Subject: Re: Need help with value_locate and interpolation
Posted by James Kuyper on Fri, 02 Apr 2004 17:21:42 GMT
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Ben Tupper wrote:
>
> Leslie Welser wrote:
>
>> I'm having some trouble with using the value_locate function. Let's
>> say I have a vector with 10 elements, and I want to find the
>> "interpolated" array index for a particular value. I know how to
>> interpolate the vector, but I can't find a way to return the index as
>> a float and not an integer. In other words, given a certain value of
>> the array, I would like to find a way to return the information that
>> that interpolated value is at an index of, say, 4.27. Is there a
>> simple way to do this?
>> Thanks,
>> Leslie
>
> Hello,
>
> I can't understand what you are after, at least, I don't see how an
> interpolated value could have an "index" into the original. Could you
> take another swing at your question - maybe with pseudo-code of what you
> want to do.

I think that what he wants is a linear interpolation between the
discrete values that would be provided by a where(). Thus:

x = [0.5, 1.2, 3.6, 93.2]

where(x eq 1.2) gives 1, where(x eq 3.6) gives 2. Since 2.4 is exactly
1/2 way between 1.2 and 3.6, then interp_index(x,2.4) would give a value
exactly 1/2 way between 1 and 2: 1.5.