LPF

EXAMPLES

```
M   M   AAA    III  L      CCCC   000   M   M   PPPP   RRRR   EEEEE   SSSS    SSSS
M   M   AAA    III  L      CCCC   000   M   M   PPPP   RRRR   EEEEE   SSSS    SSSS
MM MM  A   A    I   L      C     0   0  MM MM   P   P  R   R  E       S       S
MM MM  A   A    I   L      C     0   0  MM MM   P   P  R   R  E       S       S
M M M  A   A    I   L      C     0   0  M M M   P   P  R   R  E       S       S
M   M  A   A    I   L      C     0   0  M   M   PPPP   RRRR   EEEE    SSS     SSS
M   M  AAAAA    I   L      C     0   0  M   M   PPPP   RRRR   EEEE    SSS     SSS
M   M  AAAAA    I   L      C     0   0  M   M   P      R R    E          S       S
M   M  A   A    I   L      C     0   0  M   M   P      R  R   E          S       S
M   M  A   A    I   L      C     0   0  M   M   P      R  R   E          S       S
M   M  A   A   III  LLLLL  CCCC   000   M   M   P      R   R  EEEEE   SSSS    SSSS  ::
M   M  A   A   III  LLLLL  CCCC   000   M   M   P      R   R  EEEEE   SSSS    SSSS  ::
```

```
CCCC   000   M   M
CCCC   000   M   M
C     0   0  MM MM
C     0   0  MM MM
C     0   0  M M M
C     0   0  M   M
C     0   0  M   M
C     0   0  M   M
C     0   0  M   M
CCCC   000   M   M
CCCC   000   M   M
```

```
$ !++
$ !
$ !  MAILCOMPRESS.COM - Compress mail file by username
$ !
$ !
$ !  ABSTRACT:   Sample command procedure to compress
$ !             MAIL ISAM files for a single user
$ !             or list of users.
$ !
$ !
$ !
$ !  REQUIRED PRIVILEGES:
$ !             BYPASS, EXQUOTA or SETPRV
$ !
$ !
$ !  INPUT:      Input can be specified in two forms:
$ !
$ !        o    Username whose default MAIL ISAM
$ !             file is to be compressed.
$ !
$ !        o    @FILENAME where FILENAME is the
$ !             file-spec of a file which contains
$ !             a list of usernames whose default
$ !             MAIL ISAM files are to be compressed.
$ !
$ !             Either form of input may be specified
$ !             on the command line.  However, if
$ !             "@FILENAME" is specified on the command
$ !             line it MUST be enclosed in double
$ !             quotes.
$ !
$ !  OUTPUT:     New default MAIL ISAM file of a smaller
$ !             size.
$ !
$ !
$ !  IMPLICIT OUTPUT:
$ !             Old default MAIL ISAM file is deleted.
$ !
$ !--
$
$
$       set     = "SET"
$       if      = "IF"
$       open    = "OPEN"
$       goto    = "GOTO"
$       read    = "READ"
$       write   = "WRITE"
$       convert = "CONVERT"
$       delete  = "DELETE"
$       close   = "CLOSE"
$       exit    = "EXIT"
$       no_compression_needed_size = 40
$       time_stamp = f$cvtime("","COMPARISON","DATETIME")
```

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$       old_verify = f$verify()
$       set noon
$       required_privileges = "BYPASS,EXQUOTA"
$       prev_privs = f$setprv(required_privileges)
$       if .not. f$privilege(required_privileges) then goto no_privileges
$       def_dev_dir = f$environment("DEFAULT")
$       open /read /share uaf  sys$system:sysuaf.dat
$       open /read /share vmai sys$system:vmsmail.dat
$       cmd_file = 0
$       param_flag = 0
$       if f$length(p1) .eq. 0  then  goto get_username
$       username = p1
$       param_flag = 1
$       goto 10$
$ !
$ !   Prompt for username
$ !
$ get_username:
$       open_delimit = "["
$       close_delimit = "]"
$       dir_close_delimit = "]"
$       if cmd_file  then  goto 20$
$       if param_flag  then  goto exit_procedure
$       read /end=exit_procedure /prompt="Username: " sys$command  username
$ 10$:
$       username = f$edit(username,"COLLAPSE,UNCOMMENT,UPCASE")
$       if f$length(username) .eq. 0  then  goto get_username
$       if f$extract(0,1,username) .nes. "a" then goto 100$
$       cmd_file = 1
$       username = f$extract(1,99,username)
$       open /read /error=cant_open  cmdf  'username'
$ 20$:
$       read /end=cmd_file_eof /prompt="USERNAME> "  cmdf  username
$       username = f$edit(username,"COLLAPSE,UNCOMMENT,UPCASE")
$       if f$length(username) .eq. 0  then  goto 10$
$ !
$ !  Get mail directory for USERNAME
$ !
$ 100$:
$       read /nolock /error=no_user /key="'"'username'"'"  uaf  uaf_record
$       dir_len = f$cvui(32*8,8,uaf_record)
$       dir_string = f$extract(149,dir_len,uaf_record)
$       temp_string = f$edit(dir_string,"COLLAPSE")
$       if temp_string .eqs. "" then goto bad_spec
$       if f$locate("[",dir_string) .ne. dir_len then goto okay_delimit
$       dir_close_delimit = ">"
$okay_delimit:
$       dir_string = dir_string - dir_close_delimit
$       dev_len = f$cvui(64*8,8,uaf_record)
$       dev_string = f$extract(117,dev_len-1,uaf_record)
$       temp_string = f$edit(dev_string,"COLLAPSE")
$       if temp_string .eqs. "" then goto bad_spec
$       vmai_record = ""
$       mail = ""
$       read /nolock /error=110$ /key="'"'username'"'"  vmai  vmai_record
$ 110$:
```

```
$        if f$length(vmai_record) .eq. 0  then  goto 120$
$        mail_len = f$cvui(65*8,8,vmai_record)
$        personal_len = f$cvui(66*8,8,vmai_record)
$        forward_len = f$cvui(67*8,8,vmai_record)
$        mail = f$extract(68+personal_len+forward_len,mail_len,vmai_record)
$        if f$locate("[",mail) .ne. mail_len then goto 120$
$        open_delimit = "<"
$        close_delimit =">"
$ 120$:
$        temp = ""
$        if mail .nes. "" then temp =mail- open_delimit - close_delimit
$        mail_dir = dev_string + dir_string + temp + dir_close_delimit
$        mail_dir = f$edit(mail_dir,"COLLAPSE")
$        write sys$output ""
$        write sys$output "Processing directory ''mail_dir' for user ''username'"
$ !
$ !   Compress mail file
$ !
$        set default 'mail_dir'
$        if f$search("MAIL.MAI") .eqs. ""  then  goto no_mail_file
$        create_time = f$file_attributes("MAIL.MAI","CDT")
$        create_time = f$cvtime(create_time,"COMPARISON","DATETIME")
$        if create_time .gts. time_stamp then goto already_compressed
$        ! VERIFY THERE'S A MAIL.MAI FILE, THAT IT'S INDEXED WITH 2 KEYS.
$        ! CHECK TO SEE THAT DISK HAS ENOUGH SPACE FOR THE COMPRESS.
$        !
$        !
$        if (f$file_attributes("MAIL.MAI","ORG") .nes. "IDX")  .or.  -
$           (f$file_attributes("MAIL.MAI","NOK") .ne. 2)  -
         then  goto not_mail_file
         old_size = f$file_attributes("MAIL.MAI", "ALQ")
$        !
$        ! VERIFY THAT MAIL.MAI IS LARGE ENOUGH TO WARRANT
$        ! COMPRESSION.
$        if old_size .lt. no_compression_needed_size then $goto too_small
$        free_blks = f$getdvi("SYS$DISK","FREEBLOCKS")
$        if free_blks .lt. old_size * 3  then  goto  no_space
$        ! COMPRESS THE FILE, STOP IF ERROR.
$        ! DISPLAY OLD/NEW/RECLAIMED SIZES, DELETE OLD FILE, ENSURE CORRECT
$        ! FILE OWNERSHIP.
$        !
$        convert /fdl=sys$input  mail.mai mail.mai
SYSTEM
         SOURCE            VAX/VMS

FILE
         ALLOCATION         34
         BEST_TRY_CONTIGUOUS  yes
         BUCKET_SIZE        5
         CONTIGUOUS         no
         EXTENSION          15
         GLOBAL_BUFFER_COUNT  0
         ORGANIZATION       indexed
         PROTECTION         (system:RW, owner:RW, group:, world:)
```

```
RECORD
        BLOCK_SPAN                 yes
        CARRIAGE_CONTROL           none
        FORMAT                     variable
        SIZE                       2048

AREA 0
        ALLOCATION                 20
        BUCKET_SIZE                5
        EXTENSION                  15

AREA 1
        ALLOCATION                 6
        BUCKET_SIZE                5
        EXTENSION                  5

AREA 2
        ALLOCATION                 8
        BUCKET_SIZE                3
        EXTENSION                  3

KEY 0
        CHANGES                    no
        DATA_KEY_COMPRESSION       no
        DATA_RECORD_COMPRESSION    yes
        DATA_AREA                  0
        DATA_FILL                  100
        DUPLICATES                 yes
        INDEX_AREA                 1
        INDEX_COMPRESSION          no
        INDEX_FILL                 100
        LEVEL1_INDEX_AREA          1
        NAME                       '...'
        NULL_KEY                   no
        PROLOG                     3
        SEG0_LENGTH                8
        SEG0_POSITION              0
        TYPE                       bin8

KEY 1
        CHANGES                    yes
        DATA_KEY_COMPRESSION       yes
        DATA_AREA                  2
        DATA_FILL                  100
        DUPLICATES                 yes
        INDEX_AREA                 2
        INDEX_COMPRESSION          yes
        INDEX_FILL                 100
        LEVEL1_INDEX_AREA          2
        NAME                       '...'
        NULL_KEY                   yes
        NULL_VALUE                 0
        SEG0_LENGTH                39
        SEG0_POSITION              9
        TYPE                       string
```
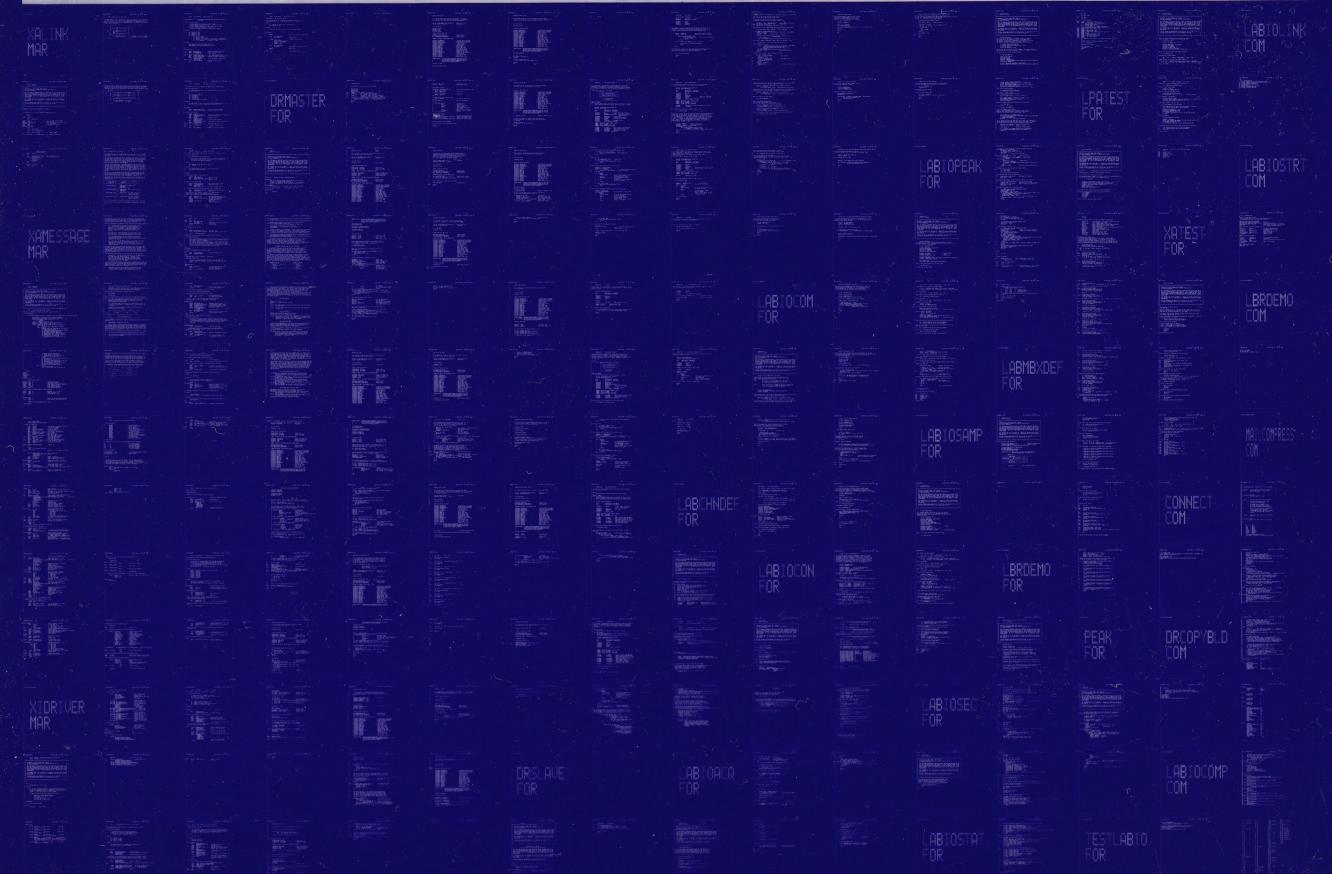
```
$       if $status .ne. 1  then  goto  convert_error
$       new_size = f$file_attributes('MAIL.MAI;0'', ''ALQ'')
$       tmp = old_size - new_size
$       write sys$output "Old size = ''old_size'  New size = ''new_size''', -
                "reclaimed ''tmp' blocks"'
$       delete MAIL.MAI;-1
$       set file/owner=parent MAIL.MAI
$ end_loop:
$       goto get_username
$ !
$ !  Exit command procedure
$ !
$ exit_procedure:
$       close /nolog uaf
$       close /nolog vmai
$       close /nolog cmdf
$       set default 'def_dev_dir'
$       prev_privs = f$setprv(prev_privs)
$       old_verify = f$verify(old_verify)
$       exit
$ !
$ !  Process errors
$ !
$ no_privileges:
$       write sys$output "Insufficient privileges"
$       write sys$output "Requires '',REQUIRED_PRIVILEGES,'' privileges."
$       goto exit_procedure
$ no_mail_file:
$       write sys$output "No mail file for user ''username'''
$       goto get_username
$ not_mail_file:
$       write sys$output "File ''mail_dir'MAIL.MAI is not a mail file"
$       goto get_username
$ convert_error:
$       write sys$output "Error compressing ''mail_dir'MAIL.MAI '', -
                "for user ''username'''
$       goto get_username
$ cmd_file_eof:
$       cmd_file = 0
$       close cmdf
$       goto get_username
$ no_user:
$       write sys$output "User ''username' not found in UAF"
$       goto get_username
$bad_spec:
$       write sys$output "Bad directory specification for user ''username'''
$       goto get_username
$ no_space:
$       write sys$output "No space to compress file of ''old_size' blocks"
$       goto get_username
$ cant_open:
$       write sys$output "Can not open file ''username'."
$       cmd_file = 0
$       goto get_username
$already_compressed:
$       write sys$output "MAIL.MAI already compressed"
```

```
$        goto get_username
$ too_small:
$        write sys$output "MAIL.MAI too small to compress (''old_size' blocks)."
$        goto get_username
$ exit
```

XALINK
MAR

LABIOLINK
COM

DRMASTER
FOR

LPATEST
FOR

LABIOPEAK
FOR

LABIOSTRT
COM

XAMESSAGE
MAR

XATEST
FOR

LABIOCOM
FOR

LBRDEMO
COM

LABMBXDEF
FOR

LABIOSAMP
FOR

MAILCOMPRESS
COM

LABCHNDEF
FOR

CONNECT
COM

LABIOCON
FOR

LBRDEMO
FOR

PEAK
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DRCOPYBLD
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LABIOSEC
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DRSLAVE
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LABIOACQ
FOR

LABIOCOMP
COM

LABIOSTAT
FOR

TESTLABIO
FOR

EXCREQ
R32

MAILCVT
COM

SYSGTTSTR
MSG

EXCCOPY
LIS

USSLNK
COM

EXCDEFS
SDL

EXCLIB
B32

EXCCLDTBL
LIS

MAILUAF
COM

USSTSTLNK
COM

EXCHNG

XATEST
COM

EXCHANGE
MAP

LABIO
OPT

MSCPMOUNT
COM

LABIOCIN
OPT

EXCCMD
LIS

DRCOPY
PRM