Subject: Re: Array intersections
Posted by J.D. Smith on Tue, 03 Mar 1998 08:00:00 GMT
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Andy Loughe wrote:
>
>> What is the most efficient way (using IDL, of course) to return
>> the index at which two arrays intersect? e.g.
>> <snip>
>
> I believe the response of David Fanning does not return the "index"
> at which two arrays intersect, but the actual values themselves
> (right?).
> Here is one solution for what you have asked for...

I made these comments about this method last year:

> Check out the NASA library routine match(), which is array based. It uses a
> flag array and an index array, so the memory overhead is roughly 3 times the
> sum of the two arrays, but it's pretty fast. It's attached. Note that it takes
> vectors, so you've go to flatten your array upon input (with reform).
>

> Just make sure you don't try and use [where_array] with big arrays -- it's an n^2 >algorithm (versus the order n algorithms posted prior). E.g., to compare two >floating 128x128 arrays for overlapping values, the program would create 3 arrays, >each of which takes 1 GB! The routine match() is likely much more efficient for >doing intersections on big arrays. (Unless you have some serious RAM on your >machine).

JD

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