

To: Distribution
From: Bill Austell, Jerry Whitmore
Subject: New Functions and a New Name for the "lstacl" Command
Date: March 31, 1975

The lstacl (la) command is the only command which provides all the data used by the storage system to calculate access to a branch; the access control list and the ring brackets (by option). Other commands such as "list" and "status" only return access information for the calling process.

The Access Isolation mechanism has introduced a new data field in the branch which affects a users access. It seems sensible to allow one command to provide all the access control data so that users can check who may access a segment, in what ring and at what authorization.

It is proposed that the lstacl command be modified to recognize a new option:

-access_class or -acc

This will cause the access class of the branch to be printed. The access class applies to the branch and not to individual ACL entries, just like the ring brackets do now.

The addition of new output data gives an opportunity to re-format the output so that ring brackets and the access class do not seem to apply on a per user basis. Instead, when these data are requested, they will appear as titles above the access control list.

The control arguments should be general enough to select any of the access data types the user would like to see. Therefore, two more control arguments are proposed which would make the total set appear as follows:

-rb	print the ring brackets
-acc	print the access class
-acl	print the access control list (default)
-a	print all the above.

If a control argument is specified, the default is reset. Only the information requested will be printed. This does imply that

Multics project internal working documentation. Not to be reproduced or distributed outside the Multics project.

users who have "la -rb" set in abbrevs and exec_coms will now get different results (the command line "la -acl -rb" would be needed). The "-a" control argument will have a new meaning and now will print more than before, but at least all the previous information will be supplied.

A sample listing might look like this:

```

u)          la -a foo.pl1
s)          conf,c1,c2
s)
s)          4,4,4
s)
s)          r w Jones.*.*
s)          r w *.SysDaemon.*
s)          r   *.MyProj.*
s)          r   *.*.*

```

The access class string would not be printed if it was all blank. If the string would be longer than 80 characters, it will be folded at a comma separator to improve readability.

The added functionality of the command now suggests that the name should be changed to be more descriptive. The name list_access (la) is proposed. The short name is upward compatible and the old name listacl can be retained for a while for downward compatibility. A new command description is attached.