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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

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Conformance of ITU-T H.810 personal health devices: PAN/LAN/TAN interface Part 2: Optimized exchange protocol: Manager

Recommendation ITU-T H.842

International Telecommunication Union

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Recommendation ITU-T H.842

Conformance of ITU-T H.810 personal health devices: PAN/LAN/TAN interface Part 2: Optimized exchange protocol: Manager

Summary

Recommendation ITU-T H.842 is a transposition of Continua Test Tool DG2013, Test Suite Structure & Test Purposes, PAN-LAN-TAN Interface; Part 2: Optimized Exchange Protocol. Manager (Version 1.4, 2014-01-24), that was developed by the Continua Health Alliance. A number of versions of this specification existed before transposition.

This Recommendation includes an electronic attachment with the protocol implementation conformance statements (PICS) and the protocol implementation extra information for testing (PIXIT) required for the implementation of Annex A.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T H.842	2015-01-13	16	11.1002/1000/12259

* To access the Recommendation, type the URL http://handle.itu.int/ in the address field of your web browser, followed by the Recommendation's unique ID. For example, http://handle.itu.int/11.1002/1000/11830-en.

FOREWORD

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NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure, e.g., interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

Table of Contents

Electronic attachment: Protocol implementation conformance statements (PICS) and protocol implementation extra information for testing (PIXIT) required for the implementation of Annex A.

Introduction

This Recommendation is a transposition of Continua Test Tool DG2013, Test Suite Structure & Test Purposes, PAN-LAN-TAN Interface; Part 2: Optimized Exchange Protocol. Manager (Version 1.4, 2014-01-24), that was developed by the Continua Health Alliance. A number of versions of this specification existed before transposition and these can be found in the table below.

Version	Date	Revision history
1.2	2012-10-05	Initial release for Test Tool DG2011. This is the same version as "TSS&TP_1.5_PAN-LAN_PART_2_v1.2.doc" because new features included in [b-CDG 2011] do not affect the test procedures specified in this document.
1.3	2013-05-24	Initial release for Test Tool DG2012. This uses "TSS&TP_DG2011_PAN-LAN_PART_2_v1.2.doc" as a baseline and adds new features included in [b-CDG 2012]: • Adds glucose meter new spec version • Adds body composition analyser device specialization • Adds basic electrocardiograph device specialization
1.4	2014-01-24	Initial release for Test Tool DG2013. This uses "TSS&TP_DG2012_PAN-LAN_PART_2_v1.3.doc" as a baseline and adds new features included in [ITU-T H.810]: • Adds glucose meter BLE • Adds BLE SSP support • Adds NFC new transport • Adds INR Device Specialization

Recommendation ITU-T H.842

Conformance of ITU-T H.810 personal health devices: PAN/LAN/TAN interface Part 2: Optimized exchange protocol: Manager

1 Scope

The scope of this Recommendation[1] is to provide a test suite structure and the test purposes (TSS & TP) for the PAN/LAN/TAN interface based on the requirements defined in the Continua Design Guidelines (CDG) [ITU-T H.810]. The objective of this test specification is to provide a high probability of air interface interoperability between different devices.

The TSS & TP for the PAN/LAN/TAN interface document have been divided into 10 parts. Each part is listed below:

– **Part 1**: Optimized exchange protocol [ISO/IEEE 11073-20601A]. Agent
– **Part 2**: Optimized exchange protocol [ISO/IEEE 11073-20601A]. Manager
– **Part 3**: Continua design guidelines. Agent
– **Part 4**: Continua design guidelines. Manager
– **Part 5**: Device specializations. Agent. This document is divided into 12 subparts:
  - **Part 5A**: Weighing scales
  - **Part 5B**: Glucose meter
  - **Part 5C**: Pulse oximeter
  - **Part 5D**: Blood pressure monitor
  - **Part 5E**: Thermometer
  - **Part 5F**: Cardiovascular fitness and activity monitor
  - **Part 5G**: Strength fitness equipment
  - **Part 5H**: Independent living activity hub
  - **Part 5I**: Adherence monitor
  - **Part 5J**: Insulin pump (future development)
  - **Part 5K**: Peak flow
  - **Part 5L**: Body composition analyser
  - **Part 5M**: Basic electrocardiograph
  - **Part 5N**: International normalized ratio monitor
– **Part 6**: Device specializations. Manager
– **Part 7**: Continua design guidelines. Agent BLE
– **Part 8**: Continua design guidelines. Manager BLE
– **Part 9**: Personal health devices transcoding whitepaper. Agent
– **Part 10**: Personal health devices transcoding whitepaper. Manager

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[1] This Recommendation includes an electronic attachment with the protocol implementation conformance statements (PICS) and the protocol implementation extra information for testing (PIXIT) required for the implementation Annex A.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T H.810] Recommendation ITU-T H.810 (2013), *Interoperability design guidelines for personal health systems*.

[IEEE 11073-10417] IEEE 11073-10417-2009, *Health informatics – Personal health device communication Part 10417: Device specialization – Glucose meter*.
<http://standards.ieee.org/findstds/standard/11073-10417-2009.html>

[ISO/IEEE 11073-10420] ISO/IEEE 11073-10420:2012, *Health informatics – Personal health device communication Part 10420: Device specialization – Body composition analyzer*.

[ISO/IEEE 11073-20601A] ISO/IEEE 11073-20601:2010, *Health informatics – Personal health device communication – Part 20601: Application profile – Optimized exchange protocol*, including ISO/IEEE 11073-20601:2010 Amd 1:2015.
<http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=54331>
with
<http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=63972>

[ISO/IEEE 11073-104xx] ISO/IEEE 11073-104xx (in force), *Health informatics – Personal health device communication – Device specialization.*
NOTE – This is shorthand used to refer to the collection of device specialization standards that utilize [ISO/IEEE 11073-20601A], where xx can be any number from 01 to 99, inclusive.

[ISO/IEEE 11073-10404] ISO/IEEE 11073-10404:2010, *Health informatics – Personal health device communication Part 10404: Device specialization – Pulse oximeter.*

[ISO/IEEE 11073-10407] ISO/IEEE 11073-10407:2010, *Health informatics – Personal health device communication Part 10407: Device specialization – Blood pressure monitor.*

[ISO/IEEE 11073-10408] ISO/IEEE 11073-10408:2010, *Health informatics – Personal health device communication Part 10408: Device specialization – Thermometer.*

[ISO/IEEE 11073-10415] ISO/IEEE 11073-10415:2010, *Health informatics – Personal health device communication Part 10415: Device specialization – Weighing scale.*

[ISO/IEEE 11073-10421] ISO/IEEE 11073-10421:2012, *Health informatics – Personal health device communication Part 10421: Device specialization – Peak expiratory flow monitor.*

[ISO/IEEE 11073-10472] ISO/IEEE 11073-10472-2012, *Health informatics – Personal health device communication – Part 10472: Device specialization – Medication monitor*.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1 agent [ISO/IEEE 11073-20601A]: A node that collects and transmits personal health data to an associated manager.

3.1.2 manager [ISO/IEEE 11073-20601A]: A node receiving data from one or more agent systems. Some examples of managers include a cellular phone, health appliance, set top box, or a computer system.

3.2 Terms defined in this Recommendation

None.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

ATS	Abstract Test Suite
DUT	Device Under Test
CDG	Continua Design Guidelines
GUI	Graphical User Interface
INR	International Normalized Ratio
IUT	Implementation Under Test
MDS	Medical Device System
NFC	Near Field Communication
PAN	Personal Area Network
PCT	Protocol Conformance Testing
PCO	Point of Control and Observation
PHD	Personal Healthcare Device
PHDC	Personal Healthcare Device Class
PHM	Personal Health Manager
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation extra Information for Testing
SDP	Service Discovery Protocol
SOAP	Simple Object Access Protocol
TCRL	Test Case Reference List
TCWG	Test and Certification Working Group
TP	Test Purpose

TSS Test Suite Structure

USB Universal Serial Bus

WDM Windows Driver Model

5 Conventions

The key words "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "MAY", "MAY NOT" in this document are to be interpreted as in [b-ETSI SR 001 262]:

– SHALL is equivalent to 'must' or 'it is required to'.

– SHALL NOT is equivalent to 'must not' or 'it is not allowed'.

– SHOULD is equivalent to 'it is recommended to'.

– SHOULD NOT is equivalent to 'it is not recommended to'.

– MAY is equivalent to 'is permitted'.

– MAY NOT is equivalent to 'it is not required that'.

NOTE – The above-mentioned key words are capitalized for illustrative purposes only and they do not appear capitalized within this Recommendation.

Reference is made in the ITU-T H.800-series of Recommendations to different versions of the Continua Design Guidelines (CDG) by a specific designation. The list of terms that may be used in this Recommendation is provided in Table 1.

Table 1 – List of designations associated with the various versions of the CDG.

CDG name	Transposed as	Version	Description	Designation
2013 plus errata	ITU-T H.810	4.1	CDG 2013 plus errata noting all ratified bugs.	–
2013	–	4.0	Release 2013 of the CDG including maintenance updates of CDG 2012 and additional guidelines that cover new functionalities.	Endorphin
2012 plus errata	–	3.1	CDG 2012 plus errata noting all ratified bugs [b-CDG 2012].	–
2012	–	3.0	Release 2012 of the CDG including maintenance updates of CDG 2011 and additional guidelines that cover new functionalities.	Catalyst
2011 plus errata	–	2.1	CDG 2011 integrated with identified errata.	–
2011	–	2.0	Release 2011 of the CDG including maintenance updates of CDG 2010 and additional guidelines that cover new functionalities [b-CDG 2011].	Adrenaline
2010 plus errata	–	1.6	CDG 2010 integrated with identified errata.	–
2010	–	1.5	Release 2010 of the CDG with maintenance updates of CDG Version 1	1.5

Table 1 – List of designations associated with the various versions of the CDG.

CDG name	Transposed as	Version	Description	Designation
			and additional guidelines that cover new functionalities [b-CDG 2010].	
1.0	–	1.0	First released version of the CDG [b-CDG 1.0].	-

6 Test suite structure (TSS)

The test purposes (TPs) for the PAN/LAN/TAN interface have been divided into the main subgroups specified below. Annex A describes the TPs for subgroups 2.2.1, 2.2.2, 2.2.3 and 2.2.4 (shown in bold).

– Group 1: Agent (AG)
  - Group 1.1: Transport (TR)
    - Subgroup 1.1.1: Design guidelines: Common (DGC)
    - Subgroup 1.1.2: USB design guidelines (UDG)
    - Subgroup 1.1.3: Bluetooth design guidelines (BDG)
    - Subgroup 1.1.4: Pulse oximeter design guidelines (PODG)
    - Subgroup 1.1.5: Cardiovascular design guidelines (CVDG)
    - Subgroup 1.1.6: Activity hub design guidelines (HUBDG)
    - Subgroup 1.1.7: ZigBee design guidelines (ZDG)
    - Subgroup 1.1.8: Glucose meter design guidelines (GLDG)
    - Subgroup 1.1.9: Bluetooth low energy design guidelines (BLEDG)
    - Subgroup 1.1.10: Basic electrocardiograph design guidelines (ECGDG)
    - Subgroup 1.1.11: NFC design guidelines (NDG)
  - Group 1.2: Optimized exchange protocol (OXP)
    - Subgroup 1.2.1: PHD domain information model (DIM)
    - Subgroup 1.2.2: PHD service model (SER)
    - Subgroup 1.2.3: PHD communication model (COM)
  - Group 1.3: Devices class specializations (CLASS)
    - Subgroup 1.3.1: Weighing scales (WEG)
    - Subgroup 1.3.2: Glucose meter (GL)
    - Subgroup 1.3.3: Pulse oximeter (PO)
    - Subgroup 1.3.4: Blood pressure monitor (BPM)
    - Subgroup 1.3.5: Thermometer (TH)
    - Subgroup 1.3.6: Cardiovascular (CV)
    - Subgroup 1.3.7: Strength (ST)
    - Subgroup 1.3.8: Activity hub (HUB)
    - Subgroup 1.3.9: Adherence monitor (AM)
    - Subgroup 1.3.10: Insulin pump (IP) (Future development)
    - Subgroup 1.3.11: Peak flow (PF)

- Subgroup 1.3.12: Body composition analyser (BCA)
- Subgroup 1.3.13: Basic electrocardiograph (ECG)
- Subgroup 1.3.14: International normalized ratio (INR)

- Group 1.4: Personal health device transcoding whitepaper (PHDTW)
  - Subgroup 1.4.1: Whitepaper general requirements (GEN)
  - Subgroup 1.4.2: Whitepaper thermometer requirements (TH)
  - Subgroup 1.4.3: Whitepaper blood pressure requirements (BPM)
  - Subgroup 1.4.4: Whitepaper heart rate requirements (HR)
  - Subgroup 1.4.5: Whitepaper glucose meter requirements (GL)

– Group 2: Manager (MAN)

- Group 2.1: Transport (TR)
  - Subgroup 2.1.1: Design guidelines: common (DGC)
  - Subgroup 2.1.2: USB design guidelines (UDG)
  - Subgroup 2.1.3: Bluetooth design guidelines (BDG)
  - Subgroup 2.1.4: Cardiovascular design guidelines (CVDG)
  - Subgroup 2.1.5: Activity hub design guidelines (HUBDG)
  - Subgroup 2.1.6: ZigBee design guidelines (ZDG)
  - Subgroup 2.1.7: Bluetooth low energy design guidelines (BLEDG)
  - Subgroup 2.1.8: NFC design guidelines (NDG)
- Group 2.2: 20601: Optimized exchange protocol (OXP)
  - **Subgroup 2.2.1**: **General (GEN)**
  - **Subgroup 2.2.2**: **PHD domain information model (DIM)**
  - **Subgroup 2.2.3**: **PHD service model (SER)**
  - **Subgroup 2.2.4**: **PHD communication model (COM)**
- Group 2.3: Devices class specializations (CLASS)
  - Subgroup 2.3.1: Weighing scales (WEG)
  - Subgroup 2.3.2: Glucose meter (GL)
  - Subgroup 2.3.3: Pulse oximeter (PO)
  - Subgroup 2.3.4: Blood pressure monitor (BPM)
  - Subgroup 2.3.5: Thermometer (TH)
  - Subgroup 2.3.6: Cardiovascular (CV)
  - Subgroup 2.3.7: Strength (ST)
  - Subgroup 2.3.8: Activity hub (HUB)
  - Subgroup 2.3.9: Adherence monitor (AM)
  - Subgroup 2.3.10: Insulin pump (IP) (Future development)
  - Subgroup 2.3.11: Peak flow (PF)
  - Subgroup 2.3.12: Body composition analyser (BCA)
  - Subgroup 2.3.13: Basic electrocardiograph (ECG)
  - Subgroup 2.3.14: International normalized ratio (INR)
- Group 2.4: Personal health device transcoding whitepaper (PHDTW)
  - Subgroup 2.4.1: Whitepaper general requirements (GEN)

- Subgroup 2.4.2: Whitepaper thermometer requirements (TH)
- Subgroup 2.4.3: Whitepaper blood pressure measurement requirements (BPM)
- Subgroup 2.4.4: Whitepaper heart rate requirements (HR)
- Subgroup 2.4.5: Whitepaper glucose meter requirements (GL)

7 Electronic attachment

The protocol implementation conformance statements (PICS) and the protocol implementation extra information for testing (PIXIT) required for the implementation of this Annex can be downloaded from http://handle.itu.int/11.1002/2000/12067.

In the electronic attachment, letters "C" and "I" in the column labelled "Mandatory" are used to distinguish between "PICS" and "PIXIT" respectively during testing. If the cell is empty, the corresponding PICS is "independent". If the field contains a "C", the corresponding PICS is dependent on other PICS and the logical expression is detailed in the "SCR_Expression" field. The static conformance review (SCR) is used in the test tool to assert whether the PICS selection is consistent.

Annex A

Test purposes (TPs)

(This annex forms an integral part of this Recommendation.)

A.1 TP definition conventions

The test purposes are defined according to the following rules:

- **TP Id**: This is a unique identifier (TP/<TT>/<DUT>/<GR>/<SGR>/<XX> – <NNN>). It is specified according to the naming convention defined below:
  - Each test purpose identifier is introduced by the prefix "TP".
  - <TT>: This is the test tool that will be used in the test case:
    - PAN: Personal area network (Bluetooth or USB)
    - LAN: Local area network (ZigBee)
    - PAN-LAN: Personal area network (Bluetooth or USB) - Local area network (ZigBee)
    - LP-PAN: Low power personal area network (Bluetooth low energy)
    - TAN: Touch area network (NFC)
    - PLT: Personal area network (Bluetooth or USB) – Local area network (ZigBee) – Touch area network (NFC)
  - <DUT>: This is the device under test:
    - AG: PAN/LAN Agent
    - MAN: PAN/LAN Manager
  - <GR>: This identifies a group of test cases.
  - <SGR>: This identifies a subgroup of test cases.
  - <XX>: This identifies the type of testing:
    - BV: Valid behaviour test
    - BI: Invalid behaviour test
  - <NNN>: This is a sequential number that identifies the test purpose.
- **TP label**: This is the TP's title.
- **Coverage**: This contains the specification reference and clause to be checked by the TP:
  - Spec: This indicates the earliest version of the specification from which the testable items to be checked by the TP were included.
  - Testable item: This contains the testable items to be checked by the TP.
- **Test purpose**: This is a description of the requirements to be tested.
- **Applicability**: This contains the PICS items that define if the test case is applicable or not for a specific device. When a TP contains an "ALL" in this field it means that it applies to the device under test within that scope of the test (specialization, transport used, etc.).
- **Initial condition**: This indicates the state to which the DUT needs to be moved at the beginning of TC execution.
- **Test procedure**: This describes the steps to be followed in order to execute the test case.
- **Pass/Fail criteria**: This provides criteria to decide whether the DUT passes or fails the test case.

A.2 Subgroup 2.2.1: General (GEN)

There are no test cases defined in this subgroup.

A.3 Subgroup 2.2.2: PHD domain information model (DIM)

TP Id		TP/PLT/MAN/OXP/DIM/BV-000_A
TP label		Episodic Scanner object not supported
Coverage	**Spec**	[ISO/IEEE 11073-20601A]
	Testable items	
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_001)
Initial condition		The simulated agent and the manager under test are in the unassociated state.
Test procedure		1. The simulated agent sends an Association Request to the manager. 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to an extended Config-Id, including a episodic scanner object. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or a Release Request or Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state and the manager is forced to enable the scanner object. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the manager is forced to enable the scanner object.
Pass/Fail criteria		• In step 2 or step 3.a, the manager does not move to the operating state • In step 3.b or step 4, the manager does not send the Set action to enable the scanner object
Notes		

TP Id		TP/PLT/MAN/OXP/DIM/BV-000_B
TP label		Periodic Scanner object not supported
Coverage	**Spec**	[ISO/IEEE 11073-20601A]
	Testable items	
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_006)
Initial condition		The simulated agent and the manager under test are in the unassociated state.
Test procedure		1. The simulated agent sends an Association Request to the manager. 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to an extended Config-Id, including a periodic scanner object. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or a Release Request or an Abort THEN the manager shall not move to operating state and the test procedure ends.

	b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state and the manager is forced to enable the scanner object. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the manager is forced to enable the scanner object.
Pass/Fail criteria	• In step 2 or step 3.a, the manager does not move to the operating state • In step 3.b or step 4, the manager does not send the Set action to enable the scanner object
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-000_C		
TP label		PM-Store object not supported		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items			
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_003)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager. 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to an extended Config-Id, including a PM-Store object. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or a Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state and the manager is forced to trigger (Trig-Segment-Data-Xfer) the PM-Store. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the manager is forced to trigger (Trig-Segment-Data-Xfer) the PM-Store.		
Pass/Fail criteria		• In step 2 or step 3.a, the manager does not move to the operating state • In step 3.b or step 4, the manager does not send the Trig-Segment-Data-Xfer action • Once in the operating state, the manager does send actions for the PM-Store (Get-Segment-Info, Clear-Segment or GET for PM-Store object)		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-001		
TP label		Manager configuring a real-time clock		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	MDSMethod 3;M	AbsTime 6; C	AbsTime 18; M
	Spec	[ITU-T H.810]		
	Testable items	Communication 14;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state. The agent		

	has the MDSTimeInfo attribute with the mds-time-mgr-set-time and mds-time-capab-set-clock bits set.
Test procedure	1. The simulated agent sends an Association Request to the manager under test. 2. IF the manager under test sends a GET request while it is in the configuring state, within TO_{config} seconds the manager shall set the time of the simulated agent, ELSE wait until the operating state is reached. 3. If the manager under test did not send a GET request, then force the manager under test to request MDS attributes. 4. The simulated agent sends a rors-cmip-get with MDS attributes (with the mds-time-mgr-set-time bit set). 5. After receiving MDS attributes within TO_{config} seconds, the Manager under test shall set the time of the simulated agent: a. Data APDU ❑ Type = Remote Operation Invoke | Confirmed Action ❑ Handle = 0 (MDS object) ❑ Action = 0x0C 0x17 (MDC_ACT_SET_TIME) ❑ SetTimeInvoke = SEQUENCE: ▪ date-time.length = 8 bytes ▪ date-time.value = <Record for comparison> ▪ Accuracy = 0
Pass/Fail criteria	• The format of the received message must be the one specified • Verify that the time is set to the time of the manager under test • Verify that Set-Time is sent within the TOconfig time period after receiving the rors-cmip-get with MDS attributes, in the configuring state (step2) or the operating state (step 5)
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-001_A		
TP label		Manager configuring a Base-Offset-Time clock		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	MDSMethod 5;M	AbsTime 18; M	
Applicability		C_MAN_OXP_000 AND (C_MAN_OXP_029 OR C_MAN_OXP_030)		
Initial condition		The simulated agent and the manager under test are in the unassociated state. The agent has the MDSTimeInfo attribute with the mds-time-capab-set-clock(1), mds-time-capab-bo-time(7) and mds-time-mgr-set-time(11) bits set.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test. 2. IF the manager under test sends a GET request while it is in the configuring state, within TO_{config} seconds the manager shall set the time of the simulated agent, ELSE wait until the operating state is reached. 3. If the manager under test did not send a GET request, then force the manager under test to request MDS attributes. 4. The simulated agent sends a rors-cmip-get with MDS attributes (the bits mds-time-capab-bo-time(7) and mds-time-mgr-set-time(11) are set). 5. After receiving MDS attributes within TO_{config} seconds, the manager under test shall set the time of the simulated agent: a. Data APDU ❑ Type = Remote Operation Invoke | Confirmed Action ❑ Handle = 0 (MDS object) ❑ Action = 0x0C 0x17 (MDC_ACT_SET_BO_TIME)		

	❑ SetBOTimeInvoke = SEQUENCE: ▪ date-time.length = 8 bytes ▪ date-time.value = <Record for comparison>
Pass/Fail criteria	• The format of the received message must be the one specified • Verify that the time is set to the time of the manager under test • Verify that a Set-Base-Offset-Time is sent within the TOconfig time period after receiving the rors-cmip-get with MDS attributes, in the Configuring state (step2) or the operating state (step 5)
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-002		
TP label		MDS services. Manager requesting MDS object attributes		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	MDSService 3;O	MDSService 5; R	ConfEventRep 5; O
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends and Association Request to the manager under test with an extended dev-config-id previously unknown to the manager. 2. The manager under test sends an AARE with an "accepted-unknown-config". 3. Check that the manager under test has sent the GET request while it is in the configuring state. 4. The simulated agent sends a configuration event report . 5. The manager responds to the configuration event report and reaches the operating state. 6. If the manager under test did not automatically send a GET request for the MDS object or if it has not sent the GET request while in the configuring state, force the manager under test to send a GET to the MDS. 7. Whether the above Get request was sent via automatic behavior or was forced, the received message from the agent shall be: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= <Not relevant for this Test> c. CHOICE ❑ field-value = 0x01 0x03 (Remote Operation Invoke | Get) d. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = 0 e. attribute-id-list ❑ count = 0x00 0x00 ❑ length = 0x00 0x00		

Pass/Fail criteria	• The format of the received message shall be the one specified • It is recommended that the GET MDS is received while manager under test is in the configuring state. Note: If the GET request for the MDS object is received from the manager under test while in the configuring state, it is checked in accordance step 7 above.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-004_A		
TP label		PM-Store object methods. Clear-Segments method 1 (all-segment).		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreMeth 9; O	PM-StoreMeth 18; O	PM-StoreMeth 24; C
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND (C_MAN_OXP_040 OR C_MAN_OXP_041 OR C_MAN_OXP_042)		
Initial condition		The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab bits 4 and 10 set.		
Test procedure		IF a UI feature exists such that the manager can clear the segments: 1. Make the manager under test perform a Clear Segment with parameter all-segments. IF the manager under test can clear the segments automatically after a transfer, then perform the action to clear the segments. Either way: 2. The simulated agent receives the message: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= This value identifies the message; the confirmed response that will be sent by the simulated agent shall have the same invoke-id. c. CHOICE ❑ value = 0x01 0x07 (roiv-cmip-confirmed-action) d. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <Handle of an existing PM-Store> e. action-type ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0C 0x0C (MDC_ACT_SEG_CLR) f. action-info-args ❑ SegmSelection = ▪ all-segments (0)		
Pass/Fail criteria		The format of the received message must be the one specified above.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-004_B		
TP label		PM-Store Class methods. Clear-Segments method 2 (Time Range).		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreMeth 9; O	PM-StoreMeth 18; O	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_041		
Initial condition		The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab bits 4, 8 and 10 set.		
Test procedure		IF a UI feature exists such that the manager can clear the segments: 1. Make the manager under test perform a Segment Clear with parameter SegmSelection = AbsTimeRange IF the manager under test can clear the segments automatically after a transfer, perform the action. Either way: 2. Make the manager under test perform a Segment Clear by time range. 3. The simulated agent receives the message: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= This value identifies the message; the confirmed response that will be sent by the simulated agent shall have the same invoke-id. c. CHOICE ❑ value = 0x01 0x07 (roiv-cmip-confirmed-action) d. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <Handle of an existing PM-Store> e. action-type ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0C 0x0C (MDC_ACT_SEG_CLR) f. action-info-args ❑ SegmSelection = AbsTimeRange ▪ from-time = AbsTime ▪ to-time = AbsTime		
Pass/Fail criteria		The format of the received message must be the one specified above.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-004_C		
TP label		PM-Store Class methods. Clear-Segments method 3 (segm-id-list)		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreMeth 9; O	PM-StoreMeth 18; O	

Applicability	C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_042
Initial condition	The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab bits 4, 7 and 10 set.
Test procedure	IF a UI feature exists such that the manager can clear the segments: 1. Make the manager under test perform a Segment Clear with parameter SegmSelection = segm-id-list. IF the manager under test can clear the segments automatically after a transfer, perform the action. Either way: 2. Make the manager under test perform a Segment Clear of a specific Segment. 3. The simulated agent receives the message: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= This value identifies the message; the confirmed response that will be sent by the simulated agent shall have the same invoke-id. c. CHOICE ❑ value = 0x01 0x07 (roiv-cmip-confirmed-action) d. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <Handle of an existing PM-Store> e. action-type ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0C 0x0C (MDC_ACT_SEG_CLR) f. action-info-args ❑ SegmSelection = segm-id-list (must contain the instance number of the selected Segment)
Pass/Fail criteria	The format of the received message must be the one specified above.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-004_D		
TP label		PM-Store Class methods. Clear-Segments method 4 (Base-Offset-Time Range)		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreMeth 9; O	PM-StoreMeth 18; O	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_080 AND (C_MAN_OXP_029 OR C_MAN_OXP_030)		
Initial condition		The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab bits 4, 8 and 10 set.		
Test procedure		IF a UI feature exists such that the manager can clear the segments: 1. Make the manager under test perform a Segment Clear with parameter SegmSelection = BOTimeRange.		

	IF the manager under test can clear the segments automatically after a transfer, perform the action. Either way: 2. Make the manager under test perform a Segment Clear by time range. 3. The simulated agent receives the message: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= This value identifies the message; the confirmed response that will be sent by the simulated agent shall have the same invoke-id. c. CHOICE ❑ value = 0x01 0x07 (roiv-cmip-confirmed-action) d. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <Handle of an existing PM-Store> e. action-type ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0C 0x0C (MDC_ACT_SEG_CLR) f. action-info-args ❑ SegmSelection = BOTimeRange ▪ from-time = BaseOffsetTime ▪ to-time = BaseOffsetTime
Pass/Fail criteria	The format of the received message must be the one specified above.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-005_A		
TP label		PM-Store Class methods. Get-Segment-info method (all-Segments)		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreMeth 12; O	PM-StoreMeth 17; M	PM-StoreMeth 28; M
		PersStoreMtrDatTransf 26; O		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Initial condition		The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab indicates that it supports all the possible actions.		
Test procedure		1. Make the manager under test perform a GetSegmentInfo action to recover the information of all the segments. 2. The simulated agent receives the message: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu)		

	b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= This value identifies the message; the confirmed response that will be sent by the simulated agent shall have the same invoke-id. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <Handle of an existing PM-Store> d. action-type (roiv-cmip-confirmed-action) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0C 0x0D (MDC_ACT_SEG_GET_INFO) e. action-info-args ❑ SegmSelection = all-segments (0)
Pass/Fail criteria	The manager shall perform a Get Segment Action (all-segments) and the format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-005_B		
TP label		PM-Store Class methods. Get-Segment-info method (segment-id-list)		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreMeth 12; O		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_045		
Initial condition		The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab indicates that it supports all the possible actions.		

Test procedure	1. Make the manager under test perform a GetSegmentinfo action to recover only the information of one segment: 2. The simulated agent receives the message: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= This value identifies the message; the confirmed response that will be sent by the simulated agent shall have the same invoke-id. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <Handle of an existing PM-Store> d. action-type (roiv-cmip-confirmed-action) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0C 0x0D (MDC_ACT_SEG_GET_INFO) e. action-info-args ❑ SegmSelection = segm-id-list ▪ SegmIdList = <List of the selected segments´ instace numbers>
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-005_C		
TP label		PM-Store Class methods. Get-Segment-info method (time range)		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreMeth 12; O		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_AG_OXP_044		
Initial condition		The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab indicates that it supports all the possible actions.		
Test procedure		1. Make the manager under test perform a GetSegmentinfo action to recover the information of a time range. 2. The simulated agent receives the message: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= This value identifies the message; the confirmed response that will be sent by the simulated agent shall have the same invoke-id.		

	c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <Handle of an existing PM-Store> d. action-type (roiv-cmip-confirmed-action) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0C 0x0D (MDC_ACT_SEG_GET_INFO) e. action-info-args ❑ SegmentSelectiont = abs-time-range ▪ AbsTimeRange.from-time = <Selected date of beginning> ▪ AbsTimeRange.to-time = <Selected date of ending>
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-005_D		
TP label		PM-Store Class methods. Get-Segment-info method 4 (Base-Offset-Time range)		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreMeth 12; O		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_081 AND (C_MAN_OXP_029 OR C_MAN_OXP_030)		
Initial condition		The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab indicates that it supports all the possible actions.		
Test procedure		1. Make the manager under test perform a GetSegmentinfo action to recover the information of a time range. 2. The simulated agent receives the message: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= This value identifies the message; the confirmed response that will be sent by the simulated agent shall have the same invoke-id. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <Handle of an existing PM-Store> d. action-type (roiv-cmip-confirmed-action) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0C 0x0D (MDC_ACT_SEG_GET_INFO) e. action-info-args ❑ SegmentSelectiont = bo-time-range		

	▪ BOTimeRange.from-time = <Selected date of beginning> ▪ BOTimeRange.to-time = <Selected date of ending>
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-006		
TP label		PM-Store Class methods. Trig-Segment-Data-Xfer method		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreMeth 15; O	PM-StoreMeth 17; M	PersStoreMtrDatTransf 5; M
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Initial condition		The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab indicates that it supports all the possible actions.		
Test procedure		1. Make the manager under test perform a Trig-Segment-Data-Xfer. 2. The simulated agent receives the message: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= This value identifies the message; the confirmed response that will be sent by the simulated agent shall have the same invoke-id. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <Handle of an existing PM-Store> d. action-type (roiv-cmip-confirmed-action) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0C 0x1C (MDC_ACT_SEG_TRIG_XFER) e. action-info-args ❑ TrigSegmDataXferReq.seg-inst-no = <One of the existing PM-Segments´ instance number>		
Pass/Fail criteria		The manager shall perform a Trig-Segment-Data-Xfer Action and the format of the received message must be the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-007_A		
TP label		PM-Store Class methods. Segment-Data-Event 1		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreEvent 3; M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		

Initial condition	The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab indicates that it supports all the possible actions.
Test procedure	1. Make the manager under test perform a Trig-Segment-Data-Xfer. 2. The simulated agent responds to the message with a "TrigSegmDataXferRsp". 3. The simulated agent sends a Confirmed event report: a. Data APDU ❑ Type = Remote Operation Invoke | Confirmed Event ReportAction ❑ HANDLE = PM-Store obj-handle ❑ Action = 0x0D 0x21 (MDC_NOTI_SEGMENT_DATA) ❑ SegmentDataEvent.SegmDataEventDescr = SEQUENCE: ▪ segm-instance ▪ segmt-evt-entry-index ▪ segmt-evt-entry-count ▪ segmt-evt-status = Bit 0 must be set 4. The manager under test sends a response to the previous message: a. Data APDU ❑ Type = Remote Operation Invoke | Confirmed ActionEvent Report ❑ HANDLE = obj-handle ❑ Action = 0x0D 0x21 (MDC_NOTI_SEGMENT_DATA) ❑ SegmentDataResult = SEQUENCE: ▪ segm-instance = <The one previously sent by the simulated agent> ▪ segmt-evt-entry-index = <The one previously sent by the simulated agent> ▪ segmt-evt-entry-count = <The one previously sent by the simulated agent> ▪ segmt-evt-status = Bits 0, 1 must be the same as those previously recorded. Bit 4 must NOT be set. One of bits 8 or 12 must be set
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-007_B		
TP label		PM-Store Class methods. Segment-Data-Event 2		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-StoreEvent 3; M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Initial condition		The simulated agent and the manager under test are in the operating state. The simulated agent has at least one segment with data stored and PMStoreCapab indicates that it supports all the possible actions.		
Test procedure		1. Make the manager under test perform a Trig-Segment-Data-Xfer. 2. The simulated agent responds to the message with a "TrigSegmDataXferRsp". 3. The simulated agent sends a Confirmed event report: a. Data APDU ❑ Type = Invoke | Confirmed Event Report ❑ HANDLE = PM-Store obj-handle ❑ Action = 0x0D 0x21 (MDC_NOTI_SEGMENT_DATA)		

	❑ SegmentDataEvent.SegmDataEventDescr = SEQUENCE: ▪ segm-instance ▪ segm-evt-entry-index ▪ segm-evt-entry-count ▪ segm-evt-status = Bit 4 (sevtsta-agent-abort) must be set 4. The manager under test sends a response to the previous message: a. Data APDU ❑ Type = Invoke | Confirmed Event Report ❑ HANDLE = PM-Store obj-handle ❑ Action = 0x0D 0x21 (MDC_NOTI_SEGMENT_DATA) ❑ SegmentDataResult = SEQUENCE: ▪ segm-instance = <The one previously sent by the simulated agent> ▪ segm-evt-entry-index = <The one previously sent by the simulated agent> ▪ segm-evt-entry-count = <The one previously sent by the simulated agent> ▪ segm-evt-status = Bits 4 and 8 must be set
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-013		
TP label		EpiCfgScanner Class events. Unbuf-Scan-Report-Grouped		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	EpiCfgScanEvent 12;C	ObjAccessServ 2;M	EpiCfgScanEvent 34; C
		ScanClassAttr 3; M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of an episodic scanner of the simulated agent to 1: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= It is not relevant c. CHOICE ❑ value = 0x01 0x05 (roiv-cmip-confirmed-set) d. obj-handle ❑ field-type = Scanner HANDLE ❑ field-length = 2 bytes ❑ field-value = 21 <Handle of the Episodic scanner> e. Modification-list ❑ modify-operator.count = 1 ❑ modify-operator.length = 2 bytes		

	❑ modify-operator.value = 0 (replace) ❑ attribute.type = 0x09 0x53 (MDC_ATTR_OP_STAT) ❑ attribute.value = 1 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the episodic scanner (MDC_NOTI_UNBUF_SCAN_REPORT_GROUPED) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = 21 <Handle of the Episodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0D 0x24 (MDC_NOTI_UNBUF_SCAN_REPORT_GROUPED)
Pass/Fail criteria	The format of the received messages in steps 1 and 4 must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-016		
TP label		EpiCfgScanner Class events. Unbuf-Scan-Report-MP-Grouped		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	EpiCfgScanEvent 24;C	ObjAccessServ 2;M	EpiCfgScanEvent 34; C
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001 AND C_MAN_OXP_037		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of an episodic scanner of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the episodic scanner (MDC_NOTI_UNBUF_SCAN_REPORT_MP_GROUPED) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent.		

	c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = 21 <Handle of the Episodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0D 0x27 (MDC_NOTI_UNBUF_SCAN_REPORT_MP_GROUPED)
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-019		
TP label		PeriCfgScanner Class events. Buf-Scan-Report-Grouped		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PeriCfgScanEvent 12;C	ObjAccessServ 2;M	PeriCfgScanEvent 27; C
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of a periodic scanner of the simulated agent to 1: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. CHOICE ❑ value = 0x01 0x05 (roiv-cmip-confirmed-set) d. obj-handle ❑ field-type = Scanner HANDLE ❑ field-length = 2 bytes ❑ field-value = 20 <Handle of the Periodic scanner> e. Modification-list ❑ modify-operator.count = 1 ❑ modify-operator.length = 2 bytes ❑ modify-operator.value = 0 (replace) ❑ attribute.type = 0x09 0x53 (MDC_ATTR_OP_STAT) ❑ attribute.value = 1 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the periodic scanner (MDC_NOTI_BUF_SCAN_REPORT_GROUPED) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type		

	❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = 20<Handle of the Periodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0D 0x2A (MDC_NOTI_BUF_SCAN_REPORT_GROUPED)
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-022		
TP label		PeriCfgScanner Class events. Buf-Scan-Report-MP-Grouped		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PeriCfgScanEvent 24;C	ObjAccessServ 2;M	PeriCfgScanEvent 27; C
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006 AND C_MAN_OXP_037		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of an episodic scanner of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the periodic scanner (MDC_NOTI_BUF_SCAN_REPORT_MP_GROUPED) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value =20 <Handle of the Periodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes		

	❑ field-value = 0x0D 0x2D (MDC_NOTI_BUF_SCAN_REPORT_MP_GROUPED)
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-024		
TP label		Information Model Extensibility rules 2		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	InfoExt 2;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an AARQ with an extended dev-config-id previously unknown to the manager under test. 2. The manager under test sends an AARE with an "accepted-unknown-config". 3. The simulated agent sends a configuration event report whose first object has a unknown vendor attribute defined (attribute id 0xF0 0x01): a. 0xF0 0x01 ❑ value.length = 2 ❑ value = 0xFF 0xFF b. The rest of the configuration is the same as one of the manager supported standard configurations. 4. The manager answers the configuration event report and reaches the operating state. 5. The simulated agent sends a confirmed fixed event report (sending a known attribute). 6. The manager sends a rors-cmip-confirmed-event-report for data sent in step 5. 7. The simulated agent sends a confirmed Variable event report updating the value of the unknown attribute: a. obj-handle = 1 b. 0xF0 0x01 ❑ value.length = 2 ❑ value = 0xFF 0xFE 8. The manager sends a rors-cmip-confirmed-event-report message for data sent in step 7. 9. The simulated agent sends a confirmed fixed event report (sending a known attribute). 10. The manager sends a rors-cmip-confirmed-event-report for data sent in step 9.		
Pass/Fail criteria		• The manager shall ignore the private nomenclature code and moves to operating state • In step 5 the response can not be an abort message • The manager shall ignore the data received Var Event Report, but without protocol violations, so it has to send a confirmation response for data sent in step 6 • In step 10 the response can not be an abort message		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-025		
TP label		Manager State Machine: Association Response Format		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable	ManagerStateMach 65; M	AssocResp 2;M	AssocResp 8; M

	items	AssocResp 9; M	AssocResp 10; M	AssocResp 11; M
	Spec	[ITU-T H.810]		
	Testable items	General 4; M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test: ❑ dev-config-id ▪ IF (C_MAN_OXP_016 OR C_MAN_OXP_018 OR C_MAN_OXP_019 OR C_MAN_OXP_020 OR C_MAN_OXP_024 OR C_MAN_OXP_025 OR C_MAN_OXP_026 OR C_MAN_OXP_027 OR C_MAN_OXP_029) THEN dev-config-id set to one of the supported standard configurations ▪ IF (C_MAN_OXP_021 OR C_MAN_OXP_022 OR C_MAN_OXP_023 OR C_MAN_OXP_030) THEN dev-config-id set to an extended dev-config-id. ❑ encoding rules=0xE0 0x00 ❑ protocol-version ▪ IF the manager applies for Basic ECG certification only THEN protocol-version = 0x40 0x00 0x00 0x00 ▪ ELSE protocol-version = 0x80 0x00 0x00 0x00 ❑ nomenclature-version= 0x80 0x00 0x00 0x00 ❑ functional-units = 0x00 0x00 0x00 0x00 ❑ system-type = 0x00 0x80 0x00 0x00 ❑ data-req-mode-capab = ▪ data-req-mode-flags = 0x00 0x01 ▪ data-req-init-agent-count = 1 ▪ data-req-init-manager-count = 0 ❑ option-list = <absent> 2. The manager under test responds with an Association Response: a. APDU Type • field-length =2 bytes • field-value =0xE3 0x00 (AareAdpu) b. Result • field-length =2 bytes • field-value = one of : ▪ 0x00 0x00 (accepted-config) ▪ 0x00 0x03 (accepted-unknown-config) c. Data-Proto-Id • field.type = DataProtoId • field.length = 2 bytes • field.value = <The one sent in the AARQ> d. The DataProto.Info field must contain two bytes indicating the data-proto-info.length e. protocol-version • field-type = Protocol Version • field-length =BITS-32 • IF the manager applies for Basic ECG certification only THEN		

	▪ field-value = 0x40 0x00 0x00 0x00 ▪ This value shows that version 2 of the data exchange protocol is supported (protocol-version2(1)=1) ELSE ▪ field-value = 0x80 0x00 0x00 0x00 ▪ This value shows that version 1 of the data exchange protocol is supported (assoc-version1(0)=1,). f. encoding rules • field-type = EncodingRules • field-length = BITS-16 • field-value= One of the following must be set. ▪ Bit 0 (mder) ▪ Bit 1 (xer) ▪ Bit 2 (per) g. nomenclature version • field-type = NomenclatureVersion • field-length =BITS-32 • field-value = 0x80 0x00 0x00 0x00 (nom-version1) h. functional–units • field-type = FunctionalUnits • field-length = BITS-32 • filed-value = ▪ Bit 0 must be 0 ▪ Bits 1 and 2 may be set ▪ The rest of the bits must not be set i. system type • field-type = SystemType • field-length = BITS-32 • field-value = 0x80 0x00 0x00 0x00 (sys-type-manager) j. system-id • field-type = OCTET STRING • field-length = 0x00 0x08 • field-value = <Check with PIXITs> k. dev-config-id • field-type = ConfigId • field-length = INT-U16 • field-value = 0x00 0x00 (manager-config-response) l. Data-Req-Mode-Capab: • field-type = DataReqModeCapab • field-length = INT-U16 • field-value = 0x00 0x00 m. option-list should be: • field-type: AttributeList • list.count = 0

	• list.length = 0
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-036		
TP label		BCD time format - fixed format event report		
Coverage	**Spec**	[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 30;C		
	Spec	[IEEE 11073-10417]		
	Testable items	BloodGL 12;C		
	Spec	[ISO/IEEE 11073-10407]		
	Testable items	SystDiast_31;C	PulsRat_30;C	
	Spec	[ISO/IEEE 11073-10408]		
	Testable items	Num Objec Temp19;C		
	Spec	[ISO/IEEE 11073-10472]		
	Testable items	VarDosage16; C	UserFeedback16; C	StatReporter16; C
	Spec	[ISO/IEEE 11073-10421]		
	Testable items	PEF16; C	PersBest16; C	FEV1S16; C
		ReadStatus16; C		
	Spec	[ISO/IEEE 11073-10420]		
	Testable items	BodyFat31; C	BodyHeight30; C	WeightNumClass 29; C
Applicability		C_MAN_OXP_000 AND (C_MAN_OXP_019 OR C_MAN_OXP_020 OR C_MAN_OXP_024 OR C_MAN_OXP_025 OR C_MAN_OXP_016 OR C_MAN_OXP_018 OR C_MAN_OXP_027)		
Initial condition		The simulated agent and the manager under test are in the operating state using the standard configuration.		
Test procedure		IF C_MAN_OXP_019 (the manager supports glucose meter specialization) 1. The simulated agent sends a confirmed fixed event report for handle 1 (Blood Glucose object) containing an observation and a time stamp with century = 0x19, year = 0x99, month = 0x12, day = 0x25, hour = 0x23, minute = 0x59, second = 0x30, sec-fractions = 0x75. 2. The simulated agent waits until it receives a confirmation from the manager under test. IF C_MAN_OXP_020 (the manager supports blood pressure monitor specialization) 1. The simulated agent sends a confirmed fixed event report for handle 1 (Systolic/Diastolic/MAP object) and handle 2 (Pulse Rate object) containing an observation and a time stamp with century = 0x19, year = 0x99, month = 0x12, day = 0x25, hour = 0x23, minute = 0x59, second = 0x30, sec-fractions = 0x75. 2. The simulated agent waits until it receives a confirmation from the manager under test. IF C_MAN_OXP_024 (the manager supports weighing scales specialization) 1. The simulated agent sends a confirmed fixed event report for handle 1 (Body Weight object) containing an observation and a time stamp with century = 0x19, year = 0x99, month = 0x12, day = 0x25, hour = 0x23, minute = 0x59, second = 0x30, sec-fractions = 0x75.		

	2. The simulated agent waits until it receives a confirmation from the manager under test. IF C_MAN_OXP_025 (the manager supports thermometer specialization) 1. The simulated agent sends a confirmed fixed event report for handle 1 (Body Temperature object) containing an observation and a time stamp with century = 0x19, year = 0x99, month = 0x12, day = 0x25, hour = 0x23, minute = 0x59, second = 0x30, sec-fractions = 0x75. 2. The simulated agent waits until it receives a confirmation from the manager under test. IF C_MAN_OXP_016 (the manager supports adherence monitor specialization) 1. The simulated agent sends a confirmed fixed event report for handle 2 (Variable Dosage Medication object), handle 3 (Status Reporter) and handle 4 (User Feedback) containing an observation and a time stamp with century = 0x19, year = 0x99, month = 0x12, day = 0x25, hour = 0x23, minute = 0x59, second = 0x30, sec-fractions = 0x75. 2. The simulated agent waits until it receives a confirmation from the manager under test. IF C_MAN_OXP_018 (the manager supports peak flow specialization) 1. The simulated agent sends a confirmed fixed event report for handle 1 (PEF), handle 2 (Personal Best), handle 3 (FEV1) and handle 5 (Reading Status) containing an observation and a time stamp with century = 0x19, year = 0x99, month = 0x12, day = 0x25, hour = 0x23, minute = 0x59, second = 0x30, sec-fractions = 0x75. 2. The simulated agent waits until it receives a confirmation from the manager under test. IF C_MAN_OXP_027 (the manager supports body composition analyser specialization) 1. The simulated agent sends a confirmed fixed event report for handle 1 (Body Weight), handle 2 (Body Height) and handle 3 (Body Fat) containing an observation and a time stamp with century = 0x19, year = 0x99, month = 0x12, day = 0x25, hour = 0x23, minute = 0x59, second = 0x30, sec-fractions = 0x75 2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	Verify that the manager under test is able to accept the data and time stamps and applies the date properly as 12/25/1999 23:59:30.75 (e.g. if there is a UI verify the date is displayed in some form that indicates the correct date and time as transmitted).
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-037		
TP label		BCD time format - variable format event report		
Coverage	**Spec**	[ISO/IEEE 11073-10415]		
	Testable items	WeightNumClass 30;C		
	Spec	[ISO/IEEE 11073-10407]		
	Testable items	SystDiast_31;C	PulsRat_30;C	
	Spec	[ISO/IEEE 11073-10404]		
	Testable items	PulseRateNumObjAttr 30;C	SpO2NumObjAttr 13;C	
	Spec	[ISO/IEEE 11073-10408]		
	Testable items	Num Objec Temp19;C		
Applicability		C_MAN_OXP_000 AND (C_MAN_OXP_020 OR C_MAN_OXP_024 OR C_MAN_OXP_025 OR C_MAN_OXP_026)		

Initial condition	The simulated agent and the manager under test are in the operating state using the standard configuration.
Test procedure	IF C_MAN_OXP_020 (the manager supports blood pressure monitor specialization) 1. The simulated agent sends a confirmed variable event report for handle 1 (Systolic/Diastolic/MAP object) and handle 2 (Pulse Rate object) containing a time stamp with century = 0x19, year = 0x20, month = 0x11, day = 0x18, hour = 0x21, minute = 0x22, second = 0x23, sec-fractions = 0x90 and an observation (in that order). 2. The simulated agent waits until it receives a confirmation from the manager under test. IF C_MAN_OXP_024 (the manager supports weighing scales specialization) 1. The simulated agent sends a confirmed variable event report for handle 1 (Body Weight object) containing a time stamp with century = 0x19, year = 0x20, month = 0x11, day = 0x18, hour = 0x21, minute = 0x22, second = 0x23, sec-fractions = 0x90 and observation (in that order). 2. The simulated agent waits until it receives a confirmation from the manager under test. IF C_MAN_OXP_025 (the manager supports thermometer specialization) 1. The simulated agent sends a confirmed variable event report for handle 1 (Body Temperature object) containing a time stamp with century = 0x19, year = 0x20, month = 0x11, day = 0x18, hour = 0x21, minute = 0x22, second = 0x23, sec-fractions = 0x90 and an observation (in that order). 2. The simulated agent waits until it receives a confirmation from the manager under test. IF C_MAN_OXP_026 (the manager supports pulse oximeter specialization) 1. The simulated agent sends a confirmed variable event report for handle 1 (SpO_2 object) and handle 10 (Pulse Rate object) containing a time stamp with century = 0x19, year = 0x20, month = 0x11, day = 0x18, hour = 0x21, minute = 0x22, second = 0x23, sec-fractions = 0x90 and an observation (in that order). 2. The simulated agent waits until it receives a confirmation from the manager under test.
Pass/Fail criteria	Verify that the manager under test is able to accept the data and time stamps and applies the date properly as 11/18/1920 21:22:23.90 (e.g. if there is a UI verify the date is displayed in some form that indicates the correct date and time as transmitted).
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-038		
TP label		EpiCfgScanner Class events. Unbuf-Scan-Report-Var		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	EpiCfgScanEvent 4; C	EpiCfgScanEvent 34; C	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of an episodic scanner of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the episodic scanner (MDC_NOTI_UNBUF_SCAN_REPORT_VAR) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu)		

	b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = 21 <Handle of the Episodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0D 0x24 (MDC_NOTI_UNBUF_SCAN_REPORT_VAR)
Pass/Fail criteria	The format of the received messages in steps 1 and 4 must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-039		
TP label		EpiCfgScanner Class events. Unbuf-Scan-Report-MP-Var		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	EpiCfgScanEvent 16;C	EpiCfgScanEvent 34; C	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001 AND C_MAN_OXP_037		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of an Episodic Scanner of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the episodic scanner (MDC_NOTI_UNBUF_SCAN_REPORT_MP_VAR) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = 21 <Handle of the Episodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0D 0x27 (MDC_NOTI_UNBUF_SCAN_REPORT_MP_VAR)		
Pass/Fail criteria		The format of the received message must be the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-040		
TP label		PeriCfgScanner Class events. Buf-Scan-Report-Var		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PeriCfgScanEvent 4;C	PeriCfgScanEvent 27; C	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of a periodic scanner of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the periodic scanner (MDC_NOTI_BUF_SCAN_REPORT_VAR) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = 20<Handle of the Periodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0D 0x2A (MDC_NOTI_BUF_SCAN_REPORT_VAR)		
Pass/Fail criteria		The format of the received message must be the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-041		
TP label		PeriCfgScanner Class events. Buf-Scan-Report-MP-Var		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PeriCfgScanEvent 16;C	PeriCfgScanEvent 27; C	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006 AND C_MAN_OXP_037		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of an episodic scanner of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the periodic scanner (MDC_NOTI_BUF_SCAN_REPORT_MP_VAR) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type		

	❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value =20 <Handle of the Periodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0D 0x2D (MDC_NOTI_BUF_SCAN_REPORT_MP_VAR)
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-042		
TP label		EpiCfgScanner Class events. Unbuf-Scan-Report-Fixed		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	EpiCfgScanEvent 8; C	EpiCfgScanEvent 34; C	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of an episodic scanner of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the episodic scanner (MDC_NOTI_UNBUF_SCAN_REPORT_FIXED) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = 21 <Handle of the Episodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0D 0x24 (MDC_NOTI_UNBUF_SCAN_REPORT_FIXED)		

Pass/Fail criteria	The format of the received messages in steps 1 and 4 must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-043		
TP label		EpiCfgScanner Class events. Unbuf-Scan-Report-MP-Fixed		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	EpiCfgScanEvent 20;C	EpiCfgScanEvent 34; C	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001 AND C_MAN_OXP_037		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of an episodic scanner of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the episodic scanner (MDC_NOTI_UNBUF_SCAN_REPORT_MP_FIXED) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = 21 <Handle of the Episodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0D 0x27 (MDC_NOTI_UNBUF_SCAN_REPORT_MP_FIXED)		
Pass/Fail criteria		The format of the received message must be the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-044		
TP label		PeriCfgScanner Class events. Buf-Scan-Report-Fixed		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PeriCfgScanEvent 8;C	PeriCfgScanEvent 27; C	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of a periodic scanner of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the periodic scanner (MDC_NOTI_BUF_SCAN_REPORT_FIXED) to the manager under test:		

	4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = 20<Handle of the Periodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type ❑ field-length =2 bytes ❑ field-value = 0x0D 0x2A (MDC_NOTI_BUF_SCAN_REPORT_FIXED)
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-045		
TP label		PeriCfgScanner Class events. Buf-Scan-Report-MP-Fixed		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PeriCfgScanEvent 20;C	PeriCfgScanEvent 27; C	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006 AND C_MAN_OXP_037		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. Make the manager under test set the OperationalState attribute of an episodic scanner of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a confirmed event report of the periodic scanner (MDC_NOTI_BUF_SCAN_REPORT_MP_FIXED) to the manager under test: 4. The manager under test responds with a "rors-confirmed-event-report": a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length = 2 bytes ❑ field-value= The same as the one sent by the simulated agent. c. obj-handle ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value =20 <Handle of the Periodic scanner> d. event-type (rors-confirmed-event-report) ❑ field-type = OID-Type		

	❑ field-length =2 bytes ❑ field-value = 0x0D 0x2D (MDC_NOTI_BUF_SCAN_REPORT_MP_FIXED)
Pass/Fail criteria	The format of the received message must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-046		
TP label		Scan Handle List - Fixed & Variable format event report		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ScanClassAttr 5;M		
Applicability		C_MAN_OXP_000 AND (C_MAN_OXP_001 OR C_MAN_OXP_006) AND (C_MAN_OXP_016 OR C_MAN_OXP_018 OR C_MAN_OXP_019 OR C_MAN_OXP_020 OR C_MAN_OXP_026 OR C_MAN_OXP_027 OR C_MAN_OXP_030 OR C_MAN_OXP_067 OR (C_MAN_OXP_022 AND (C_MAN_ST_001 OR C_MAN_ST_002 OR C_MAN_ST_003 OR C_MAN_ST_004 OR C_MAN_ST_005 OR C_MAN_ST_006 OR C_MAN_ST_007)) OR (MAN_OXP_023 AND (C_MAN_CV_001 OR C_MAN_CV_002 OR C_MAN_CV_003 OR C_MAN_CV_004 OR C_MAN_CV_005 OR C_MAN_CV_006 OR C_MAN_CV_007 OR C_MAN_CV_008 OR C_MAN_CV_009 OR C_MAN_CV_010 OR C_MAN_CV_011 OR C_MAN_CV_012 OR C_MAN_CV_013 OR C_MAN_CV_014 OR C_MAN_CV_015 OR C_MAN_CV_016 OR C_MAN_CV_017 OR C_MAN_CV_018 OR C_MAN_CV_019 OR C_MAN_CV_020 OR C_MAN_CV_021 OR C_MAN_CV_022 OR C_MAN_CV_023 OR C_MAN_CV_024 OR C_MAN_CV_025 OR C_MAN_CV_026 OR C_MAN_CV_027 OR C_MAN_CV_028 OR C_MAN_CV_029))		
Initial condition		The simulated agent and the manager under test are in the operating state using the extended configuration that contains at least two metric objects and one scanner object.		
Test procedure		1. Make the manager under test set the OperationalState attribute of a periodic scanner or episodic scanner, whichever is supported by the manager, of the simulated agent to 1. 2. The simulated agent responds to the message with a "rors-cmip-confirmed-set". 3. The simulated agent sends a Confirmed Variable Scanner object report of the periodic/episodic scanner (MDC_NOTI_BUF_SCAN_REPORT_VAR/ MDC_NOTI_UNBUF_SCAN_REPORT_VAR) to the manager under test. The order of the objects in the Variable Scanner Object Event is different from the order established in Scan-Handle-List attribute. 4. The manager under test responds with a "rors-confirmed-event-report". 5. The simulated agent sends a Confirmed Fixed Scanner object of the periodic/episodic scanner (MDC_NOTI_BUF_SCAN_REPORT_FIXED/ MDC_NOTI_UNBUF_SCAN_REPORT_FIXED) to the manager under test. The order of the objects in the Fixed Scanner Event report is different from the order established in the Scan-Handle-List attribute. 6. The manager under test responds with a "rors-confirmed-event-report":		
Pass/Fail criteria		Verify that the manager under test is able to accept the data and assign the measurements correctly to every object when it receives the Scanner Object Event Report in step 4 and step 6.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-047		
TP label		Not configuring a real-time clock		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	AbsTime 7;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state. The agent has the MDSTimeInfo attribute with the mds-time-mgr-set-time and mds-time-capab-set-		

	clock bits set to 0.
Test procedure	1. The simulated agent sends an Association Request to the manager under test. 2. IF the manager sends a GET request while it is in the configuring state, the simulated agent sends rors-cmip-get with MDS attributes. 3. Wait until the operating state is reached. 4. If the manager under test did not set automatically the GET Mds in the configuring state, force the manager to request MDS attributes. 5. The simulated agent sends rors-cmip-get with MDS attributes. 6. The manager under test shall not set the time of the simulated agent.
Pass/Fail criteria	Verify that the manager does not send the Set-Time message.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-048		
TP label		Not supported specialization - Glucose meter		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_055)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to 0x06 0xA4 (glucose meter). 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to 0x06 0xA4 and including the glucose meter standard configuration objects. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or a Release Request or Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or Abort then the test procedure ends. b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.		
Pass/Fail criteria		• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if manager accepts the measurement then it shall not store or display the received measurement.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-049		
TP label		Not supported specialization - Blood Pressure Monitor		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_056)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with dev-config-id set to 0x02 0xBC (blood pressure monitor). 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with config-report-id set to 0x02 0xBC and including blood pressure monitor standard configuration objects. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or a Release Request or Abort THEN the manager shall not move to operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or Abort then the test procedure ends. b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.		
Pass/Fail criteria		• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-050		
TP label		Not supported specialization - Independent living activity hub		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_057)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to an extended Config-Id.		

	2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN simulated agent sends a configuration event report including an extended configuration for the independent living activity hub. a. IF the manager under test responds with rors-cmip-confirmed-event-report (unsupported-config) or a Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.
Pass/Fail criteria	• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-051		
TP label		Not supported specialization - Strength fitness equipment		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_058)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to an extended Config-Id. 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report including an extended configuration for the strength fitness equipment. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration:		

	i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then test procedure ends. b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.
Pass/Fail criteria	• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-052		
TP label		Not supported specialization - Cardiovascular fitness and activity monitor		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_059)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to an extended Config-Id. 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report including an extended configuration for the cardiovascular fitness and activity monitor. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.		
Pass/Fail criteria		• In step 2 or step 3.a, the manager does not move to the operating state.		

	• In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-053		
TP label		Not supported specialization - Weighing scale		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_060)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to 0x05 0xDC (weighing scales). 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to 0x05 0xDC and including seighing scales standard configuration objects. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.		
Pass/Fail criteria		• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-054		
TP label		Not supported specialization - Thermometer		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_061)		

Initial condition	The simulated agent and the manager under test are in the unassociated state.
Test procedure	1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to 0x03 0x20 (thermometer). 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to 0x03 0x20 and including thermometer standard configuration objects. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.
Pass/Fail criteria	• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-055		
TP label		Not supported specialization - Pulse Oximeter		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable Items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_062)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to 0x01 0x90 (pulse oximeter). 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to 0x01 0x90 and including the pulse oximeter standard configuration objects. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends.		

	b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a unconfirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If time-out expires and no message is received the manager shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a unconfirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. b. If time-out expires and no message is received the manager shall not store or display the received measurement and the test procedure ends.
Pass/Fail criteria	• In step 2 or step 3.a, the manager does not move to operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-056		
TP label		Not supported specialization - Adherence Monitor		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_052)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to 0x1C 0x20 (adherence monitor). 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to 0x1C 0x20 and including the adherence monitor standard configuration objects. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends.		

	b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.
Pass/Fail criteria	• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-058		
TP label		Not supported specialization - Peak Flow		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_054)		
Initial condition		The simulated agent and manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to 0x08 0x34 (peak flow). 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to 0x08 0x34 and including the peak flow standard configuration objects. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.		
Pass/Fail criteria		• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-059
TP label		Not supported specialization - Body Composition Analyzer
Coverage	**Spec**	[ISO/IEEE 11073-20601A]

	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_051)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to 0x07 0xD0 (body composition analyser). 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to 0x07 0xD0 and including the body composition analyser configuration objects. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.		
Pass/Fail criteria		• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.		
Notes				

TP Id		TP/PLT/MAN/OXP/DIM/BV-060		
TP label		Not supported specialization - Basic ECG specialization/Heart Rate profile		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_064)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to 0x02 0x58 (heart rate profile). 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to 0x02 0x58 and including the Heart Rate Profile configuration objects.		

	a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.
Pass/Fail criteria	• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-061		
TP label		Not supported specialization - Basic ECG specialization/Simple ECG profile		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_065)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to an extended Config-Id. 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report including an extended configuration for the Simple ECG Profile (one RT-SA object for the ECG Waveform and one scanner referenced to RT-SA): a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state and the test tool requests the test operator to enable the scanner: i. If the manager does not enable the scanner then the test procedure ends. ii. If the manager enables the scanner then the simulated agent sends a confirmed Unbuf-Scan-Report-Fixed with one measurement for RT-SA: 1. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends.		

	2. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state and the test tool requests the test operator to enable the scanner: a. If the manager does not enable the scanner then the test procedure ends. b. If the manager enables the scanner then the simulated agent sends a confirmed Unbuf-Scan-Report-Fixed with one measurement for RT-SA: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.
Pass/Fail criteria	• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if manager accepts the measurement then it shall not store or display the received measurement.
Notes	

TP Id		TP/PLT/MAN/OXP/DIM/BV-062		
TP label		Not supported specialization - International Normalized Ratio		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerProc 3;M		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_066)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the dev-config-id set to 0x07 0x08 (international normalized ratio). 2. IF the manager under test responds with an Association Response (rejected-*) or an Abort, THEN the manager shall not move to the operating state and the test procedure ends. 3. IF the manager under test responds with an Association Response (accepted-unknown-config) THEN the simulated agent sends a configuration event report with the config-report-id set to 0x07 0x08 and including the international normalized ratio configuration objects. a. IF the manager under test responds with a rors-cmip-confirmed-event-report (unsupported-config) or Release Request or an Abort THEN the manager shall not move to the operating state and the test procedure ends. b. IF the manager under test responds with a rors-cmip-confirmed-event-report (accepted-config) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: i. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends. ii. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends. 4. IF the manager under test responds with an Association Response (accepted) THEN the manager moves to the operating state, the simulated agent sends a confirmed fixed event report with one measurement for every object present in the configuration: a. If the manager under test responds with a roer, rorj, rlrq or an Abort then the test procedure ends.		

	b. If the manager under test responds with a rors-cmip-confirmed-event-report then it shall not store or display the received measurement and the test procedure ends.
Pass/Fail criteria	• In step 2 or step 3.a, the manager does not move to the operating state. • In step 3.b or step 4, the manager does not accept the received measurement or if the manager accepts the measurement then it shall not store or display the received measurement.
Notes	

A.4 Subgroup 2.2.3: PHD service model (SER)

TP Id		TP/PLT/MAN/OXP/SER/BV-000		
TP label		Configuration event report. Configuration Response Format		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ObjAccessServ 2;M	ConfNormalProc 8;M	
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state. The manager must not have any configuration memorised.		
Test procedure		1. The simulated agent test sends an Association Request to the manager under test with an unknown configuration to the manager dev-config-id in the extended range. 2. The manager under test responds with an Asociation Response with "accepted-unknown-config". 3. The simulated agent sends a configuration event report with an extended configuration supported by the agent. 4. The manager under test must respond with: 5. Received message by the agent must be: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE7 0x00 (PrstAdpu) b. Invoke-id ❑ field-type = INT-U16 ❑ field-length =2 bytes ❑ field-value= it must be the same as the invoke-id of the simulated agent's message. c. Obj-Handle: ❑ field-type = HANDLE ❑ field-length =2 bytes ❑ field-value = 0x00 0x00 d. Event-time: ❑ field-type = INT-U32 ❑ field-length =4 bytes ❑ field-value:<Relative time> OR <0xFF 0xFF 0xFF 0xFF> e. Event-type: ❑ field-length = 2 bytes ❑ field-value= 0x0D 0x1C (MDC_NOTI_CONFIG f. The following six bytes indicates: ❑ Event-replay-info.length (2 bytes) ❑ ConfigReportRsp.config-report-id:it must be the same as the config-report-id of the simulated agent's message ❑ ConfigReportRsp.config-result:One of: ▪ accepted-config:0x00 0x00		
Pass/Fail criteria		The message sent by the manager under test must be that specified.		
Notes		We just want to test the format of the report, the unsupported-config behaviour is tested in TP/PLT/MAN/OXP/COM/BV-005		

TP Id		TP/PLT/MAN/OXP/SER/BV-003_A		
TP label		Fixed format event report. Single-person unconfirmed event report.		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ObjAccessServ 2;M	MeasureDataTransf 8;C	PersonEventRep 1;M
		FormatEventRep 3;M		
	Spec	[ITU-T H.810]		
	Testable items	Conformance 1; M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. The simulated agent test sends an unconfirmed Fixed event report to the manager under test. 2. Verify that the manager under test does not send a confirmation.		
Pass/Fail criteria		In step 2 no confirmation can be received by the simulated agent.		
Notes				

TP Id		TP/PLT/MAN/OXP/SER/BV-003_B		
TP label		Fixed format event report. Single-person confirmed event report.		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ObjAccessServ 2;M	MeasureDataTransf 7;C	PersonEventRep 1;M
		FormatEventRep 3;M		
	Spec	[ITU-T H.810]		
	Testable items	Conformance 1; M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. The simulated agent sends a confirmed Fixed event report to the manager under test. 2. The manager under test sends a confirmation: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE7 0x00 (PrstAdpu) b. Invoke-id ❑ field-type = INT-U16 ❑ field-length =2 bytes ❑ field-value= it must be the same as the invoke-id of the simulated agent's message. c. The following two bytes indicate: ❑ message type= 0x02 0x01 (Remote Operation Response | Confirmed Event Report) d. Obj-Handle: ❑ field-type = HANDLE ❑ field-length =2 bytes ❑ field-value = 0 (MDS object) e. Event-time: ❑ field-type = INT-U32		

	❑ field-length =4 bytes ❑ field-value:<Not relevant for this Test> f. Event-type: ❑ field-length = 2 bytes ❑ field-value= 0x0D 0x1D (MDC_NOTI_SCAN_REPORT_FIXED) g. event-reply-info ❑ field-length = 0 bytes (0x00 0x00) ❑ field-value= empty (0x00 0x00)
Pass/Fail criteria	The confirmation message must be like the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/SER/BV-003_C		
TP label		Fixed format event report. Multi-person unconfirmed event report.		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ObjAccessServ 2;M	MeasureDataTransf 8;C	PersonEventRep 1;M
		FormatEventRep 3;M		
	Spec	[ITU-T H.810]		
	Testable items	Conformance 1; M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. The simulated agent test sends a unconfirmed Fixed Multiple Person event report to the manager under test. 2. The manager under test does not send a confirmation.		
Pass/Fail criteria		In step 2 no confirmation can be received by the simulated agent.		
Notes				

TP Id		TP/PLT/MAN/OXP/SER/BV-003_D		
TP label		Fixed format event report. Multi-person confirmed event report.		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ObjAccessServ 2;M	PersonEventRep 1;M	FormatEventRep 3;M
	Spec	[ITU-T H.810]		
	Testable items	Conformance 1; M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. The simulated agent test sends a confirmed Fixed Multi Person event report to the manager under test. 2. The manager under test sends a confirmation: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE7 0x00 (PrstAdpu) b. Invoke-id ❑ field-type = INT-U16		

	❑ field-length =2 bytes ❑ field-value= it must be the same as the invoke-id of the simulated agent's message. c. The following two bytes indicate: ❑ message type= 0x02 0x01 (Remote Operation Response | Confirmed Event Report) d. Obj-Handle: ❑ field-type = HANDLE ❑ field-length =2 bytes ❑ field-value = 0 (MDS object) e. Event-time: ❑ field-type = INT-U32 ❑ field-length =4 bytes ❑ field-value:<Not relevant for this Test> f. Event-type: ❑ field-length = 2 bytes ❑ field-value= 0x0D 0x1F (MDC_NOTI_SCAN_REPORT_MP_FIXED)
Pass/Fail criteria	The confirmation message must be like the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/SER/BV-003_E		
TP label		Variable format event report. Single-person unconfirmed event report.		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ObjAccessServ 2;M	MeasureDataTransf 8;C	PersonEventRep 1;M
		FormatEventRep 3;M		
	Spec	[ITU-T H.810]		
	Testable items	Conformance 1; M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. The simulated agent test sends an unconfirmed variable event report to the manager under test.The unconfirmed variable event report contains just one Observartion Scan with information about Metric-Spec-Small attributes for metric objects that are present in the Agent´s configuration. 2. The manager under test can not send a confirmation.		
Pass/Fail criteria		In step 2 no confirmation can be received by the simulated agent.		
Notes				

TP Id		TP/PLT/MAN/OXP/SER/BV-003_F		
TP label		Variable format event report. Single-person confirmed event report.		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ObjAccessServ 2;M	MeasureDataTransf 7;C	PersonEventRep 1;M
		FormatEventRep 3;M		
	Spec	[ITU-T H.810]		
	Testable items	Conformance 1; M		

Applicability	C_MAN_OXP_000
Initial condition	The simulated agent and the manager under test are in the operating state.
Test procedure	1. The simulated agent test sends a confirmed variable event report to the manager under test. 2. The manager under test sends a confirmation: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE7 0x00 (PrstAdpu) b. Invoke-id ❑ field-type = INT-U16 ❑ field-length =2 bytes ❑ field-value= it must be the same as the invoke-id of the simulated agent's message. c. The following two bytes indicates ❑ message type= 0x02 0x01 (Remote Operation Response | Confirmed Event Report) d. Obj-Handle: ❑ field-type = HANDLE ❑ field-length =2 bytes ❑ field-value = 0 (MDS object) e. Event-time: ❑ field-type = INT-U32 ❑ field-length =4 bytes ❑ field-value:<Not relevant for this Test> f. Event-type: ❑ field-length = 2 bytes ❑ field-value= 0x0D 0x1E (MDC_NOTI_SCAN_REPORT_VAR)
Pass/Fail criteria	The confirmation message must be like the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/SER/BV-003_G		
TP label		Variable format event report. Multi-person unconfirmed event report.		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ObjAccessServ 2;M	MeasureDataTransf 8;C	PersonEventRep 1;M
		FormatEventRep 3;M		
	Spec	[ITU-T H.810]		
	Testable items	Conformance 1; M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. The simulated agent sends an unconfirmed Variable Multiple Person event report to the manager under test. 2. The manager under test can not send a confirmation.		
Pass/Fail criteria		In step 2 no confirmation can be received by the simulated agent.		
Notes				

TP Id		TP/PLT/MAN/OXP/SER/BV-003_H		
TP label		Variable format event report. Multi-person confirmed event report		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ObjAccessServ 2;M	PersonEventRep 1;M	FormatEventRep 3;M
	Spec	[ITU-T H.810]		
	Testable items	Conformance 1; M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. The simulated agent sends a confirmed Variable Multi Person event report to the manager under test. 2. The manager under test sends a confirmation: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE7 0x00 (PrstAdpu) b. Invoke-id ❑ field-type = INT-U16 ❑ field-length =2 bytes ❑ field-value= it must be the same that the invoke-id of the simulated Agent's message. c. The following two bytes indicate: ❑ message type= 0x02 0x01 (Remote Operation Response | Confirmed Event Report) d. Obj-Handle: ❑ field-type = HANDLE ❑ field-length =2 bytes ❑ field-value = 0 (MDS object) e. Event-time: ❑ field-type = INT-U32 ❑ field-length =4 bytes ❑ field-value:<Not relevant for this Test> f. Event-type: ❑ field-length = 2 bytes ❑ field-value= 0x0D 0x20 (MDC_NOTI_SCAN_REPORT_MP_VAR)		
Pass/Fail criteria		The confirmation message must be like the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/SER/BV-004		
TP label		Multi-person support		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PersonEventRep 1;M	FormatEventRep 3;M	
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the operating state.		

Test procedure	1. The simulated agent sends a confirmed Fixed Multi Person event report to the manager under test with two different measurements assigned to different person-ids. 2. The manager under test sends a confirmation. 3. The simulated manager sends a new confirmed Fixed Multi Person with two different measurements from those in step 1 to the manager under test. 4. The manager under test sends a confirmation.
Pass/Fail criteria	IF C_MAN_OXP_037 = TRUE THEN the manager under test correctly assigns the measurements to the correct person, ELSE the manager under test does not assign the measurements correctly to every person.
Notes	

TP Id		TP/PLT/MAN/OXP/SER/BV-005		
TP label		Reserved Value Standard Configuration		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ConfEventRep 17;M		
Applicability		C_MAN_OXP_000 AND (C_MAN_OXP_016 OR C_MAN_OXP_018 OR C_MAN_OXP_019 OR C_MAN_OXP_020 OR C_MAN_OXP_024 OR C_MAN_OXP_025 OR C_MAN_OXP_026 OR C_MAN_OXP_027 OR C_MAN_OXP_029 OR C_MAN_OXP_067)		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with a dev-config-id set to an id in the standard range (reserved value). 2. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x03 (accepted-unknown-config) or 0x00 0x00 (accepted) or 0x00 0x07 (rejected-unauthorized) or 0x00 0x01 (rejected-permanent) or 0x00 0x06 (rejected-unknown) 3. IF the manager responds with "accepted-unknown-config", the simulated agent sends its configuration. 4. The manager under test sends a configuration response with accepted-config or unsupported-config.		
Pass/Fail criteria		• The response of step 2 shall have a value = "accepted-unknown-config" or "accepted" or "rejected-unauthorized" or "rejected-permanent" or "rejected-unknown". • The response of step 4 shall have a config-result = "unsupported-config" or "accepted-config".		
Notes				

A.5 Subgroup 2.2.4: PHD communication model (COM)

TP Id		TP/PLT/MAN/OXP/COM/BV-004		
TP label		Manager State Machine:TO_{config}		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 1;M	ConfErrorCond 3;M	

Applicability	C_MAN_OXP_000
Initial condition	The simulated agent and the manager under test are in the unassociated state.
Test procedure	1. The simulated agent sends an Association Request to the manager under test with a dev-config-id unknown to the manager and set on the extended range. 2. The manager under test responds with an Association Response with AssociateResult = "accepted-unknown-config". 3. The simulated agent intentionally does not send its configuration at all.
Pass/Fail criteria	The manager under test waits for I_MAN_OXP_008 us and then sends an Abort message
Notes	Due to the delay introduced by the transport layer and decoder for the received APDU, the test tool accuracy may not be enough to measure this time-out. To get better accuracy it is necessary to run this test case using a hardware sniffer.

TP Id		TP/PLT/MAN/OXP/COM/BV-005		
TP label		Manager State Machine:Unsupported Config		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 2;M	ConfNormalProc 12 ;M	
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. Configure the simulated agent to support one specialization that is not supported by the manager and a second specialization that is supported by the manager. In particular, make sure the following two attributes have values corresponding at least to the supported specialization in the MDS object:System-Type-Spec-List and Reg-Cert-Data-ListTAB. 2. The simulated agent sends an Association Request to the manager under test with a dev-config-id set to the unsupported device specialization (preferably a standard config). 3. The manager under test responds with an Association Response with AssociateResult = "accepted-unknown-config". 4. If the manager under test sends a GET request for the MDS object, the simulated agent shall respond with the MDS information. 5. If manager supports all specializations, the agent sends a Config Report with an extended config-id and only OEM Objects; otherwise, the simulated agent sends a Config report from the selected specialization that is not supported by the manager. 6. The manager under test sends a config response.		
Pass/Fail criteria		The response of step 6 shall have a config-result = "unsupported-config". IF the config-result is not unsupported-config, the verdict is inconc.		
Notes		There is no guarantee that the manager will not accept the configuration.		

TP Id		TP/PLT/MAN/OXP/COM/BV-006		
TP label		Manager State Machine:Accepted Config		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ConfEventRep 5;M	ConfEventRep 23;M	ManagerStateMach 3;M
		ManagerProc 4;M	ConfNormalProc 11; M	
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with a previously unknown dev-config-id set in the extended range. 2. The manager under test responds with an Association Response with result = "accepted-unknown-config".		

	3. Wait until operating state is reached. 4. The agent sends an abort message. 5. The simulated agent sends the same Association Request to the manager as in step 5. 6. IF C_MAN_OXP_046 = TRUE the manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x00 (accepted) IF C_MAN_OXP_046 = FALSE the manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x03 (accepted-unknown-config)
Pass/Fail criteria	The format of the received message in step 6 must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-007_A		
TP label		Manager State machine:Operating - Unassociated 1		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ConfEventRep 22;M	ManagerStateMach 49;M	ManagerProc 3;M
		ConfExitCond 1;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the operating state.		
Test procedure		1. The simulated agent sends a Release Request with reason = "normal". 2. The manager under test responds with a Release Response and moves to the unassociated state: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE5 0x00 (RlreApdu) b. ReleaseResponseReason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (normal)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-007_B
TP label		Manager State machine:Unassociated - Unassociated 2
Coverage	**Spec**	[ISO/IEEE 11073-20601A]

	Testable items	ManagerStateMach 12;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Response to the manager under test. 2. The manager under test responds with and Association Abort message: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-007_C		
TP label		Manager State machine:Unassociated - Unassociated 3		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 13;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends a Release Request message to the manager under test. 2. The manager under test responds with an Association Abort message: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-007_D		
TP label		Manager State machine:Unassociated - Unassociated 4		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 16;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends a Configuration Event report to the manager under test. 2. The manager under test responds with and Association Abort message: a. APDU Type: ❑ field-length = 2 bytes		

	❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)
Pass/Fail criteria	The format of the received message in step 2 must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-007_E		
TP label		Manager State machine:Unassociated. Corrupt-unknown-unexpected APDU		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 16;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an invalid APDU. 2. The manager under test responds with an Association Abort message: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-008_A		
TP label		Manager State machine:Configuring Waiting 1		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 27;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		

Test procedure	1. The simulated agent sends an Association Request to the manager under test with a dev-config-id set to an id in the extended range unknown to the manager. 2. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x03 (accepted-unknown-config) 3. The simulated agent sends a "roiv-cmip-get". 4. The manager under test responds with an Association Abort message: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)
Pass/Fail criteria	The format of the received message in step 4 must be the one specified and the manager moves to the unassociated state.
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-008_B		
TP label		Manager State machine:Configuring Waiting 2		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 27;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with a dev-config-id set to an id in the extended range unknown to the manager. 2. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x03 (accepted-unknown-config) 3. The simulated agent sends a "roiv-cmip-set". 4. The manager under test responds with an Association Abort message: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)		

Pass/Fail criteria	The format of the received message in step 4 must be the one specified and the manager moves to the unassociated state.
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-008_C		
TP label		Manager State machine:Configuring Waiting 3		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 27;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with a dev-config-id set to an id in the extended range unknown to the manager. 2. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x03 (accepted-unknown-config) 3. The simulated agent sends a "roiv-cmip-confirmed-set". 4. The manager under test responds with an Association Abort message: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)		
Pass/Fail criteria		The format of the received message in step 4 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-008_D		
TP label		Manager State machine:Configuring Waiting 4		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 27;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with a dev-config-id set to an id in the extended range unknown to the manager. 2. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result		

	❑ field-length =2 bytes ❑ field-value =0x00 0x03 (accepted-unknown-config) 3. The simulated agent sends a "roiv-cmip-action". 4. The manager under test responds with an Association Abort message: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)
Pass/Fail criteria	The format of the received message in step 4 must be the one specified and the manager moves to the unassociated state.
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-008_E		
TP label		Manager State machine:Configuring Waiting 5		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 27;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with a dev-config-id set to an id in the extended range unknown to the manager. 2. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x03 (accepted-unknown-config) 3. The simulated agent sends a "roiv-cmip-confirmed-action". 4. The manager under test responds with an Association Abort message: a. PDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)		
Pass/Fail criteria		The format of the received message in step 4 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-009
TP label		Invalid Association Request management.
Coverage	**Spec**	[ISO/IEEE 11073-20601A]

	Testable items	ManagerProc 1; M	ManagerProc 2; M	
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the data-proto-id set to a protocol unknown to the manager. 2. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x04 (rejected-no-common-protocol) c. Data-Proto ❑ data-proto-id = 0x00 0x00 (data-proto-id-empty) ❑ data-proto-info = <empty> 3. The simulated agent sends an Association Request to the manager under test with the data proto-id set to data-proto-id set to "data-proto-id-20601"data-proto-info containing an invalid attribute (encodingRules='0000000000000000'O) 4. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x05 (rejected-no-common-parameters) c. Data-Proto ❑ data-proto-id = 0x00 0x00 (data-proto-id-empty) ❑ data-proto-info = <empty> 5. The simulated agent sends an Association Request to the manager under test with assoc-version set to an incorrect AssociationVersion 6. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length = 2 bytes ❑ field-value = 0x00 0x08 (rejected-unsupported-assoc-version) c. Data-Proto ❑ data-proto-id = 0x00 0x00 (data-proto-id-empty) ❑ data-proto-info = <empty> 7. The simulated agent sends an Association Request to the manager under test with data-proto-id set to a protocol unknown to the manager and a data-proto-id set to data-proto-id-20601 as a second option 8. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes		

	❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x00 (accepted) OR 0x00 0x03 (accepted-unknown) c. Data-Proto ❑ data-proto-id = 0x00 0x00 (data-proto-id-20601) 9. The simulated agent sends a Release Request message. 10. The manager under test responds with a Release Response message. 11. The simulated agent sends an Association Request to the manager under test with a data-proto-id set to data-proto-id-20601 to the manager and a data-proto-id set to a protocol unknown as a second option. 12. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x00 (accepted) OR 0x00 0x03 (accepted-unknown) c. Data-Proto ❑ data-proto-id = 0x00 0x00 (data-proto-id-20601)
Pass/Fail criteria	• The format of the received message in steps 2, 4, 6, 8 and 12 must be the ones specified • In steps4 and 6, Aare must be received from the manager (after rejecting Aarq, the manager has transitioned to the unassociated state)
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-010		
TP label		Configuring.Waiting Config state. Association Request		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 21;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the waiting for config state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test. 2. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length =2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		

Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-011		
TP label		Configuring.Waiting Config state. Association Response		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 22;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the waiting for config state.		
Test procedure		1. The simulated agent sends an Association Response to the manager under test. 2. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length =2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-012		
TP label		Configuring.Waiting Config state. Release Request		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 23;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the waiting for config state.		
Test procedure		1. The simulated agent sends an Association Release Request to the manager under test. 2. The manager under test responds with an Release Response message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE5 0x00 (RlreApdu) b. reason ❑ field-type = ReleaseResponseReason ❑ field-length =2 bytes ❑ field-value = normal (0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unasociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-013		
TP label		Configuring.Waiting Config state. Release Response		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 24;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the waiting for config state.		
Test procedure		1. The simulated agent sends an Association Release Response to the manager under test. 2. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length =2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-014		
TP label		Operating state. Association Request		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 47;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test. 2. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length = 2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id	TP/PLT/MAN/OXP/COM/BV-015
TP label	Operating state. Association Response

Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 48;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. The simulated agent sends an Association Response to the manager under test. 2. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length = 2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-016		
TP label		Operating state. Release Response		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 50;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. The simulated agent sends a Release Response to the manager under test. 2. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length = 2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-017		
TP label		Disassociating state. Association Request		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable	ManagerStateMach 58;M		

	items			
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the association. 2. The simulated agent responds to the Association Release Request with an Association Request. 3. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length = 2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 3 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-018		
TP label		Disassociating state. Association Response		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 59;M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the association. 2. The simulated agent responds to the Association Release Request with an Association Response (AareAPDU). 3. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length = 2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 3 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id	TP/PLT/MAN/OXP/COM/BV-019
TP label	Disassociating state. Release Request

Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 60;M	DisassocProc 6;M	DisassocProc 7;M
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the association. 2. The simulated agent responds to the Association Release Request with an Association Release Request (RlrqApdu). 3. The manager under test responds with an Association Release Response a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (RlreApdu) b. reason ❑ field-type = ReleaseResponseReason ❑ field-length =2 bytes (INT-U16) ❑ field-value= normal(0) 4. The agent responds to the Rlrq message with an Rlre message.		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-020_B		
TP label		Dissasociating state. Rors-cmip-get		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 64;M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the association. 2. The simulated agent responds to the Association Release Request with a "rors-cmip-get" (PrstAPDU). 3. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length = 2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id	TP/PLT/MAN/OXP/COM/BV-020_C

TP label		Dissasociating state. Rors-cmip-confirmed-set		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 64;M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the association. 2. The simulated agent responds to the Association Release Request with a "rors-cmip-confirmed-set" (PrstAPDU). 3. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length = 2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-020_D		
TP label		Dissasociating state. Rors-cmip-confirmed-action		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 64;M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the association. 2. The simulated agent responds to the Association Release Request with a "rors-cmip-confirmed-action" (PrstAPDU). 3. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length = 2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-020_E		
TP label		Dissasociating state. Roer		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 64;M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the association. 2. The simulated agent responds to the Association Release Request with a "roer" (PrstAPDU). 3. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length = 2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-020_F		
TP label		Dissasociating state. Rorj		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 64;M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the association. 2. The simulated agent responds to the Association Release Request with a "rorj" (PrstAPDU). 3. The manager under test responds with an Association Abort message and moves to the unassociated state: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE6 0x00 (AbrtApdu) b. reason ❑ field-type = Abort-reason ❑ field-length = 2 bytes ❑ field-value = One of the following: ▪ undefined(0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the manager moves to the unassociated state.		

Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-022_A		
TP label		Encoding Rules. MDER and XER		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	AssocResp 2;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the encoding rules filed set to MDER and XER. 2. The manager under test must respond with an Association Response, the field of interest is: a. Encoding rules ❑ field-type = ProtocolVersion ❑ field-length= 2 bytes (BITS-16) ❑ field-value= only one bit is set		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the selected encoding rules must be either MDER or XER.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-022_B		
TP label		Encoding Rules. MDER and PER		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	AssocResp 2;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the encoding rules field set to MDER and PER. 2. The manager under test must respond with an Association Response, the field of interest is: a. Encoding rules ❑ field-type = ProtocolVersion ❑ field-length= 2 bytes (BITS-16) ❑ field-value= only one bit is set		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified and the selected encoding rules must be either MDER or PER.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-022_C		
TP label		Encoding Rules. MDER, XER and PER		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	AssocResp 2;M		
Applicability		C_MAN_OXP_000		

Initial condition	The manager under test is in the unassociated state.
Test procedure	1. The simulated agent sends an Association Request to the manager under test with the encoding rules field set to MDER, XER and PER. 2. The manager under test must respond with an Association Response, the field of interest is: a. Encoding rules ❑ field-type = ProtocolVersion ❑ field-length= 2 bytes (BITS-16) ❑ field-value= only one bit is set
Pass/Fail criteria	The format of the received message in step 2 must be the one specified and the selected encoding rules must be MDER or XER or PER.
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-023		
TP label		Encoding Rules. MDER		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	AssocResp 3;M	MessageEncod 1;M	
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with the encoding rules field set to MDER. 2. The manager under test must respond with an Association Response, the field of interest is: a. Encoding rules ❑ field-type = ProtocolVersion ❑ field-length= 2 bytes (BITS-16) ❑ field-value= bit 0 must be set		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-031		
TP label		Operating procedures. Persistently stored metric data transfer 1		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PersStoreMtrDatTransf 1;O	PersStoreMtrDatTransf 2;C	PersStoreMtrDatTransf 26; O
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_048		
Initial condition		The manager under test is in the operating state. The simulated agent has one PM-Store.		
Test procedure		1. Make the manager under test perform a GET service to the PM-Store. 2. The received message by the simulated agent must be: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length= 2 bytes		

	❑ field-value= <Not relevant for this test> c. CHOICE: ❑ field-value= 0x01 0x03 (roiv-cmip-get) d. obj-Handle: ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <The handle of the simulated agent´s PM-Store> e. attribute-Id-List: ❑ field-type = AttributeIdList ❑ field-count = 0x00 0x00 ❑ field-length = 0x00 0x00
Pass/Fail criteria	The format of the received message in step 2 must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-032		
TP label		Operating procedures. Persistently stored metric data transfer 2		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PersStoreMtrDatTransf 16;M	PersStoreMtrDatTransf 17;M	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Initial condition		The manager under test is in the operating state. The simulated agent has one PM-Store with at least one Segment that contains data.		
Test procedure		1. Make the manager under test retrieve the information stored in a PM-Segment. 2. The simulated agent responds to the TrigSegmDataXferReq with an appropriate TrigSegmDataXferRsp message. 3. The simulated agent sends a SegmentDataEvent to the manager. 4. The manager under test must respond with a SegmentDataResult message, the fields of interest are: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length= 2 bytes ❑ field-value= <The same of the sent SegmentDataEvent> c. CHOICE: ❑ field-value= 0x02 0x01 (rors-cmip-confirmed-event-report) d. Obj-Handle: ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = < The same of the sent SegmentDataEvent > e. CurrentTime ❑ field-type = RelativeTime ❑ field-length = 4 bytes ❑ field-value = <Not relevant for this test>		

	f. event-type ❑ field-type = OID-Type ❑ field-length = 2 bytes ❑ field-value = 0x0D 0x21 (MDC_NOTI_SEGMENT_DATA) g. SegmentDataResult ❑ field-length = 12 bytes ❑ field-value = • segm-instance.value = < The same of the sent SegmentDataEvent > • segm-evt-entry-index.value = < The same of the sent SegmentDataEvent > • segm-evt-entry-count.value = < The same of the sent SegmentDataEvent > • segm-evt-status.value = Bit 8 (sevtsta-manager-confirm)
Pass/Fail criteria	The format of the received message in step 4 must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-033_A		
TP label		Operating procedures. Error conditions. Timeout confirmed action 1		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	OperErrorCond 3;M	OperErrorCond 4;M	
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the operating state. The agent has a MDSTimeInfo attribute which indicates that it supports settable time and Absolute Time and Relative Time and the manager is encouraged to set the time.		
Test procedure		1. Make the manager under test set the Absolute Time of the simulated agent. 2. The simulated agent does not answer to the confirmed action for at least TOca time.		
Pass/Fail criteria		The manager under test must wait for a Confirmed Action Report Response message for a TOca period. When the time expires, the manager under test must send an abort to the simulated agent and moves to the unassociated state.		
Notes		Due to the delay introduced by the transport layer and decoder for the received APDU, the test tool accuracy may not be enough to measure this time-out. To get better accuracy, it is necessary to run this test case using a hardware sniffer.		

TP Id		TP/PLT/MAN/OXP/COM/BV-033_B		
TP label		Operating procedures. Error conditions. Timeout confirmed action 2		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	OperErrorCond 3;M	OperErrorCond 4;M	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Initial condition		The manager under test is in the unassociated state, the agent has one PM-Store.		
Test procedure		1. The simulated agent sends an AARQ to the manager under test. 2. Wait until both devices reach the operating state. 3. If the manager did not perform a GetSegmentInfo on its own, make the manager under test perform a GetSegmentInfo action. 4. In both cases the simulated agent does not answer the confirmed action for at least TOca time.		

Pass/Fail criteria	The manager under test must wait for a Confirmed Action Report message for a TOca period .When the time expires, the manager under test must send an abort to the simulated agent and moves to the unassociated state.
Notes	Due to the delay introduced by the transport layer and decoder for the received APDU, the test tool accuracy may not be enough to measure this time-out. To get better accuracy, it is necessary to run this test case using a hardware sniffer.

TP Id		TP/PLT/MAN/OXP/COM/BV-035_A		
TP label		Operating procedures. Error conditions. Timeout Get service 1		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	OperErrorCond 8;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test. 2. Wait until the operating state is reached. 3. If the manager under test did not send automatically a GET request for the MDS object, make the manager under test perform a GET for the MDS object. 4. Whether it was an automatic behaviour of the manager under test or a forced one, the simulated agent does not answer to the GET for at least TOget time.		
Pass/Fail criteria		The manager under test must wait for a Confirmed Event Report Response message for a TOget period. When the time expires, the manager under test must send an abort to the simulated agent and moves to the unassociated state.		
Notes		Due to the delay introduced by the transport layer and decoder for the received APDU, the test tool accuracy may not be enough to measure this time-out. To get better accuracy, it is necessary to run this test case using a hardware sniffer.		

TP Id		TP/PLT/MAN/OXP/COM/BV-035_B		
TP label		Operating procedures. Error conditions. Timeout Get service 2		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	OperErrorCond 8;M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_048		
Initial condition		The manager under test is in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test. 2. Wait until the operating state is reached. 3. If the manager under test did not send automatically a GET Service to the PM-Store object, make the manager under test perform a GET to the PM-Store object. 4. Whether it was an automatic behaviour of the manager under test or a forced one, the simulated agent does not answer to the GET for at least TOget time.		
Pass/Fail criteria		The manager under test must wait for a Confirmed Event Report Response message for a TOget period. When the time expires, the manager under test must send an abort to the simulated agent and moves to the unassociated state.		
Notes		Due to the delay introduced by the transport layer and decoder for the received APDU, the test tool accuracy may not be enough to measure this time-out. To get better accuracy, it is necessary to run this test case using a hardware sniffer.		

TP Id		TP/PLT/MAN/OXP/COM/BV-036_B
TP label		Operating procedures. Error conditions. Timeout Set service
Coverage	**Spec**	[ISO/IEEE 11073-20601A]

	Testable items	OperErrorCond 10;M		
Applicability		C_MAN_OXP_000 AND (C_MAN_OXP_006 OR C_MAN_OXP_001)		
Initial condition		The manager under test is in the operating state, the simulated agent´s scanner is disabled.		
Test procedure		1. Make the manager under test perform a SET Service to the Scanner´s OperationalState. 2. The simulated agent does not answer to the SET for at least TOcs time.		
Pass/Fail criteria		The manager under test must wait for a Confirmed Event Report Response message for a TOcs period. When the time expires, the manager under test must send an abort to the simulated agent and moves to the unassociated state.		
Notes		Due to the delay introduced by the transport layer and decoder for the received APDU, the test tool accuracy may not be enough to measure this time-out. To get better accuracy, it is necessary to run this test case using a hardware sniffer.		

TP Id		TP/PLT/MAN/OXP/COM/BV-037		
TP label		Operating procedures. Error conditions. Timeout clear-segments		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	OperErrorCond 12;M	StoreClassAttr 10;M	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND (C_MAN_OXP_040 OR C_MAN_OXP_041 OR C_MAN_OXP_042)		
Initial condition		The manager under test is in the operating state and the simulated agent has at least one segment with data.		
Test procedure		1. Make the manager under test perform a ClearSegment action to one of the simulated agent´s segments. 2. The simulated agent does not answer to the ClearSegment for at least Tocer-pms time.		
Pass/Fail criteria		The manager under test must wait for a Confirmed Action Report message for a TOclr-pms period (as stated in the PMS.Clear-Timeout attribute). When the time expires, the manager under test must send an abort to the simulated agent.		
Notes		Due to the delay introduced by the transport layer and decoder for the received APDU, the test tool accuracy may not be enough to measure this time-out. To get better accuracy, it is necessary to run this test case using a hardware sniffer.		

TP Id		TP/PLT/MAN/OXP/COM/BV-039		
TP label		Operating procedures. Error conditions. Timeout special segment transfer of the PM-Store object		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PM-SegmAttr 14;M	PM-SegmAttr 15;M	OperErrorCond 16;M
		OperErrorCond 15; M	OperErrorCond 17; M	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Initial condition		The manager under test is in the operating state and the simulated agent has at least one segment with data.		
Test procedure		1. Make the manager under test perform a Trig-Segment-Data-Xfer. 2. The simulated agent sends a TriggerResponse with TrigSegmXferRsp =tsxr_successful. 3. The agent does not send any SegmentData Event for at least TOsp-pms time.		
Pass/Fail criteria		The manager under test must wait for the last SegmentData Event message for a TOsp-pms period (as stated in the Transfer-Timeout attribute). When the time expires, the manager under test must send an abort to the simulated agent.		

Notes	Due to the delay introduced by the transport layer and decoder for the received APDU, the test tool accuracy may not be enough to measure this time-out. To get better accuracy, it is necessary to run this test case using a hardware sniffer.

TP Id		TP/PLT/MAN/OXP/COM/BV-040		
TP label		Disassociating procedure. Association Release Reason		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	DisassocProc 2;M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the Association. 2. The received message by the simulated agent must be: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE4 0x00 (RlrqApdu) b. Reason ❑ field-type = ReleaseRequestReason ❑ field-length = 2 bytes (INT-U16) ❑ field-value = One of the following: ▪ normal (0)		
Pass/Fail criteria		The format of the received message in step 2 must be the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-042		
TP label		Disassociating procedure. Association Release Request Reason 2		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	DisassocProc 8;M	DisassocProc 9;M	
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the Association. 2. The simulated agent does not send any message for at least the Torelease time.		
Pass/Fail criteria		The manager under test must wait for a Release Response message for a Torelease period. When the time expires, the manager under test must send an abort to the simulated agent.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-043		
TP label		Unrecognized standard configuration		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ConfNormalProc 18;C	ConfNormalProc 24; O	
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_032) AND (C_MAN_OXP_016 OR C_MAN_OXP_018 OR C_MAN_OXP_019 OR C_MAN_OXP_020 OR C_MAN_OXP_024 OR C_MAN_OXP_025 OR C_MAN_OXP_026 OR C_MAN_OXP_027 OR C_MAN_OXP_029 OR C_MAN_OXP_067)		

Initial condition	The manager under test is in the unassociated state.
Test procedure	1. The simulated agent sends an Association Request with the attribute dev-config-id set to the standard configuration defined in the device specialization. 2. The manager under test sends an Association Response with the result = "accepted-unknown-config". 3. The simulated agent sends a Configuration Event Report with the config-report-id set to the same dev-config-id of step 1 and an empty ConfigObjectList. 4. The manager under test must respond with a "rors-cmip-confirmed-event-report and the fields of interest are: a. ConfigReportRsp.config-report-id ❑ field-length =2 bytes ❑ field-value= it must be the same as the device-config-id of the simulated agent's message b. ConfigReportRsp.config-result ❑ field-length =2 bytes ❑ field-value= 0x00 0x02 (standard-config-unknown) 5. The simulated agent sends the full configuration information (ConfigObjectList completed, no empty). 6. The manager under test must respond with a "rors-cmip-confirmed-event-report and the fields of interest are: a. ConfigReportRsp.config-report-id ❑ field-length =2 bytes ❑ field-value= it must be the same as the device-config-id of the simulated agent's message b. ConfigReportRsp.config-result ❑ field-length =2 bytes ❑ field-value= 0x00 0x00 (accepted-config) or 0x00 0x01(unsupported-config) 7. IF the manager and the simulated agent are in the operating state, the simulated agent sends a Rlrq(normal) to the manager. If the manager and the simulated agent are in the configuring state, the simulated agent sends an Rlrq (no-more-configurations) to the manager. 8. The manager sends a Release Response. 9. IF C_MAN_OXP_046 = TRUE, the simulated agent sends an aarq with the config-report-id set to the same dev-config-id of step 1, the manager under test may respond with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x00 (accepted-config)
Pass/Fail criteria	The manager under test must respond with a "standard-config-unknown" result in step 4. In step 6 and 9, the manager may accept the configuration.
Notes	At this moment, all Continua Device Specs only support the Standard Dev-Config-id defined in the Device Specialization spec, and according to subsection 7.4.3.5.1 "A Manager that supports one (or more) of the ISO/IEEE 11073-104xx device specialization standards shall be able to accept all the standard device configurations specified in that particular standard."

TP Id	TP/PLT/MAN/OXP/COM/BV-044
TP label	Extended configuration - Empty ConfigObjectList

Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ConfNormalProc 26;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request with the attribute dev-config-id set to a extended configuration. 2. The manager under test sends an Association Response with the result = "accepted-unknown-config". 3. The simulated agent sends a Configuration Event Report with config-report-id set to the same dev-config-id of step 1 and an empty ConfigObjectList. 4. The manager under test must respond with a "rors-cmip-confirmed-event-report and the fields of interest are: a. ConfigReportRsp.config-report-id ❑ field-length =2 bytes ❑ field-value= it must be the same as the device-config-id of the simulated agent's message b. ConfigReportRsp.config-result ❑ field-length =2 bytes ❑ field-value= 0x00 0x00 (accepted-config) or 0x00 0x01(unsupported-config)		
Pass/Fail criteria		The manager under test must respond with an "accepted-config" or an "unsupported-config" result in step 4.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-045		
TP label		Get Specific Attribute List PM-Store		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	PersStoreMtrDatTransf 2;C		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_049		
Initial condition		The manager under test is in the operating state. The simulated agent has one PM-Store.		
Test procedure		1. Make the manager under test perform a GET request to a specific list of PM-Store attributes. 2. The received message by the simulated agent must be: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE7 0x00 (PrstApdu) b. invoke-id ❑ field-type = InvokeIDType ❑ field-length= 2 bytes ❑ field-value= <Not relevant for this test> c. CHOICE: ❑ field-value= 0x01 0x03 (roiv-cmip-get) d. Obj-Handle: ❑ field-type = HANDLE ❑ field-length = 2 bytes ❑ field-value = <The handle of the simulated agent´s PM-Store>		

	e. Attribute-Id-List: ❑ field-type = AttributeIdList ❑ field-count = <It contains one attribute or more> ❑ field-value = <Attribute-Id match Attribute-id defined for PM-Store attributes (Table 9)>
Pass/Fail criteria	The format of the received message in step 2 must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-046		
TP label		Manager State machine:Configuring Waiting. Corrupt-unknown-unexpected APDU		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 78;M		
Applicability		C_MAN_OXP_000		
Initial condition		The simulated agent and the manager under test are in the unassociated state.		
Test procedure		1. The simulated agent sends an Association Request to the manager under test with a dev-config-id set to an id in the extended range unknown to the manager. 2. The manager under test responds with an Association Response: a. APDU Type ❑ field-length =2 bytes ❑ field-value =0xE3 0x00 (AareAdpu) b. Result ❑ field-length =2 bytes ❑ field-value =0x00 0x03 (accepted-unknown-config) 3. The simulated agent sends an invalid apdu. 4. The manager under test responds with an Association Abort message: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)		
Pass/Fail criteria		The format of the received message in step 4 must be the one specified.		
Notes				

TP Id		TP/PLT/MAN/OXP/COM/BV-047		
TP label		Manager State machine:Operating. Corrupt-unknown-unexpected APDU		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 80;M		
Applicability		C_MAN_OXP_000		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. The simulated agent sends an invalid apdu. 2. The manager under test responds with an Association Abort message: a. APDU Type:		

	❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)
Pass/Fail criteria	The format of the received message in step 2 must be the one specified.
Notes	

TP Id		TP/PLT/MAN/OXP/COM/BV-048		
TP label		Manager State machine:Disassociating. Corrupt-unknown-unexpected APDU		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 81;M		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Initial condition		The manager under test is in the operating state.		
Test procedure		1. Make the manager under test release the association. 2. The simulated agent responds to the Association Release Request with an invalid APDU. 3. The manager under test responds with an Association Abort message: a. APDU Type: ❑ field-length = 2 bytes ❑ field-value = 0xE6 0x00 b. Abort-Reason: ❑ field-length = 2 bytes ❑ field-value = 0x00 0x00 (undefined)		
Pass/Fail criteria		The format of the received message in step 3 must be the one specified.		
Notes				

Bibliography

[b-CDG 1.0] Continua Health Alliance, Continua Design Guidelines v1.0 (2008), *Continua Design Guidelines*.

[b-CDG 2010] Continua Health Alliance, Continua Design Guidelines v1.5 (2010), *Continua Design Guidelines*.

[b-CDG 2011] Continua Health Alliance, Continua Design Guidelines (2011), "Adrenaline", Continua Design Guidelines.

[b-CDG 2012] Continua Health Alliance, Continua Design Guidelines (2012), "Catalyst", *Continua Design Guidelines*.

[b-ETSI 300 406] ETSI ETS 300 406, *Methods for Testing and Specifications (MTS); Protocol and profile conformance testing specifications; Standardization methodology*.

[b-ETSI SR 001 262] ETSI SR 001 262 v1.8.1 (2003), *ETSI drafting rules*.

[b-ISO/IEC 9646-1] ISO/IEC 9646-1, *Information Technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts*.

[b-ISO/IEC 9646-7] ISO/IEC 9646-7, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation Conformance Statements*.

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