

TAB 3

**CMRtools DICOM Conformance Statement**

Company Name: CVIS Ltd.

Product Name: CMRtools

Version: 1.0

Date: 13 Sept 2007

## 1 CONFORMANCE STATEMENT OVERVIEW

The application is a browser that supports the import of local DICOM images, from CD or DVD media or any file system location, into a local database called the CMRtools ImageBank.

All storage SOP Classes defined as of DICOM 2002 can be loaded and stored by the application, but only images may be viewed. All single and multiframe with grayscale images may be displayed for preview.

This implementation supports only DICOM Media Storage Service (SOP) Classes. The following table shows an overview of the supported Media Storage Application Profiles.

**Table 1-2  
MEDIA SERVICES**

<b>Media Storage Application Profile</b>	<b>Write Files (FSC or FSU)</b>	<b>Read Files (FSR)</b>
<b>Compact Disk - Recordable</b>		
General Purpose CD-R	No	Yes
CT/MR Studies on CD-R	No	Yes
<b>DVD</b>		
General Purpose DVD	No	Yes
CT/MR Studies on DVD	No	Yes

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### 3 INTRODUCTION

#### 3.1 REVISION HISTORY

Document Version	Date of Issue	Author	Description
1.0	13 Sept 2007	MPE	First complete draft version

#### 3.2 AUDIENCE

This conformance statement is intended for system integrators, software developers and customers who are familiar with the DICOM standard.

#### 3.3 REMARKS

This DICOM Conformance Statement follows the structure defined in DICOM PS 3.2.

#### 3.4 REFERENCES

[DICOM] Digital imaging and communications in medicine (DICOM), 2004. NEMA Standards Publication PS 3. National Electrical Manufacturers Association, Rosslyn VA.

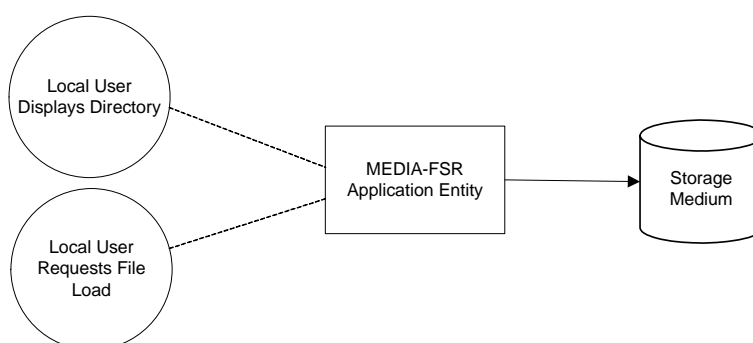
### 4 NETWORKING

The application has no DICOM networking support.

### 5 MEDIA INTERCHANGE

#### 5.1 IMPLEMENTATION MODEL

##### 5.1.1 Application Data Flow



**Figure 5.1-1.  
IMPLEMENTATION MODEL**

The application is a single native application that provides a user interface and media support as a File Set Reader. Conceptually it may be modeled as the following single AE:

- CMRTOOLS-IMPORT, which loads user-selected PS 3.10 compliant files, which may be image objects or a DICOMDIR, either from the local file system or from PS 3.12 compliant media according to one of the General Purpose Media Application Profiles of PS 3.11 (CD-R or DVD-RAM)

In effect, the application is media-neutral, since the user is required to browse and locate the files.

Furthermore, any DICOM image object encoded in one of the standard uncompressed Transfer Syntaxes may be loaded, even in the absence of a PS 3.10 compliant meta-information header, in which case a “best guess” at the Transfer Syntax will be made.

Compressed Transfer Syntaxes are not supported at this time, which limits the Media Application Profiles supported.

## 5.1.2 Functional Definitions of AE's

### 5.1.2.1 CMRTOOLS-IMPORT

CMRTOOLS-IMPORT is activated through the user interface to select the directories and images to import into a local database.

### 5.1.3 Sequencing of Real-World Activities

All FSR activities are sequentially initiated in the user interface, and another activity may not be initiated until the prior activity has completed.

## 5.2 AE SPECIFICATIONS

### 5.2.1 CMRTOOLS-IMPORT

CMRTOOLS-IMPORT provides standard conformance to the Media Storage Service Class. The following table shows the implemented Real-World Activities for each Application Profile.

**Table 5.2-1  
APPLICATION PROFILES, ACTIVITIES, AND ROLES FOR CMRTOOLS-IMPORT**

Application Profiles Supported	Real World Activity	Role	Option
STD-GEN-CD	Load directory or file	FSR	Interchange
STD-GEN-DVD-RAM	Load directory or file	FSR	Interchange
STD-CTMR-CD	Load directory or file	FSR	Interchange
STD-CTMR-DVD	Load directory or file	FSR	Interchange

Note: The application is media neutral and dependent on the underlying hardware. Any (non-secure) General Purpose Profile can be supported.

Note: All unsupported Transfer Syntaxes will be ignored by CMRTOOLS-IMPORT.

#### 5.2.1.1 File Meta Information for the Application Entity

Not applicable, since CMRTOOLS-IMPORT is not an FSC or FSU.

#### 5.2.1.2 Real World Activities

##### 5.2.1.2.1 Activity – Display Directory

A file browser will be displayed, from which the user may select and preview objects. If a DICOMDIR is found in a file system directory, then it will be used to populate the browser with instances.

##### 5.2.1.2.2 Activity – Load File

CMRTOOLS-IMPORT is activated through the user interface when a user selects one or more objects to be imported and invokes the DICOM import operation. The user can select a file system directory to import, in which case every file contained within that directory and its subdirectories is loaded and imported.

##### 5.2.1.2.2.1 Application Profile Specific Conformance

There are no extensions or specializations.

## 5.3 AUGMENTED AND PRIVATE PROFILES

### 5.3.1 Augmented Profiles

None.

### **5.3.2 Private Profiles**

None.

### **5.4 MEDIA CONFIGURATION**

None.

## **6 SUPPORT OF CHARACTER SETS**

No Extended Character Sets are supported at this time.

## **7 SECURITY**

No security profiles are supported at this time.

## **8 ANNEXES**

### **8.1 IOD CONTENTS**

#### **8.1.1 Created SOP Instances**

None.

#### **8.1.2 Usage of attributes from received IOD's**

No SOP Class specific fields are required.

The local database and directory browsers make use of the conventional identification attributes to distinguish patients, studies, series and instances. In particular, if two patients have the same value for Patient ID, they will be treated as the same in the browser and the local database.

#### **8.1.3 Attribute Mapping**

Not applicable.

#### **8.1.4 Coerced/Modified fields**

No coercion is performed.

### **8.2 DATA DICTIONARY OF PRIVATE ATTRIBUTES**

No private attributes are defined.

### **8.3 CODED TERMINOLOGY AND TEMPLATES**

Not applicable.

### **8.4 GRAYSCALE IMAGE CONSISTENCY**

Not applicable.

### **8.5 STANDARD EXTENDED/SPECIALIZED/PRIVATE SOP CLASSES**

None

### **8.6 PRIVATE TRANSFER SYNTAXES**

None.