Subject: Finding the closest value in an array...
Posted by timrobishaw on Tue, 30 Mar 2004 09:34:07 GMT
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Hi there.

Seems like every few minutes I'm taking a scalar and trying to locate which value in an array it's closest to. VALUE_LOCATE() finds the interval of a monotonic vector that the value lives in, so it's not quite what I'm looking for, but it's awfully close! I end up just doing this:

```
IDL> useless = min(abs(vector-value),minindx)
IDL> closest = vector[minindx]
```

I'm embarrassed to admit I don't know of any other way to do this. Is there some slick way like VALUE_LOCATE() to do this? I find it aesthetically unpleasant to have to set something to a useless value just to get at the corresponding index; however, I can't see any way to be clever about it. And it's pretty much to the point: I'd bet VALUE_LOCATE() is doing a lot more stuff behind the scenes than the simple two lines above (judging from the old Goddard library routine).

I guess I'm surprised that I haven't found some canned routine for this (like in the Goddard library) given that I usually need to find closest values more often than intervals in which a value lives.
-Tim.