
Subject: Re: Best way to deal with checking array indices are within bounds
Posted by [ben.bighair](#) on Tue, 15 Mar 2011 15:38:49 GMT

[View Forum Message](#) <> [Reply to Message](#)

On 3/15/11 11:23 AM, Robin Wilson wrote:

```
> Hi all,  
>  
> I was wondering what people generally do about checking that array  
> indices are within bounds when working with images - as I assume it is a  
> problem many people have. For example, in the following code:  
>  
> x_index = 49  
> y_index = 42  
>  
> x_index += 3  
> x_index += 3  
>  
> Trying to index a 50x50 array with x_index and y_index will give an  
> error because the x_index is outside the bounds. I frequently run into  
> this issue as I do a lot of image processing.  
>  
> How do people generally deal with it? I often end up using a lot of IF  
> statements (like below), which gets very messy and is error-prone - does  
> anyone have a better way to do this?  
>  
> IF x_index GT 50 THEN x_index = 50  
> IF x_index LT 0 THEN x_index = 0  
> ...  
>
```

Hi,

It might be simplest to use IDL's coercion operators like this...

```
dim = SIZE(image, /DIM)  
dx = 3  
dy = 3  
x_index = 0 > (x_index + dx) < (dim[0]-1)  
y_index = 0 > (y_index + dy) < (dim[1]-1)
```

Cheers,
Ben
