

SwissVision TR4000

DICOM Conformance Statement
Modality Worklist Services

Program Version 9.3 or later
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Document Revision History

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0 Introduction

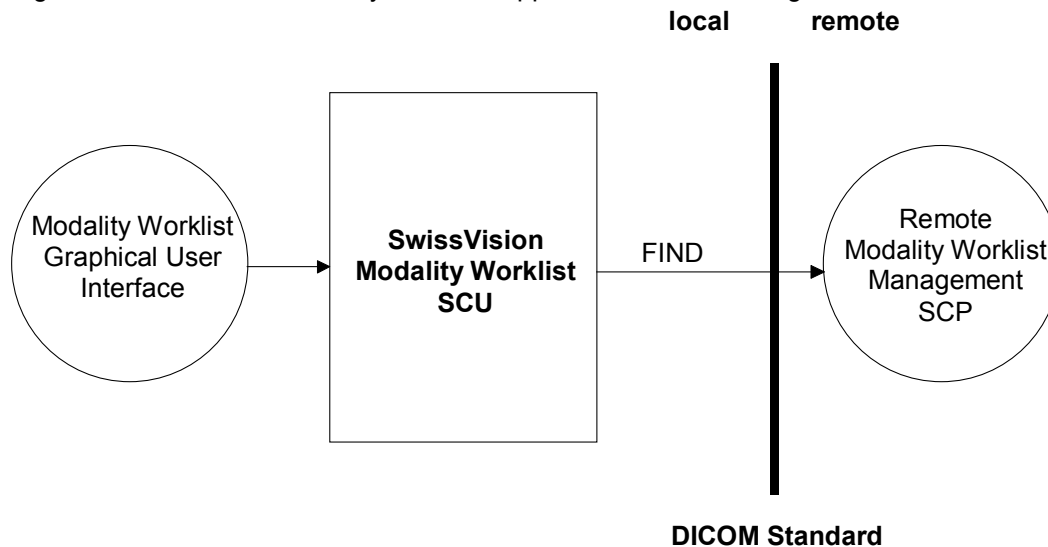
This is the conformance statement for the SwissVision "Modality Worklist" application which supports DICOM 3.0 Modality Worklist Management Services as a Service Class User (SCU). This conformance statement is valid for the SwissVision V 9.3 and higher with the Modality Worklist option.

1 Implementation Model

The SwissVision "Modality Worklist" application is an implementation of a DICOM Modality Worklist Service Class User (SCU) which sends DICOM worklist queries to a DICOM Modality Worklist Management Service Class Provider (SCP). It is realized using the MergeCOM-3 Advanced Integrator's Tool Kit from Merge Technologies Inc.

1.1 Application Data Flow Diagram

Figure 1: SwissVision "Modality Worklist" application data flow diagram



1.2 Functional Definition of Application Entity (AE)

The SwissVision "Modality Worklist" application allows querying a DICOM Worklist Management Service Provider for imaging requests. It allows the user to enter various query attributes and to select the worklist provider through the graphical user interface.

The application establishes an association with the user selected Worklist SCP. After a Find request is sent, it will wait for Find responses.

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

Not applicable.

2 AE Specifications

2.1 SwissVision "Modality Worklist"

The SwissVision "Modality Worklist" application provides standard conformance to the following DICOM 3.0 Service Object Pair (SOP) Classes as a Modality Worklist Service Class User (SCU) for finding modality worklist entries.

Table 1: Valid Modality Worklist SOP Classes for the SwissVision "Modality Worklist" application:

SOP Class Name	SOP Class UID
Modality Worklist Information Model - Find	1.2.840.10008.5.1.4.31

2.1.1 Association Establishment Policies

2.1.1.1 General

The SwissVision "Modality Worklist" application initiates an association as a Modality Worklist SCU when the local operator requests to query for modality worklist data. The maximum PDU size is 28'672 bytes.

2.1.1.2 Number of Associations

The SwissVision "Modality Worklist" application opens only one association at a time for modality worklist requests. Only one find request is sent over an open association.

2.1.1.3 Asynchronous Nature

The SwissVision "Modality Worklist" 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 the SwissVision "Modality Worklist" application is:
2.16.840.1.113929.1.9.980811

The implementation version name for the SwissVision "Modality Worklist" application is:
SwissVision_1.0

2.1.2 Association Initiation by real-world Activity

The SwissVision "Modality Worklist" application initiates an association for the appropriate Modality Worklist Service Class that corresponds to the set of imaging requests to be transferred. The association is closed when all queries have been processed by the remote DICOM network node or when an error or timeout occurred. The operator is also able to initiate an abort request.

2.1.2.1 Real-world Activity for Find Operation

The SwissVision "Modality Worklist" application initiates an association to do C-FIND operations. The association is closed when all queries have been processed or an error or timeout occurred.

2.1.2.1.1 Associated real-world Activity for Find Operation

Once the association has been established, the SwissVision "Modality Worklist" application sends a find request and waits for find responses.

2.1.2.1.2 Proposed Presentation Contexts for Find Operation

The presentation contexts that are proposed by the SwissVision "Modality Worklist" for the find operation are specified in Table 2. All these SOP classes conform to the standard Storage Services as specified in the DICOM Standard.

Table 2: Find Presentation Contexts of the SwissVision "Modality Worklist" application

Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Modality Worklist Information Model – Find	1.2.840.10008.5.1.4.31	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

Details about the worklist queries issued and the worklist information requested and displayed by the SwissVision "Modality Worklist" application are given in Tables 3 and 4.

Table 3: Worklist query issued by the SwissVision "Modality Worklist" application

Attribute Name	Tag	Attribute Matching
Patient's Name	0010,0010	Single value, wild card or no matching (Family name and first name)
Patient ID	0010,0020	Single value or no matching
Accession Number	0008,0050	Single value or no matching
Requested Procedure ID ("Study ID")	0040,1001	Single value or no matching
Scheduled Procedure Step Start Date	0040,0002	Single value or no matching
Scheduled Procedure Step Start Time	0040,0003	No matching
Scheduled Performing Physician's Name	0040,0006	Single value, wild card or no matching
Modality Type	0008,0060	Single value "CR", "DX" or no matching
Scheduled Station AE Title	0040,0001	Single value or no matching

Table 4: Worklist information requested and displayed the SwissVision "Modality Worklist" application

Attribute Name	Tag
Patient's Name	0010,0010
Patient ID	0010,0020
Patient's Birth Date	0010,0030
Patient's Sex	0010,0040
Patient's Age	0010,1010
Patient's Size	0010,1020
Patient's Weight	0010,1030
Patient Comments	0010,4000
Medical Alerts	0010,2000
Pregnancy Status	0010,21C0
Referring Physician's Name	0008,0090
Admitting Diagnosis Description	0008,1080
Accession Number	0008,0050
Requested Procedure ID ("Study ID")	0040,1001
Requested Procedure Description	0032,1060
Study Instance UID	0020,000D
Scheduled Procedure Step Start Date	0040,0002
Scheduled Procedure Step Start Time	0040,0003
Scheduled Performing Physician's Name	0040,0006
Modality Type	0008,0060
Scheduled Station AE Title	0040,0001
Referenced Study Sequence	0008,1110
Scheduled Procedure Step Sequence	0040,0100
Scheduled Procedure Step ID	0040,0009
Scheduled Procedure Step Description	0040,0007
Requested Procedure Code Sequence	0032,1064 *)
Scheduled Action Item Code Sequence	0040,0008 *)

*) only with MPPS option

3 Communication Profiles

The SwissVision "Modality Worklist" 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 Query Timeout can be entered during setup using the graphical user interface. Default values are "SVISION_WLM" for the AE title and 30 seconds for the query timeout.

5.2 Host Properties

The Remote Application Title, Host Name and Remote Port Number of one or more worklist providers can be entered during setup using the graphical user interface.

6 Support of Extended Character Sets

The SwissVision "Worklist" 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