## Subject: Re: Finding a value in a array efficiently Posted by JD Smith on Thu, 13 Apr 2006 22:39:59 GMT

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On Thu, 13 Apr 2006 13:31:42 -0700, Wayne Landsman wrote:

- > I was asked an apparently simple question -- what is the most efficient
- > way in IDL to determine if a particular scalar value is in an array.

[..]

> A more efficent (if less transparent) method might be

>

> found = 1 - array\_equal( array EQ value, 0)

>

- > where (array EQ value) will contain all zeros if there is no match.
- > The ARRAY\_EQUAL(x,0) function returns a value of zero as soon as it
- > finds a non-zero value in x. So we are part way there but (array EQ
- > value) still requires testing every value of "array".

>

- > So what we need is a new ARRAY\_OR(x,y) function which returns 1 as
- > soon as it finds any match between X and Y. Or am I missing another
- > method? --Wayne

Just negate your ARRAY\_EQUAL. I use this all the time:

in\_array=~array\_equal(array NE value,1b)

In English that's "is it not everywhere not equal to the value". As soon as it comes across (array NE value)=0 (i.e. a place where it's "not not equal") it will return.

JD