
Subject: Re: Creating a dicom-file in HSV colors
Posted by [wengi](#) on Thu, 31 Jan 2008 11:31:21 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hmmm,

if I read it right, there's no more HSV-compatibility in dicom-standard. So I have to convert my HSV-images to RGB-images and try to write this in my dicom-files.

Is there any routine for this conversion or do I have to implement the formulae myself?

wengi

Subject: Re: Creating a dicom-file in HSV colors
Posted by [wengi](#) on Thu, 31 Jan 2008 11:45:14 GMT
[View Forum Message](#) <> [Reply to Message](#)

Oki,

seems like color_convert with the H,S and V matrix as input will do it for me.

wengi

Subject: Re: Creating a dicom-file in HSV colors
Posted by [Abraham campbell](#) on Thu, 31 Jan 2008 14:40:39 GMT
[View Forum Message](#) <> [Reply to Message](#)

andreas.weng@gmail.com wrote:

```
> Hi there,  
>  
> this is my first question to this newsgroup. I could not find my  
> problem in the archives.  
> I want to create a dicom-file in the HSV-color format. We have the  
> toolkit and I can create the files, but they do not contain what I  
> want them to.  
> I pass a an array with size (3,25,25) to the method. The three fields  
> contain the values for hue, saturation and value. Writing the file  
> with  
>  
> obj->setpixeldata, data, bits_allocated=bitsAlloc, $  
>     photometric_interpretation = 'HSV', $  
>     columns = coli, $  
>     rows = rowi, $
```

```
> samples_per_pixel=3, $
> planar_configuration = 0, $
> pixel_representation = PixelRep, $
> number_of_frames = 1
>
> and committing it produces a dcm-file with the size 25x25. Looking at
> the file with a dicom-viewer shows that the first pixel-column of the
> created image contains the values of the first row of the first field
> of the input data.
> Hard to describe...
>
> Goal of the HSV-image should be to encode three different parameters
> of an examination in one image.
>
> So my question: Does anybody know if I have to rearrange my passed-in
> data? IDL-Version is 6.3.
>
> Greetings,
> wengi
```

You can also store anything you want as private tags--provided that you (and your organization) are the only consumers of your DICOM files. Private tags let you put your own custom data (i.e. non-standard) into a DICOM files. The down side is that private tags are not standard tags, so other DICOM software may not be able to read the data in private tags. If that is not an issue for you, then you might consider private tags, though their syntax is somewhat terse.

You could create a private tag, store your HSV image as a data blob of OB type data (OB means "Other Byte"), then later, read in your blob of byte data, then re-interpret it as your HSV image. But, you won't have to convert it to any other image format before storing it, since you are just streaming your HSV image into a private tag as a collection of bytes.

Just a thought.
Abraham

Subject: Re: Creating a dicom-file in HSV colors
Posted by [wengi](#) on Fri, 01 Feb 2008 13:02:26 GMT
[View Forum Message](#) <> [Reply to Message](#)

On 31 Jan., 15:40, Abraham campbell <abra...@ittvis.com> wrote:
> andreas.w...@gmail.com wrote:
>> Hi there,
>
>> this is my first question to this newsgroup. I could not find my
>> problem in the archives.

```

>> I want to create a dicom-file in the HSV-color format. We have the
>> toolkit and I can create the files, but they do not contain what I
>> want them to.
>> I pass a an array with size (3,25,25) to the method. The three fields
>> contain the values for hue, saturation and value. Writing the file
>> with
>
>> obj->setpixeldata, data, bits_allocated=bitsAlloc, $
>>             photometric_interpretation = 'HSV', $
>>             columns = coli, $
>>             rows = rowi, $
>>             samples_per_pixel=3, $
>>             planar_configuration = 0, $
>>             pixel_representation = PixelRep, $
>>             number_of_frames = 1
>
>> and committing it produces a dcm-file with the size 25x25. Looking at
>> the file with a dicom-viewer shows that the first pixel-column of the
>> created image contains the values of the first row of the first field
>> of the input data.
>> Hard to describe...
>
>> Goal of the HSV-image should be to encode three different parameters
>> of an examination in one image.
>
>> So my question: Does anybody know if I have to rearrange my passed-in
>> data? IDL-Version is 6.3.
>
>> Greetings,
>> wengi
>
> You can also store anything you want as private tags--provided that you
> (and your organization) are the only consumers of your DICOM files.
> Private tags let you put your own custom data (i.e. non-standard) into a
> DICOM files. The down side is that private tags are not standard tags,
> so other DICOM software may not be able to read the data in private
> tags. If that is not an issue for you, then you might consider private
> tags, though their syntax is somewhat terse.
>
> You could create a private tag, store your HSV image as a data blob of
> OB type data (OB means "Other Byte"), then later, read in your blob of
> byte data, then re-interpret it as your HSV image. But, you won't have
> to convert it to any other image format before storing it, since you are
> just streaming your HSV image into a private tag as a collection of bytes.
>
> Just a thought.
> Abraham

```

Hi Abraham,

thank you for your ideas. But maybe this could be a problem for me. I think our PACS system will have problems with that private tags because of having the MUST of being standard. But creating the images using `color_convert` in IDL solved my problem I think. The images look as I want them to and they are "standard".

Thank you again.

wengi
