
Subject: Correlate function (bug?)

Posted by [Theo Brauers](#) on Fri, 13 Mar 1998 08:00:00 GMT

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Hi

I was facing a problem with the correlate function
which is demonstrated by the following IDL procedure:

```
pro testc
x=[1.D-5, 1.D-6, 0.0]
y=[1.D-5, 1.1D-6, 0.0]
f=[1.D0, 1.D1, 1.D2, 1.D3, 1.D4, 1.D5, 1.D6]
for i=0,6 do begin
print, i, correlate(x,y, /double) $
    , correlate(x,y*f[i], /double) $
    , correlate(x*f[i],y, /double) $
    , correlate(x*f[i],y*f[i], /double)
endfor
END
```

giving the following result:

0	1.#QNAN00	1.#QNAN00	1.#QNAN00	1.#QNAN00
1	1.#QNAN00	1.#QNAN00	1.#QNAN00	1.#QNAN00
2	1.#QNAN00	1.#QNAN00	1.#QNAN00	1.#QNAN00
3	1.#QNAN00	1.#QNAN00	1.#QNAN00	0.99995432
4	1.#QNAN00	1.#QNAN00	1.#QNAN00	0.99995432
5	1.#QNAN00	0.99995432	0.99995432	0.99995432
6	1.#QNAN00	0.99995432	0.99995432	0.99995432

In my opinion there is no reason for an underflow or whatever causes
correlate to return NAN.

Best Theo

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