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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

E-health multimedia services and applications – Interoperability compliance testing of personal health systems (HRN, PAN, LAN, TAN and WAN)

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
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Conformance testing, continua design guidelines, e-health, H.810, PAN/LAN/TAN interface, personal area network, personal connected health devices, touch area network.

* 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.

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Electronic attachment: 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.

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.

TSS & TP for the PAN/LAN/TAN interface 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 14 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

[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 (2015)] Recommendation ITU-T H.810 (2015), *Interoperability design guidelines for personal health systems*.

[ITU-T H.810 (2016)] Recommendation ITU-T H.810 (2016), *Interoperability design guidelines for personal health systems*.

[ISO/IEEE 11073-10417] ISO/IEEE 11073-10417:2014, *Health informatics – Personal health device communication – Part 10417: Device specialization – Glucose meter*.
<http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=61896>

[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 (peak flow).*

[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
MDS	Medical Device System
NFC	Near Field Communication
PAN	Personal Area Network
PCT	Protocol Conformance Testing
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
SABTE	Sleep Apnoea Breathing Therapy Equipment
SDP	Service Discovery Protocol
SOAP	Simple Object Access Protocol
TCRL	Test Case Reference List
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 Recommendation 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 release	Transposed as	Version	Description	Designation
2016 plus errata	[ITU-T H.810 (2016)]	6.1	Release 2016 plus errata noting all ratified bugs [ITU-T H.810 (2016)].	–
2016	–	6.0	Release 2016 of the CDG including maintenance updates of the CDG 2015 and additional guidelines that cover new functionalities.	Iris
2015 plus errata	[ITU-T H.810 (2015)]	5.1	Release 2015 plus errata noting all ratified bugs [ITU-T H.810 (2015)].	–
2015	–	5.0	Release 2015 of the CDG including maintenance updates of the CDG 2013 and additional guidelines that cover new functionalities.	Genome
2013 plus errata	[ITU-T H.810 (2013)]	4.1	Release 2013 plus errata noting all ratified bugs [b-ITU-T H.810 (2013)].	–
2013	–	4.0	Release 2013 of the CDG including maintenance updates of the CDG 2012 and additional guidelines that cover new functionalities.	Endorphin
2012 plus errata	–	3.1	Release 2012 plus errata noting all ratified bugs [b-CDG 2012].	–
2012	–	3.0	Release 2012 of the CDG including maintenance updates of the 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 the CDG 2010 and	Adrenaline

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

CDG release	Transposed as	Version	Description	Designation
			additional guidelines that cover new functionalities [b-CDG 2011].	
2010 plus errata	–	1.6	CDG 2010 integrated with identified errata	–
2010	–	1.5	Release 2010 of the CDG with maintenance updates of the CDG Version 1 and additional guidelines that cover new functionalities [b-CDG 2010].	1.5
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: 20601: 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 analyzer (BCA)
- Subgroup 1.3.13: Basic electrocardiograph (ECG)
- Subgroup 1.3.14: International normalized ratio (INR)
- Subgroup 1.3.15: Sleep apnoea breathing therapy equipment (SABTE)

• 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)
- Subgroup 1.4.6: Whitepaper weight scale requirements (WS)

– 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 analyzer (BCA)
- Subgroup 2.3.13: Basic electrocardiograph (ECG)
- Subgroup 2.3.14: International normalized ratio (INR)
- Subgroup 2.3.15: Sleep apnoea breathing therapy equipment (SABTE)

- 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 requirements (BPM)
  - Subgroup 2.4.4: Whitepaper heart rate requirements (HR)
  - Subgroup 2.4.5: Whitepaper glucose meter requirements (GL)
  - Subgroup 2.4.6: Whitepaper weight scale requirements (WS)

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

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

A.1 TP definition conventions

The test purposes (TPs) 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 (DUT) within that scope of the test (specialization, transport used, etc.).
- **Other PICS:** This contains additional PICS items (apart from the PICS specified in the Applicability row) which are used within the test case implementation and can modify the final verdict. When this row is empty, it means that only the PICS specified in the Applicability row are used within the test case implementation.

- **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			
Test purpose		Check that: Episodic Scanner object, declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_001)		
Other PICS				
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			
Test purpose		Check that: Periodic Scanner object, declared by the vendor as “not supported”, is really not supported by the Manager under test.		

Applicability	C_MAN_OXP_000 AND NOT(C_MAN_OXP_006)
Other PICS	
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			
Test purpose		Check that: PM-Store object, declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_003)		
Other PICS				
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 (2015)]		
	Testable items	Communication 14;M		
Test purpose		Check that: The manager when invoking the Set-Time method shall do so using a roiv-cmip-confirmed-action request. [AND] If the agent has the mds-time-mgr-set-time bit set, the manager shall invoke the Set-Time action command to set the absolute time on the agent [AND] The Set-Time shall be sent within a TO_{config} time period after receiving the attribute from an MDS Get message		
Applicability		C_MAN_OXP_000		
Other PICS				
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	
Test purpose		Check that: The manager when invoking the Set-Base-Offset-Time method shall do so using a roiv-cmip-confirmed-action request. [AND] The Set-Base-Offset-Time shall be sent within a TO_{config} time period after receiving the attribute from an MDS Get message		
Applicability		C_MAN_OXP_000 AND (C_MAN_OXP_029 OR C_MAN_OXP_030)		
Other PICS				
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
Test purpose		Check that: The Manager may request the MDS object attributes of the Agent in which case the		

	Manager shall send the “Remote Operation Invoke | Get” command (see roiv-cmip-get in B.10.2) with the reserved handle value of 0 [AND] Due to the nature of the attributes reported in the MDS Object, the manager should send the Get MDS Object request right after sending the Association Response.[AND] Even if manager knows the agent´s device configuration, the manager may ask to enter the configuring state in order to check attributes from the MDS object before deciding to accept the association.
Applicability	C_MAN_OXP_000
Other PICS	
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
Test purpose		Check that: Support for the Clear-Segments method is optional. [AND] If a manager invokes the [Clear-Segments] method it shall use operation type roiv-cmip-confirmed-action. If a manager invokes the [Clear-Segments] method it shall use the Action-type MDC_ACT_SEG_CLR If a manager invokes the [Clear-Segments] method it shall use the action-info-args SegmSelection structure (all-segments) [AND] The manager shall support at least the all segments choice in the SegmSelection action-info-args of the Clear-Segments method		
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)		
Other PICS				
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	
Test purpose		Check that: Support for the Clear-Segments method is optional. [AND] If a manager invokes the [Clear-Segments] method it shall use operation type roiv-cmip-confirmed-action. If a manager invokes the [Clear-Segments] method it shall use the Action-type MDC_ACT_SEG_CLR If a manager invokes the [Clear-Segments] method it shall use the action-info-args SegmSelection structure (AbsTimeRange)		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_041		
Other PICS				
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	
Test purpose		Check that: Support for the Clear-Segments method is optional. [AND] If a manager invokes the [Clear-Segments] method it shall use operation type roiv-cmip-confirmed-action. If a manager invokes the [Clear-Segments] method it shall use the Action-type MDC_ACT_SEG_CLR If a manager invokes the [Clear-Segments] method it shall use the action-info-args SegmSelection structure (segm-id-list)		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_042		
Other PICS				
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	
Test purpose		Check that: Support for the Clear-Segments method is optional. [AND] If a manager invokes the [Clear-Segments] method it shall use operation type roiv-cmip-confirmed-action. If a manager invokes the [Clear-Segments] method it shall use the Action-type MDC_ACT_SEG_CLR If a manager invokes the [Clear-Segments] method it shall use the action-info-args SegmSelection structure (BOTimeRange)		
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)		
Other PICS				
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		
Test purpose		Check that: If a manager invokes the [Get-Segment-Info] method it shall use operation type roiv-cmip-confirmed-action. If a manager invokes the [Get-Segment-Info] method it shall use the Action-type MDC_ACT_SEG_GET_INFO If a manager invokes the [Get-Segment-Info] method it shall use the action-info-args SegmSelection (all-segments) [AND] If a manager supports the PM-store class, the support of the Get-Segment-Info and Trig-Segment-Data-Xfer methods is mandatory [AND] If the manager supports sending the Get-Segment-Info method, the manager shall support at least the choice all-segments in the SegmSelection action-info-args of the Get-Segment-Info method. The manager may support additional choices.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Other PICS				
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		
Test purpose		Check that: A Manager may invoke the [Get-Segment-Info] method If a manager invokes the [Get-Segment-Info] method it shall use operation type roiv-cmip-confirmed-action. If a manager invokes the [Get-Segment-Info] method it shall use the Action-type MDC_ACT_SEG_GET_INFO If a manager invokes the [Get-Segment-Info] method it shall use the action-info-args SegmSelection (segm-id-list)		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_045		
Other PICS				
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´ instance 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		
Test purpose		Check that: A Manager may invoke the [Get-Segment-Info] method If a manager invokes the [Get-Segment-Info] method it shall use operation type roiv-cmip-confirmed-action. If a manager invokes the [Get-Segment-Info] method it shall use the Action-type MDC_ACT_SEG_GET_INFO If a manager invokes the [Get-Segment-Info] method it shall use the action-info-args SegmSelection (abs-time-range)		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_AG_OXP_044		
Other PICS				
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		
Test purpose		Check that: A Manager may invoke the [Get-Segment-Info] method If a manager invokes the [Get-Segment-Info] method it shall use operation type roiv-cmip-confirmed-action. If a manager invokes the [Get-Segment-Info] method it shall use the Action-type MDC_ACT_SEG_GET_INFO If a manager invokes the [Get-Segment-Info] method it shall use the action-info-args SegmSelection (bo-time-range)		
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)		
Other PICS				
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
Test purpose		Check that: If a manager invokes the [Trig-Segment-Data-Xfer] method it shall use operation type roiv-cmip-confirmed-action. If a manager invokes the [Trig-Segment-Data-Xfer] method it shall use the Action-type MDC_ACT_SEG_TRIG_XFER If a manager invokes the [Trig-Segment-Data-Xfer] method it shall use the action-info-args TrigSegmDataXferReq [AND] If a manager supports the PM-store class, the support of the Get-Segment-Info and Trig-Segment-Data-Xfer methods is mandatory. [AND] The manager sends the ACTION method to the agent with the handle of the PM-store object to access. The argument to this ACTION method is the instance number of the segment to transfer		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Other PICS				
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		
Test purpose		Check that: Managers must respond to [Segment-Data-Event] events when received When responding to a [Segment-Data-Event] event the event-reply-info parameter shall be SegmentDataResult.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Other PICS				
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		
Test purpose		Check that: Managers must respond to [Segment-Data-Event] events when received When responding to a [Segment-Data-Event] event the event-reply-info parameter shall be SegmentDataResult.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Other PICS				
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		
Test purpose		Check that: If an Episodic Scanner uses Unbuf-Scan-Report-Grouped Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] The manager shall use the SET action to request a change in the value of this attribute (Operational State) [AND] If a manager supports episodic scanners, it shall support all the events identified in Table 16 (Episodic configurable scanner object events).		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001		
Other PICS				
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
Test purpose		Check that: If an Episodic Scanner uses Unbuf-Scan-Report-MP-Grouped Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] If a manager supports episodic scanners, it shall support all the events identified in Table 16 (Episodic configurable scanner object events).		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001 AND C_MAN_OXP_037		
Other PICS				
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
Test purpose		Check that: If a Periodic Configurable Scanner uses Buf-Scan-Report-Grouped Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] If a manager supports periodic scanners, it shall support all the events identified in Table 18 (Periodic configurable scanner object events).		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006		
Other PICS				
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
Test purpose		Check that: If a Periodic Configurable Scanner uses Buf-Scan-Report-MP-Grouped Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] If a manager supports periodic scanners, it shall support all the events identified in Table 18 (Periodic configurable scanner object events).		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006 AND C_MAN_OXP_037		
Other PICS				
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		
Test purpose		Check that: An implementation of a Manager system shall process a message fully by skipping any unknown attributes (e.g. vendor specified attributes) and ignoring the assigned data values of such attributes, without protocol errors. The implementation may log the occurrence of such attributes as appropriate.		
Applicability		C_MAN_OXP_000		
Other PICS				
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 cannot 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 cannot 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 items	ManagerStateMach 65; M	AssocResp 2;M	AssocResp 8; M
		AssocResp 9; M	AssocResp 10; M	AssocResp 11; M
	Spec	[ITU-T H.810 (2015)]		
	Testable items	General 4; M		
Test purpose		Check that: If aarq received while in unassociated state, a manager shall move to connected associating state [AND] The encoding-rules field contains the one and only one, DataApdu encoding rule shall be chosen by the Manager, if the result field is equal to accepted or accepted-unknown-config [AND] The dev-config-id field shall be manager-config-response in the response. [AND] The data-req-mode-capab field shall be zero in the response. [AND] The option-list field is not currently used by this standard. This field should be an empty list. [AND] The protocol-version field contains the version of the common data protocol chosen by the manager if the result field is equal to accepted or accepted-unknown-config The nomenclature-version field contains the version of the nomenclature chosen by the manager if the result field is equal to accepted or accepted-unknown-config. The functional-units field indicates the common functional units and optional features chosen by the manager if the result field is equal to accepted or accepted-unknown-config. The system-type field contains the system type. The system-id field has the unique system ID of the manager [AND] Continua client components shall support associations with Continua LAN service components where only the version 1 bit of the protocol-version is set in the PHDAssociationInformation structure in the AARQ. In that case, the Continua client components shall respond with the version 1 bit of the protocol version set in the PHDAssociationInformation structure in the AARE and shall follow the ISO/IEEE Std 11073-20601-2008 specification along with all corrections and		

	clarifications included in the ISO/IEEE Std 11073-20601A-
Applicability	C_MAN_OXP_000
Other PICS	
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	[ISO/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
Test purpose		Check that: For [Standard-Configuration] the [Attribute-Value-Map] attribute shall be present The value of the [Attribute-Value-Map] attribute shall be MDC_ATTR_NU_VAL_OBS_SIMP, then MDC_ATTR_TIME_STAMP_ABS		
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)		
Other PICS				
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]		
	cxdTestable 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		
Test purpose		Check that: For [Standard-Configuration], If fixed format is used and the standard configuration is not adjusted, the [Absolute-Time-Stamp] attribute is mandatory; otherwise, the conditions from ISO/IEEE P11073-20601 apply.		
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)		
Other PICS				
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	
Test purpose		Check that: If an Episodic Scanner uses Unbuf-Scan-Report-Var Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation.		

	[AND] If a manager supports episodic scanners, it shall support all the events identified in Table 16 (Episodic configurable scanner object events).
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_001
Other PICS	
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	
Test purpose		Check that: If an Episodic Scanner uses Unbuf-Scan-Report-MP-Var Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] If a manager supports episodic scanners, it shall support all the events identified in Table 16 (Episodic configurable scanner object events).		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001 AND C_MAN_OXP_037		
Other PICS				
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	
Test purpose		Check that: If an Periodic Configurable Scanner uses Buf-Scan-Report-Var Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] If a manager supports periodic scanners, it shall support all the events identified in Table 18 (Periodic configurable scanner object events).		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006		
Other PICS				
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	
Test purpose		Check that: If a Periodic Configurable Scanner uses Buf-Scan-Report-MP-Var Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] If a manager supports periodic scanners, it shall support all the events identified in Table 18 (Periodic configurable scanner object events).		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006 AND C_MAN_OXP_037		
Other PICS				
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	
Test purpose		Check that: If an Episodic Scanner uses Unbuf-Scan-Report-Fixed Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] If a manager supports episodic scanners, it shall support all the events identified in Table 16 (Episodic configurable scanner object events).		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001		
Other PICS				
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	
Test purpose		Check that: If an Episodic Scanner uses Unbuf-Scan-Report-MP-Fixed Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] If a manager supports episodic scanners, it shall support all the events identified in Table 16 (Episodic configurable scanner object events).		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_001 AND C_MAN_OXP_037		
Other PICS				
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	

Test purpose	Check that: If an Periodic Configurable Scanner uses Buf-Scan-Report-Fixed Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] If a manager supports periodic scanners, it shall support all the events identified in Table 18 (Periodic configurable scanner object events).
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_006
Other PICS	
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	
Test purpose		Check that: If an Periodic Configurable Scanner uses Buf-Scan-Report-MP-Fixed Events to report updated data; and it reports data in confirmed mode, a Manager shall use a rors-cmip-confirmed-event-report operation to acknowledge the operation. [AND] If a manager supports periodic scanners, it shall support all the events identified in Table 18 (Periodic configurable scanner object events).		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_006 AND C_MAN_OXP_037		

Other PICS	
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		
Test purpose		Check that: If the [Scan-Handle-List] attribute is included in the [Scanner object], the Manager shall not assume the order of the objects contained in the event reports is the same as the order of the Scan-Handle-List.		
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))		
Other PICS				

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		
Test purpose		Check that: In this case, neither the mds-time-mgr-set-time nor the mds-time-capab-set-clock bits shall be set and the manager shall not attempt to set the clock.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_055)		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_056)		
Other PICS				

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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_057)		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_058)		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_059)		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_060)		
Other PICS				
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 weighing 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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_061)		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		

Applicability	C_MAN_OXP_000 AND NOT(C_MAN_OXP_062)
Other PICS	
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_052)		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_054)		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_051)		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_064)		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_065)		
Other PICS				
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		
Test purpose		Check that: Specialization ,declared by the vendor as “not supported”, is really not supported by the Manager under test.		
Applicability		C_MAN_OXP_000 AND NOT(C_MAN_OXP_066)		
Other PICS				
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	
Test purpose		Check that: The Manager shall respond [to the configuration event] with a “Remote Operation Response | Confirmed Event Report” message with an event-type of MDC_NOTI_CONFIG filling in the ConfigReportRsp structure or with an appropriate roer error message with a suitable return code.		
Applicability		C_MAN_OXP_000		
Other PICS				
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 Association 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 (2015)]		
	Testable items	Conformance 1; M		
Test purpose		Check that: A Manager receiving a confirmed event report from the Agent shall respond with either a rors-cmip-confirmed-event-report or an appropriate roer error message with a suitable return code. [AND] If an agent uses agent-initiated measurements and if the Unconfirmed Event Report is used, the Manager shall not respond. [AND] A Manager shall support single-person event reports. [AND] A Manager shall support fixed format event reports.		
Applicability		C_MAN_OXP_000		
Other PICS				
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 (2015)]		
	Testable items	Conformance 1; M		
Test purpose		Check that: A Manager receiving a confirmed event report from the Agent shall respond with either a rors-cmip-confirmed-event-report or an appropriate roer error message with a suitable return code. [AND]		

	A Manager shall support single-person event reports. [AND] A Manager shall support fixed format event reports.
Applicability	C_MAN_OXP_000
Other PICS	
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 (2015)]		
	Testable items	Conformance 1; M		

Test purpose	Check that: A Manager receiving a confirmed event report from the Agent shall respond with either a rors-cmip-confirmed-event-report or an appropriate roer error message with a suitable return code. [AND] If an agent uses agent-initiated measurements and if the Unconfirmed Event Report is used, the Manager shall not respond. [AND] A Manager shall support multi-person event reports. [AND] A Manager shall support fixed format event reports.
Applicability	C_MAN_OXP_000
Other PICS	
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 (2015)]		
	Testable items	Conformance 1; M		
Test purpose		Check that: A Manager receiving a confirmed event report from the Agent shall respond with either a rors-cmip-confirmed-event-report or an appropriate roer error message with a suitable return code. [AND] A Manager shall support multi-person event reports. [AND] A Manager shall support fixed format event reports.		
Applicability		C_MAN_OXP_000		
Other PICS				
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 (2015)]		
	Testable items	Conformance 1; M		
Test purpose		Check that: A Manager receiving a confirmed event report from the Agent shall respond with either a rors-cmip-confirmed-event-report or an appropriate roer error message with a suitable return code. [AND] If an agent uses agent-initiated measurements and if the Unconfirmed Event Report is used, the Manager shall not respond. [AND] A Manager shall support single-person event reports. [AND] A Manager shall support variable format event reports.		
Applicability		C_MAN_OXP_000		
Other PICS				
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 Observation Scan with information about Metric-Spec-Small attributes for metric objects that are present in the Agent´s configuration. 2. The manager under test cannot 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 (2015)]		
	Testable items	Conformance 1; M		
Test purpose		Check that: A Manager receiving a confirmed event report from the Agent shall respond with either a rors-cmip-confirmed-event-report or an appropriate roer error message with a suitable return code. [AND] A Manager shall support single-person event reports. [AND] A Manager shall support variable format event reports.		
Applicability		C_MAN_OXP_000		
Other PICS				
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 (2015)]		
	Testable items	Conformance 1; M		
Test purpose		Check that: A Manager receiving a confirmed event report from the Agent shall respond with either a rors-cmip-confirmed-event-report or an appropriate roer error message with a suitable return code. [AND] If an agent uses agent-initiated measurements and if the Unconfirmed Event Report is used, the Manager shall not respond. [AND] A Manager shall support multi-person event reports. [AND] A Manager shall support variable format event reports.		
Applicability		C_MAN_OXP_000		
Other PICS				
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 cannot 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 (2015)]		
	Testable items	Conformance 1; M		
Test purpose		Check that: A Manager receiving a confirmed event report from the Agent shall respond with either a rors-cmip-confirmed-event-report or an appropriate roer error message with a suitable return code. [AND] A Manager shall support multi-person event reports. [AND]		

	A Manager shall support variable format event reports.
Applicability	C_MAN_OXP_000
Other PICS	
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	
Test purpose		Check that: A Manager shall support both single-person and multi-person event reports. [AND] A Manager shall support variable format and fixed format, and if the manager supports scanners, it shall support grouped format event reports.		
Applicability		C_MAN_OXP_000		
Other PICS		C_MAN_OXP_037		
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		
Test purpose		Check that: All unused values in the standard range are reserved for future use, A manager encountering such a reserved value shall assume the value to be an extended unsupported unrecognized standard configuration and use it as described in 8.7.3.3 and 8.8.3.		
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)		
Other PICS				
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	
Test purpose		Check that: The Manager shall wait in the Waiting for Config state for at least TOconfig seconds before sending an Association Abort message [AND] The Manager shall wait at least TOconfig seconds in the Waiting for Configuration state for the configuration information prior to sending an Abort message and returning to the Unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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	
Test purpose		Check that: If the Manager does not accept the configuration, it shall send a configuration response with an unsupported-config result		
Applicability		C_MAN_OXP_000		
Other PICS				
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	
Test purpose		Check that: If the Manager does not already know the Agent's device configuration (e.g. based on a previous association phase), the Manager asks for the Agent's device configuration. [AND] [If the configuration is not known] the Manager shall respond with an accepted-unknown-config response [AND] If the Manager accepts the configuration, it shall send a configuration response with an accepted-config result [AND] If the Manager does not recognize the value in the dev-config-id field, the Manager shall send an Association Response message with the result field set to accepted-unknown-config and transition to the Configuring state. [AND] If the Manager accepts the configuration, it responds with an accepted-config message and both Manager and Agent move to the Operating state.		
Applicability		C_MAN_OXP_000		
Other PICS		C_MAN_OXP_046		
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		
Test purpose		Check that: If the Manager already understands that configuration either because it was preloaded via an installation program or the Agent previously associated with the Manager, then the Manager shall respond with the configuration accepted response [AND] If manager receives rlrq while in operating state, the manager shall transmit rlre(normal) and move to the unassociated state. [AND] If the Manager recognizes the value in the dev-config-id field as representing a known standard device specialization, or a configuration from a previous association, the Manager shall send an Association Response message with a result field of accepted and transition to the Operating state or may send an Association Response message with a result field of accepted-unknown-config to force the agent to enter configuring state in order to check attributes from the MDS object prior to final acceptance of the association.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If aare received while in unassociated state, a manager shall transmit an abrt (reason undefined) and remain in the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If aare received while in unassociated state, a manager shall transmit an abrt (reason undefined) and remain in the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If prst (Any APDU not covered in 2.* (corrupt, unknown, unexpected, etc.) received while in unassociated state, a manager shall transmit an abrt(reason undefined) and remain in the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If prst (Any APDU not covered in 2.* (corrupt, unknown, unexpected, etc.) received while in unassociated state, a manager shall transmit an abrt(reason undefined) and remain in the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If manager receives Rx roiv-* but not matching in any other 6* state, while in waiting state, the manager shall transmit an abrt(reason undefined) and moves to Unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If manager receives Rx roiv-* but not matching in any other 6* state, while in waiting state, the manager shall transmit an abrt(reason undefined) and moves to Unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If manager receives Rx roiv-* but not matching in any other 6* state while in waiting state, the manager shall transmit abrt(reason undefined) and moves to Unassociated state		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If manager receives Rx roiv-* but not matching in any other 6* state while in waiting state, the manager shall transmit an abrt(reason undefined) and moves to Unassociated state		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If manager receives Rx roiv-* but not matching in any other 6* state while in waiting state, the manager shall transmit an abrt(reason undefined) and moves to Unassociated state		

Applicability	C_MAN_OXP_000
Other PICS	
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	
Test purpose		Check that: When a Manager receives an Association Request, it shall compare the protocol and operating parameters with its own and determine whether the Agent is compatible with the Manager. If the connection is bi-directional, the Manager shall report the outcome of this assessment in the result field of an Association Response. [AND] A manager may reject the association for any of the possible rejection reasons enumerated in 8.7.3.2. If the Manager rejects the Association, it shall transition to the Unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If manager receives aarq while in waiting state, the manager shall transmit an abrt (reason undefined) and move to the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		

Test purpose	Check that: If manager receives aare while in waiting state, the manager shall transmit an abrt (reason undefined) and move to the unassociated state.
Applicability	C_MAN_OXP_000
Other PICS	
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		
Test purpose		Check that: If manager receives rlrq while in waiting state, the manager shall transmit rlre(normal) and move to the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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 unassociated 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		
Test purpose		Check that: If manager receives rlre while in waiting state, the manager shall transmit an abrt(reason undefined) and move to the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If manager receives aarq while in operating state, the manager shall transmit an abrt (reason undefined) and move to the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If manager receives aare while in Operating state, the manager shall transmit an abrt(reason undefined) and move to the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If manager receives rlre while in operating state, the manager shall transmit an abrt (reason undefined) and move to the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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 items	ManagerStateMach 58;M		
Test purpose		Check that: If aarq is received while in Disassociating state, the manager shall transmit abrt (reason undefined) and move to the unassociated state.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Other PICS				
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		

Test purpose	Check that: If manager receives aare while in Disassociating state, the manager shall transmit an abrt (reason undefined) and move to the unassociated state.
Applicability	C_MAN_OXP_000 AND C_MAN_OXP_043
Other PICS	
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
Test purpose		Check that: If manager receives rlrq while in Disassociating state, the manager shall transmit rlre(normal) and move to the unassociated state. [AND] If both the Manager and the Agent simultaneously move to the Disassociating state such that one or both receive an Association Release Request while in the Disassociating state, then the receiver(s) shall respond to the request to avoid deadlock [AND] Note that this also means it is possible to receive an Association Release Request while in the Unassociated state. In such a case, an Association Release Response shall be sent.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Other PICS				
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		Dissociating state. Rors-cmip-get		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 64;M		
Test purpose		Check that: If rors-cmip-get is received while in the Disassociating state, a manager shall transmit an abrt (reason undefined) and move to unassociated state.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Other PICS				
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		Dissociating state. Rors-cmip-confirmed-set		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 64;M		
Test purpose		Check that: If rors-cmip-confirmed-set is received while in the Disassociating state, a manager shall transmit an abrt (reason undefined) and move to unassociated state.		

Applicability	C_MAN_OXP_000 AND C_MAN_OXP_043
Other PICS	
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		Dissociating state. Rors-cmip-confirmed-action		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 64;M		
Test purpose		Check that: If rors-cmip-confirmed-action is received while in the Disassociating state, a manager shall transmit an abrt (reason undefined) and move to unassociated state.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Other PICS				
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		Dissociating state. Roer		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 64;M		
Test purpose		Check that: If roer is received while in the Disassociating state, a manager shall transmit an abrt (reason undefined) and move to unassociated state.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Other PICS				
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		Dissociating state. Rorj		
Coverage	**Spec**	[ISO/IEEE 11073-20601A]		
	Testable items	ManagerStateMach 64;M		
Test purpose		Check that: If rorj is received while in the Disassociating state, a manager shall transmit an abrt (reason undefined) and move to unassociated state.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Other PICS				
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		
Test purpose		Check that: The encoding-rules field contains the one and only one DataApdu encoding rule shall be chosen by the Manager, if the result field is equal to accepted or accepted-unknown-config		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: The encoding-rules field contains the one and only one DataApdu encoding rule shall be chosen by the Manager, if the result field is equal to accepted or accepted-unknown-config		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: The encoding-rules field contains the one and only one DataApdu encoding rule shall be chosen by the Manager, if the result field is equal to accepted or accepted-unknown-config		
Applicability		C_MAN_OXP_000		
Other PICS				
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	
Test purpose		Check that: The Manager shall always support MDER enabling interoperability. [AND] Both Manager and Agent shall support the Medical Device Encoding Rules (MDER) as defined in ISO/IEEE Std 11073-20101.		
Applicability		C_MAN_OXP_000		
Other PICS				

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
Test purpose		Check that: If the manager queries each PM-Store to determine the number of PM-Segments that exist within the PM-Store, the attribute-id-list shall be left empty to query for all attributes of the PM-store object.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_048		
Other PICS				
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	
Test purpose		Check that: When the Manager receives an Event report, it shall reply with a SegmentDataResult response that shall contain the same store-handle, segm-instance number, segm-evt-entry-index, and segm-evt-entry-count. [AND] In the segm-evt-status, the Manager shall set the sevtsta-manager-confirm bit.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Other PICS				
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	
Test purpose		Check that: After sending a Confirmed Action invoke message, the Manager shall wait for a Confirmed Action response message for an TOca (timeout: confirmed action service) period by default unless another timeout applies (e.g., TOclr-pms overrides TOca as described in 8.9.5.6)... [AND] If the TOca expires, the Manager shall send an Association Abort message to the Agent and transition back to the Unassociated state		
Applicability		C_MAN_OXP_000		
Other PICS				
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	
Test purpose		Check that: After sending a Confirmed Action invoke message, the Manager shall wait for a Confirmed Action response message for an TOca (timeout: confirmed action service) period by default unless another timeout applies (e.g., TOclr-pms overrides TOca as described in 8.9.5.6)... [AND] If the TOca expires, the Manager shall send an Association Abort message to the Agent and transition back to the Unassociated state		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Other PICS				

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		
Test purpose		Check that: If the RTOget expires, the Manager shall send an Association Abort message to its peer and transition back to the Unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If the TOget expires, the Manager shall send an Association Abort message to its peer and transition back to the Unassociated state.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_048		
Other PICS				
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		
Test purpose		Check that: If the TOcs expires, the Manager shall send an Association Abort message to the Agent and transition back to the Unassociated state		
Applicability		C_MAN_OXP_000 AND (C_MAN_OXP_006 OR C_MAN_OXP_001)		
Other PICS				
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	
Test purpose		Check that: If, after the Manager sends an Invoke Confirmed Action (Clear Segment) command, the TOclr-pms expires prior to the Manager receiving the corresponding Response Confirmed Action message, the Manager shall send an Association Abort message to the Agent and transition to the Unassociated state.		
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)		
Other PICS				
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	
Test purpose		Check that: If the TOsp-pms expires (minimum time that the Manager shall wait for the complete transfer of PM-Segment information), the Manager shall send an Association Abort message to the Agent and transition back to the Unassociated state. [AND] After sending a Confirmed Action (MDC_ACT_SEG_TRIG_XFER) invoke message and receiving the response, the Manager shall wait up to a TOsp-pms (timeout: special segment transfer timeout of the PM-store object) period for a Confirmed Event Report (segm-evt-status=sevtsta-last-entry, semg-data-event-entries) invoke message		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003		
Other PICS				
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		
Test purpose		Check that: The Association Release Request contains a ReleaseRequestReason to indicate the reason for releasing the association.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Other PICS				

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	
Test purpose		Check that: After sending an Association Release message, the Manager shall wait for an Association Release Response message for a TOrelease (timeout: association release procedure) period. [AND] If the TOrelease expires, the Manager shall send an Association Abort message to its peer and transition back to the Unassociated state.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Other PICS				
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	
Test purpose		Check that: If the Manager does not recognize the standard configuration (e.g. the Manager was released prior to the device specialization being released), it shall send a response of standard-config-unknown. [AND]		

	If the manager is able to interoperate with the provided standard configuration, it may accept that configuration. If the manager stores configurations, it may store this configuration for future reference when any agent uses this standard configuration identification and henceforth treat the configuration as recognized.
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)
Other PICS	C_MAN_OXP_046
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		
Test purpose		Check that: An agent may send an extended configuration with an empty config-object-list. This can happen, for instance, when an agent accepts plug-in components, but presently does not have any inserted. The manager responds with either accepted-config or unsupported-config.		
Applicability		C_MAN_OXP_000		
Other PICS				
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 an 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		
Test purpose		Check that: Specific attributes of an object may be queried by listing the desired Attribute IDs found in Table 9		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_003 AND C_MAN_OXP_049		
Other PICS				

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		
Test purpose		Check that: If prst (Any APDU not covered in 6.* (corrupt, unknown, unexpected, etc.) received while in configuring–waiting state, a manager shall transmit an abrt(reason undefined) and remain in the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If prst (Any APDU not covered in 8.* (corrupt, unknown, unexpected, etc.) received while in operating state, a manager shall transmit an abrt(reason undefined) and remain in the unassociated state.		
Applicability		C_MAN_OXP_000		
Other PICS				
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		
Test purpose		Check that: If prst (Any APDU not covered in 9.* (corrupt, unknown, unexpected, etc.) received while in disassociating state, a manager shall transmit an abrt(reason undefined) and remain in the unassociated state.		
Applicability		C_MAN_OXP_000 AND C_MAN_OXP_043		
Other PICS				

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	

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