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

Posted by [dplatten](#) on Tue, 19 Jul 2011 08:11:54 GMT

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Dear Vivek,

I use Bhautik Joshi's dicom_writer.pro to produce DICOM images that contain my created test data. You may find it useful - it can be downloaded here: http://cow.mooh.org/dicom_writer.pro

Regards,

David

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

Posted by [Vivek](#) on Tue, 19 Jul 2011 14:06:56 GMT

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On Jul 19, 4:11 am, David Platten <dplat...@gmail.com> wrote:

> Dear Vivek,

>

> I use Bhautik Joshi's dicom_writer.pro to produce DICOM images that contain my created test data. You may find it useful - it can be downloaded here:http://cow.mooh.org/dicom_writer.pro

>

> Regards,

>

> David

Hello David,

I have seen this before, but as a part of my work, I have to do this manually. I was probably misleading when I stated my goal I suppose. I need to know how to transfer images/pixel values to DICOM files. Any ideas regarding this?

Thanks for the suggestion though :)

Regards,

Vivek

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

Posted by [Vivek](#) on Tue, 19 Jul 2011 14:18:47 GMT

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On Jul 19, 10:06 am, Vivek <vivek.rajshek...@gmail.com> wrote:

> On Jul 19, 4:11 am, David Platten <dplat...@gmail.com> wrote:
>
>> Dear Vivek,
>
>> I use Bhautik Joshi's dicom_writer.pro to produce DICOM images that contain my created test data. You may find it useful - it can be downloaded here:http://cow.mooh.org/dicom_writer.pro
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>> Regards,
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>> David
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> Hello David,
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> I have seen this before, but as a part of my work, I have to do this
> manually. I was probably misleading when I stated my goal I suppose. I
> need to know how to transfer images/pixel values to DICOM files. Any
> ideas regarding this?
>
> Thanks for the suggestion though :)
>
> Regards,
>
> Vivek

I am trying to use inbuilt IDL functions to do this, the IDLffDicomEx module to be precise.

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

```

Subject: Re: Transferring image pixel values to a DICOM file
 Posted by [Vivek](#) on Wed, 20 Jul 2011 14:52:08 GMT
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On Jul 20, 6:37 am, David Platten <dplat...@gmail.com> wrote:

> 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
>
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> new_data = INTARR(x_dim,y_dim)
> new_data[*,*] = 0
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>   new_data[x,x] = 1000
>   new_data[(x_dim-1)-x,x] = 1000
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> ;image_array = read_tiff('c:\TEMP\StraightEdgeReallyBlurred.tif', channels=1)
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>
> ; 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

```

Hi David,

I managed to get around with my issues thankfully :) But thanks for the suggestion. I shall keep this in mind as well.

Regards,

Vivek
