Subject: speed of n_elements
Posted by Pavel Romashkin on Wed, 03 Nov 1999 08:00:00 GMT
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I have found the n_elements was dramatically slowing down my programs. Specifically, I had an array of structures (450 elements) that I examine for length in the code. Structures have 4 fields of fltarr(900) and some scalar fields, which adds up to a substantial dataset. Obtaining the number of elements in the array of structures was very slow (0.1 s) and caused severe performance degradation after I called it too many times(I probably should have just saved the array size in widget tree State structure but I never thought that n_elements would slow me down and too lazy to go back and change it all). However, there is a workaround that turned out to be simple:

```
temp = fltarr(1000)
one_record = {ch1:temp, ch2:temp, ch3:temp, ch4:temp, flag:0L, temp:0.0,
press:0.0}
data = replicate(one_record, 450)
temp = n_elements(data) ; Very slow. Temp = 450
temp = n_elements(Data.Flag) ; Very fast. Temp = 450
```

So, briefly: if you want to get the size of an array of structures, examine the size of an array of scalar fields (if available) and you will have 10X5 faster n_elements.

Cheers,
Pavel