

# Tip Sheet: Installing and Using DICOM Compression Software

One of the requirements for online processing of Immigration Medical Examinations (IME) through eMedical is the radiology clinic must upload DICOM x-ray images. As the DICOM X-ray images are quite large they cannot be uploaded directly into eMedical and must be compressed using DICOM Compression tool software. This tip sheet will provide you the instructions for downloading and using a free DICOM compression tool.

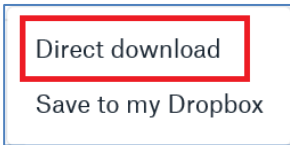
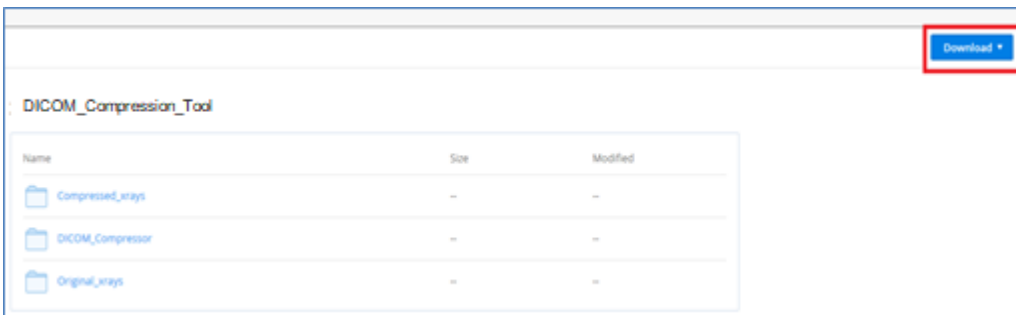
**Note:** These instructions are for **Windows based PCs**

## A- How to download the software?

1. To download the DICOM compression tool software click on the link:

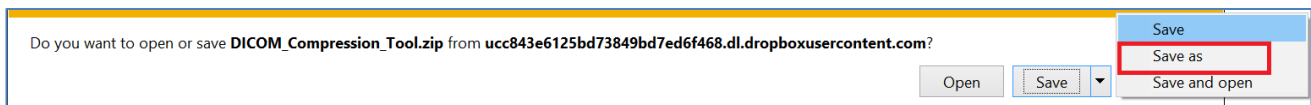
[Click here to download DICOM Compression Tool](#)

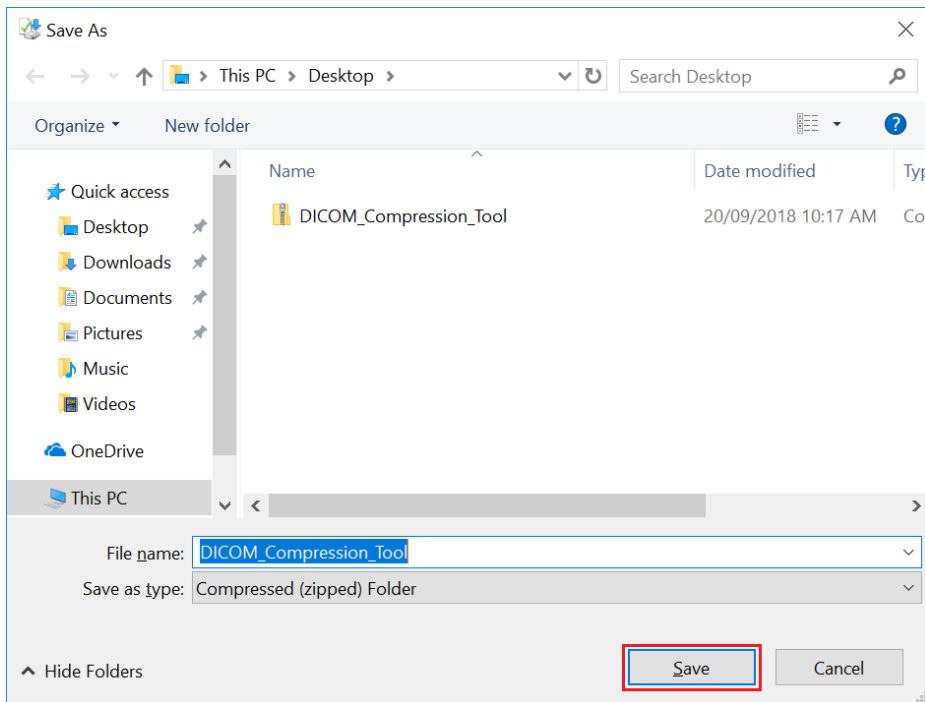
2. The following screen will open in the browser. Click on **Download** and then click on **Direct download**.



### a. If you are using Internet Explorer:

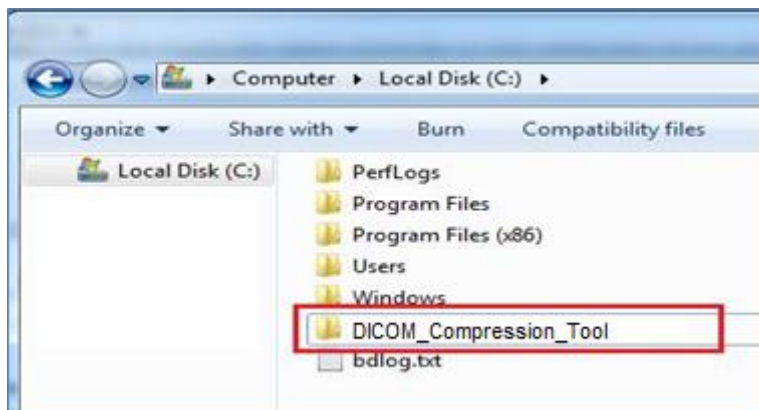
- You will see the following dialogue at the bottom of your screen - select **Save** ▼ **Save as** and choose a drive of your computer (e.g. C: drive) where you would like to install the software and click **Save**.





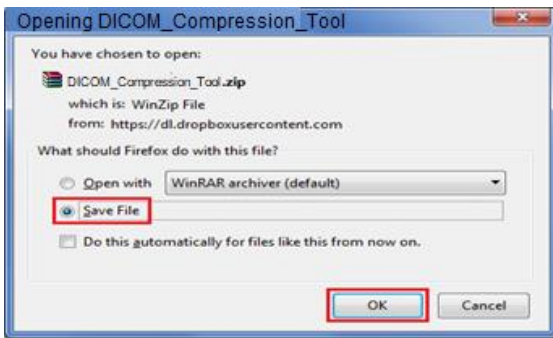
**Note:** The file must be saved directly under the selected drive e.g. C drive and not in any sub folders.

- Open the **DICOM\_Compression\_Tool.zip** and you will see the **DICOM\_Compression\_Tool** folder.
- Within this folder there are 3 subfolders:
  - Compressed\_xrays**
  - DICOM\_compressor**
  - Original\_xrays**
- Move the above **DICOM\_Compression\_Tool** folder to the selected drive.

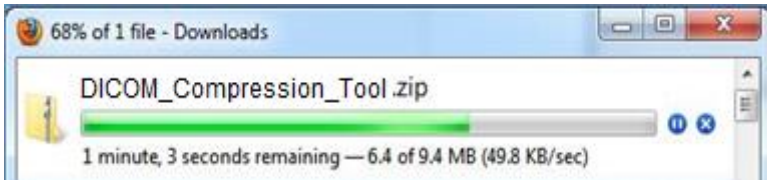


a. If you are using Mozilla Firefox:

- The following dialogue window appears - select **Save File** and click **OK**.



- The file will download and save in the **Download** folder.



- After the download has completed, open the **DICOM\_Compression\_Tool.zip** file in the **Downloads** folder and you will see the **DICOM\_Compression\_Tool** folder.

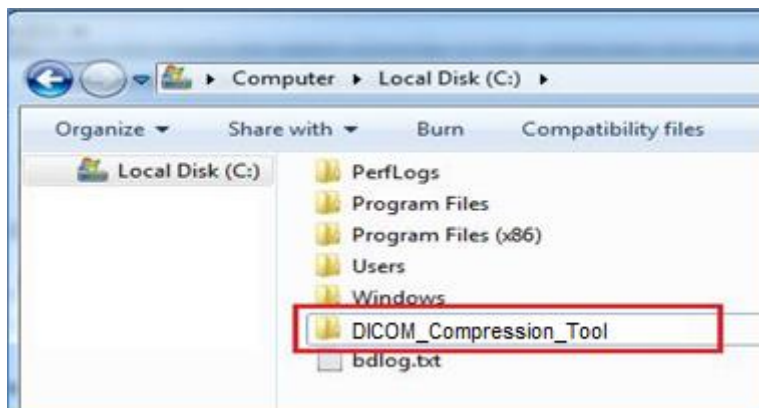
Within this folder there are 3 subfolders:

**Compressed\_xrays**

**DICOM\_compressor**

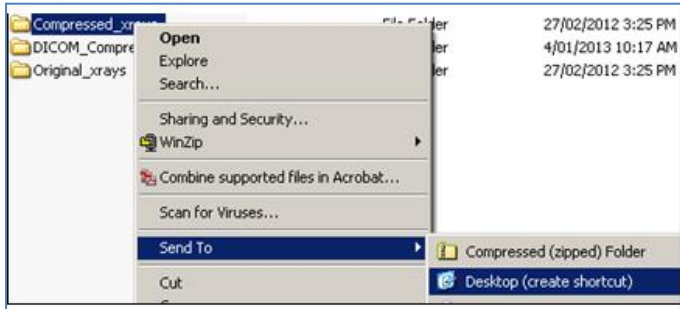
**Original\_xrays**

- Select a drive on your computer where you would like to save the software (e.g. C: drive).
- Move the above **DICOM\_Compression\_Tool** folder to the selected drive.



b. If you are using Internet Explorer:

3. If you wish, you could create shortcuts to the **Compressed\_xrays** and **Original\_xrays** folders on your desktop by right clicking the file and selecting **Send To ► Desktop (create shortcut)** for both folders



**Note:** On your desktop the folders will appear as **Original\_x-rays - Shortcut** and **Compressed\_x-rays - Shortcut**. These shortcuts are for your convenience only.

4. Create a shortcut to the compression software by right-clicking the **dicom.jar** file within the **DICOM\_compressor** folder and selecting **Send To ► Desktop (create shortcut)**.

**Note:** If the .jar file does not work then, you can create a shortcut to the dicom.bat file instead.

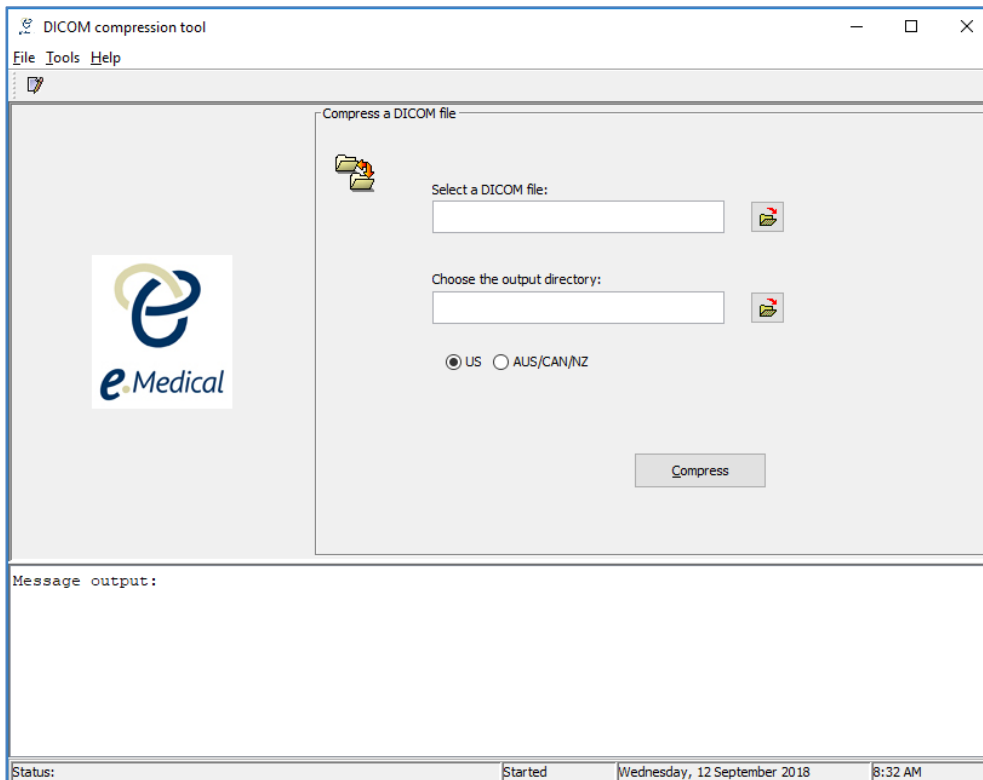
# How to set up the DICOM compression tool setting?

Before using the compression tool you must set the following software settings

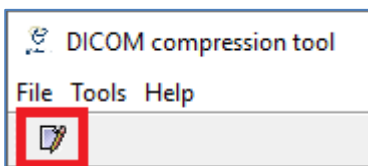
1. Double click the shortcut (dicom.jar or dicom.bat) on your desktop.



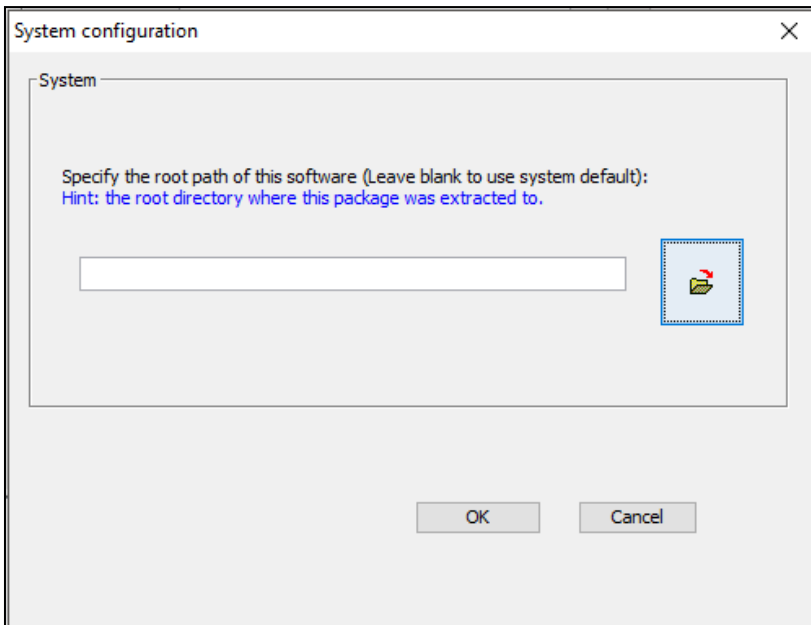
The **DICOM compression tool – Home Affairs** opens.




2. Select the **Tools** menu (top left corner) and click on **Preference** - or use the shortcut **Ctrl +F**.

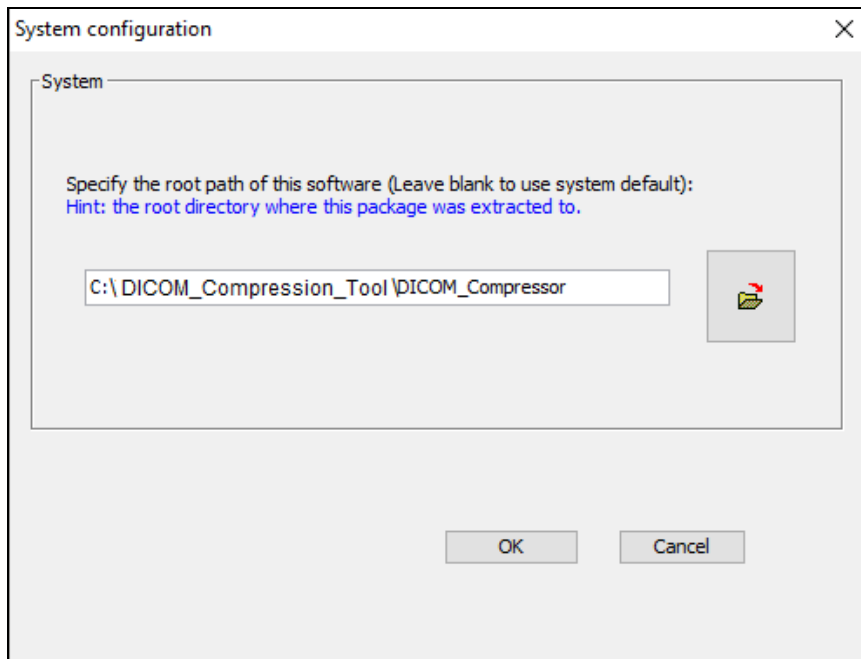




The **System configuration** screen opens.

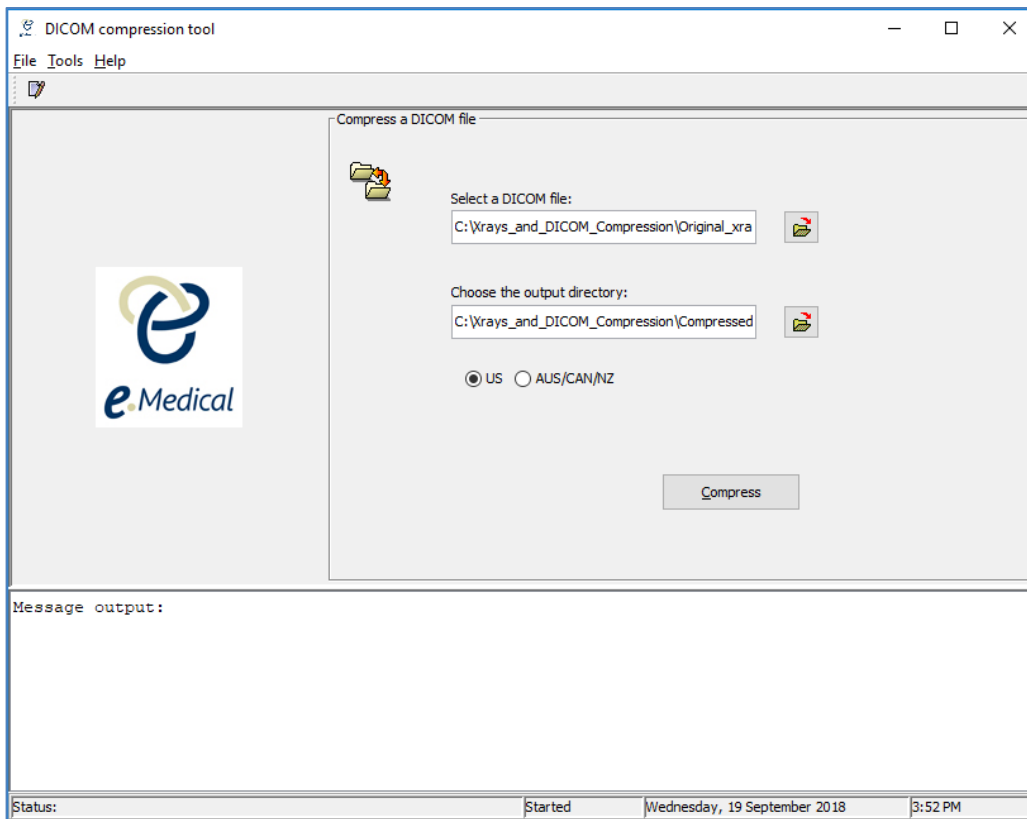


3. Set the root path to the location of the **DICOM\_Compressor** folder by pressing the  icon - for example if you saved the DICOM\_Compressor folder in your C drive, the root path would be:

**C:\DICOM\_Compression\_Tool\DICOM\_Compressor**

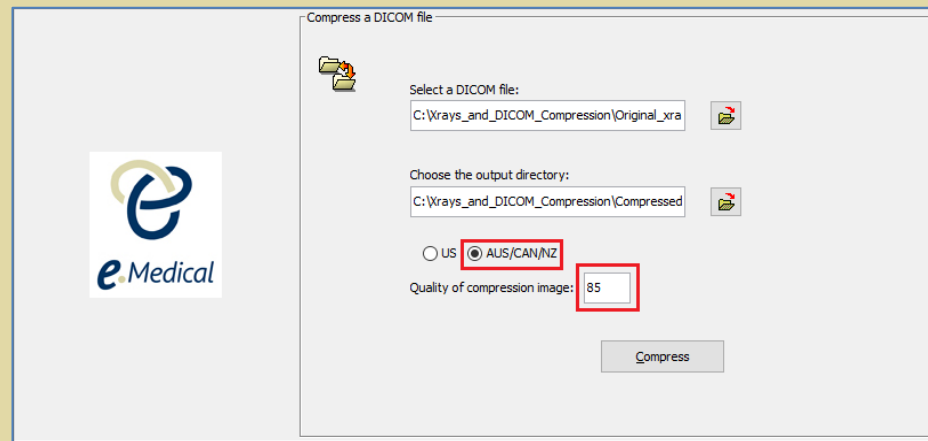


4. Set up root paths for the input directory (i.e **Original\_xrays**) and output directory (i.e **Compressed\_xrays**).
5. Save a copy of the original uncompressed x-ray image file with a .dcm extension (see 'Exporting images from PACS' below) in the **Original\_xrays - Shortcut** folder and then click on the  icon underneath **Select a DICOM file and select the file.**
6. Click on the  icon underneath **Choose the output directory** to set up root path to the output directory i.e **Compressed\_xrays** (that is, where the compressed image will be automatically saved).



**Note:** You will need to specify the root paths in the above steps once only.

**Note:** If you are also processing IMEs for AUS/IRCC/INZ, then you will need to select the  AUS/CAN/NZ radio button to compress the x-ray images, enter the compression ratio number for the Quality of Compression image. You must enter the same compression ratio that you are currently using for the compression of x-ray images for these countries.



The DICOM compression tool is now set up for use.

## Exporting images from PACS:

If you are extracting original x-ray images from the PACS then:

1. Open your PACS and locate your client's x-ray image. Select **File** from the PACS menu bar and **Export DICOM**.

**Note:** You must always export the image as DICOM, and just the image not with DICOM viewers.

2. Export the image into the **Original\_xrays** (or **Original\_xrays - Shortcut**) folder.
3. Open the **Original\_xrays** (or **Original\_xrays - Shortcut**) folder and you will find a **DICOM** folder has been created.

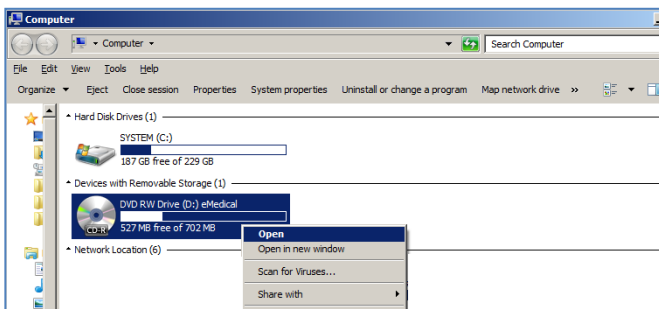
4. Open the **DICOM** folder and sub folders to locate the client's x-ray image.
5. Move the client's x-ray image into the **Original\_xrays** (or **Original\_xrays – Shortcut**) folder (the image needs to be directly under the **Original\_xrays** (or **Original\_xrays – Shortcut**) folder - you can then delete the **DICOM** folder that was created by PACS.
6. Rename the image by following the recommended naming convention listed in the 'Tipsheet – Understanding attachments' and add .dcm at the end. The x-ray image file name should not include any spaces - if you need to break up words in the file name please use an underscore “\_” instead – for example: Smith\_4568230\_CXR.dcm

## Exporting images from a CD:

If you are extracting original x-ray images from a CD, then you need to:

1. Insert the CD that you have received from the Radiology in the CD drive of your computer.
2. On your computer click on the **Start** button and click **Computer**.


**Note:** Do not let the CD to 'auto-run'.

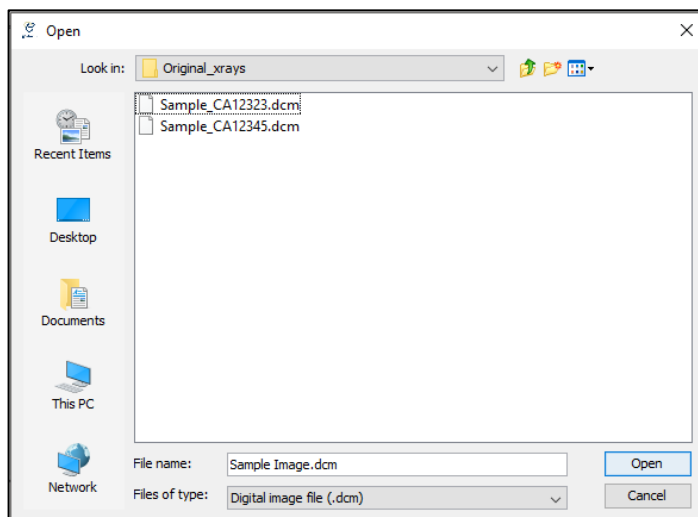


3. Open the **DICOM** folder (generally it would be the first folder among the contents on the CD) and any sub folders to locate the client's x-ray image.
4. Copy (or use the mouse to drag) the client's x-ray image into the **Original\_xrays** (or **Original\_xrays - Shortcut**) folder. Rename the image to the client's name and/or health case ID and add .dcm at the end, for example: Smith\_4568230\_CXR.dcm

## B- How to compress DICOM images

**Note:** You must save the clients' original (uncompressed) x-ray image files in the **Original\_xrays - Shortcut** folder.

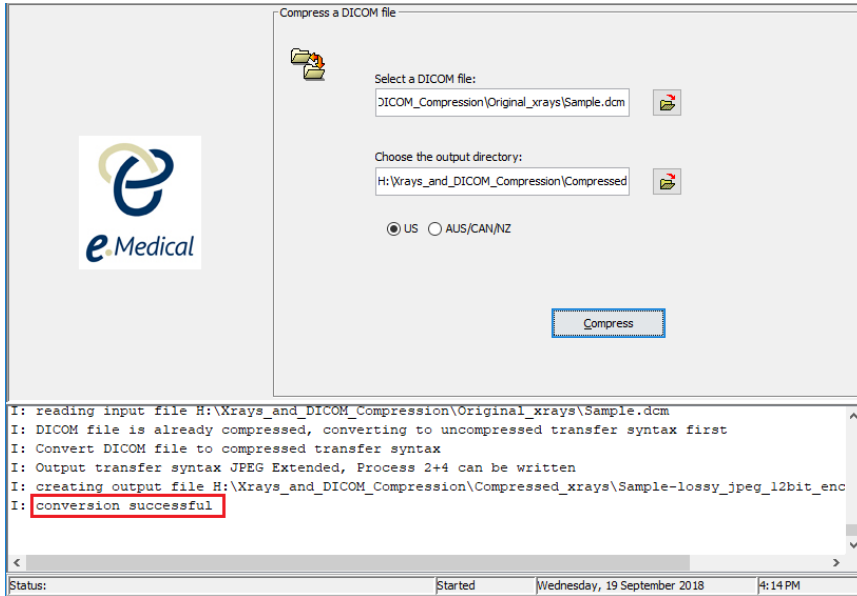
1. To compress an image, locate the client's uncompressed image (that you wish to compress) within the **Original\_xrays** folder by clicking on the folder icon  underneath **Select a DICOM file** and click **Open**.





## 2. Click **Compress**.

Once the image has been compressed, a message will appear at the bottom of the compression tool advising the **conversion has been successful** (if the image was successfully compressed).



The compressed image will be automatically sitting in the **Compressed\_xrays** (or **Compressed\_xrays – Shortcut**) folder.

