

Tentatively filed under "The Sky Is Falling!," and I hope it will be resolved in the same fashion.

Here is the test case, which gives the correct result:

```
IDL> test=fltarr(2,2,4)
IDL> testadd=fltarr(2,2,2) + 1
IDL> print,total(test),total(testadd)
    0.00000    8.00000
IDL> test[0,0,1] += testadd
IDL> print,total(test),total(testadd)
    8.00000    8.00000
IDL> test[0,0,1] += testadd
IDL> print,total(test),total(testadd)
   16.00000    8.00000
IDL> print,test
    0.00000    0.00000
    0.00000    0.00000

    2.00000    2.00000
    2.00000    2.00000

    2.00000    2.00000
    2.00000    2.00000

    0.00000    0.00000
    0.00000    0.00000
```

That is exactly what I expect from this operation.

Here is another case, with results somewhat different

```
IDL> test=fltarr(2,2,4)
IDL> testadd=fltarr(2,2,2)
IDL> testadd[0,0,*]=1
IDL> print,total(test),total(testadd)
    0.00000    2.00000
IDL> test[0,0,1] += testadd
IDL> print,total(test),total(testadd)
    2.00000    2.00000
IDL> print,test
    0.00000    0.00000
    0.00000    0.00000

    1.00000    0.00000
```

```

0.00000  0.00000

1.00000  0.00000
0.00000  0.00000

0.00000  0.00000
0.00000  0.00000      ; So far, so good
IDL> test[0,0,1] += testadd      ; Now, let's add again
IDL> print,total(test),total(testadd)
    10.0000  2.00000      ; Pardon the
expression, WTF?
IDL> print,test
    0.00000  0.00000
    0.00000  0.00000

    2.00000  1.00000
    1.00000  1.00000

    2.00000  1.00000
    1.00000  1.00000

    0.00000  0.00000
    0.00000  0.00000      ; Not even JD Smith
expected _that_.

```

Any ideas?
