Philips Medical Systems DICOM Conformance Statement

EasyReview R1.2

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1 Introduction

This chapter provides general information about the purpose, scope and contents of this Conformance Statement.

1.1 Scope and field of application

The scope of this DICOM Conformance Statement is to facilitate data exchange with equipment of Philips Medical Systems. This document specifies the compliance to the DICOM standard (formally called the NEMA PS 3.X-1993 standards). It contains a short description of the applications involved and provides technical information about the data exchange capabilities of the equipment. The main elements describing these capabilities are: the supported DICOM Service Object Pair (SOP) Classes, Roles, Information Object Definitions (IOD) and Transfer Syntaxes.

The field of application is the integration of the Philips Medical Systems equipment into an environment of medical devices.

This Conformance Statement should be read in conjunction with the DICOM standard and its addenda. The conformance to the DICOM standard is a key element of the Inturis Program (see [INTURIS]).

1.2 Intended audience

This Conformance Statement is intended for:

- (potential) customers,
- system integrators of medical equipment,
- marketing staff interested in system functionality,
- software designers implementing DICOM interfaces.

It is assumed that the reader is familiar with the DICOM standard.

1.3 Contents and structure

The DICOM Conformance Statement is contained in chapter 2 through 7 and follows the contents and structuring requirements of DICOM PS 3.2-1993 and Supplement 2 (in case of Media specifications).

Additionally, the chapters following 7 specify the details of the applied IODs.

1.4 Used definitions, terms and abbreviations

DICOM definitions, terms and abbreviations are used throughout this Conformance Statement. For a description of these, see NEMA PS 3.3-1993 and PS 3.4-1994.

The word Philips in this document refers to Philips Medical Systems.

1.5 References

[DICOM] The Digital Imaging and Communications in Medicine (DICOM) standard:

Introduction

NEMA PS 3.X (X refers to the part 1 - 13) and Supplements

National Electrical Manufacturers Association (NEMA) Publication Sales

1300 N. 17th Street, Suite 1847

Rosslyn, Va. 22209, United States of America

[INTURIS] Philips Inturis Program

Integrated Clinical Solutions

Philips Medical Systems Nederland B.V. (see address at page ii)

1.6 Important note to the reader

This Conformance Statement by itself does not guarantee successful interoperability of Philips equipment with non-Philips equipment. The user (or user's agent) should be aware of the following issues:

Interoperability

Interoperability refers to the ability of application functions, distributed over two or more systems, to work successfully together. The integration of medical devices into a networked environment may require application functions that are not specified within the scope of DICOM. Consequently, using only the information provided by this Conformance Statement does not guarantee interoperability of Philips equipment with non-Philips equipment. It is the user's responsibility to analyse thoroughly the application requirements and to specify a solution that integrates Philips equipment with non-Philips equipment.

Validation

Philips equipment has been carefully tested to assure that the actual implementation of the DICOM interface corresponds with this Conformance Statement.

Where Philips equipment is linked to non-Philips equipment, the first step is to compare the relevant Conformance Statements. If the Conformance Statements indicate that successful information exchange should be possible, additional validation tests will be necessary to ensure the functionality, performance, accuracy and stability of image and image related data. It is the responsibility of the user (or user's agent) to specify the appropriate test suite and to carry out the additional validation tests.

• New versions of the DICOM Standard

The DICOM Standard will evolve in future to meet the user's growing requirements and to incorporate new features and technologies. Philips is actively involved in this evolution and plans to adapt its equipment to future versions of the DICOM Standard. In order to do so, Philips reserves the right to make changes to its products or to discontinue its delivery. The user should ensure that any non-Philips provider linking to Philips equipment, also adapts to future versions of the DICOM Standard. If not, the incorporation of DICOM enhancements into Philips equipment may lead to loss of connectivity (in case of networking) and incompatibility (in case of media).

2 Implementation model

The EasyReview Release 1.2 system (short EasyReview or ER) of Philips Medical Systems is a medical diagnostic review station. The system can be configured as EasyReview Server (containing a local image database) or as EasyReview Workspot (without a local image database) in a cluster.

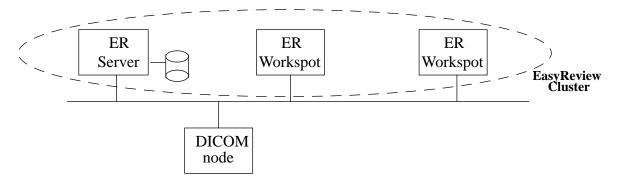


Figure 2-1: EasyReview cluster with ER Server and Workspot

The ER Server DICOM connectivity features are:

- The ER Server receives images sent to it by remote applications (e.g. workstations or imaging modalities) and stores them in the EasyReview cluster database.
- The ER Server allows the operator to copy images from the EasyReview cluster database to remote databases and vice versa. For this purpose the operator is allowed to query remote databases.
- The ER Server allows a remote system to query the EasyReview cluster database and to retrieve images from it.

These remote database access and image transfer functions are implemented using the DICOM Query/Retrieve and Store services.

The ER Workspot DICOM connectivity features are:

• The ER Workspot is able to query the remote systems.

The actual image transfer to the Workspot is done via the ER Server on a proprietary way.

Some of the viewing and printing functions may not perform optimally when applied to images that are sent to EasyReview by means of DICOM (in stead of PMSnet, the Philips Medical Systems proprietary communication protocol). For example, viewing and printing of overlays, curves and colour images is not supported.

2.1 Application Data Flow Diagram

The EasyReview system behaves as a single application entity. The related Implementation Model is shown in Figure 2-2.

2.2 Functional definition of Application Entities

The EasyReview application entity may act as a Service Class User of Query/Retrieve and

Store Service Classes. The application may act as a Service Class Provider of Verification, Query/Retrieve and Store Service Classes. This depends on the configuration as EasyReview Server or as EasyReview Workspot.

2.3 Sequencing of Real World Activities

Not applicable.

Figure 2-2: EasyReview (ER) Implementation Model configured as Server

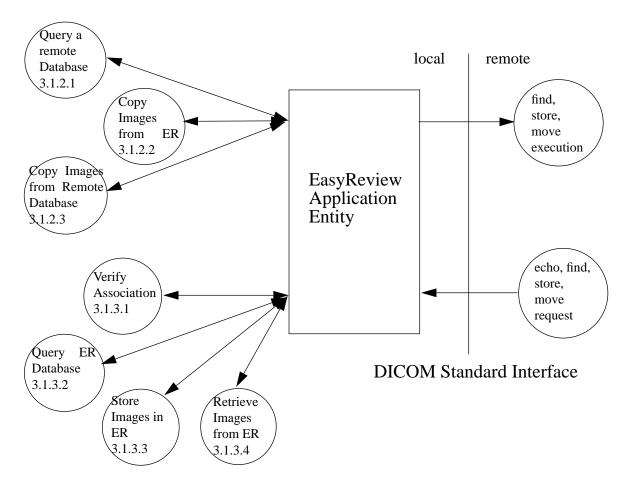
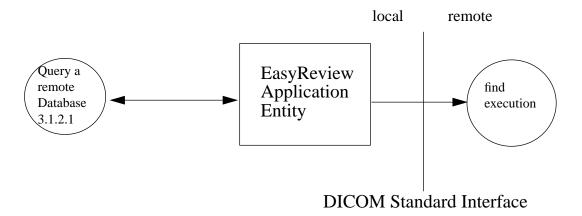


Figure 2-3: EasyReview (ER) Implementation Model configured as Workspot



3.1 AE EasyReview Specification

The EasyReview Application Entity configured as Server provides Standard Conformance to the following DICOM V3.0 SOP classes as an SCU. In case of the ER Workspot, only the FIND SOP Classes are supported.

Table 1: Supported SOP classes by the EasyReview AE as SCU^a

SOP class Name	UID
Patient Root Query/Retrieve Info Model - FIND	1.2.840.10008.5.1.4.1.2.1.1
Study Root Query/Retrieve Info Model - FIND	1.2.840.10008.5.1.4.1.2.2.1
Patient/Study Only Query/Retrieve Info Model - FIND	1.2.840.10008.5.1.4.1.2.3.1
Patient Root Query/Retrieve Info Model - MOVE ^b	1.2.840.10008.5.1.4.1.2.1.2
Study Root Query/Retrieve Info Model - MOVE ^b	1.2.840.10008.5.1.4.1.2.2.2
Patient/Study Only Query/Retrieve Info Model - MOVE ^b	1.2.840.10008.5.1.4.1.2.3.2
CR Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.1
CT Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.2
MR Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.4
NM Image Storage - STORE (old class) ^b	1.2.840.10008.5.1.4.1.1.5
US Image Storage - STORE (old class) ^b	1.2.840.10008.5.1.4.1.1.6
SC Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.7
XA Single-Plane Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.12.1
RF Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.12.2

a. In case the remote system does not support the XA and/or RF Image SOP Class, EasyReview will (if configured) convert these images and sends them via the SC Image SOP Class.

The EasyReview Application Entity configured as Server provides Standard Conformance to the following DICOM V3.0 SOP classes as an SCP. In case of the ER Workspot, none of the

b. Not present in EasyReview configured as Workspot.

SOP Classes are supported as SCP.

Table 2: Supported SOP classes by the EasyReview AE as SCP

SOP class Name	UID
Patient Root Query/Retrieve Info Model - FIND ^{a b}	1.2.840.10008.5.1.4.1.2.1.1
Study Root Query/Retrieve Info Model - FIND ^b	1.2.840.10008.5.1.4.1.2.2.1
Patient/Study Only Query/Retrieve Info Model - FIND ^b	1.2.840.10008.5.1.4.1.2.3.1
Patient Root Query/Retrieve Info Model - MOVE ^b	1.2.840.10008.5.1.4.1.2.1.2
Study Root Query/Retrieve Info Model - MOVE ^b	1.2.840.10008.5.1.4.1.2.2.2
Patient/Study Only Query/Retrieve Info Model - MOVE ^b	1.2.840.10008.5.1.4.1.2.3.2
CR Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.1
CT Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.2
US Multi Frame Image Storage - STORE (old class) ^b	1.2.840.10008.5.1.4.1.1.3
MR Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.4
NM Image Storage - STORE (old class) ^b	1.2.840.10008.5.1.4.1.1.5
US Image Storage - STORE (old class) ^b	1.2.840.10008.5.1.4.1.1.6
SC Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.7
XA Single-Plane Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.12.1
RF Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.12.2
XA Bi-Plane Image Storage - STORE ^b	1.2.840.10008.5.1.4.1.1.12.3
Verification ^b	1.2.840.10008.1.1

a. For performance reasons it is recommended to use the Patient Root Query/Retrieve Info Model -FIND SOP Class

b. Not present in EasyReview configured as Workspot.

3.1.1 Association Establishment Policies

3.1.1.1 General

EasyReview will offer an unrestricted PDU size (i.e. equal to 0) on associations initiated by EasyReview itself. The applied maximum PDU size for these associations is configurable per node. EasyReview will accept PDU sizes up to this configured maximum on associations initiated by remote applications.

3.1.1.2 Number of Associations

The number of simultaneous associations supported by EasyReview as a Service Class Provider is in principle not limited. The practical maximum number of supported associations is determined by the amount of resources (CPU, memory, hard disk size).

As a result of local activities, ER Server will initiate at most 2 simultaneous associations. One association is used to issue find requests. The other association is used to issue store and move requests. The ER Workspot will initiate at most 1 association at a time (for the find request). EasyReview will further initiate an association for each remote move request executed by EasyReview as a move Service Class Provider. These associations are used to issue the store suboperations implied by the move requests. The number of simultaneous store associations is in principle not limited.

3.1.1.3 Asynchronous Nature

EasyReview does not support asynchronous operations and will not perform asynchronous window negotiation.

3.1.1.4 Implementation Identifying Information

The Implementation Class UID is: 1.3.46.670589.5.2.4

The implementation version name is: ER11

3.1.2 Association Initiation Policy

EasyReview initiates associations as a result of the following events:

- The EasyReview operator queries a remote database, see 3.1.2.1
- The EasyReview operator or a remote application copies images from the EasyReview database to another database, see 3.1.2.2.
- The EasyReview operator copies images from a remote database to another database, see 3.1.2.3.

3.1.2.1 Query a Remote Database

3.1.2.1.1 Associated Real-World Activity

The operator queries a remote database by means of the query tool in the EasyReview data handling facility. EasyReview initiates an association to the selected peer entity and uses it to send C-FIND requests (and receive the associated find replies). The association is released when the find execution completes.

3.1.2.1.2 Proposed Presentation Contexts

EasyReview will propose the following presentation contexts:

Table 3: Proposed Presentation Contexts for Remote Database Query

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended
Name	UID	Name List	UID List		Negotiation
See Note	See Note	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
See Note	See Note	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
See Note	See Note	Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
See Note	See Note	JPEG Lossless, Hierarchical, First-Order Prediction	1.2.840.10008.1.2.4.70	SCU	None

Note: Any of the FIND SOP classes listed in Table 1, "Supported SOP classes by the EasyReview AE as SCU," on page 6.

3.1.2.1.3 C-FIND SCU Conformance

EasyReview will not generate queries containing optional keys. EasyReview will not generate relational queries.

3.1.2.2 Copy Images from the EasyReview Database to another Database

3.1.2.2.1 Associated Real-World Activity

Below two situations are distinguished. Both have the same DICOM behaviour.

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The operator copies a (part of a) study from the EasyReview cluster database to a another database by means of the copy tool in the EasyReview data handling facility. EasyReview initiates for each selected study an association to the selected peer entity and uses it to send C-STORE requests (and receive the associated C-STORE responses). The association is released when all selected images in the selected study have been transmitted. EasyReview handles operator copy requests one after another.

A remote application copies images from the EasyReview cluster database to a another database by sending a C-MOVE request to EasyReview. EasyReview initiates for each received move request an association to the requested move destination and uses it to send C-STORE requests (and receive the associated C-STORE responses). The association is released when all images selected by the move request identifier have been transmitted. EasyReview simultaneously handles simultaneous C-MOVE requests.

3.1.2.2.2 Proposed Presentation Contexts

EasyReview will propose the following presentation contexts:

Table 4: Proposed Presentation Contexts for Copy EasyReview to Other

Presentation Context table					
Abstract Syntax		Transfer Syntax		Role	Extended
Name	UID	Name List	UID List		Negotiation
See Note	See Note	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
See Note	See Note	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
See Note	See Note	Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
See Note	See Note	JPEG Lossless, Hierarchical, First-Order Prediction	1.2.840.10008.1.2.4.70	SCU	None

Note: Any of the STORE SOP classes listed in Table 1, "Supported SOP classes by the EasyReview AE as SCU," on page 6.

3.1.2.2.3 C-STORE SCU Conformance

EasyReview will stop the transfer of the images and release the association as soon as it receives an unsuccessful or warning store response status. If the EasyReview operator requested the transfer, the store response status is displayed via the user interface of EasyReview. If a remote application requested the transfer (by means of a C-MOVE request), a move response with status unsuccessful is sent to the move requester. Extended negotiation is not supported.

In case the remote system does not support the XA and/or RF Image SOP Class, EasyReview will convert (if configured to do so) these images and sends them via the SC Image SOP Class.

The transmitted Storage SOP instances may include all optional elements specified in the

standard and its supplements, depending on the source of the SOP instances (mostly the modalities).

The transmitted Storage SOP instances may contain retired and private data elements, depending on what is received from other systems and depending on the configuration. Private elements are not described except for the following elements that facilitate the correct interpretation of the pixel data of images exported by EasyVision:

- *odd group number, 00YY Owner Data Elements (VR=LO, VM=1)*The value of this text element is 'SPI-P Release 1'. It declares that all elements YYxx in the shadow group are private Philips elements.
- 0009, YY04 Image Data Consistence (VR=LO, VM=n)

This element indicates that the consistency of some data elements may be limited because of incorporated processing, windowing or burnt in graphics. A data element becomes inconsistent if its value incorporates a value (or reference to a value) which has been changed while the data element itself has not been changed or deleted. Updating or deleting such data elements cannot be done if the data element is a free formatted data element or other than a standard data element. The generic format of this text element is: <free text> | '\$'<enumerated text>. The following enumerations are defined:

- 'unknown'. This is the default value.
- 'normal'. Normal consistency.
- 'limited'. Possibly limited consistency.
- 0019, YY25 Original Pixel Data Quality (VR=LO, VM=n)

This element indicates that the quality of the original pixel data is limited because of one reason or another. The generic format of this text element is: <free text> | '\$'<enumerated text>. The following enumerations are defined:

- 'unknown'. This is the default value.
- 'normal'. Normal quality, as usual for the modality.
- 'limited'. Possibly limited quality.
- 0029, YY25 Processed Pixel Data Quality (VR=LO, VM=n)

This element indicates that the quality of the processed pixel data is limited because of incorporated processing, windowing or burnt in graphics. The first value summarizes the quality. Each subsequent value identifies one aspects which contributes to the quality, in order of occurrence. The generic format of this text element is: <free text> | '\$'<enumerated text>. The following enumerations are defined:

- 'unknown'. This is the default value.
- 'normal'. Normal quality, as usual for the modality.
- 'limited'. Possibly limited quality.

3.1.2.3 Copy Images from a Remote Database to another Database

3.1.2.3.1 Associated Real-World Activity

The operator copies a (part of a) study from a remote database to another (ER cluster or remote) database by means of the copy tool in the EasyReview data handling facility. EasyRe-

view initiates for each selected study an association to the selected peer entity and uses it to send C-MOVE requests (and receive the associated move replies). The association is released when all selected images in the selected study have been transmitted.

AE Specifications

3.1.2.3.2 Proposed Presentation Contexts

EasyReview will propose the following presentation contexts:

Table 5: Proposed Presentation Contexts for Copy Remote to Other

Presentation Context table					
Abstract Syntax		Transfer Syntax			Extended
Name	UID	Name List	UID List	Role	Negotiation
See Note	See Note	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
See Note	See Note	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
See Note	See Note	Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
See Note	See Note	JPEG Lossless, Hierarchical, First-Order Prediction	1.2.840.10008.1.2.4.70	SCU	None

Note: Any of the MOVE SOP classes listed in Table 1, "Supported SOP classes by the EasyReview AE as SCU," on page 6.

3.1.2.3.3 C-MOVE SCU Conformance

The AE provides standard conformance.

3.1.3 Association Acceptance Policy

The EasyReview Application Entity rejects association requests from unknown applications, i.e. applications that offer an unknown "calling AE title". An application is known if and only if it is defined during configuration of the EasyReview system.

The EasyReview Application Entity rejects association requests from applications that do not address the EasyReview AE, i.e. that offer a wrong "called AE title". The EasyReview AE title is defined during configuration of the EasyReview system.

EasyReview accepts associations for the following purposes (so Real-World Activities):

- To allow remote applications to verify application level communication with EasyReview, see 3.1.3.1.
- To allow remote applications to query the EasyReview database, see 3.1.3.2.
- To allow remote applications to store images in the EasyReview database, see 3.1.3.3.
- To allow remote applications to retrieve images from the EasyReview database, see 3.1.3.4.

The presentation contexts shown in the table below are acceptable for all these purposes:

Presentation Context table Extended Abstract Syntax Transfer Syntax Negotiation Role **UID** List Name UID Name List See Note Implicit VR Little Endian 1.2.840.10008.1.2 SCP None See Note See Note SCP See Note Explicit VR Little Endian 1.2.840.10008.1.2.1 None **SCP** See Note See Note Explicit VR Big Endian 1.2.840.10008.1.2.2 None See Note See Note JPEG Lossless, 1.2.840.10008.1.2.4.70 **SCP** None Hierarchical, First-Order Prediction

Table 6: Acceptable Presentation Contexts

Note: Any of the SOP classes listed in Table 2, "Supported SOP classes by the EasyReview AE as SCP," on page 7.

3.1.3.1 Verify Application Level Communication

3.1.3.1.1 Associated Real-World Activity

EasyReview accepts associations from nodes that wish to verify application level communication using the C-ECHO command.

3.1.3.1.2 Presentation Context Table

Any of the presentation contexts shown in Table 6, "Acceptable Presentation Contexts," on page 13 are acceptable.

3.1.3.1.3 C-ECHO SCP Conformance

EasyReview provides standard conformance.

3.1.3.1.4 Presentation Context Acceptance Criterion

EasyReview accepts all contexts in the intersection of the proposed and acceptable presentation contexts. There is no check for duplicate contexts, so are accepted.

AE Specifications

3.1.3.1.5 Transfer Syntax Selection Policies

EasyReview prefers Explicit VR Big Endian above Explicit VR Little Endian above JPEG Lossless above Implicit VR Little Endian transfer syntax.

3.1.3.2 Query the EasyReview Database

3.1.3.2.1 Associated Real-World Activity

EasyReview accepts associations from nodes that wish to query the EasyReview database using the C-FIND command.

For performance reasons it is strongly recommended to use the Patient Root Query/Retrieve Info Model -FIND SOP Class.

3.1.3.2.2 Presentation Context Table

Any of the presentation contexts shown in Table 6, "Acceptable Presentation Contexts," on page 13 are acceptable.

3.1.3.2.3 C-FIND SCP Conformance

EasyReview provides standard conformance. Optional keys are not supported. Relational queries are not supported. EasyReview simultaneously handles simultaneous C-FIND requests.

3.1.3.2.4 Presentation Context Acceptance Criterion

See section 3.1.3.1.4 on page 14.

3.1.3.2.5 Transfer Syntax Selection Policies

See section 3.1.3.1.5 on page 14.

3.1.3.3 Store Images in the EasyReview Database

3.1.3.3.1 Associated Real-World Activity

EasyReview accepts associations from nodes that wish to store images in the EasyReview database using the C-STORE command.

3.1.3.3.2 Presentation Context Table

Any of the presentation contexts shown in Table 6, "Acceptable Presentation Contexts," on page 13 are acceptable.

3.1.3.3.3 C-STORE SCP Conformance

EasyReview provides level 2 (Full) conformance for the Storage Service Class. In the event of a successful C-STORE operation, the image has been stored in the EasyReview database. The duration of the storage of the image is determined by the operator of the EasyReview system.

The received images are ordered into existing or new patient folders, studies and series dependent on the values of the identifying attributes. This is not directly related to the DICOM behaviour and is therefore not specified in this document.

The EasyReview storage implementation has the following restrictions:

- Although EasyReview accepts colour images, it does not properly support storage and retrieval of such images.
- EasyReview stores XA Bi-Plane as two Single Plane images.
- EasyReview stores multi-frame images as a series of single frame images.
- EasyReview rejects images with High Bit not equal to Bits Allocated 1.

EasyReview allows the operator to modify attributes of the stored images. EasyReview does not modify the pixel values of the stored images. Modified images retain their original study, series and image UID. Remote applications may access the stored (and possibly modified) images using C-FIND and/or C-MOVE operations.

EasyReview stores all private data elements it receives. These elements can only be retrieved (by means of a C-MOVE request) if one of the following conditions are satisfied:

- The image was encoded using one of the explicit value representations at the reception of images (i.e. when EasyReview was C-STORE SCP) or
- The image was encoded using implicit value representation at the reception of images (i.e. when EasyReview was C-STORE SCP) and the move destination (i.e. the remote station is a C-STORE SCP) has accepted implicit value representation as the only transfer syntax applicable to the storage SOP class of the image (when EasyReview is C-STORE SCU).

The C-STORE is unsuccessful if EasyReview returns one of the following status codes:

- A900 Indicates that the SOP class of the image does not match the abstract syntax negotiated for the presentation context.
- C000 Indicates that the image cannot be parsed.

3.1.3.3.4 Presentation Context Acceptance Criterion

See section 3.1.3.1.4 on page 14.

3.1.3.3.5 Transfer Syntax Selection Policies

See section 3.1.3.1.5 on page 14.

3.1.3.4 Retrieve Images from the EasyReview Database

3.1.3.4.1 Associated Real-World Activity

EasyReview accepts associations from nodes that wish to retrieve images from the EasyReview database using the C-MOVE command.

3.1.3.4.2 Presentation Context Table

Any of the presentation contexts shown in Table 6, "Acceptable Presentation Contexts," on page 13 are acceptable.

3.1.3.4.3 C-MOVE SCP Conformance

EasyReview supports all the Storage SOP classes listed in Table 1, "Supported SOP classes by the EasyReview AE as SCU," on page 6.

3.1.3.4.4 Presentation Context Acceptance Criterion

See section 3.1.3.1.4 on page 14.

3.1.3.4.5 Transfer Syntax Selection Policies

See section 3.1.3.1.5 on page 14.

Communication Profiles

4 Communication Profiles

4.1 Supported Communication Stacks

The EasyReview application provides DICOM V3.0 TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard.

4.2 TCP/IP Stack

EasyReview inherits its TCP/IP stack from the SUN Solaris system upon which it executes.

4.2.1 Physical Media Support

Ethernet ISO.8802-3. Standard AUI (10Base5), optional twisted pair (10BaseT).

5 Extensions/Specializations/Privatizations

Optional Standard DICOM and additional Private/Retired attributes may be present, depending on the source of the images and the EasyVision configuration. See also section 3.1.2.2.3 on page 10.

6 Configuration

The EasyReview system is configured by means of a configuration program. This program is accessible at start-up of the EasyReview system. It is password protected and intended to be used by Philips service engineers only. The program prompts the service engineer to enter configuration information needed by the EasyReview application.

6.1 AE Title/Presentation Address mapping

6.1.1 Local AE Titles and Presentation Addresses

The EasyReview AE Title is equal to the IP host name. This host name is to be entered by the service engineer at EasyReview configuration time.

EasyReview listens on port 3010. This port number is not configurable.

6.1.2 Remote AE Titles and Presentation Addresses

All remote applications that wish to communicate with EasyReview must be defined at EasyReview configuration time. The service engineer must provide the following information for each remote application:

• The Application Entity Title.

For each remote application acting as Service Class User the following additional information must be provided:

• The SOP Classes supported by the remote application as SCU and for which ER allows these services to be used.

DICOM Conformance Statement Support of Extended Character Sets

For each remote application acting as Service Class Provider the following additional information must be provided:

- The host name on which the application resides.
- The port number at which the application accepts association requests.
- The SOP Classes supported by the remote application as SCP and for which ER allows these services to be invoked by the ER operator.

6.2 Configurable parameters

The following items are also configurable:

- EasyReview with local image database (i.e. as Server) or without (i.e. as Workspot),
- automatic conversion of images of SOP classes not supported by remote stations into SC images,
- the maximum PDU size per node,
- export of private (and retired DICOM if present) attributes or not,
- reject invalid objects or not.

7 Support of Extended Character Sets

EasyReview supports Extended Character Set "ISO_IR 100" which is the Latin alphabet No 1, supplementary set.