Subject: Re: Comparing 2 arrays Posted by Allan Whiteford on Tue, 28 Aug 2007 16:10:46 GMT View Forum Message <> Reply to Message

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David Fanning wrote:
> Jean H. writes:
>> to get back to a previous discussion we had a few month ago about being
>> "sufficiently close to zero", shouldn't it be (data1.A - data2.B) LT
>> epsilon * data1.A, with epsilon=(machar()).eps?
>
  OK, I found that discussion and read it eight or ten times until
  I finally understood it. (Probably why I forgot it before.)
>
  I've put a significantly edited discussion of this
  problem here:
>
    http://www.dfanning.com/code_tips/comparearray.html
>
  In my preferred solution now, I choose a number that
  is "sufficiently close" to zero like this:
>
>
    epsilon = (MACHAR()).eps
    NUMBER = (array_1 > array_2) * epsilon
>
>
  Then, the comparison between arrays is done like this:
>
>
    IF Total(Abs(array_1 - array_2) LT NUMBER) EQ N_Elements(array_1) $
>
      THEN RETURN, 1 ELSE RETURN, 0
>
  Additional comments welcome if you want to argue further. :-)
>
> Cheers,
> David
David,
Not that I wish to argue but... this looks like it will fail on elements
which are identically zero.
Changing the 'It' to 'le' will probably sort it.
Thanks,
Allan
```