Subject: Re: Logical Unit mystery; clarification
Posted by Andy Loughe on Tue, 19 Nov 1996 08:00:00 GMT
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David Fanning wrote:
>
> Russ Welti <rwelti@mapper.mbt.washington.edu> writes:
>
>> At one point in my IDL program, as I do one of many SAVEs and RESTOREs,
>> I get:
>>
>> RESTORE: All available logical units are currently in use.
>>
>> But a subsequent HELP,/FILES shows only my expected 1 log file open!
>>
>> IDL> help,/files
>> Unit Attributes Name
>> 100 Read, Write, Append /u/rwelti/dev/sage/log.ostrandr
>>
>>
>> And, if I do a CLOSE,/ALL at error point above, the RESTORE can be done OK.
>
> I don't know exactly why this is happening, but I wouldn't be surprised if
> the RSI programmer fell into the same trap I have fallen into numerous
> times in my own programs.
>
> There are two pools of logical unit numbers you can use. The pool of
> numbers from 1-99, which you can use directly, and the pool of numbers
> from 100-128 that IDL manages with the GET_LUN procedure or keyword.
>
> If you choose a LUN from the user pool (e.g., 4), then you are suppose
> to close the file and free up the LUN by using the CLOSE command:
>
> OPENR, 4, file
> ...
> CLOSE, 4
>
> If you let IDL choose a LUN from its pool, you are suppose to close the
> file and free the LUN to be used over again with the FREE_LUN command.
>
> OPENR, lun, file, /GET_LUN
> ...
> FREE_LUN, lun
>
> What I have been guilty of many times, is using the CLOSE command
> with a LUN from IDL's pool. Like this:
>
> OPENR, lun, file, /GET_LUN

> ...
> CLOSE, lun
>
> This closes the file, but it doesn't free up the logical unit number to
> be used over again. I think this is exactly what is happening with
> your RESTORE problem. After a time, you run out of LUNs.
>
> Fortunately, the ALL keyword to the CLOSE command closes not
> only all the files, but it does an additional *freeing* of the LUNs
> managed by IDL. That's why your program works again.
>
> David

Thanks for the useful info. Now the question...
Why this confusing functionality within IDL?
It seems this could be fixed very easily within free_lun,
just test the magnitude of the lun.

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Boulder, CO 80309-0449 "He who laughs last thinks slowest!"
