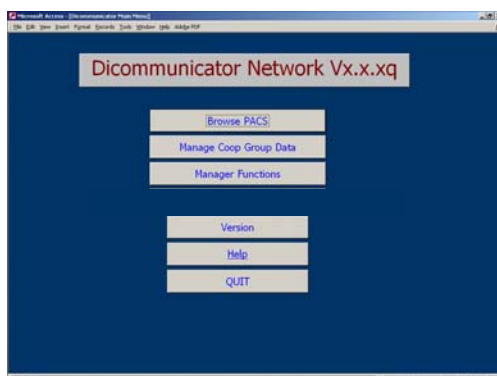## Dicommunicator Overview

### Description

QARC is now able to receive imaging studies in digital format.  The Dicommunicator software facilitates the submission of electronic diagnostic imaging (DICOM files).  This software is the *preferred* method for submission.  Dicommunicator was developed by Keith White, MD at Primary Children's Medical Center in Salt Lake City, Utah.  Dr. White is an active member of the Diagnostic Imaging Committee within COG.  The installation of this software at all the COG institutions is a group-wide priority and can be accomplished for very little cost to each institution.

Dicommunicator is compliant with the DICOM standard which allows for query, retrieval, storage, printing, viewing and transfer of electronic images.  The Dicommunicator software will ideally reside on a PC that has access to both the PACS system network and the Internet.  This software will allow the CRA to query or push imaging from the PACS to his/her own PC and to select the studies he/she would like to send to QARC.  The studies may then be sent by burning the images to a CD or via email.  Email has some benefits.  It is an application with which most computer users are familiar.  Email allows Dicommunicator to circumvent issues that arise with various firewalls when trying to use other forms of file transfer.
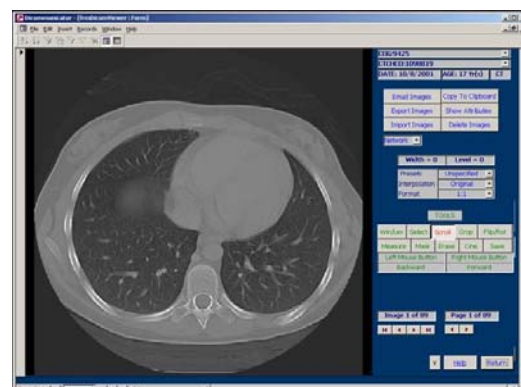
A major advantage of the Dicommunicator software is that it scrubs demographic (patient name) data from the images and replaces it with the protocol and patient registration number.  It encrypts the images before sending them over the Internet as email attachments. It can compress the images and has the capability to determine how many images it can reliably send as attachments per email message.  A study with many images will arrive at QARC as sequential emails.  QARC has no size limitation for email.  In addition, Dicommunicator helps the CRA keep track of which studies have been sent to QARC.

When the images arrive at the Dicommunicator Server at QARC, they are extracted from the emails and stored in a local archive.  A program resolves these images with Patient Records already in the QARC Database using the research demographics that replaced the patient's name and medical record number.  The images can then be viewed directly from the patient record in the QARC database.



*Dicommunicator offers a simple and user-friendly interface.*

*Dicommunicator has an embedded viewer with additional tools that include: Window / Level, Scroll, Measure and Mask.*

# Dicommunicator Requirements

*The PC that Dicommunicator runs on requires the following:*

- ✓ Microsoft Windows (any version later than 95)
- ✓ Microsoft Access version 2000 loaded
- ✓ At least 128 MB of RAM (The more RAM, the better Dicommunicator will perform – RAM is more important than CPU speed for this application)
- ✓ On the same network as the PAC's System Server
- ✓ Static IP address
- ✓ AE title which will be created by the PAC's administrator
- ✓ Ability to access the Internet
- ✓ Ability to send Email
- ✓ CD burning capabilities (optional)
- ✓ The PAC's administrator needs to be available during the installation of Dicommunicator
- ✓ User needs Administrative rights on system

# How Can I Get Dicommunicator?

*To pursue a Dicommunicator installation at your institution…*

1. Complete a PACS Questionnaire with information about your institution's PACS system and submit it to QARC - you can obtain a copy of this form from the Dicommunicator section of the QARC website at http://www.qarc.org/dicommunicator.htm or by contacting QARC. (See below for *Contact Information.*)
2. You will need to purchase a license for each installation of the software. A CD containing the software will be sent to you.
3. Select and configure the system on which you would like to install Dicommunicator. (See *Dicommunicator Requirements* above.)
4. When you receive the software in the mail, you will need to contact QARC to set up an appointment to walk through the installation.

# FAQ's

*Q:* **How much does Dicommunicator cost?**
*A:* Dicommunicator was donated by its developer, Dr. Keith White. Although the software itself is free, there is a one-time cost of $215 per workstation to install Dicommunicator on one workstation. This covers a licensing fee for the image viewer that is embedded in Dicommunicator.

*Q:* **Does Dicommunicator come with hardware?**
*A:* No. Dicommunicator is a software package. It will arrive at your institution on a CD that will be installed on a system that you have prepared.

*Q:* **Can I have more than one version of Access installed simultaneously? (e.g. Access 2000 and XP)**
*A:* Yes. It is possible to install and use more than one version of Microsoft Access on a system.

*Q:* **Can Dicommunicator be used to send DICOMRT images?**
*A:* No. At this time, Dicommunicator can only be used to view and send DICOM compliant imaging.

*Q:* **There is a size limitation on the email attachment size that I can send. Does Dicommunicator account for this?**
*A:* Since many institutions have a limit on the attachment size that it can send with emails, Dicommunicator is configured to send out file attachments in 2MB segments. Dicommunicator can compress the images and has the capability to determine how many images it can reliably send per email attachment. For example, if you email a scan to QARC that has a size of 10MB, Dicommunicator will automatically break the scan into the appropriate number of images so that the 2MB limit is not exceeded. Five emails would be sent, each with a 2MB attachment.

*Q:* **Is Dicommunicator HIPAA compliant? Does my institution need to have a Business Associate Agreement (BAA) in place with QARC?**
*A:* Dicommunicator is HIPAA compliant. Dicommunicator scrubs demographic (patient name) data off of images before they are emailed or burned to a CD. In addition, each patient that is enrolled on a study signs a form acknowledging that their information can be released for research purposes. You do not need to have a BAA with QARC because QARC is not a business associate of your institution. Furthermore, the Health & Human Services (HHS) Office of Civil Rights has stated that disclosures of protected health information from a covered entity to a researcher for research purposes do not require a BAA.

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For additional information please contact:

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