics—Device Interoperability—Part 10471: Personal health device communication—Device specialization—Independent living activity hub.

ISO/IEEE 11073 standards enable communication between medical devices and external computer systems. This document uses the optimized framework created in ISO/IEEE 11073:20601 and describes a specific, interoperable communication approach for the Independent Living Activity Hub of personal health devices. These standards align with and draw on the existing clinically focused standards to provide support for communication of data from clinical or personal health devices (PHDs).

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Contents

1. Overview 1

 1.1 Scope 1

 1.2 Purpose 1

 1.3 Word usage 1

 1.4 Context 1

2. Normative references 2

3. Definitions, acronyms, and abbreviations 2

 3.1 Definitions 2

 3.2 Acronyms and abbreviations 3

4. Introduction to ISO/IEEE 11073 personal health devices 3

 4.1 General 3

 4.2 Introduction to IEEE Std 11073-20601 modeling constructs 4

 4.3 Compliance with other standards 4

5. Independent living activity hub device concepts and modalities 5

 5.1 General 5

 5.2 Concepts 5

 5.3 Collected data 6

 5.4 Reporting data from multiple persons 11

6. Independent living activity hub domain information model 12

 6.1 Overview 12

 6.2 Class extensions 12

 6.3 Object instance diagram 12

 6.4 Types of configuration 15

 6.5 Medical device system object 16

 6.6 Numeric objects 19

 6.7 Real-time sample array objects 33

 6.8 Enumeration objects 33

 6.9 PM-store objects 50

 6.10 Scanner objects 50

 6.11 Class extension objects 50

 6.12 Independent living activity hub information model extensibility rules 50

7. Independent living activity hub service model 51

 7.1 General 51

 7.2 Object access services 51

 7.3 Object access event report services 52

8. Independent living activity hub communication model 52

 8.1 Overview 52

 8.2 Communication characteristics 53

 8.3 Association procedure 53

 8.4 Configuring procedure 55

 8.5 Operating procedure 55

 8.6 Time synchronization 56

ISO/IEEE 11073-10471:2024(en)

9. Test associations	56
9.1 Behavior with standard configuration.....	56
9.2 Behavior with extended configurations	56
10. Conformance	57
10.1 Applicability	57
10.2 Conformance specification	57
10.3 Levels of conformance.....	57
10.4 Implementation conformance statements (ICSs)	58
Annex A (informative) Bibliography	62
Annex B (normative) Any additional ASN.1 definitions	63
Annex C (normative) Allocation of identifiers	66
C.1 Systematic derivations of terms and codes for independent living monitoring measurements	73
Annex D	100
(informative) Message sequence examples	100
Annex E (informative) Protocol data unit examples.....	102
E.1 General	102
E.2 Association information exchange	102
E.3 Configuration information exchange—extended configuration	104
E.4 GET MDS attributes service	106
E.5 Data reporting.....	107
E.6 Disassociation.....	108
Annex F (informative) Revision History	109

<https://standards.iteh.ai/catalog/standards/iso/80535b50-0590-4a9b-be29-9e6e8fd39816/iso-ieee-11073-10471-2024>