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Subject: Re: estimation matrix elements in a vector  
Posted by [kghreep21](#) on Sat, 01 Apr 2017 17:12:57 GMT  
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On Monday, March 27, 2017 at 9:00:39 AM UTC+2, Yngvar Larsen wrote:  
> On Sunday, 26 March 2017 23:59:26 UTC+2, kghr...@gmail.com wrote:  
>> On Sunday, March 26, 2017 at 3:37:54 PM UTC+2, Yngvar Larsen wrote:  
>>> [https://www.harrisgeospatial.com/docs/VALUE\\_LOCATE.html](https://www.harrisgeospatial.com/docs/VALUE_LOCATE.html)  
>>  
>> Thanks Yngvar.  
>> I am already solve my problem  
>  
> Good!  
>  
> As a courtesy to other readers, maybe you can post your code to solve this problem? This is a rather typical kind of IDL array juggling problem that others might be interested in.  
>  
> --  
> Yngvar

Pro Inter\_Data

; we have a measured wind speed as a string like this:  
acutal\_w= [ 5.5, 6.4, 8.9, 10.3, 8.2, 7.7, 6.8, 5.9, 5.4, 6.6, 6.1, 6.5]

In laboratory, we have measured a wind power Coor\_P corresponding to laboratory wind speed w\_t

w\_t=[0.0, 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0,  
9.0,10.0,11.0,12.0,13.0,14.0,15.0,16.0,17.0,18.0,19.0,20.0,2  
1.0,22.0,23.0,24.0,25.0,26.0,27.0,28.0,29.0,30.0]

coor\_P=[0.00,0.00,0.00,5.00,25.00,60.00,118.00,154.00,269.00 ,411.00,538.00,600.00,600.00,\$  
600.00,600.00,600.00,600.00,600.00,600.00,600.00,600.00,600.00,600.  
00,600.00,600.00,600.00,600.00,0.00,0.00,0.00,0.00,0.00]

; we would like to estimate a wind power corresponding a measured wind speed ;acutal\_w. first,  
we have locate value of acutal\_w in W\_t via Value\_locate ;function

R = VALUE\_LOCATE ( w\_t ,acutal\_w, /L64 )

; the estimated wind power as function in acutal\_w, W\_t and coor\_P as follows:-

pow\_est=dblarr(n\_elements(r))

for j = 0, n\_elements(r)-1 do begin

pow\_est(j) = coor\_P (r(j)+1) - ( coor\_P(r (j) + 1) - coor\_P(r(j)) ) \* ( ( w\_t ( r(j)+1) - acutal\_w( j)  
) / ( w\_t (r(j)+1)- w\_t(r(j)) ) ) )

```
endfor
```

```
print, pow_est, format=' (12(F9.2,3x))'
```

```
end
```

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