Subject: Re: Intersection of 2 sets--Beginner IDL question Posted by Craig Markwardt on Wed, 17 Oct 2001 21:49:02 GMT

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JD Smith <jdsmith@astro.cornell.edu> writes:
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> Craig Markwardt wrote: >> Long ago (1 year?) I tried to collect all the various algorithms that >> were being discussed, and some that weren't yet, to do set operations. >> CMSET OP has the dreaded "CM" prefix, but it also knows how to do >> intersections, unions, and exclusive or's. It can do X AND NOT Y type >> intersections as well. in one self contained function. >> The syntax is: >> >> $x_{and}y = cmset_{op}(X, 'AND', y)$ >> >> >> It can return by value or index. > Ahah, a nice update since last I looked. I'm sure the exact break > between histogram vs. sort is machine dependent, but your defaults seem > logical. > > There's one more thing I should point out in support of the much > maligned ARRAY method, as exemplified in the where_array() routine > originally by Dan Carr at RSI: it works for *any* IDL type. > In as much as comparisons like: > > a=ptr_new('test') & b=a print, b eq a > > and > a=obj_new('myClass') & b=a print, b eq a > > > work, you can do intersections on lists of pointers, lists of objects, > etc., by using the array method. The underlying IDL operation which is > data-type agnostic is simply array indexing, so in the context of the > REFORM/REBIN tutorial, you can use the awkward "lindgen(n,m) mod m"-type > method (of which where_array is a special case) to perform flexible > operations on any type of array. Just beware of the N^2 performance. > I'm also not sure how sort is defined on pointer and object arrays... > probably by heap variable number, in which case that one should work > too.

Hi JD--

That's a really good point, and worth exploring further. In principle it could be as easy as just loosening the restriction on the data type, but I guess I was just being conservative.

Craig

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