Subject: Re: shifting individual pixels within an image
Posted by mankoff on Mon, 03 May 2010 12:07:11 GMT
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On May 3, 12:56 am, barbis <tonimuusim...@gmail.com> wrote:
> Hello all,
>
> pleaseplease help me!
> Quite new on idl and just wondering is there a simple way to move
> individual pixels within an image?
>
> For example a function
>
> output = indishift(input, tx,ty)
>
> where input,tx and ty are same size arrays and e.g if in pixel
> location (30,30) tx has a value 5 and ty has a value 0, then output
> has the same value on (30,30) as the input image PLUS the pixel value
> from input image (35,30).
>
> So tx contains the shifts in x direction and ty in y direction.
>
> Thanks alot for any help!!!

See SHIFT.

Subject: Re: shifting individual pixels within an image
Posted by barbis on Mon, 03 May 2010 12:51:30 GMT
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SHIFT function returns the following:

% SHIFT: Expression must be a scalar or 1 element array in this
context: TX.

it does not accept 2 dim arrays as input.

Subject: Re: shifting individual pixels within an image
Posted by David Fanning on Mon, 03 May 2010 13:19:32 GMT
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barbis writes:

> SHIFT function returns the following:
>

> % SHIFT: Expression must be a scalar or 1 element array in this
> context: TX.
>
> it does not accept 2 dim arrays as input.

Not sure where you are getting this information,
but you are being misinformed. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: shifting individual pixels within an image
Posted by penteado on Mon, 03 May 2010 13:41:55 GMT
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On May 3, 10:19 am, David Fanning <n...@dfanning.com> wrote:
> barbis writes:
>> SHIFT function returns the following:
>
>> % SHIFT: Expression must be a scalar or 1 element array in this
>> context: TX.
>
>> it does not accept 2 dim arrays as input.
>
> Not sure where you are getting this information,
> but you are being misinformed. :-)

I think that he means that the amount to shift cannot be an array.
What he seems to want is not what I would call a shift, which is
moving each dimension by a constant value, but to get, for each
position in the array, the value at some other position, given by an
offset, which is not the same for every pixel (or evey dimension).
Then add that to the original value.

It seems he wants something like:

sz=size(input,/dimensions)
;convert offsets (tx,ty) into indexes after offset (ix,iy)

```
ix=rebin(lindgen(sz[0]),sz[0],sz[1])+tx
iy=rebin(reform(lindgen(sz[1]),1,sz[1]),sz[0],sz[1])+ty
output=input[ix,iy]+input
```

That is assuming that no shifts will get to out-of-range indexes.

Subject: Re: shifting individual pixels within an image
Posted by Gray on Mon, 03 May 2010 13:44:40 GMT
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On May 3, 3:56 am, barbis <tonimuusim...@gmail.com> wrote:
> Hello all,
>
> pleaseplease help me!
> Quite new on idl and just wondering is there a simple way to move
> individual pixels within an image?
>
> For example a function
>
> output = indishift(input, tx,ty)
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> has the same value on (30,30) as the input image PLUS the pixel value
> from input image (35,30).
>
> So tx contains the shifts in x direction and ty in y direction.
>
> Thanks alot for any help!!!

Couldn't you just do something like:

```
s = size(input,/dimensions)
indx = rebin(indgen(s[0]),s[0],s[1],/sample)
indy = rebin(indgen(1,s[1]),s[0],s[1],/sample)
input2 = input + input[indx+tx,indy+ty]
```
