Subject: vector of bin indices using histogram?
Posted by greg michael on Wed, 18 Oct 2006 12:04:25 GMT
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Can anyone suggest a good way to get a vector of bin indices using histogram?

```
IDL> x=randomu(0,10)
IDL> print,x
    0.415999    0.0919649     0.756410     0.529700     0.930436
0.383502     0.653919    0.0668422     0.722660     0.671149
```

I make a histogram anyway:

```
IDL> h=histogram(x,binsize=.1)
```

And I also want to know which bin each element went into:

i.e. b=[4,0,7,5,9,3,6,0,7,6]

I could calculate that from the original data of course, but I'm sure there must be a trick to get it out of the reverse_indices more efficiently (when n_elements is huge).

While experimenting, I came across this, which is not nice...

```
IDL> x=randomu(0,100)*1000.
IDL> print,histogram(x,nbins=4)
         31          34          34           1
```

The max value sometimes ends up in a bin of its own (usually this last bin is zero - I suppose it's a rounding problem).

And then a question about reverse_indices - (I think it's not touched in JD's tutorial):

why are the two parts shoved into a single array? Is there an application where this arrangement gives some benefit? Wouldn't the first half make more sense indexing a second separate vector without the need for this offset?

regards,
Greg