
Subject: Re: Logical Unit mystery; clarification
Posted by [davidf](#) on Sat, 16 Nov 1996 08:00:00 GMT
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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

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* Sometimes I go about pitying myself, and all along my
* soul is being blown by great winds across the sky.
* -- Ojibway saying
