
Subject: Re: maximum LUN

Posted by [greg.addr](#) on Tue, 25 Nov 2008 10:55:41 GMT

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I made some tests with data reads at different separations to see how opening/closing affects the caching. The effect's not large, but appears to favour files held open.

Still, if we agree the cost of opening a file is very low, I don't see why the number open needs to be rationed so strictly.

pro filetest

f1="D:\mydocs\data\hrsc\lev4\2112\h2112_0000.nd4.51" ; ~1 GB each

f2="D:\mydocs\data\hrsc\lev4\2123\h2123_0000.nd4.50" ;

a=bytarr(2000,2000)

for j=0,5 do begin

distance=(long([0,1e3,5e5,1e6,1e7,1e8]))[j]

s1=systime(/sec)

for i=0,9 do begin

openr,3,f1

point_lun,3,i*distance

readu,3,a

close,3

openr,3,f2

point_lun,3,i*distance

readu,3,a

close,3

endfor

s2=systime(/sec)

print, "repeat open:",s2-s1

s1=systime(/sec)

openr,1,f1

openr,2,f2

for i=0,9 do begin

point_lun,1,i*distance

readu,1,a

point_lun,2,i*distance

readu,2,a

endfor

close,1

close,2

s2=systime(/sec)

print, "single open:",s2-s1

print

```
endfor  
end
```

```
IDL> filetest  
repeat open: 0.12500000  
single open: 0.094000101
```

```
repeat open: 0.10899997  
single open: 0.078000069
```

```
repeat open: 0.14100003  
single open: 0.12500000
```

```
repeat open: 0.14100003  
single open: 0.13999987
```

```
repeat open: 0.14100003  
single open: 0.12500000
```

```
repeat open: 0.15599990  
single open: 0.12500000
```

```
IDL> filetest  
repeat open: 0.13999987  
single open: 0.094000101
```

```
repeat open: 0.093999863  
single open: 0.078000069
```

```
repeat open: 0.14100003  
single open: 0.13999987
```

```
repeat open: 0.14100003  
single open: 0.14000010
```

```
repeat open: 0.15700006  
single open: 0.13999987
```

```
repeat open: 0.14100003  
single open: 0.14100003
```

and with the blocks reversed:

```
IDL> filetest  
single open: 0.10899997  
repeat open: 0.11000013
```

single open: 0.078000069
repeat open: 0.092999935

single open: 0.12500000
repeat open: 0.15700006

single open: 0.12500000
repeat open: 0.15599990

single open: 0.12500000
repeat open: 0.15599990

single open: 0.12500000
repeat open: 0.14100003
