Subject: Re: Array comparison
Posted by Craig Markwardt on Wed, 02 Oct 2002 13:19:08 GMT
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Reimar Bauer <R.Bauer@fz-juelich.de> writes:

> Sean Raffuse wrote:
>> Hello,
>>
>> I would like to compare two arrays of different size. What I want to know
>> is if the two arrays share ANY of the same values, regardless of index.
>>
>> e.g.
>>
>> Array1 = [1,2,3,4,5]
>> Array2 = [5,6,7]
>>
>> Comparing these two arrays should return true because they both have the
>> value 5.
>>
>> I know I could do this in a loop, but I need the speed and I'm sure IDL can
>> do this in one line. I'm just not sure how.
[...]
>
> I am using which_indices

Greetings Reimar--

I believe that the original poster wanted was the values, and not the indices.

Here is what WHICH_INDICES uses:

```
>   FOR i=0L,n_clients DO BEGIN
>     a=WHERE(master EQ client[i],count_a)
>     IF count_a GT 0 THEN build_vector,result,a
>   ENDFOR
```

I am not sure that the FOR loop with an interior WHERE() will scale to very large arrays, or very fast calculations, as the original poster appeared to be requesting.

This actually ties into JD's point from the other day. A loop of WHERE()'s can be quite slow, even slower than a loop of basic operations. Its speed here is roughly proportional to N*M, where N and M are the two input vector sizes. The SORT/UNIQ method is proportional to (N+M)*ALOG(N+M), which can be a big savings for large

arrays.

Craig

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