



BRIT Systems

# **DICOM Conformance Statement**

## **BRIT Vision**

**Release 2.5**

**Document Number: DCS-BVN-002.5-0001**

January 2007





## Revision History

Date	Release Number	Revised By	Sections Affected	Comments
Unknown	1	R. Barton	All	Initial Release
11/2004	2	R. Barton	All	Updates
1/2007	3	T. Harris	All	New Format



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# 1 Introduction

This conformance statement describes the DICOM Interface of the BRIT Systems implementation of the BRIT Vision system (formerly the Diagnostic Workbench) running Software Version 2.5 and higher.

The BRIT Vision system acts as a Service Class User (SCU) Storage Service Class Verification Service Class and Query/Retrieve Service Class. The BRIT Vision system also acts as a Service Class Provider (SCP) for both Storage Service Class and Verification Service Class.

## 1.1 Implementation Model

The BRIT Vision DICOM Interface is implemented to support one DICOM Application Entry (AE) that receives associations from remote Application Entities.

The BRIT Vision originates associations for Storage of DICOM Composite Information Objects stored in Remote Application Entities, and originates associations for Query and Retrieve of DICOM Composite Information Objects stored in Remote Application Entities.

### Application Data Flow Diagram

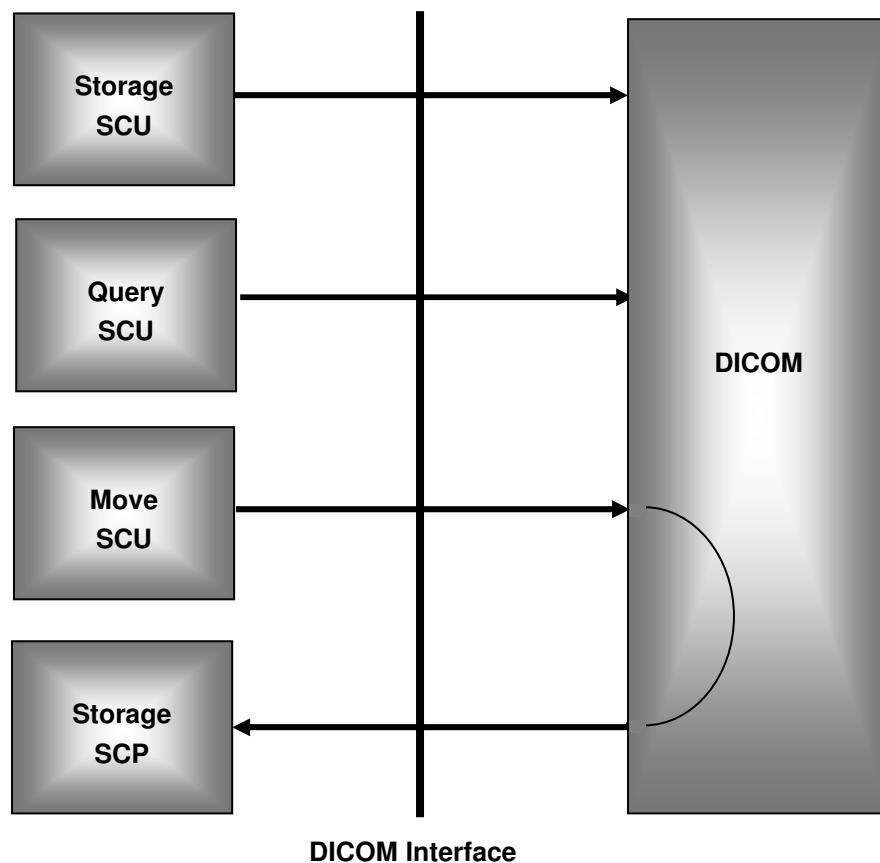


Figure 1 - Application Data Flow Diagram

## 2 Application Entity Specifications

### 2.1 Storage AE Specifications

Table 1 - Storage AE Specifications SOP Classes

SOP Class Name	SOP Class UM
CR (Computed Radiography) Image Information Object Storage	1.2.840.10008.5.1.4.1.1.1
CT Image Information Object Storage	1.2.840.10008.5.1.4.1.1.2
MR Image Information Object Storage	1.2.840.10008.5.1.4.1.1.4
NM Image Information Object Storage	1.2.840.10008.5.1.4.1.1.5
US Image Information Object Storage	1.2.840.10008.5.1.4.1.1.6
SC (Secondary Capture) Image Information Object Storage	1.2.840.10008.5.1.4.1.1.7
Verification	1.2.840.10008.1.1
Patient Root Query/Retrieve Information Model-FIND	1.2.840.10008.5.1.4.2.1.1
Patient Root Query/Retrieve Information Model-MOVE	1.2.840.10008.5.1.4.2.1.1

The BRIT Vision system provides Standard Conformance to the following DICOM V3.0 SOP Classes as an SCU:

Table 2 - Storage AE Specification SCU Classes

SOP Class Name	SOP Class UID
CR (Computed Radiography) Image Information Object Storage	1.2.840.10008.5.1.4.1.1.1
CT Image Object Storage	1.2.840.10008.5.1.4.1.1.2
MR Image Information Object Storage	1.2.840.10008.5.1.4.1.1.4
NM Image Information Object Storage	1.2.840.10008.5.1.4.1.1.5
US Image Information Object Storage	1.2.840.10008.5.1.4.1.1.6
SC (Secondary Capture) Image Information Object Storage	1.2.840.10008.5.1.4.1.1.7
Verification	1.2.840.10008.1.1



## 2.1.1 Association Establishment Policies

### 2.1.1.1 General

The configuration of the BRIT Vision defines the Application Entity Titles, the port numbers, the host name, and net address, and those of the peers.

### 2.1.1.2 Number of Associations

The workstation accepts multiple associations from different remote DICOM AEs at a time. There may be several concurrent associations active and processed in parallel.

### 2.1.1.3 Asynchronous Nature

This version of the software does not support asynchronous communication.

### 2.1.1.4 Implementation Identifying Information

The BRIT Vision system provides an Implementation Class UID of "1.2.840.113797.2." and an Implementation Version Name of "BRITMODDOCT96".

## 2.1.2 Real-World Activity

### 2.1.2.1 Real-World Activity

### 2.1.2.2 Real-World Activity

### 2.1.2.3 Real-World Activity

### 2.1.2.4 Real-World Activity – Retrieve Image Objects from a Remote Node

#### ***2.1.2.4.1 Associated Real-World Activity – Retrieve Image Objects from a Remote Node***

The associated Real-world activity is a C-MOVE request initiated by the user of the workstation. The transfer of the images will be done by a subsequent C-STORE and will return the results of the query operation to the calling application.

#### ***2.1.2.4.2 Proposed Presentation Contexts***

The BRIT Vision will propose a Presentation Context as shown in the following table:

**Table 3 - Presentation Context – Patient Root Query/Retrieve Information Model-MOVE**

Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name	UID		
Patient Root Query/Retrieve Information Model-MOVE	1.2.840.10008.5.1.4.2.1.2	DICOM Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None

## 2.1.3 Association Acceptance Policy

The BRIT Vision accepts a new association for:

- DIMSE-C-ECHO
- DIMSE-C-STORE

### 2.1.3.1 Real-World Activity – Receive Echo

#### 2.1.3.1.1 Associated Real-world Activity – Respond to Echo Request

The associated Real-World activity is a C-ECHO response by the workstations.

#### 2.1.3.1.2 Proposed Presentation Contexts

The BRIT Vision will accept Presentation Contexts as shown in the following table:

**Table 4 - Presentation Context - Verification - Service Class**

Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name	UID		
Verification Service Class	1.2.840.10008.1.1	DICOM Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None

#### 2.1.3.1.3 SOP Specific Conformance to the Verification SOP Class

The BRIT Vision provides conformance to the DICOM Verification Service Class.

### 2.1.3.2 Real-World Activity – Receive Image Objects from a Remote Node

#### 2.1.3.2.1 Associated Real-World Activity – Receive Image Objects from a Remote Node

The associated Real-World activity is a C-STORE request received by the workstation. After accepting an association from a remote DICOM AE, the workstation receives the images via the open association and stores them.

### 2.1.3.2.2 Proposed Presentation Contexts

The BRIT Vision will accept Presentation Contexts as shown in the following table:

**Table 5 - Presentation Context Storage Service Class**

Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name	UID		
CR Image Storage Service Class	1.2.840.10008.5.1.4.1.1.1	DICOM Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
CT Image Storage Service Class	1.2.840.10008.5.1.4.1.1.2	DICOM Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
MR Image Storage Service Class	1.2.840.10008.5.1.4.1.1.4	DICOM Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
NM Image Storage Service Class	1.2.840.10008.5.1.4.1.1.5	DICOM Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
US Image Storage Service Class	1.2.840.10008.5.1.4.1.1.6	DICOM Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
SC Image Storage Service Class	1.2.840.10008.5.1.4.1.1.7	DICOM Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None

## 3 Communication Profiles

### 3.1 Supported Communication Stacks

The BRIT View provides DICOM V3.09 TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard.

#### 3.1.1 OSI Stack

Not Support

#### 3.1.2 TCP/IP Stack

The BRIT View uses the TCP/IP stack from the UNIX system upon which it executes. It uses a subroutine library that is based on a Berkeley socket interface.



### **3.1.2.1 API**

The BRIT View uses a library that is based on a Berkeley socket interface.

### **3.1.2.2 Physical Media Support**

The BRIT View is independent of the physical medium over which TCP/IP executes. This feature is inherent in the UNIX operating system used on the BRIT View.

## **4 Extensions**

### **4.1 Standard Extensions**

The BRIT View DICOM Interface does not support specialized or private SOPs.

### **4.2 Private Transfer Syntaxes**

## **5 Configuration**

### **5.1 AE Title/Presentation Address Mapping**

The BRIT Vision maps Application Entity Titles to host name and port number via a configurable table.

### **5.2 Configurable Parameters**

The Application entity Titles, host names, and port numbers are configurable.

Max PDU size set to 16384 Bytes (16KB)

## **6 Support of Extended Character Sets**

None