
Subject: Re: Fast shear

Posted by [Wayne Landsman](#) on Tue, 05 Feb 2002 17:42:53 GMT

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the_cacc@hotmail.com wrote

> Anyone know a way of doing the following as fast as possible:
> for i = 0, n-1 DO array[* ,i] = SHIFT(array[* ,i],delta[i])
> where delta is an INTARR.

Well, I think a loop over rows is necessary, but the speed can be vastly improved by using the following IDL maxim for efficient programming, which gets my vote in the "IDL maxim most deserving of wider recognition" category.

"Avoid the use of an asterisk on the left-hand side of an assignment."

which in this case means to rewrite the assignment as

```
for i = 0, n-1 DO array[0,i] = SHIFT(array[* ,i],delta[i])
```

For a `fltarr(2048,2048)` on my Solaris machine running V5.5, I find a factor of 15 improvement in speed.

I believe that one uses an asterisk on the left hand side, that IDL first creates a temporary variable, places the contents of the right hand side into this temporary variable, and then places the temporary variable back into array. By specifying `array[0,i]` one directly gives the starting location where to place the contents of the right hand side.

--Wayne Landsman
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