
Subject: Re: Transferring image pixel values to a DICOM file

Posted by [dplatten](#) on Wed, 20 Jul 2011 10:37:53 GMT

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Hi Vivek,

I used to use another method to create computed tomography DICOM files containing my own image data. I took an existing DICOM image, opened it, and then wrote my new image data over the existing image data in the file, and then saved the file. It was a nasty way to do it, but it worked. The CT images I was working on always had 512x512 pixels. An example of the code is below. There must be a more elegant way of doing this!

Regards,

David

PRO modifyDICOM

```
; create an array to hold the generated image
x_dim = 512
y_dim = 512
new_data = INTARR(x_dim,y_dim)
new_data[*,*] = 0

; generate some test data to write to the image
; a diagonal cross
FOR x = 0, (x_dim-1) DO BEGIN
  new_data[x,x] = 1000
  new_data[(x_dim-1)-x,x] = 1000
ENDFOR

; Or you could load in a tif file with your image data:
;image_array = read_tiff('c:\TEMP\StraightEdgeReallyBlurred.tif', channels=1)
;new_data = fix(image_array)

; Open an existing DICOM file to modify. This must have the
; same pixel dimensions as the one you want to create.
dicomFile = DIALOG_PICKFILE(/MUST_EXIST)

; open the file for writing
OPENU, dcmfile, dicomFile, /GET_LUN, /Append
POINT_LUN, -dcmfile, a

;position file pointer 512*512 from end of file
POINT_LUN, dcmfile, a-(512!512*2)

; replace the pixel data with the generated data
```

```
WRITEU, dcmfile, new_data
```

```
; close the file and free the lun
```

```
CLOSE, dcmfile
```

```
FREE_LUN, dcmfile
```

```
END
```
