

## 1 Overview

CoroFlow implements the following DICOM services:

- Download a modality worklist together with demographic patient data from a radiology information system (“RIS”), to facilitate patient registration.
- Store measurements as images (“screenshots”) in an image archive (“PACS - Pictures Archive Communication System”).

SOP Classes Service Class	User (SCU)	Provider of Service (SCP)
Transfer Secondary Capture Image Storage	Yes	No
Workflow Management Modality Worklist Information Model - FIND	Yes	No

## 2 Implementation Model

The system allows for measurements to be sent as Secondary Capture images to a storage archive (C STORE). Necessary meta-data for the image objects are obtained through a query against a worklist provider (C FIND).

### 2.1 Worklist Search Real-World Activity

1. The user selects New Patient and clicks on an update button, retrieval of worklist items is started automatically.
2. A list of matching worklist items is displayed.

### 2.2 Store Image Real-World Activity

An example of a real-world activity as follows:

1. The user selects the Review tab
2. The user selects a stored measurement
3. The user clicks Export and then selects DICOM format
4. The selected measurement is exported.

## 3 Functional Definition of AE's

### 3.1 Functional Definition of Workflow AE

Worklist Search attempts to download a worklist from a remote node. If the Workflow AE establishes an association to a remote AE, it will transfer all worklist items via the open association. The worklist response items are counted and the query processing is canceled if the limit of returned items is reached. The results will be displayed in a separate list, which will be cleared with the next Worklist Search.

### 3.2 Functional Definition of Transfer AE

An association request is sent by the Transfer AE to the destination AE and upon successful negotiation of a presentation context the image transfer is started. If the association cannot be opened, an error is reported to the user and the transfer fails. The Transfer AE will not try to initiate another association for this transfer automatically.

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## 4 Transfer AE Specification

### 4.1 SOP Classes

This Application Entity provides Standard Conformance to the following SOP Classes:

SOP Class Name	SOP Class UID	SCU	SCP
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Yes	No

### 4.2 Settings

All settings available in the Settings screens under DICOM tab

Settings	
Local AE title	Local Application Entity name, default CLIENT
Remote AE title	DICOM image storage server Application Entity name, default SERVER
Remote host	DICOM image storage server IP-address
Remote port	Port used by DICOM image storage server
Modality	Screen image stored as this modality. Default XA
Timeout (ms)	Storage timeout limit, default 5000ms (5s)

## 5 Workflow AE Specification

### 5.1 SOP Classes

This Application Entity provides Standard Conformance to the following SOP Classes:

SOP Class Name	SOP Class UID	SCU	SCP
Modality Worklist Information Model - FIND	1.2.840.10008.5.1.4.31	Yes	No

### 5.2 Settings

All settings available in the Settings screens under DICOM tab

Settings	
Local AE title	Local Application Entity name, default CLIENT
Remote AE title	Worklist server Application Entity name, default SERVER
Remote host	Worklist server IP-address
Remote port	Port used by worklist server
Max Results	Max number of query results

<b>Timeout (ms)</b>	Query timeout, default 5000ms (5s)
<b>Modality</b>	Return patients scheduled for this entity. Default ALL
<b>Date</b>	Return patients scheduled only for current date (Today) or 1-3 days before and after current date

## 6 Change Log

Rev. No.	Date	Version description
01	2018-04-01	First version

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