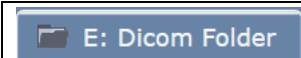# *Working with DICOM Directories*

ShowCase Viewer and ShowCase Image Center study list can be used to open, create, repair, and rename DICOM Directories. A DICOM directory is a folder of DICOM part-10 files with a file at its root named DICOMDIR. This DICOMDIR file is an index to all of the files in that folder or any subfolders it may have.

Opening a DICOM Directory

Open up the Study List. In ShowCase, you can do this through the File Menu => Open => Study List or by clicking on the ⬛ icon on the far left of the tool bar ribbon in ShowCase. In Image Center, click on the Manage Studies button at the bottom of the Image Center Console.

On the study list, click the Browse button in the upper right corner and navigate to the folder you want to open. If the folder has a DICOMDIR file at its root, it will read that in. If there is no DICOMDIR at the root, it will scan all files in all subfolders to find DICOM files and create a temporary in-memory index.

The icon on the tab tells you if there is a DICOMDIR file present or not:

📁 E: Dicom Folder	Folder icon solid gray: DICOMDIR file is present
📁 C: DCM	Folder icon with yellow block: No DICOMDIR present.

Creating a DICOM Directory

ShowCase Viewer

In ShowCase, click the **File Menu => New => Dicom Folder**. A Folder Browser dialog will appear. Create a new folder or select an existing one. If the folder has already has a DICOMDIR at the root, it will read it and display it. If it does not, it will scan the folder for any DICOM files and create a new DICOMDIR at the root with a complete index of all the files in that folder.

ShowCase Image Center

In Image Center, click the **Manage Studies** button. The study list will appear. Click on the **Browse** button in the upper right corner and create a new folder or select an existing one. If the folder already has a DICOMDIR at its root, it will read it and display it. If it does not, it will scan the folder for any DICOM files and create an in-memory index of all the files. After it's done scanning, click the **More…** button at the bottom of the study list and select **Create a DICOM file.**

Study List Operations

Remembering a DICOM Directory

After you have opened up a DICOM Directory, you can tell ShowCase to remember the folder by clicking the "Remember this Folder" checkbox on the far right. When that is checked, ShowCase will always attempt to open this folder when it starts up.

Removing a DICOM Directory from the Study List

If you want to remove a DICOM Directory from the study list, click on the **More…** button at the bottom and choose "Remove this tab from the study list". The tab will immediately be removed from the study list and if you had checked the "Remember" option for the tab, it will cease to be remembered.

Repairing a DICOM Directory

Click on the DICOM Directory tab in the study list that you want to repair. Click the **More…** button at the bottom of the screen and select **Rebuild the DICOMDIR file**. All files in the folder (and all subfolders) will be scanned to see if they are DICOM files and a new DICOMDIR will be created at the root of the folder.

Renaming a DICOM Directory

The DICOMDIR file has the capacity to be named – a name that will be injected into the DICOMDIR itself into a specific DICOM element in the file. The name must be 16 characters or fewer and can only consist of the A-Z, 0-9, and underscore '_' as per the DICOM standard. This name should be recognized by other DICOM applications.

Reload a DICOM Directory

If you want to 'refresh' from the DICOMDIR file for any reason, click the **More…** button at the bottom of the screen and select **Reload DICOMDIR.** This re-reads the DICOMDIR file. It does not scan for files or do anything else.

Legacy ShowCase DICOM Directory Conventions

Prior to release 6.5, when ShowCase was creating a new DICOM Directory, it put all new DICOM files into an **imagesdc** subfolder. New studies copied into the folder would create files names something like I_00000.dcm, I_00001.dcm, etc.

The file naming convention, with the use of the suffix '.dcm' for DICOM files, was not *strict* DICOM. It turns out the standard doesn't allow for the '.' in the name of the file. Because this could *potentially* interfere with another DICOM application's ability to read the DICOMDIR file, ShowCase was changed to use a simpler convention that adheres strictly to the DICOM standard.

In the 6.5 system, the files are placed in a DCM folder and the suffix was dropped from the individual DICOM files.

If you want ShowCase to use the old convention for this naming, there is a settings under the **Edit Menu => ShowCase Settings…** in the **Study List Settings** of the **Viewer** tab that allows you to use the legacy conventions.

Note: A good DICOM application will ignore the strict "no file suffix" naming requirements. ShowCase doesn't care if the DICOMDIR is that 'pure'. It will always try its best to read a DICOMDIR file regardless of how non-compliant the file may be.

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