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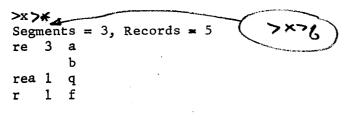
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DATE: June 17, 1971

SUBJECT: Proposed New List Command

     This memo describes the behavior of a proposed new list command.
The use of the new command will be to type "list" followed by any number
of arguments. Each argument may be either a path name or a control argu-
ment. The command will print out information about those segments speci-
fied by the path names. The format will be similar to that produced
by the current list command, i.e. for each directory in which segments
are to be listed the list will be broken into three categories: segments,
directories and links, and totals will be given at the top of each list.
For each segment, the process's access to the segment at the current valida-
tion level will be given and the number of records used will be given
along with all the names on the segment. For each link the associated
pathname of the link will be printed along with all the names on the link.
The star convention may be used in entry names in pathnames. For example:

     list   >x>* >y>z >x>q

will produce something of the form

```
>x>*
Segments = 3, Records = 5          ( >x>q )
re  3  a
       b
rea 1  q
r   1  f


Links = 1
m      >y>z


Directories = 0


>y
Links = 1
z      >x>q
y
```

All entries in the same directory will be listed once in the group pertaining to that directory even though the requests are interspersed in the command line and the same directories are specified differently in different requests.

Note that even though a segment may be asked for more than once, it is listed only once. Also entries other than segments are listed by default, so that typing "list **" will list segments, links and directories in the current working directory. However, just typing "list" with no arguments lists only segments.

The list command will have the following options (names are not final):

-pathname, -pn	is immediately followed by the pathname of a directory. All relative pathnames following on the line will be taken relative to this directory until another -pn is encountered.
-primary, -pm	only the primary names of entries will be listed.
-brief, -bf	causes the printing of access modes and records used to be suppressed for segments and the printing of link pathnames to be suppressed for links.
-total, -tt	causes only totals to be printed.
-ringbrackets, -rb	causes access modes and ring brackets to be printed without computing effective access with respect to validation level.
-segments, -sm	lists segments only (unless -dr and/or -lk is specified).
-directories, -dr	lists directories only (unless -sm and/or -lk is specified).
-links, -lk	lists links only (unless -sm and/or -dr is specified).
-dtu	list within each directory by date-time used.

-dtm   list within each directory by date-time modified.
-reverse, -rv   reverses the order in -dtu and -dtm options.

With the introduction of -brief and -total options the lt and ln commands
may be phased out. All control arguments, with the exception of -pn,
apply to the entire command with the last control argument typed taking
precedence in the case where they conflict. The new list command will
be upward compatible with the current list command.