

SwissVision TR4000

DICOM Conformance Statement
Modality Performed Procedure Step (MPPS) Services

Program Version 9.3 or later
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Document Revision History

Version	Changes	SwissVision	Author	Date
1.0	First release version	V 8.0 or later	E. Ungricht	08.07.02
1.1	Extended Character set updated	V9.3 or later	M. Darms	22.03.06

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0 Introduction

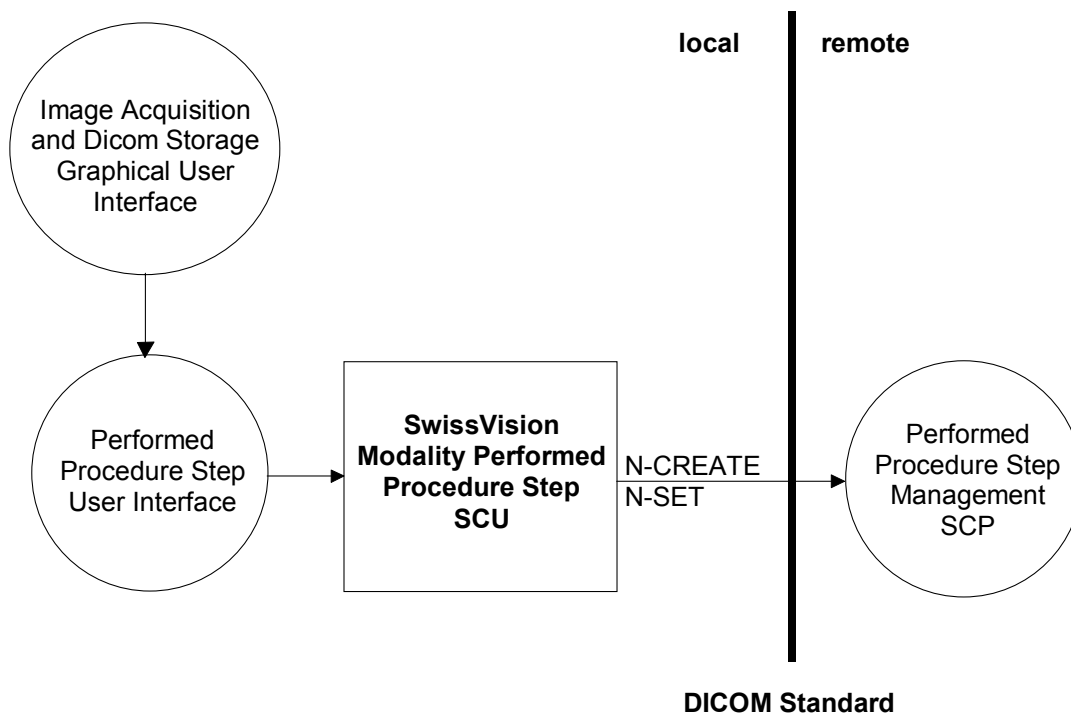
This is the conformance statement for the SwissVision “Modality Performed Procedure Step” application which supports DICOM 3.0 Modality Performed Procedure Step Services as a Service Class User (SCU). This conformance statement is valid for the SwissVision V 9.3 and higher with the Modality Performed Procedure Step option (not included in standard version).

1 Implementation Model

The SwissVision “Modality Performed Procedure Step” application is an implementation of a DICOM Modality Performed Procedure Step Service Class User (SCU) which sends DICOM conformant information about start and finish of performed procedure steps to a DICOM Performed Procedure Step Service Class Provider (SCP). The related modality worklist functions and the image storage and storage commitment mechanisms are provided by the SwissVision Modality Worklist application and the SwissVision Storage and Storage Commitment applications. All are realized using the MergeCOM-3 Advanced Integrator's Tool Kit from Merge Technologies Inc.

1.1 Application Data Flow Diagram

Figure 1: SwissVision “Modality Performed Procedure Step” application data flow diagram



1.2 Functional Definition of Application Entity (AE)

The SwissVision “Modality Performed Procedure Step” application allows to send DICOM conformant information about start and finish of performed procedure steps to a DICOM Performed Procedure Step Service Class Provider (SCP). As soon as a procedure step is started and the resulting series created, the user can prepare and send a “Procedure Started” message using the graphical user interface. After the procedure step is finished and the images are stored, the user can send a “Procedure Finished” message. If a procedure is canceled, the user can send a “Procedure Canceled” message.

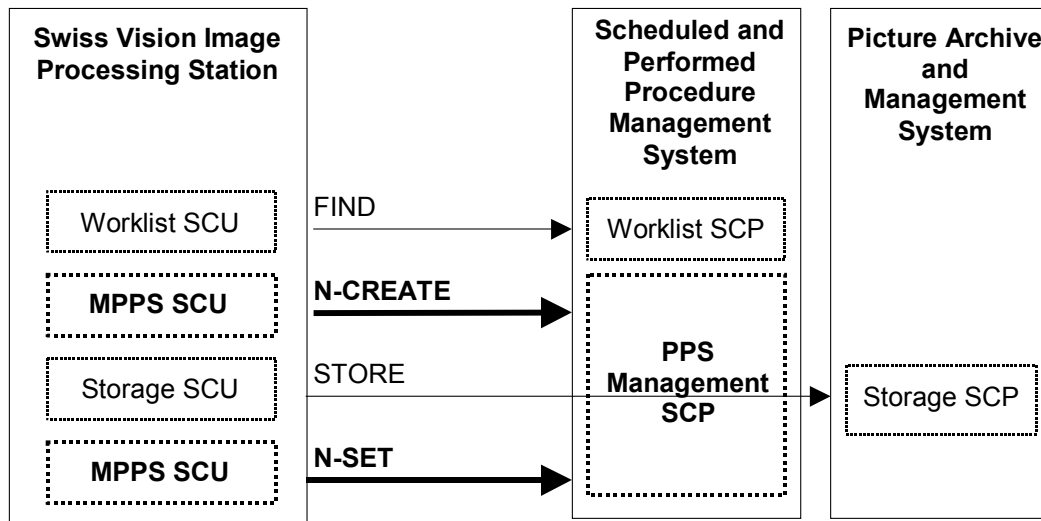
On user request the SwissVision “Modality Performed Procedure Step” application establishes an association with the user selected Performed Procedure Step Management SCP and sends the

procedure started, finished or canceled information. Procedure step information are normally obtained previously from a DICOM Worklist Management SCP, but may also be entered at the local application.

All communication and data transfer with the remote application is accomplished utilizing the DICOM protocol over a network using the TCP/IP protocol stack.

1.3 Sequencing of real-world Activities

Figure 2: Sequencing of worklist, storage and performed procedure step management activities



2 AE Specifications

2.1 SwissVision “Modality Performed Procedure Step”

The SwissVision “Modality Performed Procedure Step” application provides standard conformance to the following DICOM 3.0 Service Object Pair (SOP) Classes as a Storage Service Class User (SCU).

Table 1: Valid SOP Classes for the SwissVision “Modality Performed Procedure Step” application

SOP Class Name	SOP Class UID
Modality Performed Procedure Step SOP Class	1.2.840.10008.3.1.2.3.3

2.1.1 Association Establishment Policies

2.1.1.1 General

The SwissVision “Modality Performed Procedure Step” application initiates an association as a Modality Performed Procedure Step SCU when the local operator requests to send a “Procedure Started”, “Finished” or “Canceled” message. The maximum PDU size is 28’672 bytes.

2.1.1.2 Number of Associations

The SwissVision “Modality Performed Procedure Step” application only opens one association at a time. There is only one requests sent per association.

2.1.1.3 Asynchronous Nature

The SwissVision “Modality Performed Procedure Step” application does not support asynchronous communication (multiple outstanding transactions over a single association).

2.1.1.4 Implementation identifying Information

The implementation class unique identifier (UID) for SwissVision “Modality Performed Procedure Step” application is:

2.16.840.1.113929.1.9.980811

The implementation version name for the SwissVision “Modality Performed Procedure Step” application is:
SwissVision_1.0

2.1.2 Association Initiation by real-world Activity

The SwissVision “Modality Performed Procedure Step” application initiates an association for the Performed Procedure Step N-CREATE or N-SET request following the corresponding operator command.

2.1.2.1 Real-world Activity for Performed Procedure Create Request

The SwissVision “Modality Performed Procedure Step” application initiates an association for the Performed Procedure Step N-CREATE request after the corresponding operator command, which should happen when a procedure has been started by the operator.

2.1.2.1.1 Associated real-world Activity for Performed Procedure Create Request

Once the performed procedure step association has been established, the SwissVision “Modality Performed Procedure Step” application sends a N-CREATE request.

2.1.2.1.2 Proposed Presentation Contexts for Performed Procedure Create Request

The presentation contexts that are proposed by the SwissVision “Modality Performed Procedure Step” application for the performed procedure step create requests are specified in Table 2.

2.1.2.1 Real-world Activity for Performed Procedure Set Report

The SwissVision “Modality Performed Procedure Step” application initiates an association for the Performed Procedure Step N-SET request after the corresponding operator command, which should happen when a procedure has been finished or canceled by the operator.

2.1.2.1.1 Associated real-world Activity for Performed Procedure Set Report

Once the performed procedure step association has been established, the SwissVision “Modality Performed Procedure Step” application sends a N-SET request.

2.1.2.1.2 Proposed Presentation Contexts for Performed Procedure Set Report

The presentation contexts that are proposed by the SwissVision “Modality Performed Procedure Step” application for the performed procedure step set requests are specified in Table 2.

Table 2: Performed Procedure Step Presentation Contexts of the SwissVision “Modality Performed Procedure Step” application

Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Modality Performed Procedure Step	1.2.840.10008.3.1.2.3.3	DICOM Implicit VR Little Endian DICOM Explicit VR Little Endian DICOM Explicit VR Big Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCU	none

3 Communication Profiles

The SwissVision “Modality Performed Procedure Step” application provides TCP/IP network communication support as defined by PS 3.8, on any physical medium supporting the TCP/IP (e.g. Ethernet, etc.).

4 Extension / Specialization / Privatization

4.1 Standard extended / specialized / private SOP's

None supported.

4.2 Private Transfer Syntax

None supported.

5 Configuration

5.1 Local Settings

The Local Application Title and the Response Timeout can be configured during setup using the graphical user interface. Default values are "SVISION_MPPS" for the AE title and 30 seconds for the response timeout.

5.2 Host Properties

The Remote Application Title, Host Name and Remote Port Number of one or more performed procedure step management providers can be configured during setup using the graphical user interface.

6 Support of Extended Character Sets

The SwissVision "Modality Performed Procedure Step" application supports the following character sets:

- ISO_IR_100 Latin 1
- ISO_IR_101 Latin 2 / Eastern Europe
- ISO_IR_109 Latin 3 / Turkish
- ISO_IR_110 Latin 4 / Baltic
- ISO_IR_126 Greek
- ISO_IR_127 Arabic
- ISO_IR_138 Hebrew
- ISO_IR_144 Cyrillic