This document is a preview generated by EVS

Health informatics - Device interoperability - Part 10101: Point-of-care medical device communication - Nomenclature (ISO/IEEE 11073-10101:2020)

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 11073-10101:2020 sisaldab Euroopa standardi EN ISO 11073-10101:2020 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 11073-10101:2020 consists of the English text of the European standard EN ISO 11073-10101:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.09.2020.	Date of Availability of the European standard is 23.09.2020.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

This document is a preview generated by EVS

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 01.040.35, 35.240.80

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 11073-10101

September 2020

ICS 01.040.35; 35.240.80

Supersedes EN ISO 11073-10101:2005

English Version

Health informatics - Device interoperability - Part 10101: Point-of-care medical device communication - Nomenclature (ISO/IEEE 11073-10101:2020)

Informatique de santé - Interopérabilité des dispositifs - Partie 10101: Communication entre dispositifs médicaux sur le site des soins - Nomenclature (ISO/IEEE 11073-10101:2020)

Medizinische Informatik - Kommunikation patientennaher medizinischer Geräte - Teil 10101: Nomenklatur (ISO/IEEE 11073-10101:2020)

This European Standard was approved by CEN on 22 June 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

© 2020 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN ISO 11073-10101:2020 E

This document is a preview generated by EVS

European foreword

This document (EN ISO 11073-10101:2020) has been prepared by Technical Committee ISO/TC 215 "Health informatics" in collaboration with 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 March 2021, and conflicting national standards shall be withdrawn at the latest by March 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 11073-10101:2005.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO/IEEE 11073-10101:2020 has been approved by CEN as EN ISO 11073-10101:2020 without any modification.

This document is a preview generated by EVS

Introduction

This introduction is not part of IEEE Std 11073-10101-2019, Health informatics—Point-of-Care Medical Device Communication—Nomenclature.

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 focus on acute care devices, such as patient monitors, ventilators, infusion pumps, ECG devices, etc, and personal health devices and systems. They comprise a family of standards that can be layered together to provide connectivity optimized for the specific devices being interfaced.

IEEE Std 11073-10101 was originally published in 2004 in conjunction with the International Organization for Standardization (ISO). In 2015, IEEE published an amendment that expanded the nomenclature and definitions covered in the standard to reflect the continued innovation in medical device and system design. This 2019 revision integrates the amendment into the original text and further updates and expands the nomenclature and definitions.

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

Contents

1. Scope 20

2. Normative references 20

3. Terms, definitions, symbols, and abbreviated terms 22
3.1 Terms and definitions 22
3.2 Symbols and abbreviated terms 22

4. Conformance 25

5. Introduction to the standard 25

6. Application 25

7. Semantics 26
7.1 Attribution 26
7.2 Coding 27
7.2.1 Context-sensitivity 27
7.2.2 Grouping 28
7.3 Synonyms 29
7.4 Deprecated terms 29
7.5 Withdrawn terms 29

8. Syntax 29
8.1 Transfer 29
8.1.1 Types 29
8.1.2 Notation 30
8.2 Programmatic form 32
8.2.1 Attribution 32
8.2.2 Notation 32

9. Extensibility 33

10. Version exporting 33

Annex A (normative) Nomenclature semantics 34
A.1 Overview of nomenclature for vital signs—Semantics 34
A.2 Code assignment to the MDIB elements 35
A.2.1 Overview 35
A.2.2 Relationship to other standards 35
A.2.3 Basic rules 35
A.2.4 Coding spaces 36
A.3 Data dictionary and codes for object-oriented modeling elements (Partition 1) 45
A.3.1 Introduction 45
A.3.2 Object-oriented modeling elements: inventory tables 46
A.4 Data dictionary and codes for communication infrastructure (Partition 8) 79
A.4.1 Introduction 79
A.4.2 Communication infrastructure: inventory tables 79
A.5 Nomenclature, data dictionary, and codes for vital signs devices (Partition 1) 84
A.5.1 Introduction 84
A.5.2 Base concepts 85

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

A.5.3 First set of differentiating criteria 85
A.5.4 Second set of differentiating criteria 86
A.5.5 Third set of differentiating criteria 86
A.5.6 Attributes 87
A.5.7 Device class discriminator 87
A.5.8 Code table 87
A.6 Terminology and codes for units of measurement (Partition 4) 98
A.6.1 Introduction 98
A.6.2 Orders of magnitude discriminator 98
A.6.3 Units outside of SI 99
A.6.4 Units of measurement 100
A.6.5 Withdrawn terms for vital signs units of measurement 122
A.6.6 Deprecated terms for vital signs units of measurement 123
A.6.7 Deprecated RefIds for Vital Signs Units of Measurement 124
A.7 Nomenclature, data dictionary, and codes for metrics (measurements and enumerations) (Partition 2) 125
A.7.1 Nomenclature for ECG measurements 125
A.7.2 Nomenclature for ECG enumerations 157
A.7.3 Nomenclature, data dictionary, and codes for haemodynamic monitoring measurements 173
A.7.4 Nomenclature and codes for respiratory, ventilator, and anesthesia measurements 192
A.7.5 Nomenclature, data dictionary, and codes for common blood-gas, blood, urine, and other fluid chemistry measurements 273
A.7.6 Nomenclature, data dictionary, and codes for fluid output measurements 288
A.7.7 Nomenclature, data dictionary, and codes for pumps 292
A.7.8 Nomenclature, data dictionary, and codes for neurological monitoring measurements 309
A.7.9 Nomenclature, data dictionary, and codes for neurophysiologic enumerations 322
A.7.10 Nomenclature, data dictionary, and codes for stimulation modes 346
A.7.11 Nomenclature, data dictionary, and codes for miscellaneous measurements 353
A.7.12 Nomenclature and code extensions for infant incubator and warmer microenvironments 360
A.7.13 Nomenclature, data dictionary, and codes for spirometry 362
A.7.14 Nomenclature and code extensions for personal health devices 372
A.8 Nomenclature, data dictionary, and codes for body sites (Partition 7) 377
A.8.1 Introduction 377
A.8.2 Sites for neurophysiological signal monitoring: locations near peripheral nerves 378
A.8.3 Sites for neurophysiological signal monitoring: locations near muscles 392
A.8.4 Sites for EEG-electrode placement on the head 430
A.8.5 Sites for EOG signal monitoring 438
A.8.6 Sites for general neurological monitoring measurements and drainage 443
A.8.7 Sites for cardiovascular measurements 445
A.8.8 Miscellaneous sites used in vital signs monitoring and measurement 451
A.8.9 Equipment sites used in vital signs monitoring and measurement 466
A.8.10 Qualifiers of body site locations 468
A.9 Nomenclature, data dictionary, and codes for events and alerts (Partition 3) 472
A.9.1 Introduction 472
A.9.2 Diagnostic pattern events 472
A.9.3 Device-related and environment-related events 483
A.10 Systematic derivations of terms and codes for infrastructure (Partition 8) 519
A.10.1 Introduction 519
A.10.2 Base concepts, device specialization 519
A.10.3 Base concepts, device sub-specialization 523
A.10.4 Base concepts, time synchronization profiles 526
A.11 Systematic derivations of terms and codes for personal health devices disease management (Partition 128) 527
A.11.1 Introduction 527
A.11.2 Base concepts, general device properties 527
A.11.3 Base concepts, Basic ECG sensors and status 528

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

A.11.4 Base concepts, Basic ECG event context 528
A.11.5 Base concepts, SABTE sensors and settings 529
A.11.6 Base concepts, SABTE modes 540
A.11.7 Base concepts, Glucose Monitoring, carbohydrate source 542
A.11.8 Base concepts, Glucose Monitoring, carbohydrate source 543
A.11.9 Base concepts, Glucose Monitoring, carbohydrate sources 543
A.11.10 Base concepts, Glucose Monitoring, insulin type 545
A.11.11 Base concepts, Glucose Monitoring, insulin types 546
A.11.12 Base concepts, Glucose Monitoring, general health 547
A.11.13 Base concepts, Glucose Monitoring, general health 548
A.11.14 Base concepts, Glucose Monitoring, sample location 549
A.11.15 Base concepts, Glucose Monitoring, sample locations 549
A.11.16 Base concepts, Glucose Monitoring, meal 551
A.11.17 Base concepts, Glucose Monitoring, meal type 552
A.11.18 Base concepts, Glucose Monitoring, tester 553
A.11.19 Base concepts, Glucose Monitoring, tester type 554
A.11.20 INR Status and Context 554
A.11.21 Base concepts, Continuous Glucose Monitoring 556
A.11.22 Base concepts, Continuous Glucose Monitoring, status 558
A.11.23 Base concepts, Continuous Glucose Monitoring, device 559
A.11.24 Base concepts, Insulin Pump, sensors 560
A.11.25 Base concepts, Power StatusMonitor, sensors 563
A.11.26 Base concepts, Power Status Monitor, battery 564
A.11.27 Base concepts, Peak Expiratory Flow 565
A.12 Systematic derivations of terms and codes for health and fitness (Partition 129) 566
A.12.1 Introduction 566
A.12.2 Base concepts 566
A.12.3 First set of differentiating criteria, sensors 566
A.12.4 Second set of differentiating criteria, activity 570
A.12.5 First set of differentiating criteria, exercise 572
A.12.6 Second set of differentiating criteria, exercise 572
A.13 Systematic derivations of terms and codes for independent living monitoring measurements (Partition 130) 575
A.13.1 Introduction 575
A.13.2 Base concepts 575
A.13.3 First set of differentiating criteria, sensor 575
A.13.4 Second set of differentiating criteria, location, general 579
A.13.5 Second set of differentiating criteria, location, room 581
A.13.6 Second set of differentiating criteria, location, medical room 584
A.13.7 Second set of differentiating criteria, location, doors and windows 586
A.13.8 Second set of differentiating criteria, location, furniture 587
A.13.9 Second set of differentiating criteria, location, appliance 588
A.13.10 Third set of differentiating criteria, AI events 590
A.13.11 First set of differentiating criteria, sensors, medication dispenser 593
A.14 Nomenclature for error return codes (Partition 255) 595
A.14.1 Base concepts 595
A.14.2 First set of differentiating criteria 595
A.14.3 Code table 595
A.14.4 Withdrawn terms for error return codes 596
A.15 Nomenclature, data dictionary, and codes for external nomenclatures and messaging standards (Partition 256) 597
A.15.1 Introduction 597
A.15.2 Base concepts 597
A.15.3 First set of differentiating criteria 597
A.15.4 Second set of differentiating criteria 598
A.15.5 Third set of differentiating criteria 598

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

A.15.6 Discriminator 598
A.15.7 Code table 598
A.16 Information attributes to support IHE PCD DEC and PCHA/Continua Services Interface (Partition 1 and Partition 8) 602
A.16.1 Information attributes to support IHE PCD Alert Communication Management 602
A.16.2 Notification attributes to support IHE PCD Alert Communication Management 602
A.16.3 Infrastructure attributes to support PCHA/Continua Services Interface and IHE PCD DEC 602
A.16.4 Information attributes to support PCHA/Continua Services Interface 604
A.16.5 Information attributes to support IHE PCD DEC and PCHA/Continua Services Interface timekeeping 604
A.16.6 Information attributes to support semantics defined by this standard 607
A.16.7 Information attributes to support ECG semantics defined by this standard 607

Annex B (normative) Nomenclature syntax 608
B.1 General 608
B.1.1 Notation 608
B.1.2 Partition codes 608
B.2 Object infrastructure and device nomenclature – Partition 1 609
B.2.1 Object infrastructure 609
B.2.2 Device nomenclature 630
B.3 Medical supervisory control and data acquisition (SCADA) – Partition 2 650
B.3.1 Discriminator ranges 650
B.3.2 SCADA Term Codes 651
B.4 Events – Partition 3 722
B.5 Dimensions – Partition 4 741
B.6 Virtual attributes – Partition 5 761
B.7 Parameter groups – Partition 6 761
B.8 Body Sites – Partition 7 761
B.9 Communication infrastructure – Partition 8 802
B.10 File Exchange Format – Partition 9 810
B.11 ECG Extension – Partition 10 810
B.12 ICDO Extension – Partition 11 810
B.13 PHD Disease Management – Partition 128 810
B.14 PHD Health Fitness – Partition 129 820
B.15 PHD Aging Independently – Partition 130 824
B.16 Return Codes – Partition 255 835
B.17 External nomenclature – Partition 256 836
B.18 Device Settings – Partition 258 837
B.19 Device Predicted Values – Partition 514 840

Annex C (normative) Terms, discriminators, and numeric codes 843
C.1 Overview 843
C.2 Discriminators 843
C.3 Discriminator sets 844
C.3.1 Device Type [MVC] discriminator set 844
C.3.2 Statistical [MMM] discriminator set 844
C.3.3 Haemodynamic pressure measurements [SDM] discriminator set 844
C.3.4 Rates for countable events [RCE] discriminator set 845
C.3.5 Rates for countable neurological events [RCN] discriminator set 845
C.3.6 Body Site Orientation (laterally) [LAT] discriminator set 845
C.3.7 Unit of Measure [UoM] discriminator set 846
C.3.8 Unit of Measure (singular) [UoM1] discriminator 846
C.3.9 No [1] Discriminator 847
C.3.10 Event [2] discriminator set 847
C.3.11 Statistical profile [PN3] discriminator set 847

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

C.3.12 Location [LOC] discriminator set 848
C.3.13 Version of External Nomeclature [64] Discriminator 849
C.3.14 ECG lead designation from ISO/IEEE 11073-10101:2004 [LEAD1] discriminator set 849
C.3.15 ECG lead designation from ISO/IEEE 11073-10102:2012 [LEAD2] discriminator set 852
C.3.16 Equivalent ECG lead designations in ISO/IEEE 11073-10101:2004 and ISO/IEEE 11073-10102:2012 [LEAD] discriminator set 857
C.3.17 Comparison of ECG lead discriminators in ISO/IEEE 11073-10101:2004 and ISO/IEEE 11073-10102:2012 859
C.4 Alphabetical listing of terms, discriminators, and numeric codes 862
C.4.1 Object-Oriented – Partition 1 862
C.4.2 Supervisory Control and Data Acquisition (SCADA) – Partition 2 895
C.4.3 Events and Alerts – Partition 3 950
C.4.4 Dimensions – Partition 4 965
C.4.5 Parameter Groups – Partition 6 981
C.4.6 Body Sites – Partition 7 981
C.4.7 Communication Infrastructure—Partition 8 1014
C.4.8 PHD Disease Management—Partition 128 1019
C.4.9 PHD Health Fitness—Partition 129 1025
C.4.10 PHD Aging Independently—Partition 130 1028
C.4.11 Return Codes—Partition 255 1036
C.4.12 External Nomenclature—Partition 256 1036
C.4.13 Device Settings—Partition 258 1037
C.4.14 Predicted Values—Partition 514 1040

Annex D (informative) Synonyms 1042
D.1.1 Term code Synonyms 1042
D.1.2 RefId synonyms 1042

Annex E (informative) Breaths and inflations 1044

Annex F (informative) Respiratory, ventilator, and anesthesia RefId naming conventions 1046

Annex G (informative) Anesthesia ventilation and breathing circuits 1048
G.1 Bellows driven on expiratory side 1050
G.2 Piston driven on inspiratory side 1051
G.3 Mapleson circuits 1052

Annex H (informative) Term approval and management process 1053
H.1 Term approval and management process 1053
H.1.1 Proposed term 1054
H.1.2 Proposed term review 1054
H.1.3 Provisional term 1054
H.1.4 Provisional term review 1054
H.1.5 Rejected term 1054
H.1.6 Accepted term 1054
H.1.7 IEEE Ballot 1054
H.1.8 Published term 1055
H.1.9 Deprecated term 1055
H.1.10 Withdrawn term 1055
H.2 Rosetta Terminology Mapping Management System (RTMMS) 1055
H.3 Right to use 1055

Annex I (informative) Bibliography 1057

Annex J (informative) Revision history 1059

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

Tables

Table 1—Nomenclature attributes 26
Table 2—Attribution example 26
Table 3—Systematic name derivation—medical device type example 27
Table A.2.4.1.1—Partition 1—Object-oriented elements, Device nomenclature 37
Table A.2.4.2.1—Partition 2—Metrics (multipage table) 37
Table A.2.4.3.1—Partition 3—Alerts and events 39
Table A.2.4.4.1—Partition 4—Units of measurement (dimensions) 39
Table A.2.4.6.1—Partition 6—Program group 40
Table A.2.4.7.1—Partition 7—Body sites 40
Table A.2.4.8.1—Partition 8—Communication infrastructure 41
Table A.2.4.9.1—Partition 9—Reserved for file exchange format (FEF) 41
Table A.2.4.10.1—Partition 10—ECG additional nomenclature (annotated ECG) 41
Table A.2.4.11.1—Partition 11—IDCO nomenclature 41
Table A.2.4.12.1—Partition 128—PHD disease management 42
Table A.2.4.13.1—Partition 129—PHD health and fitness 42
Table A.2.4.14.1—Partition 130—PHD aging independently 43
Table A.2.4.15.1—Partition 255—Return codes 43
Table A.2.4.16.1—Partition 256—External nomenclatures 43
Table A.2.4.17.1—Partition 258—Settings 44
Table A.2.4.18.1—Partition 514—Predicted values 44
Table A.2.4.19.1—Partition 1024—Private 44
Table A.3.2.1.1—Object-oriented modeling elements—General—object class items 46
Table A.3.2.1.2—Object-oriented modeling elements—General—attributes 47
Table A.3.2.1.3—Object-oriented modeling elements—General—attribute groups 47
Table A.3.2.1.4—Object-oriented modeling elements—General—behavior 47
Table A.3.2.1.5—Object-oriented modeling elements—General—notifications 47
Table A.3.2.2.1—Object-oriented modeling elements—Medical Package—object class items 47
Table A.3.2.2.2—Object-oriented modeling elements—Medical Package—attributes *(multipage table)* ... 48
Table A.3.2.2.3—Object-oriented modeling elements—Medical Package—attribute groups 52
Table A.3.2.2.4—Object-oriented modeling elements—Medical Package—behavior 52
Table A.3.2.2.5—Object-oriented modeling elements—Medical Package—notifications 52
Table A.3.2.3.1—Object-oriented modeling elements—Alert Package—object class items 53
Table A.3.2.3.2—Object-oriented modeling elements—Alert Package—attributes 53
Table A.3.2.3.3—Object-oriented modeling elements—Alert Package—attribute groups 53
Table A.3.2.3.4—Object-oriented modeling elements—Alert Package—behavior 53
Table A.3.2.3.5—Object-oriented modeling elements—Alert Package—notifications 54
Table A.3.2.4.1—Object-oriented modeling elements—System Package—object class items 54
Table A.3.2.4.2—Object-oriented modeling elements—System Package—attributes *(multipage table)* 54
Table A.3.2.4.3—Object-oriented modeling elements—System Package—attribute groups 56
Table A.3.2.4.4—Object-oriented modeling elements—System Package—behavior 57
Table A.3.2.4.5—Object-oriented modeling elements—System Package—notifications 57
Table A.3.2.5.1—Object-oriented modeling elements—Control Package—object class items 57
Table A.3.2.5.2—Object-oriented modeling elements—Control Package—attributes *(multipage table)* 57
Table A.3.2.5.3—Object-oriented modeling elements—Control Package—attribute groups 59
Table A.3.2.5.4—Object-oriented modeling elements—Control Package—behavior 59
Table A.3.2.5.5—Object-oriented modeling elements—Control Package—notifications 59
Table A.3.2.6.1—Object-oriented modeling elements—Extended Services Package—object class items 59
Table A.3.2.6.2—Object-oriented modeling elements—Extended Services Package—attributes 60
Table A.3.2.6.3—Object-oriented modeling elements— Extended Services Package—attribute groups ... 60
Table A.3.2.6.4—Object-oriented modeling elements—Extended Services Package—behavior 61
Table A.3.2.6.5—Object-oriented modeling elements— Extended Services Package—notifications 61
Table A.3.2.7.1—Object-oriented modeling elements—Communication Package— object class items 61

Tiivistelmä on tarkoitettu vain esikatselua varten © EVS

Copyright © 2019 IEEE. All rights reserved.

Table A.3.2.7.2—Object-oriented modeling elements—Communication Package—attributes *(multipage table)* 62
Table A.3.2.7.3—Object-oriented modeling elements— Communication Package—attribute groups 63
Table A.3.2.7.4—Object-oriented modeling elements—Communication Package—behavior 63
Table A.3.2.7.5—Object-oriented modeling elements—Communication Package—notifications 63
Table A.3.2.8.1—Object-oriented modeling elements—Archival Package—object class items 63
Table A.3.2.8.2—Object-oriented modeling elements—Archival Package—attributes *(multipage table)* 64
Table A.3.2.8.3—Object-oriented modeling elements—Archival Package—attribute groups 65
Table A.3.2.8.4—Object-oriented modeling elements—Archival Package—behavior 65
Table A.3.2.8.5—Object-oriented modeling elements—Archival Package—notifications 65
Table A.3.2.9.1—Object-oriented modeling elements—Patient Package—object class items 65
Table A.3.2.9.2—Object-oriented modeling elements—Patient Package—attributes *(multipage table)* 66
Table A.3.2.9.3—Object-oriented modeling elements—Patient Package—attribute groups 67
Table A.3.2.9.4—Object-oriented modeling elements—Patient Package—behavior 67
Table A.3.2.9.5—Object-oriented modeling elements—Patient Package—notifications 67
Table A.3.2.10.1—Object-oriented modeling elements—PHD—object class items 68
Table A.3.2.10.2—Object-oriented modeling elements—PHD—attributes *(multipage table)* 68
Table A.3.2.10.3—Object-oriented modeling elements—PHD—attribute groups 70
Table A.3.2.10.4—Object-oriented modeling elements—PHD-behavior 71
Table A.3.2.10.5—Object-oriented modeling elements—PHD—notifications 71
Table A.3.2.11.1—Object-oriented modeling elements—WCM—object class items 72
Table A.3.2.11.2—Object-oriented modeling elements—WCM—attributes *(multipage table)* 72
Table A.3.2.11.3—Object-oriented modeling elements—WCM—attribute groups 74
Table A.3.2.11.4—Object-oriented modeling elements—WCM—behavior 74
Table A.3.2.11.5—Object-oriented modeling elements—WCM—notifications 74
Table A.3.2.12.1—Object-oriented modeling elements—MEM-LS—object class items 74
Table A.3.2.12.2—Object-oriented modeling elements—MEM-LS—attributes *(multipage table)* 75
Table A.3.2.12.3—Object-oriented modeling elements—MEM-LS—attribute groups 77
Table A.3.2.12.4—Object-oriented modeling elements—MEM-LS—behavior 77
Table A.3.2.12.5—Object-oriented modeling elements—MEM-LS—notifications 77
Table A.3.2.13.1—Object-oriented modeling elements—USI—object class items 77
Table A.3.2.13.2—Object-oriented modeling elements—USI—attributes 77
Table A.3.2.13.3—Object-oriented modeling elements—USI—attribute groups 77
Table A.3.2.13.4—Object-oriented modeling elements—USI—behavior 78
Table A.3.2.13.5—Object-oriented modeling elements—USI—notifications 78
Table A.3.2.14.1—Object-oriented modeling elements—Deprecated identifier terms 78
Table A.4.1—Communication infrastructure—object class items 79
Table A.4.2—Communication infrastructure—attributes *(multipage table)* 80
Table A.4.3—Communication infrastructure—attribute groups 82
Table A.4.4—Communication infrastructure—behavior 82
Table A.4.5—Communication infrastructure—notifications 83
Table A.4.6—Communication infrastructure—profile support attributes 83
Table A.4.7—Communication infrastructure—optional package identifiers 83
Table A.4.8—Communication infrastructure—system specification components 83
Table A.5.1—Nomenclature and codes for vital signs devices *(multipage table)* 88
Table A.6.2.1—Table of decimal factors 99
Table A.6.3.1—Non-SI units *(multipage table)* 99
Table A.6.4.1—Vital signs units of measurement *(multipage table)* 101
Table A.6.5.1—Withdrawn terms for vital signs units of measurement 122
Table A.6.6.1—Deprecated terms for vital signs units of measurement 123
Table A.6.7.1—Deprecated RefIds for vital signs units of measurement 124
Table A.7.1.3.1—List of standardized ECG <lead> descriptors from SCP-ECG *(multipage table)* 130
Table A.7.1.3.2—Nomenclature and codes for ECG lead descriptors from IEEE Std 11073-10101-2004 with discriminator group [LEAD1] *(multipage table)* 132

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

Table A.7.1.3.3—Nomenclature and codes for ECG lead descriptors from IEEE Std 11073-10102 with discriminator group [LEAD2] *(multipage table)* 135
Table A.7.1.6.1—Nomenclature and codes for global lead ECG measurements *(multipage table)* 144
Table A.7.1.6.2—Nomenclature and codes for ECG measurements with lead origin *(multipage table)* 151
Table A.7.1.7.1—Deprecated terms for ECG measurements 156
Table A.7.1.8.1—Deprecated RefIds for ECG measurements defined in IEEE11073-10102 156
Table A.7.2.6.1—Nomenclature and codes for ECG enumerations *(multipage table)* 160
Table A.7.2.7.1—Withdrawn terms for ECG enumerations 171
Table A.7.2.8.1—Deprecated terms for ECG enumerations 171
Table A.7.2.9.1—Deprecated RefIds for ECG enumerations 172
Table A.7.3.6.1—Nomenclature and codes for haemodynamic monitoring measurements *(multipage table)* 176
Table A.7.3.7.1—Deprecated terms for haemodynamic monitoring measurements 191
Table A.7.4.11.1—Ventilator modes bit string *(multipage table)* 200
Table A.7.4.11.2—Ventilator modes nomenclature and codes *(multipage table)* 202
Table A.7.4.16.1—Correction of gas measurements 206
Table A.7.4.17.1—Gas measurement sites 207
Table A.7.4.17.2—Default gas measurement sites 207
Table A.7.4.18.1—Inspiratory breath type classifications 209
Table A.7.4.19.1—Deployment of gas partial pressure and concentration and consumption information (informative) 210
Table A.7.4.19.2—Nomenclature and codes for respiratory, ventilator, and anesthesia measurements *(multipage table)* 211
Table A.7.4.20.1—Deprecated terms for respiratory measurements 258
Table A.7.4.21.1—Deprecated RefIds for respiratory measurements 258
Table A.7.4.22.1—Recommended mapping of deprecated to ‘unified’ gas RefId prefixes (informative) 259
Table A.7.4.23.1—Deprecated terms for respiratory measurements *(multipage table)* 260
Table A.7.4.24.1—Deprecated RefIds for respiratory measurements *(multipage table)* 265
Table A.7.4.25.1—Deprecated nomenclature for undefined respiratory measurements from Annex B 269
Table A.7.4.26.1—Nomenclature and codes for nebulizers *(multipage table)* 270
Table A.7.5.6.1—Nomenclature and codes for common blood-gas, blood, urine, and other fluid chemistry measurements *(multipage table)* 276
Table A.7.5.7.1—Withdrawn terms for blood-gas, blood, urine, and other fluid chemistry measurements 287
Table A.7.5.8.1—Deprecated RefIds for blood-gas, blood, urine, and other fluid chemistry measurements 287
Table A.7.6.6.1—Nomenclature and codes for fluid-output measurements *(multipage table)* 290
Table A.7.7.6.1—Nomenclature and codes for pump data *(multipage table)* 297
Table A.7.7.7.1—Deprecated RefIds for pump data 302
Table A.7.7.13.1—Pump modes bit string values (value to be communicated in enumeration observation element Mode | | Device | Pump) 305
Table A.7.7.19.1—Pump states bit string values (value to be communicated in EnumerationObservation with code: Status | Operational | Device | Pump) 308
Table A.7.8.6.1—Nomenclature and codes for neurological monitoring measurements *(multipage table)* 313
Table A.7.9.6.1—Nomenclature and codes for neurophysiologic enumerations *(multipage table)* 330
Table A.7.10.6.1—Nomenclature and codes for neurophysiologic stimulation modes *(multipage table)* 349
Table A.7.11.6.1—Nomenclature and codes for miscellaneous measurements 355
Table A.7.11.6.2—Nomenclature and codes for temperature *(multipage table)* 356
Table A.7.11.7.1—Deprecated nomenclature for temperature 357
Table A.7.11.8.1—Body weight and surface area for pre-coordinated RefIds 358
Table A.7.11.9.1—Nomenclature and codes for body mass (weight) and estimates 359
Table A.7.12.1.1—Nomenclature and code extensions for infant incubator and warmer microenvironments *(multipage table)* 360
Table A.7.13.6.1—Nomenclature and codes for spirometry measurements *(multipage table)* 364

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

Table A.7.14.1.1—Nomenclature and code extensions for personal health devices *(multipage table)*.....372
Table A.7.14.2.1—Deprecated RefIds for personal health devices.....376
Table A.8.2.5.1—Nomenclature and codes for sites for neurophysiological signal monitoring: locations near peripheral nerves *(multipage table)*.....381
Table A.8.3.5.1—Nomenclature and codes for sites for neurophysiological signal monitoring: locations near or in muscles *(multipage table)*.....398
Table A.8.4.6.1—Nomenclature and codes for electrode sites for EEG according to the international 10–20 system *(multipage table)*.....433
Table A.8.5.6.1—Nomenclature and codes for sites for EOG signal monitoring *(multipage table)*.....441
Table A.8.6.5.1—Nomenclature and codes for general neurological sites for monitoring measurements and drainage.....444
Table A.8.7.5.1—Nomenclature and codes for body sites for cardiovascular measurements *(multipage table)*.....447
Table A.8.8.5.1—Nomenclature and codes for miscellaneous body sites used in vital signs monitoring and measurement *(multipage table)*.....454
Table A.8.9.5.1—Nomenclature and codes for external sites used in vital signs monitoring and measurement.....467
Table A.8.10.6.1—Nomenclature and codes for qualifiers of body site locations *(multipage table)*.....470
Table A.9.2.5.1—Nomenclature and codes for pattern events *(multipage table)*.....475
Table A.9.3.5.1—Nomenclature and codes for device-related and environment-related events *(multipage table)*.....491
Table A.9.3.6.1—Deprecated terms for device-related and environment-related events.....518
Table A.9.3.7.1—Deprecated RefIds for device-related and environment-related events.....518
Table A.10.2.3.1—Nomenclature and codes for infrastructure, device specialization *(multipage table)*.....520
Table A.10.2.4.1—Withdrawn terms for device specialization.....522
Table A.10.3.3.1—Nomenclature and codes for Infastructure, sub-specialization *(multipage table)*.....523
Table A.10.4.3.1—Time synchronization profiles.....526
Table A.11.2.3.1—Nomenclature and codes for PHD Disease Management, general.....527
Table A.11.3.3.1—Nomenclature and codes for PHD Disease Management, Basic ECG sensors.....528
Table A.11.4.3.1—Nomenclature and codes for PHD Disease Management, Basic ECG event context.....529
Table A.11.5.3.1—Nomenclature and codes for PHD Disease Management, SABTE sensors and settings *(multipage table)*.....530
Table A.11.5.4.1—Withdrawn terms for PHD Disease Management, SABTE sensors and settings *(multipage table)*.....536
Table A.11.6.3.1—Nomenclature and codes for PHD Disease Management, SABTE mode settings *(multipage table)*.....540
Table A.11.7.3.1—Nomenclature and codes for PHD Disease Management, Glucose carbohydrate source.....542
Table A.11.8.3.1—Nomenclature and codes for PHD Disease Management, Glucose carbohydrate source.....543
Table A.11.9.3.1—Nomenclature and codes for PHD Disease Management, Glucose moncarbohydrate sources.....544
Table A.11.10.3.1—Nomenclature and codes for PHD Disease Management, Glucose Monitoring, insulin type.....545
Table A.11.11.3.1—Nomenclature and codes for PHD Disease Management, insulin types.....546
Table A.11.12.3.1—Nomenclature and codes for PHD Disease Management, general health.....547
Table A.11.13.3.1—Nomenclature and codes for PHD Disease Management, general health.....548
Table A.11.14.3.1—Nomenclature and codes for PHD Disease Management, Glucose Monitoring, sample location.....549
Table A.11.15.3.1—Nomenclature and codes for PHD Disease Management, Glucose Monitoring, sample locations.....550
Table A.11.16.3.1—Nomenclature and codes for PHD Disease Management, Glucose Monitoring, meal.....551
Table A.11.17.3.1—Nomenclature and codes for PHD Disease Management, Glucose Monitoring, meal types.....552

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

Table A.11.18.3.1—Nomenclature and codes for PHD Disease Management, Glucose Monitoring, tester 553
Table A.11.19.3.1—Nomenclature and codes for PHD Disease Management, Glucose Monitoring, tester types 554
Table A.11.20.3.1—Nomenclature and codes for PHD Disease Management, INR status and context 555
Table A.11.21.3.1—Nomenclature and codes for PHD Disease Management, CGM sensors *(multipage table)* 556
Table A.11.22.3.1—Nomenclature and codes for PHD Disease Management, CGM sensors 558
Table A.11.23.3.1—Nomenclature and codes for PHD Disease Management, CGM device 559
Table A.11.24.3.1—Nomenclature and codes for PHD Disease Management, Insulin Pump *(multipage table)* 560
Table A.11.24.4.1—Deprecated term codes for PHD Disease Management, Insulin Pump 562
Table A.11.25.4.1—Nomenclature and codes for PHD Disease Management, PSM device 563
Table A.11.26.2.1—Nomenclature and codes for PHD Disease Management, PSM device 564
Table A.11.27.3.1—Nomenclature and codes for PHD Disease Management, PEF status 565
Table A.12.3.2.1—Nomenclature and codes for health and fitness sensors *(multipage table)* 567
Table A.12.3.3.1—Deprecated terms for PHD disease management, health and fitness *(multipage table)* 569
Table A.12.4.2.1—Nomenclature and codes for health and fitness activity *(multipage table)* 570
Table A.12.5.2.1—Nomenclature and codes for health and fitness exercise 572
Table A.12.6.2.1—Nomenclature and codes for health and fitness specific exercise 573
Table A.12.6.3.1—Deprecated terms for health and fitness exercise 574
Table A.13.3.2.1—Nomenclature and codes for assisted living sensors *(multipage table)* 577
Table A.13.4.3.1—Nomenclature and codes AI locations, general 580
Table A.13.5.3.1—Nomenclature and codes AI locations, rooms *(multipage table)* 581
Table A.13.6.3.1—Nomenclature and codes AI locations, medical rooms *(multipage table)* 585
Table A.13.7.3.1—Nomenclature and codes AI locations, doors and windows 587
Table A.13.8.3.1—Nomenclature and codes for AI locations, furniture 588
Table A.13.9.3.1—Nomenclature and codes for AI locations, appliances *(multipage table)* 589
Table A.13.10.2.1—Nomenclature and codes for AI events *(multipage table)* 591
Table A.13.11.3.1—Nomenclature and codes AI medication dispenser 594
Table A.14.3.1—Nomenclature for error return codes *(multipage table)* 595
Table A.14.4.1—Withdrawn nomenclature for error return codes 596
Table A.15.7.1—Nomenclature and codes for external nomenclatures and messaging standards *(multipage table)* 599
Table A.16.1.1—IHE PCD Alert Communication Management attributes 602
Table A.16.2.1—IHE PCD Alert Communication Management Notifications 602
Table A.16.3.1—Continua Services Interface infrastructure attributes 603
Table A.16.4.1—Continua Services Interface information attributes 604
Table A.16.5.1—IHE PCD and Continua Services Interface timekeeping information attributes *(multipage table)* 605
Table A.16.6.1—Breathing circuit attributes 607
Table A.16.6.2—Calculation method attribute 607
Table A.16.7.1—ECG nomenclature attributes 607
Table C.3.1.1—Device Type [MVC] discriminator set 844
Table C.3.2.1—Statistical [MMM] discriminator set 844
Table C.3.3.1—Haemodynamic pressure measurements [SDM] discriminator set 844
Table C.3.4.1—Rates for countable events [RCE] discriminator set 845
Table C.3.5.1—Rates for countable neurological events [RCN] discriminator set 845
Table C.3.6.1—Body Site Orientation (laterally) [LAT] discriminator set 845
Table C.3.7.1—Units of Measure [UoM] discriminator set 846
Table C.3.8.1—Unit of Measure (singular) [UoM1] discriminator set 846
Table C.3.9.1—No Discriminator [1] discriminator set 847
Table C.3.10.1—Event Discriminator [EVT] discriminator set 847
Table C.3.11.1—Statistical profile [PN3] discriminator set 847
Table C.3.12.1—Location Discriminator [LOC] discriminator set 848

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

Table C.3.13.1—Version of External Nomenclature Discriminator [64] 849
Table C.3.14.1—ECG lead discriminators [LEAD1] from ISO/IEEE 11073-10101:2004 *(multipage table)* 849
Table C.3.15.1—ECG lead discriminators [LEAD2] from ISO/IEEE 11073-10102:2012 *(multipage table)* 852
Table C.3.16.1—Equivalent ECG lead discriminators [LEAD] in ISO/IEEE 11073-10101:2004 and ISO/IEEE 11073-10102:2012 *(multipage table)* 857
Table C.3.17.1—Comparison of ECG lead discriminators in ISO/IEEE 11073-10101:2004 and ISO/IEEE 11073-10102:2012 *(multipage table)* 859
Table C.4.1.1—Object-Oriented—Partition 1 *(multipage table)* 862
Table C.4.2.1—SCADA—Partition 2 *(multipage table)* 895
Table C.4.3.1—Events and Alerts—Partition 3 *(multipage table)* 950
Table C.4.4.1—Dimensions—Partition 4 *(multipage table)* 965
Table C.4.5.1—Parameter Groups—Partition 6 981
Table C.4.6.1—Body Sites—Partition 7 *(multipage table)* 981
Table C.4.7.1—Communication Infrastructure—Partition 8 *(multipage table)* 1014
Table C.4.8.1—PHD Disease Management—Partition 128 *(multipage table)* 1019
Table C.4.9.1—PHD Health Fitness—Partition 129 *(multipage table)* 1025
Table C.4.10.1—PHD Aging Independently—Partition 130 *(multipage table)* 1028
Table C.4.11.1—Return Codes—Partition 255 1036
Table C.4.12.1—External Nomenclature—Partition 256 *(multipage table)* 1036
Table C.4.13.1—Device Settings—Partition 258 *(multipage table)* 1037
Table C.4.14.1—Predicted Values—Partition 514 *(multipage table)* 1040
Table D.1.1.1—Term code synonyms 1042
Table D.1.1.2—Term code synonyms 1042
Table D.1.2.1—RefId synonyms 1043
Table E.1—Inspiratory breath and inflation types and rates 1045
Table G.1—Gas measurement sites and anesthesia breathing circuit components (normative) 1049
Table J.1—Revision history 1059

Preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

Figures

Figure 1—Context-sensitive coding illustration 28
Figure 2—IEEE numbered series standards ISO ASN.1 OID assignments 30
Figure 3—IEEE 11073-10101-2004 ISO ASN.1 OID assignments 31
Figure 4—HL7 ISO ASN.1 OID assignments 31
Figure A.7.1.1—Basic form 126
Figure A.7.1.2—Multiform P Wave, 3 Extrema 126
Figure A.7.1.3—Multiform QRS 126
Figure A.7.1.4—ST-T morphologies 127
Figure A.7.1.5—Example for measurement of ventricular activation time at different QRS 128
Figure A.7.1.6—Ventricular activation time 129
Figure A.7.4.1—Gas concentration and partial pressure measurement locations 207
Figure A.7.4.2—Relationship between breaths and Inflations 208
Figure A.8.5.1—Schematic diagram of the EOG electrode positions 438
Figure E.1—Bi-Level pressure waveform with patient <P/> and <S/> breaths 1044
Figure G.1—Example of bellows-driven ventilator and circuit 1050
Figure G.2—Example of piston-driven ventilator and circuit 1051
Figure G.3—Mapleson circuits 1052
Figure H.1—Term approval and management process 1053

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

This document is a preview generated by EVS

Health informatics—Point-of-care medical device communication

Part 10101: Nomenclature

1. Scope

This standard defines a nomenclature for communication of information from point-of-care medical devices. Primary emphasis is placed on acute care medical devices and patient vital signs information. The nomenclature also supports concepts in an object-oriented information model that is for medical device communication.

2. Normative references

The following normative documents contain provisions that, through reference in this text, constitute provisions of ISO/IEEE 11073-10101. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on ISO/IEEE 11073-10101 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid international standards.

IEEE Std 1073™, IEEE Standard for Medical Device Communications—Overview and Framework. [1,2]

IEEE Std 11073-10102™-2012, Health informatics—Point-of-care medical device communication—Part 10102: Nomenclature—Annotated ECG.

IEEE Std 11073-10103™-2012, Health informatics—Point-of-care medical device communication—Part 10103: Nomenclature—Implantable device, cardiac.

ISO/IEC 8824 (all parts), Information technology — Abstract Syntax Notation One (ASN.1).[3]

ISO/IEC 8825 (all parts), Information technology —ASN.1 encoding rules.

[1] IEEE publications are available from The Institute of Electrical and Electronics Engineers, Inc. (http://standards.ieee.org/).
[2] The IEEE standards or products referred to in Clause 2 are trademarks owned by The Institute of Electrical and Electronics Engineers, Incorporated.
[3] ISO/IEC documents can be obtained from the International Organization for Standardization (http://www.iso.ch/), International Electrotechnical Commission (http://www.iec.ch/), and the American National Standards Institute (http://www.ansi.org/).

Copyright © 2019 IEEE. All rights reserved.

ISO/IEC 9596-1, Information technology — Open systems interconnection — Common Management Information Protocol — Part 1: Specification.

ISO/IEEE 11073-10201, Health informatics — Point-of-care medical device communication — Part 10201: Domain information model (referred to hereinafter as the “DIM”).

ISO/IEEE 11073-20101, Health informatics — Point-of-care medical device communication — Part 20101: Application profiles – Base standard.

ISO/IEEE 11073-20601, Health informatics — Personal health device communication — Part 20601: Application profile—Optimized Exchange Protocol

ISO/IEEE 11073-10404, Health informatics — Personal health device communication — Part 10404: Device specialization — Pulse Oximeter

ISO/IEEE 11073-10406, Health informatics — Personal health device communication — Part 10406: Device specialization — Basic electrocardiograph (ECG) (1- to 3-lead ECG)

ISO/IEEE 11073-10407, Health informatics — Personal health device communication — Part 10407: Device specialization — Blood Pressure

ISO/IEEE 11073-10408, Health informatics — Personal health device communication — Part 10408: Device specialization — Thermometer

ISO/IEEE 11073-10415, Health informatics — Personal health device communication — Part 10415: Device specialization — Weighing Scale

ISO/IEEE 11073-10417, Health informatics — Personal health device communication — Part 10417: Device specialization — Glucose Meter

ISO/IEEE 11073-10418, Health informatics — Personal health device communication — Part 10418: Device specialization — International Normalized Ratio (INR) monitor

ISO/IEEE 11073-10419, Health informatics — Personal health device communication — Part 10419: Device specialization — Insulin Pump

ISO/IEEE 11073-10420, Health informatics — Personal health device communication — Part 10420: Device specialization — Body composition analyzer

ISO/IEEE 11073-10421, Health informatics — Personal health device communication — Part 10421: Device specialization — Peak expiratory flow monitor (peak flow)

ISO/IEEE 11073-10422, Health informatics — Personal health device communication — Part 10422: Device specialization — Urine analyzer

ISO/IEEE 11073-10424, Health informatics — Personal health device communication — Part 10424: Device specialization — Sleep Apnoea Breathing Therapy Equipment (SABTE)

ISO/IEEE 11073-10425, Health informatics — Personal health device communication — Part 10425: Device specialization — Continuous Glucose Monitor (CGM)

ISO/IEEE 11073-10427, Health informatics — Personal health device communication — Part 10427: Device specialization — Power Status Monitor of Personal Health Devices

This document is a preview generated by EVS

Copyright © 2019 IEEE. All rights reserved.

ISO/IEEE 11073-10441, Health informatics — Personal health device communication — Part 10441: Device specialization — Cardiovascular fitness and activity monitor

ISO/IEEE 11073-10442, Health informatics — Personal health device communication — Part 10442: Device specialization — Strength fitness equipment

ISO/IEEE 11073-10471, Health informatics — Personal health device communication — Part 10471: Device specialization — Independent living activity hub

ISO/IEEE 11073-10472, Health informatics — Personal health device communication — Part 10472: Device specialization — Medication monitor

3. Terms, definitions, symbols, and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply. The *IEEE Standards Dictionary Online* should be consulted for terms not defined in this clause.[4]

base term: A fundamental semantic concept.

co-constraint: A rule describing a constraint whose scope is inclusive of more than one term.

corollary: A semantic and a syntactical representation that are correlated by a unique code.

discriminators: A mechanism to provide additional semantic refinement to multiple base terms.

domain information model (DIM): The model describing common concepts and relationships for a problem domain.

reference identifier (RefId): A unique, symbolic, and programmatic form for the term. The form is correlated to the context-free code (i.e., terms are by definition context-free with respect to all other terms); in this standard, terms are prefixed with “MDC_” for consistency.

systematic name: An organization of differentiating, relational descriptors that are unique for each term.

terminology: A synonym for nomenclature.

tuple: A component of a relation; e.g., a 2-tuple has two relational components.

unique: Nonredundant.

3.2 Symbols and abbreviated terms

AI	aging independently
aka	also known as
API	application program interface

[4] *IEEE Standards Dictionary Online* is available at http://dictionary.ieee.org.

Copyright © 2019 IEEE. All rights reserved.

This document is a preview generated by EVS