
Subject: Re: Need look-up-table routine

Posted by [Thomas A. McGlynn](#) on Wed, 27 Nov 1996 08:00:00 GMT

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Adam Ross wrote:

>
> Hello,
>
> I was about to try to write a routine which will, upon input of a
> value or array of values, give a corresponding output value or array
> of values according to a look-up table (also provided as input).
> I'm not sure yet whether I need to use interpolation methods, or
> just nearest-value, but in any case, I thought I should ask around
> here first, to see if such a routine already exists, either in IDL or
> somewhere else. Can anyone help?
>
> Thanks,
>
> Adam Ross
> CRI, Inc.
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If I understand you want a function such that

```
results = lookup(grid_values, desired_indices)
where the grid_values = [13., 23., 19., 7.] and
desired_indices = [0.3, 2.1, 0.4, 1.1, 1.1, 3., 2.2]
giving (for nearest neighbor)
results = [13., 19., 13., 23., 23., 7., 19.]
```

For the nearest neighbor case you don't need a function:
you can just do

```
results = grid_values(desired_indices+.5)
```

assuming you don't want to do anything special for out of
range values.

For linear interpolation just use the interpolate function

```
results = interpolate(grid_values, desired_indices)
```

My apologies if I've misunderstood what you're asking for.

Yours,
Tom McGlynn
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