GE Medical Systems

Technical Publications

Direction 2120980

Revision 1

ADVANTAGE WINDOWS CONFORMANCE STATEMENT

for DICOM v3.0 (ID/Net v3.0)

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Operator Manual

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WARNING

- **THIS SERVICE MANUAL IS AVAILABLE IN ENGLISH ONLY.**
- **IF A CUSTOMER'S SERVICE PROVIDER REQUIRES A LANGUAGE OTHER THAN ENGLISH, IT IS THE CUSTOMER'S RESPONSIBILITY TO PROVIDE TRANSLATION SERVICES.**
- **DO NOT ATTEMPT TO SERVICE THE EQUIPMENT UNLESS THIS SERVICE MANUAL HAS BEEN CONSULTED AND IS UNDERSTOOD.**
- **FAILURE TO HEED THIS WARNING MAY RESULT IN INJURY TO THE SERVICE PROVIDER, OPERATOR OR PATIENT FROM ELECTRIC SHOCK, MECHANICAL OR OTHER HAZARDS.**

AVERTISSEMENT

- **CE MANUEL DE MAINTENANCE N'EST DISPONIBLE QU'EN ANGLAIS.**
- **SI LE TECHNICIEN DU CLIENT A BESOIN DE CE MANUEL DANS UNE AUTRE LANGUE QUE L'ANGLAIS, C'EST AU CLIENT QU'IL INCOMBE DE LE FAIRE TRADUIRE.**
- **NE PAS TENTER D'INTERVENTION SUR LES ÉQUIPEMENTS TANT QUE LE MANUEL SERVICE N'A PAS ÉTÉ CONSULTÉ ET COMPRIS.**
- **LE NON-RESPECT DE CET AVERTISSEMENT PEUT ENTRAÎNER CHEZ LE TECHNICIEN, L'OPÉRATEUR OU LE PATIENT DES BLESSURES DUES À DES DANGERS ÉLECTRIQUES, MÉCANIQUES OU AUTRES.**

WARNUNG

- **DIESES KUNDENDIENST–HANDBUCH EXISTIERT NUR IN ENGLISCHER SPRACHE.**
- **FALLS EIN FREMDER KUNDENDIENST EINE ANDERE SPRACHE BENÖTIGT, IST ES AUFGABE DES KUNDEN FÜR EINE ENTSPRECHENDE ÜBERSETZUNG ZU SORGEN.**
- **VERSUCHEN SIE NICHT, DAS GERÄT ZU REPARIEREN, BEVOR DIESES KUNDENDIENST–HANDBUCH NICHT ZU RATE GEZOGEN UND VERSTANDEN WURDE.**
- **WIRD DIESE WARNUNG NICHT BEACHTET, SO KANN ES ZU VERLETZUNGEN DES KUNDENDIENSTTECHNIKERS, DES BEDIENERS ODER DES PATIENTEN DURCH ELEKTRISCHE SCHLÄGE, MECHANISCHE ODER SONSTIGE GEFAHREN KOMMEN.**

AVISO

- **ESTE MANUAL DE SERVICIO SÓLO EXISTE EN INGLÉS.**
- **SI ALGÚN PROVEEDOR DE SERVICIOS AJENO A GEMS SOLICITA UN IDIOMA QUE NO SEA EL INGLÉS, ES RESPONSABILIDAD DEL CLIENTE OFRECER UN SERVICIO DE TRADUCCIÓN.**
- **NO SE DEBERÁ DAR SERVICIO TÉCNICO AL EQUIPO, SIN HABER CONSULTADO Y COMPRENDIDO ESTE MANUAL DE SERVICIO.**
- **LA NO OBSERVANCIA DEL PRESENTE AVISO PUEDE DAR LUGAR A QUE EL PROVEEDOR DE SERVICIOS, EL OPERADOR O EL PACIENTE SUFRAN LESIONES PROVOCADAS POR CAUSAS ELÉCTRICAS, MECÁNICAS O DE OTRA NATURALEZA.**

ATENÇÃO

- **ESTE MANUAL DE ASSISTÊNCIA TÉCNICA SÓ SE ENCONTRA DISPONÍVEL EM INGLÊS.**
- **SE QUALQUER OUTRO SERVIÇO DE ASSISTÊNCIA TÉCNICA, QUE NÃO A GEMS, SOLICITAR ESTES MANUAIS NOUTRO IDIOMA, É DA RESPONSABILIDADE DO CLIENTE FORNECER OS SERVIÇOS DE TRADUÇÃO.**
- **NÃO TENTE REPARAR O EQUIPAMENTO SEM TER CONSULTADO E COMPREENDIDO ESTE MANUAL DE ASSISTÊNCIA TÉCNICA.**
- **O NÃO CUMPRIMENTO DESTE AVISO PODE POR EM PERIGO A SEGURANÇA DO TÉCNICO, OPERADOR OU PACIENTE DEVIDO A‘ CHOQUES ELÉTRICOS, MECÂNICOS OU OUTROS.**

AVVERTENZA

- **IL PRESENTE MANUALE DI MANUTENZIONE È DISPONIBILE SOLTANTO IN INGLESE.**
- **SE UN ADDETTO ALLA MANUTENZIONE ESTERNO ALLA GEMS RICHIEDE IL MANUALE IN UNA LINGUA DIVERSA, IL CLIENTE È TENUTO A PROVVEDERE DIRETTAMENTE ALLA TRADUZIONE.**
- **SI PROCEDA ALLA MANUTENZIONE DELL’APPARECCHIATURA SOLO DOPO AVER CONSULTATO IL PRESENTE MANUALE ED AVERNE COMPRESO IL CONTENUTO.**
- **NON TENERE CONTO DELLA PRESENTE AVVERTENZA POTREBBE FAR COMPIERE OPERAZIONI DA CUI DERIVINO LESIONI ALL’ADDETTO ALLA MANUTENZIONE, ALL’UTILIZZATORE ED AL PAZIENTE PER FOLGORAZIONE ELETTRICA, PER URTI MECCANICI OD ALTRI RISCHI.**

警告

・このサービスマニュアルには英語版しかありません。
・ＧＥＭＳ以外でサービスを担当される業者が英語以外の言語を要求される場合、翻訳作業はその業者の責任で行うものとさせていただきます。
・このサービスマニュアルを熟読し理解せずに、装置のサービスを行わないで下さい。
・この警告に従わない場合、サービスを担当される方、操作員あるいは患者さんが、感電や機械的又はその他の危険により負傷する可能性があります。

注意:

- 本维修手册仅存有英文本。
- 非 GEMS 公司的维修员要求非英文本的维修手册时，客户需自行负责翻译。
- 未详细阅读和完全了解本手册之前，不得进行维修。
- 忽略本注意事项会对维修员，操作员或病人造成触电，机械伤害或其他伤害。

REVISION HISTORY

REV	DATE	REASON FOR CHANGE
0	March 13, 1995	Initial release to Direction Stock.
1	July 15, 1995	Update SOP Class Features

LIST OF EFFECTIVE PAGES

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CHAPTER 1 – INTRODUCTION

SECTION 1
OVERVIEW

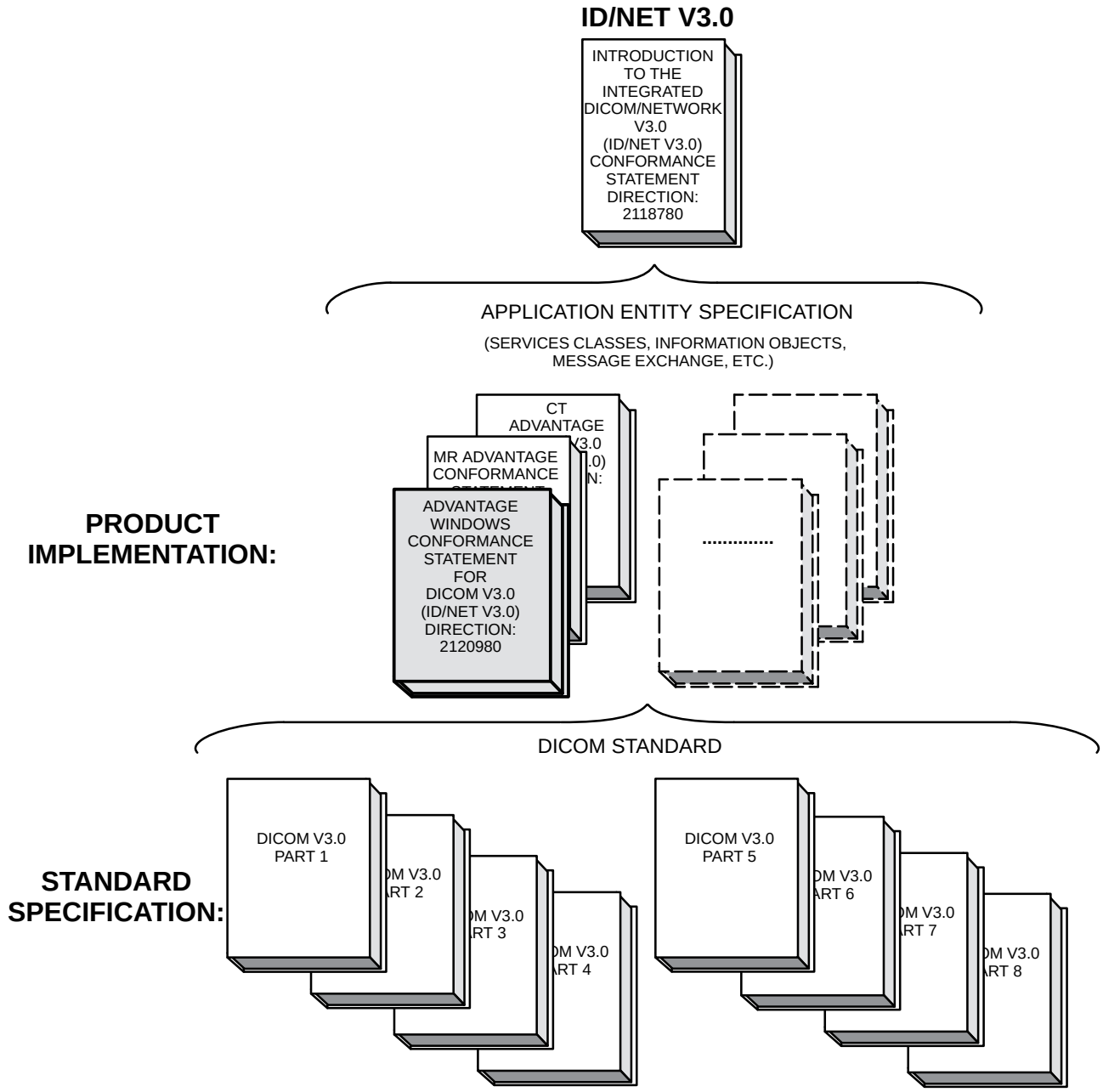
Section 1, *Introduction*, provides general information about the content and scope of this document.

Section 2, *Conformance Statement*, is the DICOM v3.0 Conformance Statement related to this product. Conformance Statements define the subset of options selected from those offered by the DICOM v3.0 standard.

1–1 Overall conformance Statement Documentation Structure

The Documentation Structure of the ID/Net v3.0 Conformance Statements and their relationship with the DICOM v3.0 Conformance Statements is shown in Illustration 1–1.

ILLUSTRATION 1–1
DOCUMENTATION STRUCTURE


ID/NET V3.0
INTRODUCTION TO THE INTEGRATED DICOM/NETWORK V3.0 (ID/NET V3.0) CONFORMANCE STATEMENT DIRECTION: 2118780
APPLICATION ENTITY SPECIFICATION
(SERVICES CLASSES, INFORMATION OBJECTS, MESSAGE EXCHANGE, ETC.)
PRODUCT IMPLEMENTATION:
CT ADVANTAGE
MR ADVANTAGE CONFORMANCE
ADVANTAGE WINDOWS CONFORMANCE STATEMENT FOR DICOM V3.0 (ID/NET V3.0) DIRECTION: 2120980
DICOM STANDARD
STANDARD SPECIFICATION:
DICOM V3.0 PART 1
DICOM V3.0 PART 5

The Documentation Structure given in Illustration 1–1 shows the overall documentation structure for all of the GE ID/Net v3.0 Conformance Statements.

ID/Net v2.0 documentation is also openly available, but the two documentation structures are independent of one another. Refer to Direction 46–269546G2.

This document specifies the DICOM v3.0 implementation supported by the Advantage Windows workstation. It is entitled:

Advantage Windows 1.2
Conformance Statement for DICOM v3.0 (ID/Net v3.0)
Direction 2120980.

This Conformance Statement documents the DICOM v3.0 Conformance Statement and Technical Specification required to interoperate with the GE ID/Net v3.0 network interface. Introductory information, which is applicable to all GE ID/Net v3.0 Conformance Statements, is described in the document:

Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0)
Conformance Statements
Direction: 2118780.

This Introduction familiarizes the reader with DICOM terminology and general concepts. It should be read prior to reading the individual products' ID/Net v3.0 Conformance Statements.

The ID/Net v3.0 Conformance Statement, contained in this document, also specifies the Lower Layer communications which it supports (e.g., TCP/IP). However, the Technical Specifications are defined in the DICOM v3.0 Part 8 standard.

For more information including Network Architecture and basic DICOM concepts, please refer to the *Introduction.*

For the convenience of developers, there is "collector" Direction available. By ordering the collector, the Introduction described above and all of the currently published ID/Net v3.0 Product Conformance Statements will be received. The collector Direction is:

ID/Net v3.0 Conformance Statements
Direction: 2117016

For more information regarding DICOM v3.0, copies of the Standard may be obtained by written request or phone by contacting:

NEMA Publication
2101 L Street, N.W., Suite 300
Washington, DC 20037 USA
Phone: (202) 457–8474

1–2 Intended audience

The reader of this document is concerned with software design and/or system integration issues. It is assumed that the reader of this document is familiar with the DICOM v3.0 Standards and with the terminology and concepts which are used in those Standards.

If readers are unfamiliar with DICOM v3.0 terminology they should first refer to the document listed below, then read the DICOM v3.0 Standard itself, prior to reading this Conformance Statement document.

Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0)
Conformance Statements
Direction: 2118780

1–3 Scope and field of application

It is the intent of this document, in conjunction with the *Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement, Direction: 2118780,* to provide an unambiguous specification for GE ID/Net v3.0 implementations. This specification, called a Conformance Statement, includes a DICOM v3.0 Conformance Statement and is necessary to ensure proper processing and interpretation of GE medical image data exchanged using DICOM v3.0. The GE ID/Net v3.0 Conformance Statements are available to the public.

The reader of this Conformance Statement should be aware that different GE devices are capable of using different Information Object Definitions. For example, a GE CT Scanner may send images using the CT Information Object, MR Information Object, Secondary Capture Object, etc.

Included in this Conformance Statement are the Module Definitions which define all data elements used by this GE ID/Net v3.0 implementation. If the user encounters unspecified private data elements while parsing a GE Data Set, the user is well advised to ignore those data elements (per the DICOM v3.0 standard). Unspecified private data element information is subject to change without notice. If, however, the device is acting as a ”full fidelity storage device”, it should retain and retransmit all of the private data elements which are sent by GE devices.

1–4 Important remarks

The use of these Conformance Statements, in conjunction with the DICOM v3.0 Standards, is intended to facilitate communication with GE imaging equipment. However, **by itself, it is not sufficient to ensure that inter–operation will be successful.** The **user (or user's agent)** needs to proceed with caution and address at least four issues:

- **Integration** – The integration of any device into an overall system of interconnected devices goes beyond the scope of standards (DICOM v3.0), and of this introduction and associated Conformance Statements when interoperability with non–GE equipment is desired. The responsibility to analyze the applications requirements and to design a solution that integrates GE imaging equipment with non-GE systems is the **user's** responsibility and should not be underestimated. The **user** is strongly advised to ensure that such an integration analysis is correctly performed.
- **Validation** – Testing the complete range of possible interactions between any GE device and non-GE devices, before the connection is declared operational, should not be overlooked. Therefore, the **user** should ensure that any non-GE provider accepts full responsibility for all validation required for their connection with GE devices. This includes the accuracy of the image data once it has crossed the interface between the GE imaging equipment and the non-GE device and the stability of the image data for the intended applications.
  Such a validation is required before any clinical use (diagnosis and/or treatment) is performed. It applies when images acquired on GE imaging equipment are processed/displayed on a non–GE device, as well as when images acquired on non–GE equipment is processed/displayed on a GE console or workstation.
- **Future Evolution** – GE understands that the DICOM Standard will evolve to meet the user's growing requirements. GE is actively involved in the development of the DICOM v3.0 Standard. DICOM v3.0 will incorporate new features and technologies and GE may follow the evolution of the Standard. ID/Net v3.0 is based on DICOM v3.0 as specified in each ID/Net DICOM Conformance Statement. Evolution of the Standard may require changes to devices which have implemented DICOM v3.0. **In addition, GE reserves the right to discontinue or make changes to the support of communications features (on its products) reflected on by these ID/Net DICOM Conformance Statements.** The **user** should ensure that any non-GE provider, which connects with GE devices, also plans for the future evolution of the DICOM Standard. Failure to do so will likely result in the loss of function and/or connectivity as the DICOM Standard changes and GE Products are enhanced to support these changes.
- **Interaction** – It is the sole responsibility of the **non-GE provider** to ensure that communication with the interfaced equipment does not cause degradation of GE imaging equipment performance and/or function.

1–5 References

A list of references which is applicable to all ID/Net v3.0 Conformance Statements is included in the *Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement, Direction: 2118780.*

1–6 Definitions

A set of definitions which is applicable to all ID/Net v3.0 Conformance Statements is included in the *Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement, Direction: 2118780.*

1–7 Symbols and abbreviations

A list of symbols and abbreviations which is applicable to all ID/Net v3.0 Conformance Statements is included in the *Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement, Direction: 2118780.*

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CHAPTER 2 – CONFORMANCE STATEMENT

SECTION 1
INTRODUCTION

This Conformance Statement (CS) specifies the GE Advantage Windows compliance to DICOM v3.0. It details the DICOM Service Classes and roles which are supported by this product in its version 1.2.

The Advantage Windows workstation is a multi–modality workstation which is rich in image processing and analysis functions. The station uses DICOM services to import images for possible further analysis or processing. The Advantage Windows workstation also uses DICOM services to export images to other vendors.

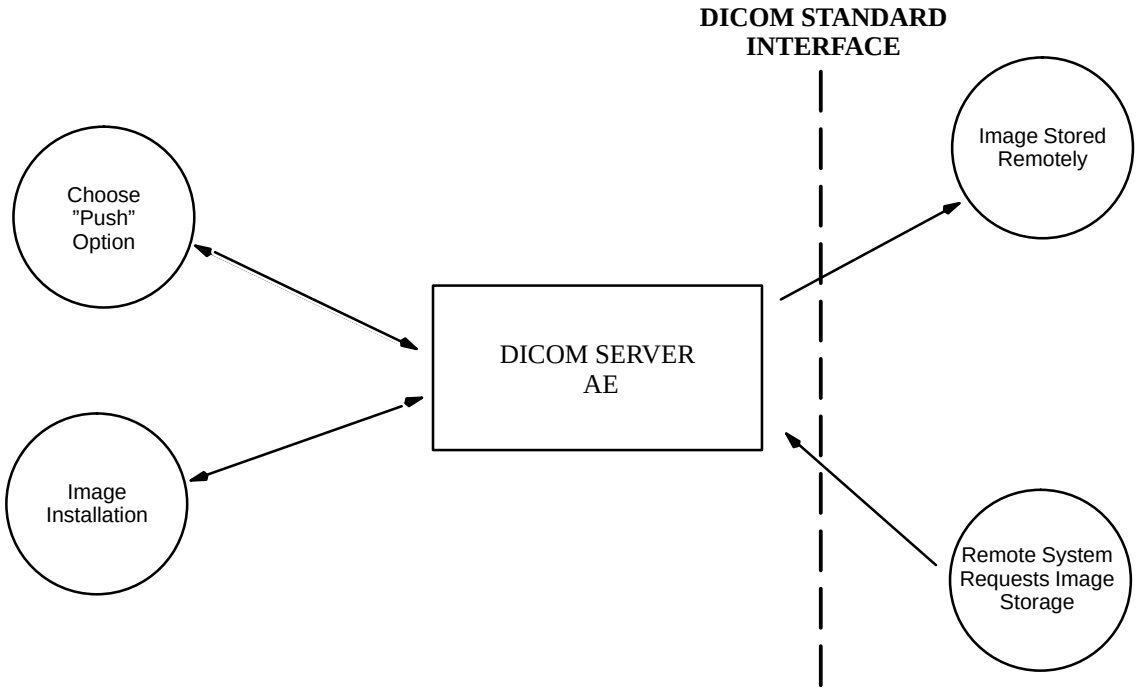
Note that the format of this section follows the format of DICOM Standard Part 2 (Conformance) Annex A hence the paragraph numbering scheme. Please refer to that part of the standard while reading this section.

SECTION 2
IMPLEMENTATION MODEL

All DICOM functionality on the Advantage Windows workstation is handled by the DICOM Server Application Entity (AE). The DICOM Server AE is commanded to perform DICOM services by the user through the buttons and menu selections on the main user interface panel (called the local Browser). The DICOM Server AE is also listening to a pre–defined port for incoming connections.

2–1 Application Data Flow Diagram

ILLUSTRATION 2–1
IMPLEMENTATION MODEL DATA FLOW DIAGRAM



There is one local Real–World Activity, *Choose "Push" Option*, which can cause the DICOM Server Application Entity (DICOM Server AE) to initiate a DICOM association to remotely store an image.

The *Choose "Push" Option* activity consists of an operator selecting one or more study, series, or image in the local Browser and choosing either "Push examination", "Push series", or "Push image" from the "Network" pull–down menu on the local Browser to send the image(s) to a selected destination.

There is no local Real–World Activity required for the DICOM Server AE to respond to an incoming DICOM Store. The DICOM Server AE is always prepared to respond to a DICOM Store by any remote DICOM AE. The DICOM Server AE will perform the Real–World Activity *Image Installation* after the remote AE sends an image to the Advantage Windows workstation.

2–2 Functional Definition of AE's

DICOM Server Application Entity supports the following functions:

- Has access to patient demographics and pixel data in the local database
- Initiates a DICOM association to send images to a remote host
- Responds to DICOM associations transmitting images to be stored

2–3 Sequencing of Real–World Activities

Not applicable.

SECTION 3
AE SPECIFICATIONS

3–1 DICOM Server AE Specification

This Application Entity provides Standard Conformance to the following DICOM V3.0 SOP Classes as an **SCU**:

SOP Class Name (SCU)	SOP Class UID
CT Image Information Storage	1.2.840.10008.5.1.4.1.1.2
MR Image Information Storage	1.2.840.10008.5.1.4.1.1.4
Overlay Information Storage	1.2.840.10008.5.1.4.1.1.8

This Application Entity provides Standard Conformance to the following DICOM V3.0 SOP classes as an **SCP**:

SOP Class Name (SCP)	SOP Class UID
Verification (Echo)	1.2.840.10008.1.1
CT Image Information Storage	1.2.840.10008.5.1.4.1.1.2
MR Image Information Storage	1.2.840.10008.5.1.4.1.1.4
Overlay Information Storage	1.2.840.10008.5.1.4.1.1.8

3–1–1 Association Establishment Policies

General

The DICOM Application Context Name (ACN), which is always proposed, is:

Application Context Name	1.2.840.10008.3.1.1.1

The Maximum Length PDU negotiation is included in all association establishment requests. The maximum length PDU for an association initiated by the DICOM Server AE is:

Maximum Length PDU	10 Kbytes

The SOP class Extended Negotiation is not supported.

The maximum number of Presentation Contexts Items that will be proposed is 8. Note that the same Abstract Syntax may be offered multiple times with different Transfer Syntaxes.

The user information items sent by this product are:

- Maximum PDU Length and,
- Implementation UID

Number of Associations

The DICOM Server AE will initiate only one DICOM association at a time to perform an image store (SCU) to a remote host.

The DICOM Server AE can have a maximum of 4 DICOM associations open simultaneously to receive an image store or respond to an echo.

Asynchronous Nature

Asynchronous mode is not supported. All operations will be performed synchronously.

Implementation Identifying Information

The Implementation UID allows unique identification of a set of products that share the same implementation.

The Implementation UID for this ID/Net v3.0 Implementation is:

Advantage Windows Implementation UID	**1.2.840.113619.6.5**

3–1–2 Association Initiation by Real–World Activity

This AE attempts to initiate a new association due to a “Push” operation initiated by the operator.

Real–World Activity ”Push” Operation

Associated Real–World Activity

The operator must first select a destination by choosing ”Select remote host” from the ”Network” pull–down menu on the local Browser and then choose a host name.

The ”Push” operation will cause the DICOM Server AE initiate an Association when the operator selects one or more study, series, or image in the local Browser and then chooses either ”Push examination”, ”Push series”, or ”Push image” from the ”Network” pull–down menu on the local Browser.

Proposed Presentation Contexts

The following table shows the proposed presentation contexts for the DICOM Server AE after Real–World Activity ”Push” Operation has been performed.

Presentation Context Table – Proposed					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
Stand–alone Overlay Storage	1.2.840.10008.5.1.4.1.1.8	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None

Note: Other Abstract Syntax and Transfer Syntax names may be offered when establishing an association. These are private syntaxes which may be ignored. See section 5.

SOP Specific Conformance Statement for Image Storage SOP Classes

This implementation can perform multiple C-STORE operations over a single association.

Upon receiving a C-STORE confirmation containing a Successful status, this implementation will perform the next C-STORE operation. The association will be maintained if possible.

Upon receiving a C-STORE confirmation containing a Refused status, this implementation will terminate the association. The current request (exam(s), series(es) or image(s)) is considered failed.

Upon receiving a C-STORE confirmation containing any status that is not Success or Refused, this implementation will consider the current request to be a failure but will continue to attempt to send the remaining images in the request on the same association.

Each C–STORE operation supports an ”Association Timer”. This timer starts when the association request is sent and stops when the association is established. This timeout is 30 seconds.

Each C-STORE operation also supports an "Operation Inactivity Timer". This timeout starts once the first C-STORE request has been issued (on an association) and is reset each time a C-STORE response has been received or when subsequent C–STORE requests are sent. This timeout is 90 seconds.

Each C–STORE operation also supports a "Session Timer". This timer starts when the association is established and stops when the association is ended. This timeout is 60 minutes.

If any of the 3 timers mentioned above expires, the connection is closed and the operation in progress is considered to be failed.

When DICOM Server AE initiates an association to issue a C–STORE, one of two operations will be performed. If the image is stored locally on the Advantage Windows workstation in DICOM format ("Dic" appears in the "Fmt" column at the Exam level of the local Browser), the image will be transmitted by the DICOM Server AE with the same elements in which it was received.

If the image is stored locally on the Advantage Windows workstation in a non–DICOM Advantage format ("Adv" appears in the "Fmt" field at the Exam level of the local Browser), the image will be translated and then transmitted by the DICOM Server AE identical to the profiles specified by the CT Advantage Conformance Statement for DICOM v3.0 (Direction 2118781) and the MR Signa Advantage Conformance Statement for DICOM v3.0 (Direction 2118782).

3–1–3 Association Acceptance Policy

When the DICOM Server AE accepts an association, it will receive any images transmitted on that association and store the images on disk. The DICOM Server AE places no limitations on who may connect to it.

Real–World Activity "Image Install"

This AE is indefinitely listening for associations. No operator action is required to receive an image.

Associated Real–World Activity

The associated Real–World Activity associated with the C–STORE operation is the storage of the image on the disk of the Advantage Windows.

Presentation Context Table

Any of the Presentation Context show in the following table are accepted by the DICOM Server AE.

Presentation Context Table – Accepted					
Abstract Syntax		Transfer Syntax		Role	Extended
Name	UID	Name List	UID List		Negotiation
Verification	1.2.840.10008.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
Stand–alone Overlay Storage	1.2.840.10008.5.1.4.1.1.8	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None

SOP Specific Conformance to Verification SOP Class

The DICOM Server AE provides standard conformance to the DICOM Verification Service Class.

SOP Specific Conformance to Storage SOP Classes

The DICOM Server AE conforms to the SOP's of the Storage Service Class at Level 2 (Full).

Image Reception

If the DICOM Server AE returns one of the following status codes, then the C–STORE operation was unsuccessful and no image will be installed:

- 0110 (Processing Failure) Indicates that an internal system call has failed while processing the image.
- A700 (Out of Resources) Indicates that there was not enough disk space or some other internal resource (such as memory) to store the image. The user should attempt recovery by removing some images from the Advantage Windows system.

In the event of a successful C–STORE operation, the image has successfully been written to disk. The image will then be accessed in the same manner as any other image by the applications on the Advantage Windows workstation.

Image may be deleted when instructed to do so by the user or when the image data is found to be not in conformance with the DICOM standard. Thus the duration of the storage of the image is determined by users of the Advantage Windows workstation or by the validation process.

Image Installation

If the image installation is unsuccessful, a message will appear in the Message Log informing the user of the failure and the image file will be removed.

If the image installation process finds that an element is not encoded according to the DICOM standard, it will fail to install the image and the file will be removed.

The Advantage Windows workstation will only successfully install Stand–alone Overlay images which have the Modality field (0008, 0060) set to MR or CT.

The overlay planes are not removed or changed. An overlay only image will have pixel data created from the overlay data which will be stored with the image.

Presentation Context Acceptance Criterion

No criterion.

Transfer Syntax Selection Policies

Only Implicit VR Little Endian transfer syntax is supported and there is no priority selection policy.

SECTION 4
COMMUNICATION PROFILES

4–1 Supported Communication Stacks (parts 8,9)

DICOM Upper Layer (Part 8) is supported using TCP/IP.

4–2 TCP/IP Stack

The TCP/IP stack is inherited from a UNIX Operating System.

4–2–1 Physical Media Support

Ethernet v2.0, IEEE 802.3.

4–3 Point–to–Point Stack

A 50–pin ACR–NEMA connection is not applicable to this product.

SECTION 5
EXTENSIONS / SPECIALIZATIONS / PRIVATIZATIONS

5–1 Standard Extended / Specialized / Private SOP's

ID/Net v2.0 GE Private IOD's are based upon the April 1993 draft version of DICOM v3.0. ID/Net v2.0 IOD's are supported for backward compatibility.

Note: See the "ID/Net v2.0 Implementation Profiles" (Direction 46–269546G2) for definitions of the Information Objects.

Presentation Context Table – Accepted / Proposed					
Abstract Syntax		Transfer Syntax		Role	Expanded
Name	UID	Name List	UID List		Negotiation
GE Private DICOM MR Image Info Object (ID/Net v2.0 compatible)	1.2.840.113619.4.2	Implicit VR Little Endian	1.2.840.10008.1.2	Both	None
GE Private DICOM CT Image Info Object (ID/Net v2.0 compatible)	1.2.840.113619.4.3	Implicit VR Little Endian	1.2.840.10008.1.2	Both	None
GE Private DICOM Display Image Info Object (ID/Net v2.0 compatible)	1.2.840.113619.4.4	Implicit VR Little Endian	1.2.840.10008.1.2	Both	None

SECTION 6
CONFIGURATION

6–1 AE Title/Presentation Address Mapping

The Advantage Windows workstation allows the user to ”Add”, ”Remove”, or ”Update” the mapping of remote AE Titles to IP Addresses and Ports. These options can be selected from the ”Remote host selection” menu displayed by choosing ”Select remote host” from the ”Network” pull–down menu on the local Browser.

6–2 Configurable Parameters

The following fields are configurable for the DICOM Server AE:

- Local AE Title (the machine hostname)
- Local IP Address
- Local IP Netmask

Note: All configuration must be performed by a GE Field Engineer.

Note: The local port on which the AW DICOM receives incoming TCP connections is port 4006.

SECTION 7
SUPPORT OF EXTENDED CHARACTER SETS

No extended character sets are supported.