FUJIFILM

DICOM Conformance Statement

DRYPIX Link

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2nd Edition

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Revision History

History	Date	Revision Description
1st Edition	January, 2003	
2nd Edition	October, 2006	The corporate name was changed.

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1 Introduction

This document provides the DICOM conformance statement for the DRYPIX Link.

2 Implementation Mode

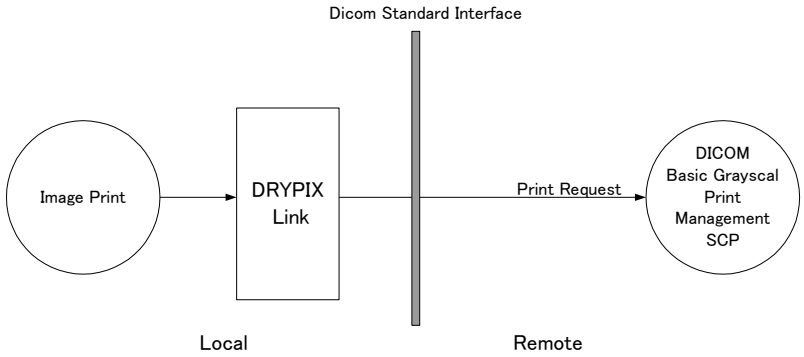
When connected to the Fuji Computed Radiography, Multi Formater (MF-300/L) and Print Server (FN-PS551) through the legacy Laser Printer interface,

- Basic Grayscale Print Management

When connected to NonDicom-modalities like CT/MR/US and so on, the DRYPIX Link constitutes an diagnostic imaging generating modality and contains the following service classes.

- Basic Grayscale Print Management

2.1 Data Flow Diagram



2.2 Functional Definitions of Application Entities

- The DRYPIX Link has a DICOM interface with printers.
- The DRYPIX Link prints acquired image data with the Printer.

2.3 Sequencing of Real World Activities

Not applicable to Real World Activities.

3 AE Specification

3.1 DRYPIX Link AE Specification

The DRYPIX Link Application Entity provides Standard Conformance to the following DICOM SOP classes.

SOP Class Name	SOP Class UID	Role
Basic Grayscale Print Management Meta SOP Class	1.2.840.10008.5.1.1.9	SCU

3.1.1 Association Establishment Policies

3.1.1.1 General

- The maximum PDU size is 32K Bytes.

3.1.1.2 Number of Associations

The DRYPIX Link will establish the following associations at a time.

- Three association as Basic Grayscale Print Management Meta SOP Class SCU.

3.1.1.3 Asynchronous Nature

Does not support negotiation of multiple outstanding transactions.

3.1.1.4 Implementation ID information

Implementation Class UID is 1.2.392.200036.9125.5397.1

3.1.2 Association Initiation Policy

The DRYPIX Link initiates associations as a result of the following local Real-World activities.

a) Printing of acquired images.

3.1.2.1 Print Image(s)

3.1.2.1.1 Associated Real-World Activity

The DRYPIX Link acquires images and prints those images automatically with a pre-set or selected printer printer.

3.1.2.1.2 Proposed Presentation Context

Presentation Context

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
Name	UID			
Basic Grayscale Print Management Meta SOP Class	1.2.840.10008.5.1.1.9	See next table.	SCU	None
Printer SOP Class	1.2.840.10008.5.1.1.16			

Transfer Syntax

Name	UID
Implicit VR Little Endian	1.2.840.10008.1.2

3.1.2.1.3 SOP Specific Conformance

The DRYPIX Link uses the Basic Grayscale Print Management Meta SOP Class for image printing. Absolutely asynchronously with this, the DRYPIX Link will use only the Printer SOP Class periodically for monitoring status of the printer.

4 Communication Profiles

4.1 Supported Communication Stacks

DICOM Upper Layer is supported using TCP/IP.

4.2 TCP/IP Stack

The TCP/IP stack is inherited from the VxWorks Realtime Operating System.

4.3 Physical Media Support

IEEE 802.3 (10BASE-T) / IEEE 802.3U (100BASE-TX)

5 Standard Extended / Specialized / Privatization

None.

6 Configuration

The DRYPIX Link can be configured on the DICOM characteristics specified below.

- Local
  - IP Address
  - Host name
  - AE Title
- Remote
  - IP Address
  - Host name
  - AE Title
  - Port number

7 Support of Extended Character Sets

Not supported.

8 DIMSE-Service and Attributes in the Basic Grayscale Print Management

8.1 DIMSE-Service

SOP Class	DIMSE	Usage SCU	Usage
Basic Film Session SOP Class	N-CREATE	M	Used
	N-SET	U	Not used
	N-DELETE	U	Not used
	N-ACTION	U	Not used
Basic Film Box SOP Class	N-CREATE	M	Used
	N-SET	U	Used
	N-DELETE	U	Not used
	N-ACTION	M	Used
Image Box SOP Class	N-SET	M	Used
Printer SOP Class	N-EVENT-REPORT	M	Used
	N-GET	U	Used

8.2 Basic Film Session SOP Class

- N-CREATE

Name	Tag	Usage	Value
Number of Copies	2000,0010	U	1-99
Print Priority	2000,0020	U	MED HIGH
Medium Type	2000,0030	U	CLEAR FILM BLUE FILM
Film Destination	2000,0040	U	(None) or BIN_i
Memory Allocation	2000,0060	U	(All Image Size)

8.3 Basic Film Box SOP Class

- N-CREATE

Name	Tag	Usage	Value
Image Display Format	2010,0010	M	STANDARD \1,1...etc
Film Orientation	2010,0040	U	PORTRAIT LANDSCAPE
Film Size ID	2010,0050	U	11INX14IN 14INX17IN 14INX14IN 8INX10IN
Border Density	2010,0100	U	0-300
Trim	2010,0140	U	NO YES

- N-SET

Name	Tag	Usage	Value
Image Display Format	2010,0010	M	STANDARD \1,1
Configuration Information	2010,0150	U	FINE1

8.4 Basic Grayscale Image Box SOP Class

♦ N-SET

Name	Tag	Usage	Value
Image Position	2020,0010	M	1~
Polarity	2020,0020	U	NORMAL REVERSE
Magnification Type	2010,0060	U	CUBIC NONE
Smoothing Type	2010,0080	U	SHARP SMOOTH MEDIUM
Min Density	2010,0120	U	0~300
Max Density	2010,0130	U	0~300
Configuration Information	2010,0150	U	1~8,FINE1~FINE8
Requested Image Size	2020,0030	U	(Columns/10,Columns/20)
Samples Per Pixel	0028,0002	M	1
Photometric Interpretation	0028,0004	M	MONOCHROME1 MONOCHROME2
Rows	0028,0010	M	1~
Columns	0028,0011	M	1~
Bits Allocated	0028,0100	M	16,8
Bits Stored	0028,0101	M	12, 10,8
High bit	0028,0102	M	11, 9,7
Pixel Representation	0028,0103	M	0
Pixel data	7fe0,0010	M	

8.5 Printer SOP Class

♦ N-EVENT-REPORT

Event Type Name	Event Type ID	Attribute	Tag	Usage
Normal	1			
Warning	2	Printer Name	2110,0030	U
		Printer Status Info	2110,0020	U
Failure	3	Printer Name	2110,0030	U
		Printer Info	2110,0020	U

♦ N-GET

Name	Tag	Usage
Printer Status	2110,0010	U
Printer Status Info	2110,0020	U
Printer Name	2110,0030	U

End

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