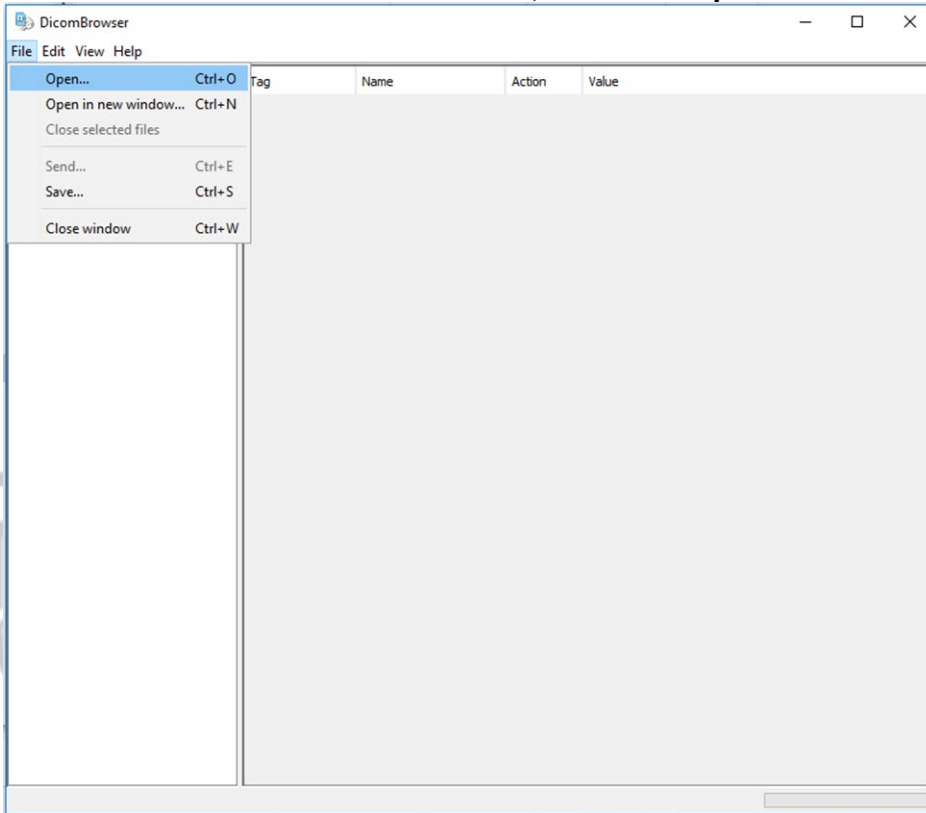


DicomBrowser is available at the following link: <https://wiki.xnat.org/xnat-tools/dicombrowser>. This link includes a Video Tutorial on anonymizing DICOM using the application.

Users may also use the steps below or on this site to anonymize and send DICOM: <https://wiki.xnat.org/xnat-tools/dicombrowser/how-to-use-dicombrowser>:

15a. Load DICOM into DicomBrowser

1. With DicomBrowser installed and started, select **FileOpen** from the Menu Bar:

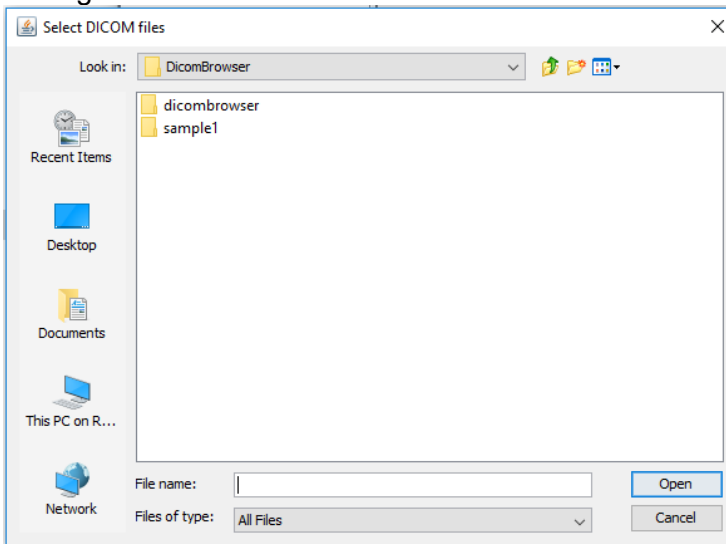


2. Using the **Select DICOM files** dialog box, navigate to the desired DICOM directory to be anonymized and/or sent and click the **Open** button:

NOTE: Select either individual DICOM files or directories. If a directory is selected, all DICOM files in that directory and its contained directories are loaded.

The browser can load thousands of files at a time but trying to view attributes for more than a few thousand files can exceed the Java memory limit.

The memory limit can be increased, but the application may experience delays. Therefore, it is better to load only as many sessions as the machine can gracefully manage.



3. When the files have loaded, a list of Patient IDs appears on the left side of the browser window. DicomBrowser arranges data files in a hierarchy in which Patient is the top level; below Patient is Series, Study, and, at the bottom, Image (or Instance), representing a single DICOM data object. This hierarchy might or might not mirror the organization of these files in directories on disk.

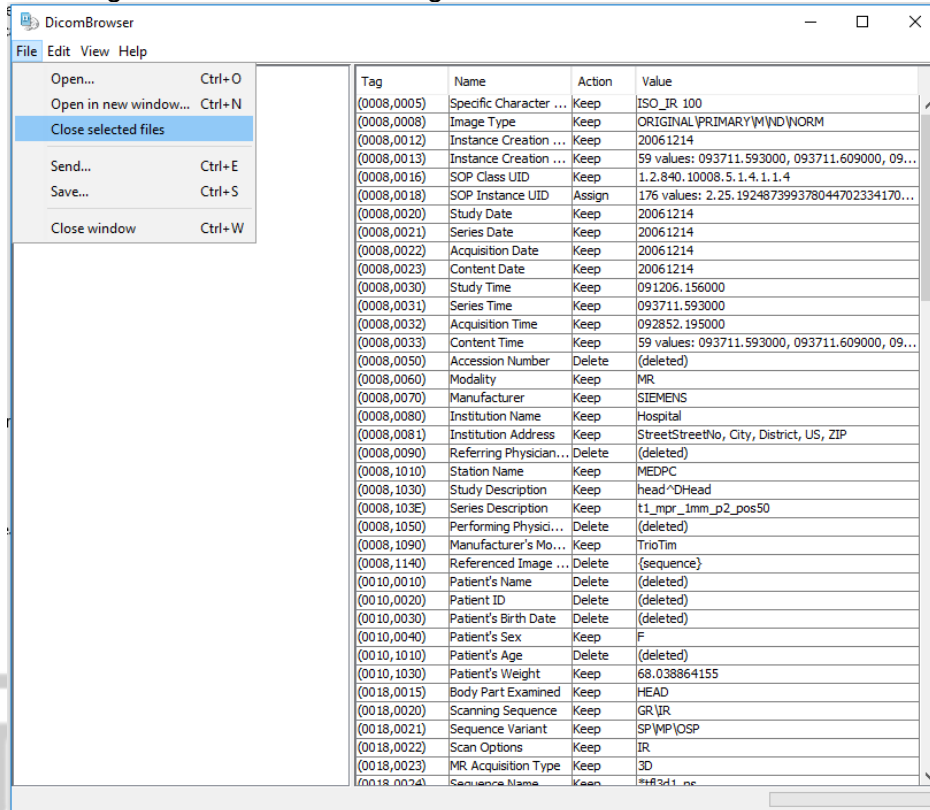
Each Patient ID label has an expander button to its left; clicking this expander shows all the Studies loaded for that patient. Clicking the expander next to a Study label shows all the contained Series and clicking the expander next to a Series label shows all the contained Images.

Clicking on a label itself (Patient, Series, Study, or Image) selects that label, which causes the browser to load all the associated attributes. These attributes are displayed in a table on the right side of the browser window. Selecting a single Image causes just one file to be loaded; selecting a Patient may cause hundreds of files to be loaded, which could take a few minutes.

When a selection has been made on the left side, the attributes for all files associated with the selection are shown in a table on the right side. The table shows, for each attribute, its DICOM tag, the name of the attribute, a summary of whether and how the attribute has been modified, and the value(s) of that attribute, after any changes have been applied.

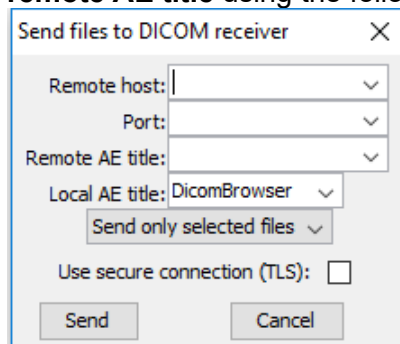
The Action column shows whether each attribute has been changed. When files are first loaded, the label in this column is **Keep**, meaning that the browser will keep the original values. Other possible values are **Clear**, if the attribute contents have been erased; **Delete**, if the attribute has been removed entirely; **Assign**, if the attribute has been set to a new value; or **Mixed**, if the current file selection includes multiple files for which different operations have been specified.

- Files that have been loaded can be closed and removed from the browser view by selecting them and then choosing **File\ Close selected files** from the Main Menu:



15b. Send Files with DicomBrowser

- In the **Send files to DICOM receiver** dialog box, enter the **remote host**, **port**, and **remote AE title** using the following screenshot and table as guides:

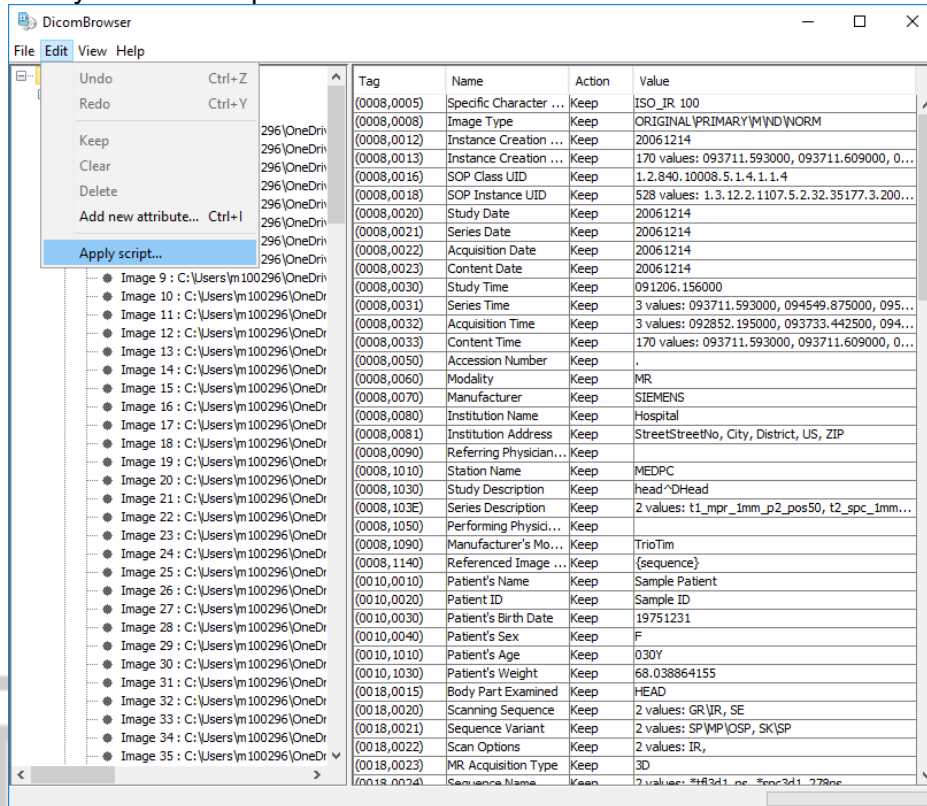


- From the drop-down menu, select one of the following options and click the **Send** button:
 - Send only selected files**
 - Send all files**

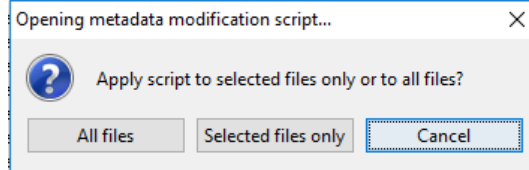
15c. Modify DICOM in DicomBrowser

- If the DICOM has not yet been de-identified (anonymized), from the Main Menu, select **Edit\Apply script...** and navigate to and select the desired anonymization script and select the Open button:

NOTE: Please refer to the link to the DicomBrowser application, above, for sample anonymization scripts:

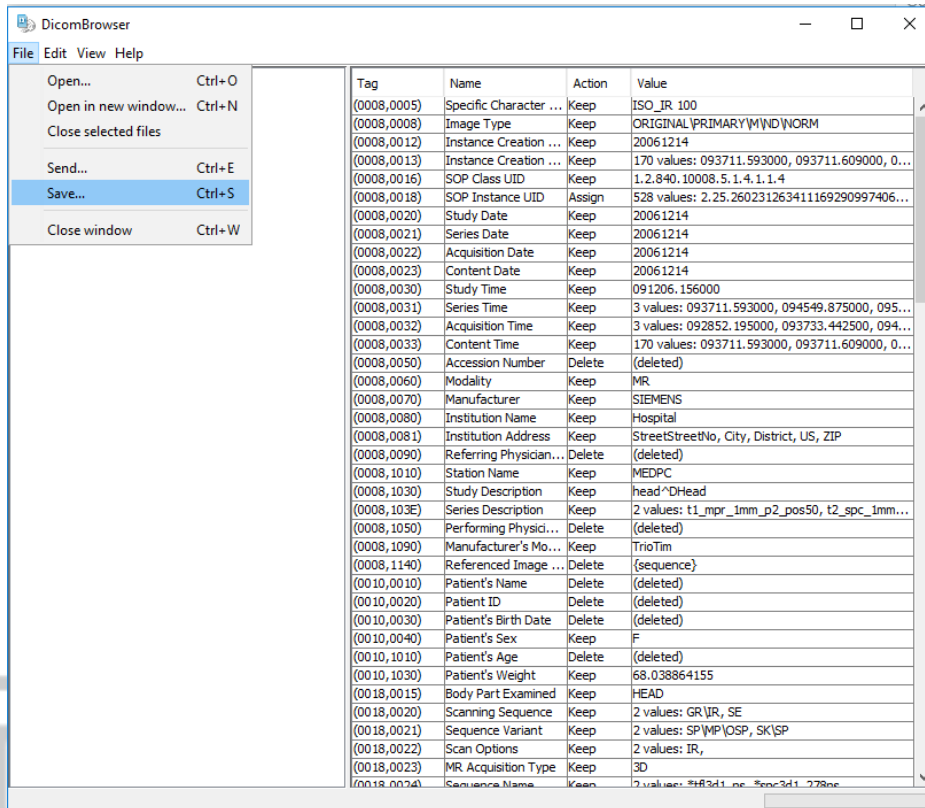


- At the **Opening metadata modification script...** dialog box, chose to apply the script to all files by selecting the **All Files** button:

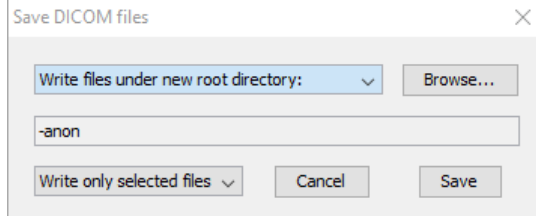


- Scroll through the DICOM values and verify no identifying information remains.

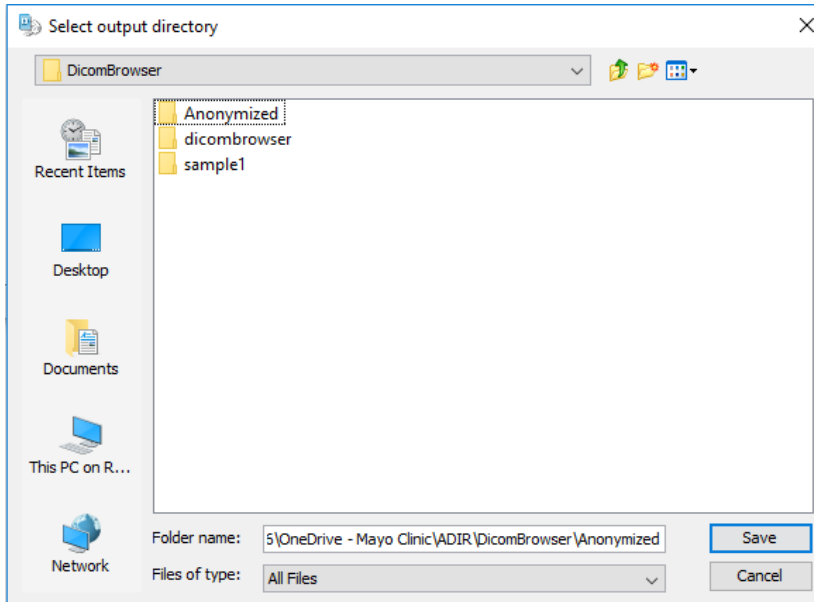
- Save the anonymized files to a different directory by selecting **File\Save...** from the Main Menu:



- In the **Save DICOM files** dialog box, select the **Write files under new root directory:** option from the drop-down menu:



6. From the **Select output directory** dialog box, navigate to the desired save-to directory and click the **Save** button:

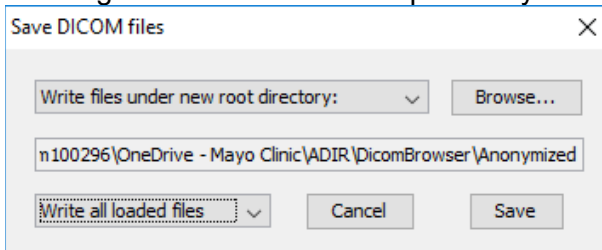


7. Back in the **Save DICOM files** dialog box, select the **Write all loaded files under** option from the Dropdown menu and click the **Save** button:

NOTE: The dialog box that appears offers several options for naming the saved files:

- Write files in adjacent directory with suffix
For each directory in the original file structure, a new directory is created with the original pathname with the given suffix appended. The new directory is filled with modified versions of the DICOM files in the original directory.
- Write files in same directory with suffix
New files are written in the same directory structure as the originals, but each new filename has the given suffix.
- Write files under new root directory
A new root directory (specified by the user) is created, and all modified files are written under that root in a directory structure that mirrors the original.
- Overwrite existing files

The original DICOM files are replaced by the modified files.



- To send anonymized DICOM objects to a remote DICOM C-STORE receiver, select **File\Send** from the Main Menu:

