Subject: Re: The intersection of 2 arrays
Posted by David Foster on Mon, 03 Mar 1997 08:00:00 GMT
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Phil Williams wrote:
>
> I know that I can find the union of two arrays by doing something like
>
> temp = [array1, array2]
> union = temp(uniq(temp, sort(temp)))
>
> But how would I go about finding the intersection of the two arrays?
> i.e. Is there a nice vector way of doing it rather than brute force?
> (aka: Which IDL function did I miss this time?)

By brute force, do you mean something like:

```
  temp = [ array1(uniq(array1,sort(array1))), $
           array2(uniq(array2,sort(array2))) ]
  temp = temp( sort(temp) )
  inter = temp(where( temp eq shift(temp,1)))
```

If someone has a better/faster method please share it!

Dave

PS>

I've written a FIND_ELEMENTS.PRO that returns subscripts of
elements in one array that are found in another array, like:

```
  ind = Find_Elements(Array, Tofind [, Adjust_array])
```

This searches Array for values in Tofind, returning
the subscripts of Array for those values found. The optional
argument Adjust_array contains the same number of elements as
Tofind, and is a way of allowing you to adjust the elements
of Array (the values of Adjust_array and Tofind correspond).
We use this for finding and adjusting Regions-of-Interest in
images which have a limited number of discrete values. It
uses a loop to search Array for each value of Tofind, so
it's not real fast for large search arrays. [If anyone has
an array-oriented method I'd love to see it!!]

If anyone would find this useful let me know (email).

Dave
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