
Subject: Re: question about array interpolation

Posted by [Carsten Lechte](#) on Thu, 15 Jan 2009 09:17:19 GMT

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Hu wrote:

> Yes, mike got it, we can replace 'zero's as other unmeaningful symbols,
> I just want to replace these unmeaningful symbols with interpolated
> values from the known values.

how about this:

```
IDL> x = [1,2,0,0,5,6,0,8,9, 0,9,8,0,0,0,0,3,2,0]
```

```
IDL> xi = where( x gt 0)
```

```
IDL> xv = x[xi]
```

```
IDL> print, xi, xv
```

0	1	4	5	7	8	10
11	16	17				
1	2	5	6	8	9	9
8	3	2				

good data is in xi, xv

```
IDL> yi = where( x eq 0)
```

```
IDL> yv = interpol( xv, xi, yi)
```

```
% Compiled module: INTERPOL.
```

```
IDL> print, yv
```

3	4	7	9	7	6	5
4	1					

merge data in xv with yv:

```
IDL> y = x
```

```
IDL> y[yi] = yv
```

```
IDL> print, y
```

1	2	3	4	5	6	7
8	9	9	9	8	7	
6	5	4	3	2	1	

```
IDL>
```

note: this does not "complete the hill" in 8 9 0 9 8 to 8 9 10 9 8, but linearly interpolates to 8 9 9 9 8.

chl
