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Subject: Re: The IDL way: Find last non-zero value  
Posted by [Jeremy Bailin](#) on Tue, 25 Aug 2009 00:12:23 GMT  
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On Aug 24, 4:42 pm, Eric Hudson <ehud...@mit.edu> wrote:  
> Thanks to all of you for the suggestions. I timed them all on several  
> of the larger matrices and found that the last suggestion (using  
> cumulative totals) was about twice as fast as the previous ones, and  
> about 5 times faster than the brute force loop. It did depend on how  
> many zeros ended each line on average. When the number was small the  
> loop could win, but for my typical matrices the cumulative total is  
> the clear winner.  
>  
> Thanks again,  
> Eric

I'm shocked that no one's suggested histogram! Here's my take, which  
I'd wager does at least as well as the cumulative totals:

```
sz=size(array,/dimen)
ncol=sz[0]
nrow=sz[1]
evenrows = 2*lindgen(nrow)
h = histogram( (array ne 0) + rebin(reform(evenrows,
1,nrow),ncol,nrow), min=0, max=2*nrow-1, $
reverse_indices=ri)
result = ri[ri[evenrows+2]-1] mod ncol
w = where(h[evenrows+1] eq 0, nw)
if nw gt 0 then result[evenrows[w]]=-1
```

-Jeremy.

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