Subject: Strange behavior of /cumulative keyword in total()
Posted by Chris[5] on Tue, 04 Nov 2008 10:10:59 GMT
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Can anybody explain this?

arr = fltarr(500000) + .1
cumul = total(array, /cumulative)

print, (cumul - shift(cumul, 1)) [1 : 10]
print, (cumul - shift(cumul,1)) [499990:499999]

> 0.100000 0.100000 0.100000 0.100000 0.100000 0.100000
0.100000 0.100000 0.100000 0.100000

> 0.101562 0.101562 0.101562 0.101562 0.101562 0.101562
0.101562 0.101562 0.101562 0.101562

Plotting cumul - shift(cumul,1) is even weirder. I can understand the net error of cumul growing over time, as floating point precision errors accumulate. However, shouldn't the error between any two entries in a cumulative sum not accumulate over the array?

chris