ACR Accreditation
User Instructions for
Electronic Submission of Images
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I. Introduction

Facilities seeking ACR Accreditation can now choose to electronically submit clinical and phantom images for review:

Electronic submission is compatible with your Windows PC for using Windows client and Web client and MAC PC for using Web Client. This document will give you the information on the process and functionality of submitting your image files and supporting documents electronically by uploading them to an encrypted, secure server for accreditation review.

II. Your Application

When you apply for accreditation, in addition to choosing modules and/or examinations for submission, you will choose the type of submission (Figure 1). For unit based accreditation programs, you may choose the way you submit your images differently for each unit. For facility based accreditation programs such as ultrasound, you will choose one submission type no matter how many units are at that facility.

If you choose electronic submission, and upload images for review, please be aware that you will be required to upload both clinical and phantom images (if applicable), and also be required to upload any supporting documents required in the online testing package for that modality. For instance, if you are applying for CT Accreditation, you must submit copies of your written protocols for the examinations on your application, as well as the most recent Annual System Performance Evaluation, for that unit. These must be uploaded also – they cannot be mailed.
The ACRedit database has multiple important messages in red font (Figure 2) that appear at various points in your application (and testing package). It is very important to read every screen before you submit the application.

Figure 2: Note the red error messages indicating that both clinical and phantom and supporting documentation must be submitted electronically.

After you finish and submit your application, ACR staff will ensure that everything is received (fees, survey agreement if applicable, etc.) and accept your application. You will then receive an email stating that your online testing package is available.
III. Your Testing Package

Once the testing package is available, and you start to modify it, you will see several items on the left hand navigation pane (Figure 3). When you first enter the application each item will have a red X next to it, indicating that section is not completed. As you complete each section, you will notice that a green check mark will appear by the item you just completed. This document will focus exclusively on the item “Upload Images”.

On the “Upload Images” screen (Figure 4), there are two choices for uploading your images:

- ACRedit Web Client
  - No software installation required.
  - Microsoft Silverlight 5 needs to be installed as a pre requirement.
  - Ability to view thumbnails of DICOM images.
  - Choose individual image files for uploading – cannot choose entire folders.
  - Works in MAC environment.
- **Recommended Hardware requirements for TRIAD Web Client:**
  Operating system and Browser: Compatible with SilverLight application.
  4 GB RAM.
  2.4 GHz Processor
  150 GB Hard Disk space
  Data should be uploaded with a size limit approximate to 500 MB per upload.

- **TRIAD Windows Client**
  - Software installation required.
    - TRIAD Windows Client
    - ClearCanvas Workstation
  - Ability to connect with Clear Canvas Workstation for viewing full images before submission.
  - May choose entire folders for uploading in addition to individual files.
  - Can retrieve images from PACS for upload.

- **Recommended Hardware requirements for TRIAD Windows Client:**
  Window XP (SP2, SP3), Windows 7 (32 or 64 bit)
  4 GB RAM.
  2.4 GHz Processor
  150 GB Hard Disk space

- **Software requirements:**
  Microsoft .NET Framework 4.0 full version
  You can download it from:

You can switch between these two uploading methods at any time. We will go into more detail of these two choices separately. You will be able to add or delete images until you finish and submit your online testing package. Once your testing package is fully submitted, you cannot make any changes to the images you have chosen.

![Figure 4: Upload Images Screen of ACRedit Testing Package](image-url)
A. ACRedit Web Client

The ACRedit Web Client requires no download or installation of any software to your computer or network. Microsoft SilverLight 5, internet connection and access to the images on your computer hard drive, network or CD/DVD are required.

Select ACRedit Web Client and the below window appears.

![Select ACRedit Web Client and the below window appears.]

Figure 5: Upload Images Screen with Web Client chosen

Your modality number, unit number (if applicable), and the examination name will appear in the left pane of the new “Upload Image” window.

A new window (Figure 6) to upload images will appear when select images is clicked.
Figure 6: File Manager window

- From this window, you can upload images, create separate subfolders for each examination, and view the supported file types for each modality.
- By clicking on the folder icon with the green “+” you have the option of creating and naming folders and subfolders for your examination images. While creating folders is not required, it can sometimes be helpful in organizing large numbers of files in some examinations.
- A pop up window will appear so you can name the folder. The folder will then appear in the left pane of the File Manager “Upload Image” window. You can create as many folders as you wish for each examination.
- To choose images for uploading, choose the examination folder or subfolder in the left navigation pane, then click on “Choose Files for Upload” at the top of the right pane. This will open a browser window, and you can navigate to the image files for upload. For many examinations, images will be stored in separate folders for each series of images. It is necessary to click “Choose Files for Upload” separately for each series in a particular examination. You may, however, select multiple files from a particular folder with your selection. To select all files from a folder, press “Ctrl + A”.

Thumbnail images will appear for DICOM images that you have chosen for upload on the screen, along with the upload status for each image, and the progress for each image (Figure 6). When you have finished uploading images for that examination, click on “Finish and Close Window” in the lower right corner. This will save the images, and take you back to the Upload Images screen of your ACRedit testing.
package. At this point, you can log out of the ACRedit database and finish later, or move to the next examination.

When you are certain that you have uploaded all images for a particular examination, you may check the box in the far right column for each examination. If, at any time, you want to go back and add or delete images for an examination, simply uncheck the box. The system will then allow you to open the File Manager again to edit your image selection for that examination.

When you are finished uploading the images for all examinations, click on Image Upload Summary. A new window will open.

B. TRIAD Windows Client

Choosing Windows Client (from the Upload Images screen of your online testing package) changes the screen to allow you to install TRIAD Windows Client, the software developed by the ACR for the transmission of images (figure 8).
Administration privileges to your PC are required to download and install TRIAD Windows Client. If you are unable to acquire these privileges or receive assistance from your IT department, you may still upload images with the ACRedit Web Client.

While the Web Client allows you to see thumbnail images of your uploaded DICOM files, with Windows Client, you have the ability to see full size images, and check the DICOM metadata (DICOM tags) of the images you have chosen. You can view the DICOM images by using ClearCanvas Workstation, a free DICOM viewer (see section IV. Installing ClearCanvas Workstation).

Once TRIAD is installed and you have launched the software, you will see the TRIAD Home screen (Figure 9). The pane on the left side of the TRIAD window is the log in screen. You must select ACR Accreditation as the domain. The username and password are the same as your login for your ACRedit account.
After you are logged into TRIAD, you will see three panes on the screen (Figure 10)

Figure 9: TRIAD Windows Client software log in screen

Figure 10
The upper left pane is where you will choose the facility, modality, unit (for unit based accreditation programs) and examination. The upper right pane is used for choosing and viewing images. The lower pane lists the number of images that you have uploaded so far, and this is where you can view and print your summary of the images chosen for upload.

Please note that the steps on the screen (Figure 11) listed in red font walk you step-by-step through the process of image choices.

![Figure 11: TRIAD Windows Client steps to submit testing package](image)

**Step 1: Select Modality Testing Package**

Use the upper left pane to choose the facility, modality/unit and examination for uploading images in the upper right pane. You have two options of how you want to choose images for uploading:

**Step 2: Choose images to submit for your examination**

a) **Choose Files from Computer (DICOM and non-DICOM)**

If you select “Choose Files from Computer”, you can select from “Choose Files” or “Choose Folders”. Choosing Files works much like the Web Client, and allows only single or multiple files for selection from a single folder at a time. Choosing folders will allow you to choose images at a folder level, making the process quicker when selecting examinations with multiple folders/subfolders.
Some modalities allow non-DICOM images for submission. If you are choosing non-DICOM images for your submission, this is the method you will use.

**b) Choose Files from PACS (DICOM only)**

Choosing this option will allow you to create a connection between your PACS and the TRIAD Windows Client (Figure 12). You will need assistance from your PACS/IT team. This connection will need to be set up separately for each ACRedit/ TRIAD login if you have several different login accounts at your facility (i.e. different people logging in for different modalities).

![Figure 12](image-url)

Click on Choose Files, and you will see the “Select Images” window appear (Figure 13). The first time you Choose Files from PACS, you will need to set up the connection.
On the left side of the window, click “Manage”. To connect for the first time to your PACS, you will need to fill out the Device Details section completely, then click “Add” (Figure 14). The device name will appear in the Select Device section on the left side of this window.
Click on “Test Connection”, and the system will state that your new “device is up and running” (Figure 14 Window 5a).

You can now exit the Manage/Test Device window and search your PACS for the images you want to upload for this particular examination. Use the Search Attributes section of the Select Images window (Figure 13). In order to search as quickly as possible, enter as much information as possible about the examination you would like to upload. Your search results will be shown in the Received Images Section of the window. Place a check by the studies you wish to select, and click “Select Images”. Those images will show up in the upper right pane of TRIAD Windows Client.

\[c\] Viewing Your Images

Whether you imported your images from PACS or from your computer/network, you will view the images the same way. In the top right corner of TRIAD, you will see the DICOM viewer to use when viewing your images. If you have not downloaded ClearCanvas, you can check Section IV for the installation of ClearCanvas Viewer.

The images appear in the upper right pane of TRIAD. Click the “+” next to the study. The study will open into folders for each series. Click the folder icon in the “Image” column. This will open the images for that series with ClearCanvas.
**Step 3: Upload or delete files that are checked (✓)**

After you have viewed your images, the next step is to upload them. Mark the images you want to upload or delete by checking the box just left of the study ID. Please note that if you chose images from other formats, they will be listed separately, and you may need to use the scroll bar on the right side of the pane if they do not all fit in the window.

**Step 4: View and Print Image Upload Summary**

Just as with the Web Client, you should view and print a summary of the images that you have uploaded, and keep a copy for your records.

**Step 5: Submit Testing Package**

TRIAD Windows Client will facilitate submitting your online Testing Package. Before you submit, you must attest that you have uploaded all files for every examination in the status column of the lower pane (Figure 11). In order to submit your online Testing Package from TRIAD Windows Client, you must make sure that all of the other items in your ACRedit online Testing Package are complete (including uploading any necessary files). Click on Submit Testing Package in the lower pane of the TRIAD Windows Client window. This will open another window of ACRedit, and allow you to submit your online testing package.

**IV. Installing ClearCanvas Workstation**

In order to view the DICOM images submitted for ACR Accreditation review, you must download and install the free DICOM viewer ClearCanvas. This requires administration privileges on the PC. If you are attempting to install ClearCanvas on your work PC, you may need help from your IT department. Follow the instructions below to download and install ClearCanvas. When you open DICOM images in TRIAD Windows Client, the ClearCanvas viewer will open.

Download the ClearCanvas Workstation 32bit 2.0 sp1 or 64bit 2.0 sp1 (Figure 15) from the link below to your local drive:

https://triad4.acr.org/TriadClientATI/
Steps for installing ClearCanvas Workstation:

1. After selecting the link in Figure 12 for ClearCanvas download, a window pops up (figure 15.1). Click “Open”.

![Figure 15.1](image)

2. Click on the “CCWorkstation2.0SP1” Application
3. Click “Extract All” to extract the ClearCanvas installation files to a folder.

4. Click on “Extract”.

5. Click on “CC Workstation2.0SP1” Application to run the ClearCanvas application.

6. Click “Run” to install ClearCanvas.
7. Select “No” for the following message.

8. Now ClearCanvas will display the below dialog. Click “Next” to continue.
9. Click “I Agree” for License Agreement.

![License Agreement]

Figure 15.9

10. Click “Next” (leave the default path. Please do NOT modify.)

![Choose Install Location]

Figure 15.10

11. Click “ImageViewer Only” button.
12. Click Finish to launch the application.