```
UUU           UUU     AAAAAAAAA      FFFFFFFFFFFFFFF
UUU           UUU     AAAAAAAAA      FFFFFFFFFFFFFFF
UUU           UUU     AAAAAAAAA      FFFFFFFFFFFFFFF
UUU           UUU  AAA           AAA  FFF
UUU           UUU  AAA           AAA  FFF
UUU           UUU  AAA           AAA  FFF
UUU           UUU  AAA           AAA  FFF
UUU           UUU  AAA           AAA  FFF
UUU           UUU  AAA           AAA  FFF
UUU           UUU  AAA           AAA  FFFFFFFFFFFF
UUU           UUU  AAA           AAA  FFFFFFFFFFFF
UUU           UUU  AAA           AAA  FFFFFFFFFFFF
UUU           UUU  AAAAAAAAAAAAAAA  FFF
UUU           UUU  AAAAAAAAAAAAAAA  FFF
UUU           UUU  AAAAAAAAAAAAAAA  FFF
UUU           UUU  AAA           AAA  FFF
UUU           UUU  AAA           AAA  FFF
UUU           UUU  AAA           AAA  FFF
UUUUUUUUUUUUUUUU  AAA           AAA  FFF
UUUUUUUUUUUUUUUU  AAA           AAA  FFF
UUUUUUUUUUUUUUUU  AAA           AAA  FFF
```

```
_$2

Val
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FILEID**UAFPARSE

```
UU      UU    AAAAAA    FFFFFFFFFF  PPPPPPPP      AAAAAA    RRRRRRRR      SSSSSSSS  EEEEEEEEEE
UU      UU    AAAAAA    FFFFFFFFFF  PPPPPPPP      AAAAAA    RRRRRRRR      SSSSSSSS  EEEEEEEEEE
UU      UU  AA      AA  FF          PP      PP  AA      AA  RR      RR  SS            EE
UU      UU  AA      AA  FF          PP      PP  AA      AA  RR      RR  SS            EE
UU      UU  AA      AA  FF          PP      PP  AA      AA  RR      RR  SS            EE
UU      UU  AA      AA  FF          PP      PP  AA      AA  RR      RR  SS            EE
UU      UU  AA      AA  FFFFFFFF    PPPPPPPP    AA      AA  RRRRRRRR      SSSSSS    EEEEEEEE
UU      UU  AA      AA  FFFFFFFF    PPPPPPPP    AA      AA  RRRRRRRR      SSSSSS    EEEEEEEE
UU      UU  AAAAAAAAAA  FF          PP          AAAAAAAAAA  RR  RR              SS  EE
UU      UU  AAAAAAAAAA  FF          PP          AAAAAAAAAA  RR  RR              SS  EE
UU      UU  AA      AA  FF          PP          AA      AA  RR    RR            SS  EE              ....
UU      UU  AA      AA  FF          PP          AA      AA  RR    RR            SS  EE              ....
UUUUUUUUUU  AA      AA  FF          PP          AA      AA  RR      RR  SSSSSSSS    EEEEEEEEEE      ....
UUUUUUUUUU  AA      AA  FF          PP          AA      AA  RR      RR  SSSSSSSS    EEEEEEEEEE      ....

LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II              SS
LL              II              SS
LL              II              SS
LL              II              SS
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

```
;     1          0001  0 module uafparse (
;     2          0002  0                 language (bliss32),
;     3          0003  0                 ident = 'V04-000',
;     4          0004  0                 addressing_mode(external=general, nonexternal=general)) =
;     5          0005  1 begin
;     6          0006  1 !
;     7          0007  1 !**********************************************************************
;     8          0008  1 !*                                                                    *
;     9          0009  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                          *
;    10          0010  1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.           *
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;    21          0021  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT  *
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;    25          0025  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.            *
;    26          0026  1 !*                                                                    *
;    27          0027  1 !*                                                                    *
;    28          0028  1 !**********************************************************************
;    29          0029  1
;    30          0030  1 !++
;    31          0031  1 ! FACILITY:      System Management Utility Program
;    32          0032  1 !
;    33          0033  1 ! ABSTRACT:      Parsing subroutines for the AUTHORIZE utility
;    34          0034  1 !
;    35          0035  1 ! ENVIRONMENT:
;    36          0036  1 !
;    37          0037  1 ! AUTHOR:        Henry M. Levy    , CREATION DATE: 1-June-1977
;    38          0038  1 !
;    39          0039  1 ! MODIFIED BY:
;    40          0040  1 !
;    41          0041  1 !       V03-022 JRL0035         John R. Lawson, Jr.     07-Aug-1984 15:49
;    42          0042  1 !               Fix PWD_EXPIRED login flag to be set with passwords.
;    43          0043  1 !
;    44          0044  1 !       V03-021 JRL0022         John R. Lawson, Jr.     09-Jul-1984 13:40
;    45          0045  1 !               Supply missing brackets (if necessary) on /DIRECTORY.
;    46          0046  1 !
;    47          0047  1 !       V03-020 JRL0011         John R. Lawson, Jr.     02-Jul-1984 14:40
;    48          0048  1 !               Add literal WORD_UNSIGNED_LENGTH (=17) for unsigned
;    49          0049  1 !               words in WS info.
;    50          0050  1 !
;    51          0051  1 !       V03-019 JRL0012         John R. Lawson, Jr.     21-Jun-1984 15:56
;    52          0052  1 !               Add /GENERATE qualifier to generate random passwords.
;    53          0053  1 !
;    54          0054  1 !       V03-018 JRL0008         John R. Lawson, Jr.     20-Jun-1984 14:19
;    55          0055  1 !               Add /PWDEXPIRED qualifier to allow pre-expired passwords.
;    56          0056  1 !
;    57          0057  1 !       V03-017 JRL0007         John R. Lawson, Jr.     20-Jun-1984 14:18
```

```
;    58          0058  1 ;               Add /PWDLIFETIME=NONE qualifier.
;    59          0059  1 ;
;    60          0060  1 ;       V03-016 JRL0002         John R. Lawson, Jr.     15-Jun-1984 12:54
;    61          0061  1 ;               Change all messages to calls to LIB$SIGNAL, place all
;    62          0062  1 ;               messages in a .MSG file
;    63          0063  1 ;
;    64          0064  1 ;       V03-015 LY0475          Larry Yetto             9-APR-1984 08:34
;    65          0065  1 ;               If /NOEXPIRATION or /NOPWDLIFE is specified then
;    66          0066  1 ;               zero the field in the UAF record.
;    67          0067  1 ;
;    68          0068  1 ;       V03-014 LY0467          Larry Yetto             22-MAR-1984 13:53
;    69          0069  1 ;               Add support for the rights data base functions
;    70          0070  1 ;
;    71          0071  1 ;       V03-013 ACG0397         Andrew C. Goldstein,    6-Feb-1984  16:25
;    72          0072  1 ;               Add DISREPORT flag to UAF; fix bugs in storing secondary
;    73          0073  1 ;               password
;    74          0074  1 ;
;    75          0075  1 ;       V03-012 ACG0388         Andrew C. Goldstein,    12-Jan-1984  18:52
;    76          0076  1 ;               Add command input to handle new UAF features;
;    77          0077  1 ;               general code cleanup
;    78          0078  1 ;
;    79          0079  1 ;       V03-011 ACG0385         Andrew C. Goldstein,    6-Jan-1984  14:18
;    80          0080  1 ;               V4 UAF format change
;    81          0081  1 ;
;    82          0082  1 ;       V03-010 TMK0001         Todd M. Katz            11-Oct-1983
;    83          0083  1 ;               Add JTQUOTA (job-wide logical name table creation quota)
;    84          0084  1 ;               qualifier.
;    85          0085  1 ;
;    86          0086  1 ;       V03-009 LMP0153         L. Mark Pilant,         13-Sep-1983  11:41
;    87          0087  1 ;               Add minimal support for alphanumeric UICs.
;    88          0088  1 ;
;    89          0089  1 ;       008     JWT0105         Jim Teague      04-Apr-1983
;    90          0090  1 ;               Finish up long filename stuff.
;    91          0091  1 ;
;    92          0092  1 ;       007     JWT0104         Jim Teague      29-Mar-1983
;    93          0093  1 ;               Add CLITABLES qualifier.
;    94          0094  1 ;
;    95          0095  1 ;       006     WMC0001         Wayne Cardoza   15-Mar-1983
;    96          0096  1 ;               Add MAXDETACH qualifier
;    97          0097  1 ;
;    98          0098  1 ;       005     JWT0076         Jim Teague      13-Dec-1982
;    99          0099  1 ;               Fix bug in parsing UIC specs.
;   100          0100  1 ;
;   101          0101  1 ;       004     JWT0046         Jim Teague      30-Jul-1982
;   102          0102  1 ;               Check null password string earlier in GETPASSWORD
;   103          0103  1 ;
;   104          0104  1 ;       003     JWT0030         Jim Teague      03-May-1982
;   105          0105  1 ;               Accomodate ufd directory specs
;   106          0106  1 ;
;   107          0107  1 ;       002     JWT0029         Jim Teague      20-Apr-1982
;   108          0108  1 ;               Completely disable /maxacctjobs
;   109          0109  1 ;
;   110          0110  1 ;       001     JWT0023         Jim Teague      17-Mar-1982
;   111          0111  1 ;               Enforce default directory syntax more strictly by
;   112          0112  1 ;               cranking the spec through tparse.
;   113          0113  1 ;
;   114          0114  1 ;--
```

```
;  116     0115  1 !
;  117     0116  1 ! Require files:
;  118     0117  1 !
;  119     0118  1 require
;  120     0119  1         'lib$:uafreq';
;  121     0215  1 !
;  122     0216  1 ! TABLE OF CONTENTS:
;  123     0217  1 !
;  124     0218  1
;  125     0219  1 forward routine
;  126     0220  1
;  127     0221  1         update_record,                  ! modify all specified fields
;  128     0222  1         getaccess,                      ! get access flag bits
;  129     0223  1         check_primary,                  ! verify "primary" keyword
;  130     0224  1         check_secondary,                ! verify "secondary" keyword
;  131     0225  1         set_range,                      ! set hourly restriction bits
;  132     0226  1         getcputim,                      ! get cpu time quota
;  133     0227  1         getdevice,                      ! get default device name
;  134     0228  1         getdirectory,                   ! get default directory
;  135     0229  1         checkvalue,                     ! check UFD group and member value
;  136     0230  1         checklength,                    ! check directory name length
;  137     0231  1         getflags,                       ! get flag bits
;  138     0232  1         getpflags,                      ! get old per day login flags
;  139     0233  1         getrestrict,                    ! get old hourly restriction values
;  140     0234  1         getprimedays,                   ! get primary day list
;  141     0235  1         getpriv,                        ! get process privileges
;  142     0236  1         getuic,                         ! get user identification code
;  143     0237  1         parse_uic,                      ! obtain UIC group and member
;  144     0238  1         parse_wild,                     ! parse wildcarded user specification
;  145     0239  1         parse_wild_uic,                 ! parse wildcarded UIC
;  146     0240  1         getstring,                      ! get string from input
;  147     0241  1         getval,                         ! get numeric value from user
;  148     0242  1         cvtnum,                         ! convert decimal ascii to binary
;  149     0243  1         UAF$GENERATE,                   ! generate necessary passwords
;  150     0244  1         GETPASSWORD,                    ! update password fields
;  151     0245  1         AUTHORIZE_GENERATE;             ! Interface to PL/I
;  152     0246  1
;  153     0247  1
;  154     0248  1 external routine
;  155     0249  1
;  156     0250  1         GENERATE_PASSWORDS,
;  157     0251  1         SYS$ASSIGN,
;  158     0252  1         SYS$DASSGN,
;  159     0253  1         SYS$QIOW,
;  160     0254  1         LIB$GET_VM,
;  161     0255  1         STR$UPCASE,
;  162     0256  1         STR$UPCASE,
;  163     0257  1         lib$tparse      : addressing_mode (general),
;  164     0258  1         lib$lookup_key  : addressing_mode (general),
;  165     0259  1         cli$dcl_parse,
;  166     0260  1         cli$present,
;  167     0261  1         cli$get_value,
;  168     0262  1         faoout,                         ! output formatted message
;  169     0263  1         lgi$hpwd,                       ! hash password routine
;  170     0264  1         lib$cvt_dtime,                  ! convert ASCII to system delta time
;  171     0265  1         lib$cvt_time,                   ! convert ASCII to system abs time
;  172     0266  1         prv$setpriv;                    ! set privilege bits based on
```

```
;  173          0267  1                                        ! privilege names
;  174          0268  1
;  175          0269  1 !
;  176          0270  1 ! INCLUDE FILES:
;  177          0271  1 !
;  178          0272  1
;  179          0273  1 library 'SYS$LIBRARY:TPAMAC';
;  180          0274  1 library 'SYS$LIBRARY:LIB';
;  181          0275  1
;  182          0276  1 !
;  183          0277  1 ! MACROS:
;  184          0278  1 !
;  185          0279  1
;  186          0280  1 macro
;  187        M 0281  1     cstring[] = (uplit byte (%charcount (%string (%remaining)),
;  188          0282  1                  %string (%remaining)))%,
;  189          0283  1
;  190          0284  1 !
;  191          0285  1 ! Macro to create string descriptor for command parameters and
;  192          0286  1 !       qualifiers
;  193          0287  1 !
;  194        M 0288  1     sd[a] =
;  195          0289  1         bind %name ('SD_', a) = $descriptor (a)%;
;  196          0290  1
;  197          0291  1
;  198        P 0292  1      sd (
;  199        P 0293  1         'token1',       'token2',       'account',      'astlm',
;  200        P 0294  1         'biolm',        'bytlm',        'cli',          'cputime',
;  201        P 0295  1         'device',       'diolm',        'directory',    'enqlm',
;  202        P 0296  1         'fillm',        'flags',        'lgicmd',       'maxjobs',
;  203        P 0297  1         'owner',        'password',     'pbytlm',       'pflags',
;  204        P 0298  1         'pgflquota',    'p_restrict',   'prclm',        'priority',
;  205        P 0299  1         'privileges',   'sflags',       's_restrict',   'shrfillm',
;  206        P 0300  1         'tqelm',        'uic',          'wsdefault',    'wsextent',
;  207        P 0301  1         'wsquota',      'display',      'primedays',    'maxacctjobs',
;  208        P 0302  1         'maxdetach',    'clitables',    'jtquota',      'access',
;  209        P 0303  1         'batch',        'defprivileges','dialup',       'expiration',
;  210        P 0304  1         'interactive',  'local',        'network',      'pwdlifetime',
;  211        P 0305  1         'pwdminimum',   'quepriority',  'remote'
;  212          0306  1 );
;  213          0307  1
;  214          0308  1 !
;  215          0309  1 ! The definition table for flag bits for UAF$B_FLAGS.
;  216          0310  1 !
;  217          0311  1 literal
;  218          0312  1         num_flags       = 13,           ! number of FLAG_TABLE entries
;  219          0313  1         num_opflags     = 2,            ! number of OPFLAG_TABLE entries
;  220          0314  1         num_pdflags     = 7;            ! number of entries in prime days table
;  221          0315  1
;  222          0316  1 own
;  223          0317  1     flag_table : vector [2 * num_flags + 1, long] initial (
;  224          0318  1         2 * num_flags,
;  225          0319  1         uplit (%ascic 'DISCTLY'),       $bitposition (uaf$v_disctly),
;  226          0320  1         uplit (%ascic 'DEFCLI'),        $bitposition (uaf$v_defcli),
;  227          0321  1         uplit (%ascic 'LOCKPWD'),       $bitposition (uaf$v_lockpwd),
;  228          0322  1         uplit (%ascic 'CAPTIVE'),       $bitposition (uaf$v_captive),
;  229          0323  1         uplit (%ascic 'DISUSER'),       $bitposition (uaf$v_disacnt),
```

```
;  230     0324  1          uplit (%asci 'DISWELCOME'),    $bitposition (uaf$v_diswelcom),
;  231     0325  1          uplit (%asci 'DISNEWMAIL'),    $bitposition (uaf$v_dismail),
;  232     0326  1          uplit (%asci 'DISMAIL'),       $bitposition (uaf$v_nomail),
;  233     0327  1          uplit (%asci 'GENPWD'),        $bitposition (uaf$v_genpwd),
;  234     0328  1          uplit (%asci 'PWD_EXPIRED'),   $bitposition (uaf$v_pwd_expired),
;  235     0329  1          uplit (%asci 'PWD2_EXPIRED'),  $bitposition (uaf$v_pwd2_expired),
;  236     0330  1          uplit (%asci 'AUDIT'),         $bitposition (uaf$v_audit),
;  237     0331  1          uplit (%asci 'DISREPORT'),     $bitposition (uaf$v_disreport)
;  238     0332  1 ),
;  239     0333  1 !
;  240     0334  1 ! The definition table for flag bits for UAF$B_PDAYFLAGS and  UAF$B_SDAYFLAGS.
;  241     0335  1 !
;  242     0336  1     opflag_table : vector [2 * num_opflags + 1, long] initial (
;  243     0337  1          2 * num_opflags,
;  244     0338  1          uplit (%asci 'DISDIALUP'),     uaf$k_disdialup,
;  245     0339  1          uplit (%asci 'DISNETWORK'),    uaf$k_disnetwork        ! Disneyworld ??
;  246     0340  1 ),
;  247     0341  1 !
;  248     0342  1 ! The definition table for flag bits for UAF$B_PRIMEDAYS.
;  249     0343  1 !
;  250     0344  1     pdflag_table : vector [2 * num_pdflags + 1, long] initial (
;  251     0345  1          2 * num_pdflags,
;  252     0346  1          uplit (%asci 'MONDAY'),        $bitposition (uaf$v_monday),
;  253     0347  1          uplit (%asci 'TUESDAY'),       $bitposition (uaf$v_tuesday),
;  254     0348  1          uplit (%asci 'WEDNESDAY'),     $bitposition (uaf$v_wednesday),
;  255     0349  1          uplit (%asci 'THURSDAY'),      $bitposition (uaf$v_thursday),
;  256     0350  1          uplit (%asci 'FRIDAY'),        $bitposition (uaf$v_friday),
;  257     0351  1          uplit (%asci 'SATURDAY'),      $bitposition (uaf$v_saturday),
;  258     0352  1          uplit (%asci 'SUNDAY'),        $bitposition (uaf$v_sunday)
;  259     0353  1 );
;  260     0354  1
;  261     0355  1
;  262     0356  1 !
;  263     0357  1 ! EQUATED SYMBOLS:
;  264     0358  1 !
;  265     0359  1
;  266     0360  1 literal
;  267     0361  1          false              = 0,           ! logical false
;  268     0362  1          true               = 1,           ! logical true
;  269     0363  1
;  270     0364  1          network_access     = 1^0,         ! mask representing /NETWORK_ACCESS
;  271     0365  1          batch_access       = 1^1,         ! mask representing /BATCH_ACCESS
;  272     0366  1          local_access       = 1^2,         ! mask representing /LOCAL_ACCESS
;  273     0367  1          dialup_access      = 1^3,         ! mask representing /DIALUP_ACCESS
;  274     0368  1          remote_access      = 1^4,         ! mask representing /REMOTE_ACCESS
;  275     0369  1          interactive_access =              ! mask representing /INTERACTIVE_ACCESS
;  276     0370  1                               local_access or dialup_access or remote_access,
;  277     0371  1          access_access      =              ! mask representing /ACCESS
;  278     0372  1                               interactive_access or network_access or batch_access,
;  279     0373  1
;  280     0374  1          byte_length        = 8,           ! bits per byte
;  281     0375  1          word_length        = 16,          ! bits per word
;  282     0376  1          word_unsigned_length
;  283     0377  1                             = 17,          ! for WS info
;  284     0378  1          long_length        = 32,          ! bits per longword
;  285     0379  1
;  286     0380  1
```

```
;  287     0381  1          blank           = ' ',          !  delimiters
;  288     0382  1          colon           = ':',
;  289     0383  1          comma           = ',',
;  290     0384  1          cr              = 13,
;  291     0385  1          equals          = '=',
;  292     0386  1          lf              = 10,
;  293     0387  1          lparen          = '(',
;  294     0388  1          rparen          = ')',
;  295     0389  1          slash           = '/',
;  296     0390  1          tab             = '    ',
;  297     0391  1          zero            = 0,
;  298     0392  1
;  299     0393  1          counted_string  = 1,            ! counted string type indicator
;  300     0394  1          filled_string   = 2;            ! filled string type indicator
;  301     0395  1
;  302     0396  1 own
;  303     0397  1          status,
;  304     0398  1          cli_status,
;  305     0399  1
;  306     0400  1          tparse_block    : block [tpa$c_length0, byte]
;  307     0401  1                            preset ([tpa$l_count]   = tpa$k_count0,
;  308     0402  1                                    [tpa$l_options] = tpa$m_abbrev),
;  309     0403  1          converted_uic,
;  310     0404  1          address,
;  311     0405  1          left_bit,
;  312     0406  1          right_bit,
;  313     0407  1          primary_access  : bitvector [32],
;  314     0408  1          secondary_access: bitvector [32],
;  315     0409  1          no_flag         : initial (false),
;  316     0410  1          primary         : initial (false),
;  317     0411  1          secondary       : initial (false);
;  318     0412  1
;  319     0413  1 !
;  320     0414  1 ! ASCII numbers from '0' through hex 'F'
;  321     0415  1 !
;  322     0416  1
;  323     0417  1 bind
;  324     0418  1          numbers         = uplit byte ('0123456789ABCDEF'),
;  325     0419  1
;  326     0420  1 !
;  327     0421  1 ! 'NO' prefix descriptor for negating privileges
;  328     0422  1 !
;  329     0423  1          no_dsc          = $descriptor ('NO') : vector;
;  330     0424  1
;  331     0425  1 !
;  332     0426  1 !        External messages
;  333     0427  1 !
;  334     0428  1
;  335     0429  1 external routine
;  336     0430  1
;  337     0431  1    LIB$SIGNAL: addressing_mode(general);
;  338     0432  1
;  339     0433  1 external literal
;  340     0434  1
;  341     0435  1    UAF$_BADVALUE,       UAF$_EXTRAPARM,       UAF$_INVDEV,
;  342     0436  1    UAF$_INVSTR,         UAF$_INVUSERSPEC,     UAF$_KEYNOTFND,
;  343     0437  1    UAF$_NAMETOOBIG,     UAF$_NOARG,           UAF$_NOQUOTE,
```

```
;  344     0438  1     UAF$_NOUSERSPEC,     UAF$_PRVNOTFND,          UAF$_PRVNOTUNQ,
;  345     0439  1     UAF$_PWDSYNTAX,      UAF$_PWDNCH,             UAF$_PWDNOL,
;  346     0440  1     UAF$_UICERR,         UAF$_VALTOOBIG,          UAF$_ZCONFLICT;
;  347     0441  1
;  348     0442  1
;  349     0443  1 !
;  350     0444  1 ! EXTERNAL REFERENCES:
;  351     0445  1 !
;  352     0446  1
;  353     0447  1
;  354     0448  1 external literal
;  355     0449  1
;  356     0450  1         encrypt,                        ! encryption algorithm to use
;  357     0451  1
;  358     0452  1         lib$_ambkey,                    ! status for ambiguous keyword
;  359     0453  1         lib$_unrkey,                    ! status for unrecognized keyword
;  360     0454  1
;  361     0455  1         cli$_abkeyw,                    ! message symbol for "ambiguous keyword"
;  362     0456  1         cli$_ivkeyw,                    ! message symbol for "unrecognized keyword"
;  363     0457  1         cli$_negated,                   ! qualifier explicitly negated
;  364     0458  1         CLI$_ABSENT,                    ! Qualifier not given
;  365     0459  1         prv$_notunq,
;  366     0460  1         prv$_invnam;
;  367     0461  1
;  368     0462  1 external                                ! Global storage from UAFMAIN
;  369     0463  1         uaf$gl_ctlmsk   : block,
;  370     0464  1         authorize_commands : addressing_mode ( general ),
;  371     0465  1         cmdlindsc       : block [,byte],
;  372     0466  1         call_count,
;  373     0467  1         symbol_str,                     ! Symbolic character set
;  374     0468  1         match_tokenlen,
;  375     0469  1         match_token,
;  376     0470  1         tokendsc        : block [,byte],
;  377     0471  1         tokenlen        : word,         ! Bound to TOKENDSC[DSC$W_LENGTH]
;  378     0472  1         tokenptr,                       ! Bound to TOKENDSC[DSC$A_POINTER]
;  379     0473  1         uic_flag,                       ! Wildcard parsing flags
;  380     0474  1         grp_wild,
;  381     0475  1         mem_wild,
;  382     0476  1         str_wild,
;  383     0477  1
;  384     0478  1         time_buf        : block [,byte], ! Buffer to receive current system time
;  385     0479  1         pwd_flag,                       ! User did not supply password flag
;  386     0480  1         recbuf          : block [,byte]; ! The current UAF record
;  387     0481  1
;  388     0482  1 !
;  389     0483  1 ! TPARSE state table to parse /<access> qualifiers
;  390     0484  1 !
;  391     0485  1
;  392     0486  1 $init_state (access_states, access_keys);
;  393     0487  1
;  394   P 0488  1 $state   (,
;  395   P 0489  1          ('PRIMARY', terminal, check_primary, true, primary),
;  396   P 0490  1          ('SECONDARY', terminal, check_secondary, true, secondary),
;  397   P 0491  1          (tpa$_decimal,,,, right_bit)
;  398     0492  1         );
;  399     0493  1
;  400   P 0494  1 $state   (,
```

```
;  401        P 0495  1            ('-'),
;  402        P 0496  1            (tpa$_eos, tpa$_exit, set_range)
;  403          0497  1           );
;  404          0498  1
;  405        P 0499  1 $state     (,
;  406        P 0500  1            (tpa$_decimal,, set_range)
;  407          0501  1           );
;  408          0502  1
;  409        P 0503  1 $state     (terminal,
;  410        P 0504  1            (tpa$_eos, tpa$_exit)
;  411          0505  1           );
;  412          0506  1
;  413          0507  1 !
;  414          0508  1 ! TPARSE state table for old /P_RESTRICT and /S_RESTRICT qualifiers.
;  415          0509  1 !
;  416          0510  1
;  417          0511  1 $init_state (restrict_states, restrict_keys);
;  418          0512  1
;  419        P 0513  1 $state     (,
;  420        P 0514  1            (tpa$_decimal,,,, right_bit)
;  421          0515  1           );
;  422          0516  1
;  423        P 0517  1 $state     (,
;  424        P 0518  1            ('_'),
;  425        P 0519  1            (tpa$_eos, tpa$_exit, set_range)
;  426          0520  1           );
;  427          0521  1
;  428        P 0522  1 $state     (,
;  429        P 0523  1            (tpa$_decimal,, set_range)
;  430          0524  1           );
;  431          0525  1
;  432        P 0526  1 $state     (,
;  433        P 0527  1            (tpa$_eos, tpa$_exit)
;  434          0528  1           );
;  435          0529  1
;  436          0530  1 !
;  437          0531  1 ! TPARSE state table for UIC spec
;  438          0532  1 !
;  439          0533  1
;  440          0534  1 $init_state (uic_states, uic_keys);
;  441          0535  1
;  442        P 0536  1 $state     (,
;  443        P 0537  1            (tpa$_ident, tpa$_exit,,, converted_uic)
;  444          0538  1           );
;  445          0539  1
;  446          0540  1 !
;  447          0541  1 ! TPARSE state table for directory string
;  448          0542  1 !
;  449          0543  1
;  450          0544  1 $init_state (dir_states, dir_keys);
;  451          0545  1
;  452        P 0546  1 $state     (,
;  453        P 0547  1            ( (ufd), end_state),
;  454        P 0548  1            ( (subdir), end_state),
;  455        P 0549  1            ('['),
;  456        P 0550  1            ('<')
;  457          0551  1           );
```

```
;  458          0552  1
;  459        P 0553  1 $state   (,
;  460        P 0554  1           ( (ufd)),
;  461        P 0555  1           ( (subdir))
;  462          0556  1          );
;  463          0557  1
;  464        P 0558  1 $state   (,
;  465        P 0559  1           (']'),
;  466        P 0560  1           ('>')
;  467          0561  1          );
;  468          0562  1
;  469        P 0563  1 $state   (end_state,
;  470        P 0564  1           (tpa$_eos, tpa$_exit)
;  471          0565  1          );
;  472          0566  1
;  473        P 0567  1 $state   (ufd,
;  474        P 0568  1           (tpa$_octal,, checkvalue)
;  475          0569  1          );
;  476          0570  1
;  477        P 0571  1 $state   (,
;  478        P 0572  1           (',')
;  479          0573  1          );
;  480          0574  1
;  481        P 0575  1 $state   (,
;  482        P 0576  1           (tpa$_octal, tpa$_exit, checkvalue)
;  483          0577  1          );
;  484          0578  1
;  485        P 0579  1 $state   (subdir,
;  486        P 0580  1           (tpa$_symbol,, checklength)
;  487          0581  1          );
;  488          0582  1
;  489        P 0583  1 $state   (,
;  490        P 0584  1           ('.',subdir),
;  491        P 0585  1           (tpa$_lambda,tpa$_exit)
;  492          0586  1          );
```

```
;  494          0587  1 %sbttl 'update_record - modify all specified fields'
;  495          0588  1 global routine update_record =
;  496          0589  2 begin
;  497          0590  2
;  498          0591  2 !++
;  499          0592  2 !
;  500          0593  2 ! FUNCTIONAL DESCRIPTION:
;  501          0594  2 !
;  502          0595  2 !       Scan the remainder of the user's input command line for parameters
;  503          0596  2 !       and parameter values.  Pull off each parameter keyword and check
;  504          0597  2 !       that it is valid, then call the associated routine to process
;  505          0598  2 !       the supplied value or string.
;  506          0599  2 !
;  507          0600  2 ! INPUTS:
;  508          0601  2 !
;  509          0602  2 !       none
;  510          0603  2 !
;  511          0604  2 ! IMPLICIT INPUTS:
;  512          0605  2 !
;  513          0606  2 !
;  514          0607  2 ! OUTPUTS:
;  515          0608  2 !
;  516          0609  2 !       none
;  517          0610  2 !
;  518          0611  2 ! IMPLICIT OUTPUTS:
;  519          0612  2 !
;  520          0613  2 !       none
;  521          0614  2 !
;  522          0615  2 ! ROUTINE VALUE:
;  523          0616  2 !
;  524          0617  2 !       true -> all keywords and parameters were specified correctly
;  525          0618  2 !
;  526          0619  2 ! SIDE EFFECTS:
;  527          0620  2 !
;  528          0621  2 !       none
;  529          0622  2 !--
;  530          0623  2 status = false;
;  531          0624  2 primary = false;
;  532          0625  2 secondary = false;
;  533          0626  2 no_flag = false;
;  534          0627  2
;  535          0628  2 !
;  536          0629  2 ! If this is part of a series of calls from WILD_USER, the command
;  537          0630  2 !    line must be reparsed after the first call
;  538          0631  2 !
;  539          0632  2 if .call_count neq 0
;  540          0633  2 then
;  541          0634  2     cli$dcl_parse (cmdlindsc, authorize_commands);
;  542          0635  2
;  543          0636  2
;  544          0637  2 if CLI$PRESENT(%ascid'GENERATE_PASSWORD')
;  545          0638  2 and (CLI$PRESENT(SD_PASSWORD) neq CLI$_ABSENT) then
;  546          0639  3    begin
;  547          0640  3
;  548          0641  3       LIB$SIGNAL(UAF$_ZCONFLICT);
;  549          0642  3
;  550          0643  3    end
```

```
;  551          0644  2 else if CLI$PRESENT(%ascid'GENERATE_PASSWORD')
;  552          0645  2 or (CLI$PRESENT(SD_PASSWORD) neq CLI$_ABSENT) then
;  553          0646  3    begin
;  554          0647  3
;  555          0648  3       if CLI$PRESENT(%ascid'GENERATE_PASSWORD') then
;  556          0649  3          UAF$GENERATE();
;  557          0650  3       if not GETPASSWORD() then
;  558          0651  3          return FALSE;
;  559          0652  3       RECBUF[UAF$V_PWD_EXPIRED] = FALSE;
;  560          0653  3       STATUS = TRUE;
;  561          0654  3
;  562          0655  3    end;
;  563          0656  2
;  564          0657  2
;  565          0658  2 if .uaf$gl_ctlmsk[uaf$v_rename]
;  566          0659  2 then
;  567          0660  2     return true;
;  568          0661  2
;  569          0662  2 !
;  570          0663  2 ! Check that we're not at the end of the command line. Continue
;  571          0664  2 ! processing parameters until the end is reached.
;  572          0665  2 !
;  573          0666  2
;  574          0667  2 cli_status = cli$present (sd_access);
;  575          0668  2 if .cli_status
;  576          0669  2 or .cli_status eql cli$_negated
;  577          0670  2 then
;  578          0671  3     begin
;  579          0672  3     if not getaccess (sd_access, access_access, .cli_status)
;               0673  3     then return false;
;  581          0674  3     status = true;
;  582          0675  2     end;
;  583          0676  2
;  584          0677  2 cli_status = cli$present (sd_interactive);
;  585          0678  2 if .cli_status
;  586          0679  2 or .cli_status eql cli$_negated
;  587          0680  2 then
;  588          0681  3     begin
;  589          0682  3     if not getaccess (sd_interactive, interactive_access, .cli_status)
;  590          0683  3     then return false;
;  591          0684  3     status = true;
;  592          0685  2     end;
;  593          0686  2
;  594          0687  2 cli_status = cli$present (sd_batch);
;  595          0688  2 if .cli_status
;  596          0689  2 or .cli_status eql cli$_negated
;  597          0690  2 then
;  598          0691  3     begin
;  599          0692  3     if not getaccess (sd_batch, batch_access, .cli_status)
;  600          0693  3     then return false;
;  601          0694  3     status = true;
;  602          0695  2     end;
;  603          0696  2
;  604          0697  2 cli_status = cli$present (sd_dialup);
;  605          0698  2 if .cli_status
;  606          0699  2 or .cli_status eql cli$_negated
;  607          0700  2 then
```

```
;  608          0701  3      begin
;  609          0702  3      if not getaccess (sd_dialup, dialup_access, .cli_status)
;  610          0703  3      then return false;
;  611          0704  3      status = true;
;  612          0705  2      end;
;  613          0706  2
;  614          0707  2  cli_status = cli$present (sd_network);
;  615          0708  2  if .cli_status
;  616          0709  2  or .cli_status eql cli$_negated
;  617          0710  2  then
;  618          0711  3      begin
;  619          0712  3      if not getaccess (sd_network, network_access, .cli_status)
;  620          0713  3      then return false;
;  621          0714  3      status = true;
;  622          0715  2      end;
;  623          0716  2
;  624          0717  2  cli_status = cli$present (sd_local);
;  625          0718  2  if .cli_status
;  626          0719  2  or .cli_status eql cli$_negated
;  627          0720  2  then
;  628          0721  3      begin
;  629          0722  3      if not getaccess (sd_local, local_access, .cli_status)
;  630          0723  3      then return false;
;  631          0724  3      status = true;
;  632          0725  2      end;
;  633          0726  2
;  634          0727  2  cli_status = cli$present (sd_remote);
;  635          0728  2  if .cli_status
;  636          0729  2  or .cli_status eql cli$_negated
;  637          0730  2  then
;  638          0731  3      begin
;  639          0732  3      if not getaccess (sd_remote, remote_access, .cli_status)
;  640          0733  3      then return false;
;  641          0734  3      status = true;
;  642          0735  2      end;
;  643          0736  2
;  644          0737  2  if cli$present (sd_account)
;  645          0738  2  then
;  646          0739  3      begin
;  647          0740  3      cli$get_value (sd_account, tokendsc);
;  648          0741  3  !***     if not getstring (recbuf[uaf$t_account], uaf$s_account, filled_string)
;  649          0742  3      if not getstring (recbuf[uaf$t_account], 8, filled_string)
;  650          0743  3      then return false;
;  651          0744  3      status = true;
;  652          0745  2      end;
;  653          0746  2
;  654          0747  2  if cli$present (sd_astlm)
;  655          0748  2  then
;  656          0749  3      begin
;  657          0750  3      cli$get_value (sd_astlm, tokendsc);
;  658          0751  3      if not getval (recbuf[uaf$w_astlm], word_length)
;  659          0752  3      then return false;
;  660          0753  3      status = true;
;  661          0754  2      end;
;  662          0755  2
;  663          0756  2  if cli$present (sd_biolm)
;  664          0757  2  then
```

```
;  665          0758  3      begin
;  666          0759  3      cli$get_value (sd_biolm, tokendsc);
;  667          0760  3      if not getval (recbuf[uaf$w_biolm], word_length)
;  668          0761  3      then return false;
;  669          0762  3      status = true;
;  670          0763  2      end;
;  671          0764  2
;  672          0765  2  if cli$present (sd_bytlm)
;  673          0766  2  then
;  674          0767  3      begin
;  675          0768  3      cli$get_value (sd_bytlm, tokendsc);
;  676          0769  3      if not getval (recbuf[uaf$l_bytlm], long_length)
;  677          0770  3      then return false;
;  678          0771  3      status = true;
;  679          0772  2      end;
;  680          0773  2
;  681          0774  2  if cli$present (sd_cli)
;  682          0775  2  then
;  683          0776  3      begin
;  684          0777  3      cli$get_value (sd_cli, tokendsc);
;  685          0778  3      if not getstring (recbuf[uaf$t_defcli], uaf$s_defcli, counted_string)
;  686          0779  3      then return false;
;  687          0780  3      uaf$gl_ctlmsk[uaf$v_clitab_pres] =
;  688          0781  3          (.vector [recbuf[uaf$t_clitables], 0; ,byte] neq 0);
;  689          0782  3      uaf$gl_ctlmsk[uaf$v_cli] = true;
;  690          0783  3      status = true;
;  691          0784  2      end;
;  692          0785  2
;  693          0786  2  if cli$present (sd_clitables)
;  694          0787  2  then
;  695          0788  3      begin
;  696          0789  3      cli$get_value (sd_clitables, tokendsc);
;  697          0790  3      if not getstring (recbuf[uaf$t_clitables], uaf$s_clitables, counted_string)
;  698          0791  3      then return false;
;  699          0792  3      uaf$gl_ctlmsk[uaf$v_clitables] = true;
;  700          0793  3      status = true;
;  701          0794  2      end;
;  702          0795  2
;  703          0796  2  if cli$present (sd_cputime)
;  704          0797  2  then
;  705          0798  3      begin
;  706          0799  3      cli$get_value (sd_cputime, tokendsc);
;  707          0800  3      if not getcputim ()
;  708          0801  3      then return false;
;  709          0802  3      status = true;
;  710          0803  2      end;
;  711          0804  2
;  712          0805  2  if cli$present (sd_defprivileges)
;  713          0806  2  then
;  714          0807  3      begin
;  715          0808  3      if not getpriv (sd_defprivileges, recbuf[uaf$q_def_priv])
;  716          0809  3      then return false;
;  717          0810  3      status = true;
;  718          0811  2      end;
;  719          0812  2
;  720          0813  2  if cli$present (sd_device)
;  721          0814  2  then
```

```
;  722          0815  3      begin
;  723          0816  3      cli$get_value (sd_device, tokendsc);
;  724          0817  3      if not getdevice ()
;  725          0818  3      then return false;
;  726          0819  3      status = true;
;  727          0820  2      end;
;  728          0821  2
;  729          0822  2  if cli$present (sd_diolm)
;  730          0823  2  then
;  731          0824  3      begin
;  732          0825  3      cli$get_value (sd_diolm, tokendsc);
;  733          0826  3      if not getval (recbuf[uaf$w_diolm], word_length)
;  734          0827  3      then return false;
;  735          0828  3      status = true;
;  736          0829  2      end;
;  737          0830  2
;  738          0831  2  if cli$present (sd_directory)
;  739          0832  2  then
;  740          0833  3      begin
;  741          0834  3      cli$get_value (sd_directory, tokendsc);
;  742          0835  3      if not getdirectory ()
;  743          0836  3      then return false;
;  744          0837  3      status = true;
;  745          0838  2      end;
;  746          0839  2
;  747          0840  2  if cli$present (sd_enqlm)
;  748          0841  2  then
;  749          0842  3      begin
;  750          0843  3      cli$get_value (sd_enqlm, tokendsc);
;  751          0844  3      if not getval (recbuf[uaf$w_enqlm], word_length)
;  752          0845  3      then return false;
;  753          0846  3      status = true;
;  754          0847  2      end;
;  755          0848  2
;  756          0849  2  cli_status = cli$present (sd_expiration) ;
;  757          0850  2  if .cli_status eql cli$_negated
;  758          0851  2  then
;  759          0852  3      begin
;  760          0853  3      ch$fill ( 0, uaf$s_expiration, recbuf[uaf$q_expiration] ) ;
;  761          0854  3      status = true ;
;  762          0855  3      end
;  763          0856  2  else
;  764          0857  2      if .cli_status
;  765          0858  2      then
;  766          0859  3          begin
;  767          0860  3          cli$get_value (sd_expiration, tokendsc);
;  768          0861  4          if not (status = lib$cvt_time (tokendsc, recbuf[uaf$q_expiration]))
;  769          0862  3          then
;  770          0863  4              begin
;  771          0864  4              signal (.status);
;  772          0865  4              return false;
;  773          0866  3              end;
;  774          0867  3          status = true;
;  775          0868  2          end;
;  776          0869  2
;  777          0870  2  if cli$present (sd_fillm)
;  778          0871  2  then
```

```
;   779          0872  3      begin
;   780          0873  3      cli$get_value (sd_fillm, tokendsc);
;   781          0874  3      if not getval (recbuf[uaf$w_fillm], word_length)
;   782          0875  3      then return false;
;   783          0876  3      status = true;
;   784          0877  2      end;
;   785          0878  2
;   786          0879  2  if cli$present (sd_flags)
;   787          0880  2  then
;   788          0881  3      begin
;   789          0882  3      if not getflags ()
;   790          0883  3      then return false;
;   791          0884  3      status = true;
;   792          0885  2      end;
;   793          0886  2
;   794          0887  2  if cli$present (sd_jtquota)
;   795          0888  2  then
;   796          0889  3      begin
;   797          0890  3      cli$get_value (sd_jtquota, tokendsc);
;   798          0891  3      if not getval (recbuf[uaf$l_jtquota], long_length)
;   799          0892  3      then return false;
;   800          0893  3      status = true;
;   801          0894  2      end;
;   802          0895  2
;   803          0896  2  if cli$present (sd_lgicmd)
;   804          0897  2  then
;   805          0898  3      begin
;   806          0899  3      cli$get_value (sd_lgicmd, tokendsc);
;   807          0900  3      if not getstring (recbuf[uaf$t_lgicmd], uaf$s_lgicmd, counted_string)
;   808          0901  3      then return false;
;   809          0902  3      status = true;
;   810          0903  2      end;
;   811          0904  2
;   812          0905  2  if cli$present (sd_maxjobs)
;   813          0906  2  then
;   814          0907  3      begin
;   815          0908  3      cli$get_value (sd_maxjobs, tokendsc);
;   816          0909  3      if not getval (recbuf[uaf$w_maxjobs], word_length)
;   817          0910  3      then return false;
;   818          0911  3      status = true;
;   819          0912  2      end;
;   820          0913  2
;   821          0914  2  if cli$present (sd_maxacctjobs)
;   822          0915  2  then
;   823          0916  3      begin
;   824          0917  3      cli$get_value (sd_maxacctjobs, tokendsc);
;   825          0918  3      if not getval (recbuf[uaf$w_maxacctjobs], word_length)
;   826          0919  3      then return false;
;   827          0920  3      status = true;
;   828          0921  2      end;
;   829          0922  2
;   830          0923  2  if cli$present (sd_maxdetach)
;   831          0924  2  then
;   832          0925  3      begin
;   833          0926  3      cli$get_value (sd_maxdetach, tokendsc);
;   834          0927  3      if not getval (recbuf[uaf$w_maxdetach], word_length)
;   835          0928  3      then return false;
```

```
;   836          0929  3     status = true;
;   837          0930  2     end;
;   838          0931  2
;   839          0932  2 if cli$present (sd_owner)
;   840          0933  2 then
;   841          0934  3     begin
;   842          0935  3     cli$get_value (sd_owner, tokendsc);
;   843          0936  3     if not getstring (recbuf[uaf$t_owner], uaf$s_owner, counted_string)
;   844          0937  3     then return false;
;   845          0938  3     status = true;
;   846          0939  2     end;
;   847          0940  2
;   848          0941  2 if cli$present (sd_pbytlm)
;   849          0942  2 then
;   850          0943  3     begin
;   851          0944  3     cli$get_value (sd_pbytlm, tokendsc);
;   852          0945  3     if not getval (recbuf[uaf$l_pbytlm], long_length)
;   853          0946  3     then return false;
;   854          0947  3     status = true;
;   855          0948  2     end;
;   856          0949  2
;   857          0950  2 if cli$present (sd_pgflquota)
;   858          0951  2 then
;   859          0952  3     begin
;   860          0953  3     cli$get_value (sd_pgflquota, tokendsc);
;   861          0954  3     if not getval (recbuf[uaf$l_pgflquota], 3 * byte_length)
;   862          0955  3     then return false;
;   863          0956  3     status = true;
;   864          0957  2     end;
;   865          0958  2
;   866          0959  2 if cli$present (sd_p_restrict)
;   867          0960  2 then
;   868          0961  3     begin
;   869          0962  3     if not getrestrict (sd_p_restrict)
;   870          0963  3     then return false;
;   871          0964  3     status = true;
;   872          0965  2     end;
;   873          0966  2
;   874          0967  2 if cli$present (sd_s_restrict)
;   875          0968  2 then
;   876          0969  3     begin
;   877          0970  3     secondary = true;
;   878          0971  3     if not getrestrict (sd_s_restrict)
;   879          0972  3     then return false;
;   880          0973  3     status = true;
;   881          0974  2     end;
;   882          0975  2
;   883          0976  2 if cli$present (sd_pflags)
;   884          0977  2 then
;   885          0978  3     begin
;   886          0979  3     primary = true;
;   887          0980  3     if not getpflags (sd_pflags)
;   888          0981  3     then return false;
;   889          0982  3     status = true;
;   890          0983  2     end;
;   891          0984  2
;   892          0985  2 if cli$present (sd_sflags)
```

```
;  893          0986  2 then
;  894          0987  3     begin
;  895          0988  3     if not getpflags (sd_sflags)
;  896          0989  3     then return false;
;  897          0990  3     status = true;
;  898          0991  2     end;
;  899          0992  2
;  900          0993  2 if cli$present (sd_prclm)
;  901          0994  2 then
;  902          0995  3     begin
;  903          0996  3     cli$get_value (sd_prclm, tokendsc);
;  904          0997  3     if not getval (recbuf[uaf$w_prccnt], word_length)
;  905          0998  3     then return false;
;  906          0999  3     status = true;
;  907          1000  2     end;
;  908          1001  2
;  909          1002  2 if cli$present (sd_primedays)
;  910          1003  2 then
;  911          1004  3     begin
;  912          1005  3     if not getprimedays ()
;  913          1006  3     then return false;
;  914          1007  3     status = true;
;  915          1008  2     end;
;  916          1009  2
;  917          1010  2 if cli$present (sd_priority)
;  918          1011  2 then
;  919          1012  3     begin
;  920          1013  3     cli$get_value (sd_priority, tokendsc);
;  921          1014  3     if not getval (recbuf[uaf$b_pri], byte_length)
;  922          1015  3     then return false;
;  923          1016  3     status = true;
;  924          1017  2     end;
;  925          1018  2
;  926          1019  2 if cli$present (sd_privileges)
;  927          1020  2 then
;  928          1021  3     begin
;  929          1022  3     if not getpriv (sd_privileges, recbuf[uaf$q_priv])
;  930          1023  3     then return false;
;  931          1024  3     status = true;
;  932          1025  2     end;
;  933          1026  2
;  934          1027  2 CLI_STATUS = CLI$PRESENT(%ascid'PWDEXPIRED');
;  935          1028  2 if .CLI_STATUS eql CLI$_NEGATED then
;  936          1029  3    begin
;  937          1030  3       local TIME: long;
;  938          1031  3       TIME = RECBUF[UAF$Q_PWD_DATE];
;  939          1032  3       .TIME = 0; (.TIME+%upval) = 0;
;  940          1033  3       RECBUF[UAF$V_PWD_EXPIRED] = FALSE;
;  941          1034  3       STATUS = TRUE;
;  942          1035  3    end
;  943          1036  2 else if .CLI_STATUS then
;  944          1037  3    begin
;  945          1038  3       local TIME: long;
;  946          1039  3       TIME = RECBUF[UAF$Q_PWD_DATE];
;  947          1040  3       .TIME = -1; (.TIME+%upval) = -1;
;  948          1041  3       RECBUF[UAF$V_PWD_EXPIRED] = FALSE;
;  949          1042  3       STATUS = TRUE;
```

```
;  950          1043  2    end;
;  951          1044  2
;  952          1045  2 cli_status = cli$present (sd_pwdlifetime) ;
;  953          1046  2 if .cli_status eql cli$_negated
;  954          1047  2 then
;  955          1048  3     begin
;  956          1049  3     ch$fill ( 0, uaf$s_pwd_lifetime, recbuf[uaf$q_pwd_lifetime] ) ;
;  957          1050  3     RECBUF[UAF$V_PWD_EXPIRED] = FALSE;
;  958          1051  3     status = true ;
;  959          1052  3     end
;  960          1053  2 else
;  961          1054  2     if .cli_status
;  962          1055  2     then
;  963          1056  3         begin
;  964          1057  3         cli$get_value (sd_pwdlifetime, tokendsc);
;  965          1058  3         if ch$eql(.tokendsc[dsc$w_length], .tokendsc[dsc$a_pointer],
;  966          1059  3               4, uplit(%ascii'NONE') ) then
;  967          1060  4            begin
;  968          1061  4               ch$fill(0, uaf$s_pwd_lifetime, recbuf[uaf$q_pwd_lifetime] );
;  969          1062  4               status = true;
;  970          1063  4            end
;  971          1064  3         else
;  972          1065  4         if not (status = lib$cvt_dtime (tokendsc, recbuf[uaf$q_pwd_lifetime]))
;  973          1066  3         then
;  974          1067  4             begin
;  975          1068  4             signal (.status);
;  976          1069  4             return false;
;  977          1070  3             end;
;  978          1071  3         RECBUF[UAF$V_PWD_EXPIRED] = FALSE;
;  979          1072  3         status = true;
;  980          1073  2         end;
;  981          1074  2
;  982          1075  2 if cli$present (sd_pwdminimum)
;  983          1076  2 then
;  984          1077  3     begin
;  985          1078  3     cli$get_value (sd_pwdminimum, tokendsc);
;  986          1079  3     if not getval (recbuf[uaf$b_pwd_length], byte_length)
;  987          1080  3     then return false;
;  988          1081  3     status = true;
;  989          1082  2     end;
;  990          1083  2
;  991          1084  2 if cli$present (sd_quepriority)
;  992          1085  2 then
;  993          1086  3     begin
;  994          1087  3     cli$get_value (sd_quepriority, tokendsc);
;  995          1088  3     if not getval (recbuf[uaf$b_quepri], byte_length)
;  996          1089  3     then return false;
;  997          1090  3     status = true;
;  998          1091  2     end;
;  999          1092  2
; 1000          1093  2 if cli$present (sd_shrfillm)
; 1001          1094  2 then
; 1002          1095  3     begin
; 1003          1096  3     cli$get_value (sd_shrfillm, tokendsc);
; 1004          1097  3     if not getval (recbuf[uaf$w_shrfillm], word_length)
; 1005          1098  3     then return false;
; 1006          1099  3     status = true;
```

```
;  1007          1100  2     end;
;  1008          1101  2
;  1009          1102  2 if cli$present (sd_tqelm)
;  1010          1103  2 then
;  1011          1104  3     begin
;  1012          1105  3     cli$get_value (sd_tqelm, tokendsc);
;  1013          1106  3     if not getval (recbuf[uaf$w_tqcnt], word_length)
;  1014          1107  3     then return false;
;  1015          1108  3     status = true;
;  1016          1109  2     end;
;  1017          1110  2
;  1018          1111  2 if cli$present (sd_uic)
;  1019          1112  2 then
;  1020          1113  3     begin
;  1021          1114  3     cli$get_value (sd_uic, tokendsc);
;  1022          1115  3     if not getuic ()
;  1023          1116  3     then return false;
;  1024          1117  3     status = true;
;  1025          1118  2     end;
;  1026          1119  2
;  1027          1120  2 if cli$present (sd_wsdefault)
;  1028          1121  2 then
;  1029          1122  3     begin
;  1030          1123  3     cli$get_value (sd_wsdefault, tokendsc);
;  1031          1124  3     if not getval (recbuf[uaf$l_dfwscnt], word_unsigned_length)
;  1032          1125  3     then return false;
;  1033          1126  3     (recbuf[uaf$l_dfwscnt])<16, 16> = 0; !** temp until longword is supported
;  1034          1127  3     status = true;
;  1035          1128  2     end;
;  1036          1129  2
;  1037          1130  2 if cli$present (sd_wsextent)
;  1038          1131  2 then
;  1039          1132  3     begin
;  1040          1133  3     cli$get_value (sd_wsextent, tokendsc);
;  1041          1134  3     if not getval (recbuf[uaf$l_wsextent], word_unsigned_length)
;  1042          1135  3     then return false;
;  1043          1136  3     (recbuf[uaf$l_wsextent])<16, 16> = 0; !** temp until longword is supported
;  1044          1137  3     status = true;
;  1045          1138  2     end;
;  1046          1139  2
;  1047          1140  2 if cli$present (sd_wsquota)
;  1048          1141  2 then
;  1049          1142  3     begin
;  1050          1143  3     cli$get_value (sd_wsquota, tokendsc);
;  1051          1144  3     if not getval (recbuf[uaf$l_wsquota], word_unsigned_length)
;  1052          1145  3     then return false;
;  1053          1146  3     (recbuf[uaf$l_wsquota])<16, 16> = 0; !** temp until longword is supported
;  1054          1147  3     status = true;
;  1055          1148  2     end;
;  1056          1149  2
;  1057          1150  2 if .uaf$gl_ctlmsk[uaf$v_copy] or .uaf$gl_ctlmsk[uaf$v_add]
;  1058          1151  2 then
;  1059          1152  2     return true;
;  1060          1153  2
;  1061          1154  2 return .status;
;  1062          1155  1 end;
```

```
                                                        .TITLE  UAFPARSE
                                                        .IDENT  \V04-000\

                                                        .PSECT  _LIB$KEY1$,NOWRT,  SHR,  PIC,1

                                                00000 ;TPA$KEYSTO
                                                      U.2:      .BLKB   0
                                  59  52  41  4D  49  52  50  00000 ;TPA$KEYST
                                                      U.4:      .ASCII  \PRIMARY\                                       ;
                                                  FF  00007             .BYTE   -1                                      ;
                                                      00008 ;TPA$KEYSTO
                                                      U.11:     .BLKB   0
                              59  52  41  44  4E  4F  43  45  53  00008 ;TPA$KEYST
                                                      U.13:     .ASCII  \SECONDARY\                                     ;
                                                  FF  00011             .BYTE   -1                                      ;
                                                  FF  00012 ;TPA$KEYFILL
                                                      U.21:     .BYTE   -1                                      ;

                                                        .PSECT  _LIB$STATE$,NOWRT,  SHR,  PIC,1

                                                00000 ACCESS_STATES::
                                                        .BLKB   0
                                              F100  00000 ;TPA$TYPE
                                                      U.5:      .WORD   -3840                                   ;
                                         00000000V  00002 ;TPA$ACTION
                                                      U.6:      .LONG   <<CHECK_PRIMARY-U.6>-4>                 ;
                                         00000000*  00006 ;TPA$ADDR
                                                      U.7:      .LONG   <<PRIMARY-U.7>-4>                       ;
                                         00000001   0000A ;TPA$MASK
                                                      U.8:      .LONG   1                                       ;
                                             0000*  0000E ;TPA$TARGET
                                                      U.10:     .WORD   <<U.9-U.10>-2>                          ;
                                             F101   00010 ;TPA$TYPE
                                                      U.14:     .WORD   -3839                                   ;
                                         00000000V  00012 ;TPA$ACTION
                                                      U.15:     .LONG   <<CHECK_SECONDARY-U.15>-4>              ;
                                         00000000*  00016 ;TPA$ADDR
                                                      U.16:     .LONG   <<SECONDARY-U.16>-4>                    ;
                                         00000001   0001A ;TPA$MASK
                                                      U.17:     .LONG   1                                       ;
                                             0000*  0001E ;TPA$TARGET
                                                      U.18:     .WORD   <<U.9-U.18>-2>                          ;
                                             45F3   00020 ;TPA$TYPE
                                                      U.19:     .WORD   17907                                   ;
                                         00000000*  00022 ;TPA$ADDR
                                                      U.20:     .LONG   <<RIGHT_BIT-U.20>-4>                    ;
                                             002D   00026 ;TPA$TYPE
                                                      U.22:     .WORD   45                                      ;
                                             95F7   00028 ;TPA$TYPE
                                                      U.23:     .WORD   -27145                                  ;
                                         00000000V  0002A ;TPA$ACTION
                                                      U.24:     .LONG   <<SET_RANGE-U.24>-4>                    ;
                                             FFFF   0002E ;TPA$TARGET
                                                      U.25:     .WORD   -1                                      ;
                                             85F3   00030 ;TPA$TYPE
                                                      U.26:     .WORD   -31245                                  ;
```

```
                                00000000V 00032 ;TPA$ACTION
                                          U.27:    .LONG   <<SET_RANGE-U.27>-4>                    ;
                                          00036 ;TERMINAL
                                          U.9:     .BLKB   0
                                    15F7  00036 ;TPA$TYPE
                                          U.28:    .WORD   5623                                    ;
                                    FFFF  00038 ;TPA$TARGET
                                          U.29:    .WORD   -1                                      ;
                                          0003A            .BLKB   2
                                          0003C RESTRICT_STATES::
                                                           .BLKB   0
                                    45F3  0003C ;TPA$TYPE
                                          U.31:    .WORD   17907                                   ;
                                00000000* 0003E ;TPA$ADDR
                                          U.32:    .LONG   <<RIGHT_BIT-U.32>-4>                    ;
                                    002D  00042 ;TPA$TYPE
                                          U.33:    .WORD   45                                      ;
                                    95F7  00044 ;TPA$TYPE
                                          U.34:    .WORD   -27145                                  ;
                                00000000V 00046 ;TPA$ACTION
                                          U.35:    .LONG   <<SET_RANGE-U.35>-4>                    ;
                                    FFFF  0004A ;TPA$TARGET
                                          U.36:    .WORD   -1                                      ;
                                    85F3  0004C ;TPA$TYPE
                                          U.37:    .WORD   -31245                                  ;
                                00000000V 0004E ;TPA$ACTION
                                          U.38:    .LONG   <<SET_RANGE-U.38>-4>                    ;
                                    15F7  00052 ;TPA$TYPE
                                          U.39:    .WORD   5623                                    ;
                                    FFFF  00054 ;TPA$TARGET
                                          U.40:    .WORD   -1                                      ;
                                          00056            .BLKB   2
                                          00058 UIC_STATES::
                                                           .BLKB   0
                                    55EC  00058 ;TPA$TYPE
                                          U.42:    .WORD   21996                                   ;
                                00000000* 0005A ;TPA$ADDR
                                          U.43:    .LONG   <<CONVERTED_UIC-U.43>-4>                ;
                                    FFFF  0005E ;TPA$TARGET
                                          U.44:    .WORD   -1                                      ;
                                          00060 DIR_STATES::
                                                           .BLKB   0
                                    19F8  00060 ;TPA$TYPE
                                          U.46:    .WORD   6648                                    ;
                                    0000* 00062 ;TPA$SUBEXP
                                          U.48:    .WORD   <<U.47-U.48>-2>                         ;
                                    0000* 00064 ;TPA$TARGET
                                          U.50:    .WORD   <<U.49-U.50>-2>                         ;
                                    19F8  00066 ;TPA$TYPE
                                          U.51:    .WORD   6648                                    ;
                                    0000* 00068 ;TPA$SUBEXP
                                          U.53:    .WORD   <<U.52-U.53>-2>                         ;
                                    0000* 0006A ;TPA$TARGET
                                          U.54:    .WORD   <<U.49-U.54>-2>                         ;
                                    005B  0006C ;TPA$TYPE
                                          U.55:    .WORD   91                                      ;
                                    043C  0006E ;TPA$TYPE
```

```
                    U.56:   .WORD   1084                              ;
      09F8  00070 ;TPA$TYPE
                    U.57:   .WORD   2552                              ;
      0000* 00072 ;TPA$SUBEXP
                    U.58:   .WORD   <<U.47-U.58>-2>                   ;
      0DF8  00074 ;TPA$TYPE
                    U.59:   .WORD   3576                              ;
      0000* 00076 ;TPA$SUBEXP
                    U.60:   .WORD   <<U.52-U.60>-2>                   ;
      005D  00078 ;TPA$TYPE
                    U.61:   .WORD   93                                ;
      043E  0007A ;TPA$TYPE
                    U.62:   .WORD   1086                              ;
            0007C ;END_STATE
                    U.49:   .BLKB   0
      15F7  0007C ;TPA$TYPE
                    U.63:   .WORD   5623                              ;
      FFFF  0007E ;TPA$TARGET
                    U.64:   .WORD   -1                                ;
            00080 ;UFD
                    U.47:   .BLKB   0
      85F4  00080 ;TPA$TYPE
                    U.65:   .WORD   -31244                            ;
 00000000V  00082 ;TPA$ACTION
                    U.66:   .LONG   <<CHECKVALUE-U.66>-4>             ;
      042C  00086 ;TPA$TYPE
                    U.67:   .WORD   1068                              ;
      95F4  00088 ;TPA$TYPE
                    U.68:   .WORD   -27148                            ;
 00000000V  0008A ;TPA$ACTION
                    U.69:   .LONG   <<CHECKVALUE-U.69>-4>             ;
      FFFF  0008E ;TPA$TARGET
                    U.70:   .WORD   -1                                ;
            00090 ;SUBDIR
                    U.52:   .BLKB   0
      85F1  00090 ;TPA$TYPE
                    U.71:   .WORD   -31247                            ;
 00000000V  00092 ;TPA$ACTION
                    U.72:   .LONG   <<CHECKLENGTH-U.72>-4>            ;
      102E  00096 ;TPA$TYPE
                    U.73:   .WORD   4142                              ;
      0000* 00098 ;TPA$TARGET
                    U.74:   .WORD   <<U.52-U.74>-2>                   ;
      15F6  0009A ;TPA$TYPE
                    U.75:   .WORD   5622                              ;
      FFFF  0009C ;TPA$TARGET
                    U.76:   .WORD   -1                                ;

                            .PSECT  _LIB$KEY0$,NOWRT,  SHR,  PIC,1

            00000 ACCESS_KEYS::
                            .BLKB   0
            00000 ;TPA$KEY0
                    U.1:    .BLKB   0
      0000* 00000 ;TPA$KEY
                    U.3:    .WORD   <U.2-U.1>                         ;
      0000* 00002 ;TPA$KEY
```

```
                                                00000     U.12:    .WORD   <U.11-U.1>                              ;
                                                00004 RESTRICT_KEYS::
                                                          .BLKB    0
                                                00004 ;TPA$KEYO
                                                          U.30:    .BLKB    0
                                                00004 UIC_KEYS::
                                                          .BLKB    0
                                                00004 ;TPA$KEYO
                                                          U.41:    .BLKB    0
                                                00004 DIR_KEYS::
                                                          .BLKB    0
                                                00004 ;TPA$KEYO
                                                          U.45:    .BLKB    0

                                                                   .PSECT   $PLIT$,NOWRT,NOEXE,2

                        31  6E  65  6B  6F  74   00000 P.AAB:    .ASCII   \token1\                              ;
                                                00006             .BLKB    2
                                    00000006    00008 P.AAA:    .LONG    6                                       ;
                                    00000000'   0000C             .ADDRESS P.AAB                               ;
                        32  6E  65  6B  6F  74   00010 P.AAD:    .ASCII   \token2\                              ;
                                                00016             .BLKB    2
                                    00000006    00018 P.AAC:    .LONG    6                                       ;
                                    00000000'   0001C             .ADDRESS P.AAD                               ;
                    74  6E  75  6F  63  63  61  00020 P.AAF:    .ASCII   \account\                             ;
                                                00027             .BLKB    1
                                    00000007    00028 P.AAE:    .LONG    7                                       ;
                                    00000000'   0002C             .ADDRESS P.AAF                               ;
                            6D  6C  74  73  61   00030 P.AAH:    .ASCII   \astlm\                               ;
                                                00035             .BLKB    3
                                    00000005    00038 P.AAG:    .LONG    5                                       ;
                                    00000000'   0003C             .ADDRESS P.AAH                               ;
                            6D  6C  6F  69  62   00040 P.AAJ:    .ASCII   \biolm\                               ;
                                                00045             .BLKB    3
                                    00000005    00048 P.AAI:    .LONG    5                                       ;
                                    00000000'   0004C             .ADDRESS P.AAJ                               ;
                            6D  6C  74  79  62   00050 P.AAL:    .ASCII   \bytlm\                               ;
                                                00055             .BLKB    3
                                    00000005    00058 P.AAK:    .LONG    5                                       ;
                                    00000000'   0005C             .ADDRESS P.AAL                               ;
                                69  6C  63      00060 P.AAN:    .ASCII   \cli\                                 ;
                                                00063             .BLKB    1
                                    00000003    00064 P.AAM:    .LONG    3                                       ;
                                    00000000'   00068             .ADDRESS P.AAN                               ;
                        65  6D  69  74  75  70  63  0006C P.AAP:    .ASCII   \cputime\                             ;
                                                00073             .BLKB    1
                                    00000007    00074 P.AAO:    .LONG    7                                       ;
                                    00000000'   00078             .ADDRESS P.AAP                               ;
                            65  63  69  76  65  64  0007C P.AAR:    .ASCII   \device\                              ;
                                                00082             .BLKB    2
                                    00000006    00084 P.AAQ:    .LONG    6                                       ;
                                    00000000'   00088             .ADDRESS P.AAR                               ;
                                6D  6C  6F  69  64   0008C P.AAT:    .ASCII   \diolm\                               ;
                                                00091             .BLKB    3
                                    00000005    00094 P.AAS:    .LONG    5                                       ;
                                    00000000'   00098             .ADDRESS P.AAT                               ;
79  72  6F  74  63  65  72  69  64  0009C P.AAV:    .ASCII   \directory\                                           ;
```

```
                                                000A5          .BLKB   3
                                    00000009    000A8 P.AAU:   .LONG   9
                                    00000000'   000AC          .ADDRESS P.AAV
                                6D  6C  71  6E  65  000B0 P.AAX:   .ASCII  \enqlm\
                                                000B5          .BLKB   3
                                    00000005    000B8 P.AAW:   .LONG   5
                                    00000000'   000BC          .ADDRESS P.AAX
                                6D  6C  6C  69  66  000C0 P.AAZ:   .ASCII  \fillm\
                                                000C5          .BLKB   3
                                    00000005    000C8 P.AAY:   .LONG   5
                                    00000000'   000CC          .ADDRESS P.AAZ
                                73  67  61  6C  66  000D0 P.ABB:   .ASCII  \flags\
                                                000D5          .BLKB   3
                                    00000005    000D8 P.ABA:   .LONG   5
                                    00000000'   000DC          .ADDRESS P.ABB
                            64  6D  63  69  67  6C  000E0 P.ABD:   .ASCII  \lgicmd\
                                                000E6          .BLKB   2
                                    00000006    000E8 P.ABC:   .LONG   6
                                    00000000'   000EC          .ADDRESS P.ABD
                        73  62  6F  6A  78  61  6D  000F0 P.ABF:   .ASCII  \maxjobs\
                                                000F7          .BLKB   1
                                    00000007    000F8 P.ABE:   .LONG   7
                                    00000000'   000FC          .ADDRESS P.ABF
                                72  65  6E  77  6F  00100 P.ABH:   .ASCII  \owner\
                                                00105          .BLKB   3
                                    00000005    00108 P.ABG:   .LONG   5
                                    00000000'   0010C          .ADDRESS P.ABH
                    64  72  6F  77  73  73  61  70  00110 P.ABJ:   .ASCII  \password\
                                    00000008    00118 P.ABI:   .LONG   8
                                    00000000'   0011C          .ADDRESS P.ABJ
                            6D  6C  74  79  62  70  00120 P.ABL:   .ASCII  \pbytlm\
                                                00126          .BLKB   2
                                    00000006    00128 P.ABK:   .LONG   6
                                    00000000'   0012C          .ADDRESS P.ABL
                                73  67  61  6C  66  70  00130 P.ABN:   .ASCII  \pflags\
                                                00136          .BLKB   2
                                    00000006    00138 P.ABM:   .LONG   6
                                    00000000'   0013C          .ADDRESS P.ABN
                        61  74  6F  75  71  6C  66  67  70  00140 P.ABP:   .ASCII  \pgflquota\
                                                00149          .BLKB   3
                                    00000009    0014C P.ABO:   .LONG   9
                                    00000000'   00150          .ADDRESS P.ABP
                74  63  69  72  74  73  65  72  5F  70  00154 P.ABR:   .ASCII  \p_restrict\
                                                0015E          .BLKB   2
                                    0000000A    00160 P.ABQ:   .LONG   10
                                    00000000'   00164          .ADDRESS P.ABR
                                6D  6C  63  72  70  00168 P.ABT:   .ASCII  \prclm\
                                                0016D          .BLKB   3
                                    00000005    00170 P.ABS:   .LONG   5
                                    00000000'   00174          .ADDRESS P.ABT
                        79  74  69  72  6F  69  72  70  00178 P.ABV:   .ASCII  \priority\
                                    00000008    00180 P.ABU:   .LONG   8
                                    00000000'   00184          .ADDRESS P.ABV
            73  65  67  65  6C  69  76  69  72  70  00188 P.ABX:   .ASCII  \privileges\
                                                00192          .BLKB   2
                                    0000000A    00194 P.ABW:   .LONG   10
                                    00000000'   00198          .ADDRESS P.ABX
```

```
                                73  67  61  6C  66  73  0019C P.ABZ:  .ASCII  \sflags\                ;
                                                        001A2          .BLKB   2
                                                    00000006  001A4 P.ABY:  .LONG   6                 ;
                                                    00000000' 001A8          .ADDRESS P.ABZ           ;
                            74  63  69  72  74  73  65  72  5F  73  001AC P.ACB:  .ASCII  \s_restrict\  ;
                                                        001B6          .BLKB   2
                                                    0000000A  001B8 P.ACA:  .LONG   10                ;
                                                    00000000' 001BC          .ADDRESS P.ACB           ;
                                    6D  6C  6C  69  66  72  68  73  001C0 P.ACD:  .ASCII  \shrfillm\  ;
                                                    00000008  001C8 P.ACC:  .LONG   8                 ;
                                                    00000000' 001CC          .ADDRESS P.ACD           ;
                                        6D  6C  65  71  74  001D0 P.ACF:  .ASCII  \tqelm\            ;
                                                        001D5          .BLKB   3
                                                    00000005  001D8 P.ACE:  .LONG   5                 ;
                                                    00000000' 001DC          .ADDRESS P.ACF           ;
                                                63  69  75  001E0 P.ACH:  .ASCII  \uic\              ;
                                                        001E3          .BLKB   1
                                                    00000003  001E4 P.ACG:  .LONG   3                 ;
                                                    00000000' 001E8          .ADDRESS P.ACH           ;
                                74  6C  75  61  66  65  64  73  77  001EC P.ACJ:  .ASCII  \wsdefault\  ;
                                                        001F5          .BLKB   3
                                                    00000009  001F8 P.ACI:  .LONG   9                 ;
                                                    00000000' 001FC          .ADDRESS P.ACJ           ;
                                    74  6E  65  74  78  65  73  77  00200 P.ACL:  .ASCII  \wsextent\   ;
                                                    00000008  00208 P.ACK:  .LONG   8                 ;
                                                    00000000' 0020C          .ADDRESS P.ACL           ;
                                        61  74  6F  75  71  73  77  00210 P.ACN:  .ASCII  \wsquota\    ;
                                                        00217          .BLKB   1
                                                    00000007  00218 P.ACM:  .LONG   7                 ;
                                                    00000000' 0021C          .ADDRESS P.ACN           ;
                                            79  61  6C  70  73  69  64  00220 P.ACP:  .ASCII  \display\ ;
                                                        00227          .BLKB   1
                                                    00000007  00228 P.ACO:  .LONG   7                 ;
                                                    00000000' 0022C          .ADDRESS P.ACP           ;
                                    73  79  61  64  65  6D  69  72  70  00230 P.ACR:  .ASCII  \primedays\ ;
                                                        00239          .BLKB   3
                                                    00000009  0023C P.ACQ:  .LONG   9                 ;
                                                    00000000' 00240          .ADDRESS P.ACR           ;
                            73  62  6F  6A  74  63  63  61  78  61  6D  00244 P.ACT:  .ASCII  \maxacctjobs\ ;
                                                        0024F          .BLKB   1
                                                    0000000B  00250 P.ACS:  .LONG   11                ;
                                                    00000000' 00254          .ADDRESS P.ACT           ;
                                    68  63  61  74  65  64  78  61  6D  00258 P.ACV:  .ASCII  \maxdetach\ ;
                                                        00261          .BLKB   3
                                                    00000009  00264 P.ACU:  .LONG   9                 ;
                                                    00000000' 00268          .ADDRESS P.ACV           ;
                                    73  65  6C  62  61  74  69  6C  63  0026C P.ACX:  .ASCII  \clitables\ ;
                                                        00275          .BLKB   3
                                                    00000009  00278 P.ACW:  .LONG   9                 ;
                                                    00000000' 0027C          .ADDRESS P.ACX           ;
                                        61  74  6F  75  71  74  6A  00280 P.ACZ:  .ASCII  \jtquota\    ;
                                                        00287          .BLKB   1
                                                    00000007  00288 P.ACY:  .LONG   7                 ;
                                                    00000000' 0028C          .ADDRESS P.ACZ           ;
                                            73  73  65  63  63  61  00290 P.ADB:  .ASCII  \access\    ;
                                                        00296          .BLKB   2
                                                    00000006  00298 P.ADA:  .LONG   6                 ;
```

```
                                        00000000'  0029C            .ADDRESS P.ADB
                            68  63  74  61  62  002A0  P.ADD:   .ASCII   \batch\
                                                002A5           .BLKB    3
                                        00000005   002A8  P.ADC:   .LONG    5
                                        00000000'  002AC            .ADDRESS P.ADD
     73  65  67  65  6C  69  76  69  72  70  66  65  64  002B0  P.ADF:   .ASCII   \defprivileges\
                                                002BD           .BLKB    3
                                        0000000D   002C0  P.ADE:   .LONG    13
                                        00000000'  002C4            .ADDRESS P.ADF
                        70  75  6C  61  69  64  002C8  P.ADH:   .ASCII   \dialup\
                                                002CE           .BLKB    2
                                        00000006   002D0  P.ADG:   .LONG    6
                                        00000000'  002D4            .ADDRESS P.ADH
             6E  6F  69  74  61  72  69  70  78  65  002D8  P.ADJ:   .ASCII   \expiration\
                                                002E2           .BLKB    2
                                        0000000A   002E4  P.ADI:   .LONG    10
                                        00000000'  002E8            .ADDRESS P.ADJ
         65  76  69  74  63  61  72  65  74  6E  69  002EC  P.ADL:   .ASCII   \interactive\
                                                002F7           .BLKB    1
                                        0000000B   002F8  P.ADK:   .LONG    11
                                        00000000'  002FC            .ADDRESS P.ADL
                            6C  61  63  6F  6C  00300  P.ADN:   .ASCII   \local\
                                                00305           .BLKB    3
                                        00000005   00308  P.ADM:   .LONG    5
                                        00000000'  0030C            .ADDRESS P.ADN
                    6B  72  6F  77  74  65  6E  00310  P.ADP:   .ASCII   \network\
                                                00317           .BLKB    1
                                        00000007   00318  P.ADO:   .LONG    7
                                        00000000'  0031C            .ADDRESS P.ADP
         65  6D  69  74  65  66  69  6C  64  77  70  00320  P.ADR:   .ASCII   \pwdlifetime\
                                                0032B           .BLKB    1
                                        0000000B   0032C  P.ADQ:   .LONG    11
                                        00000000'  00330            .ADDRESS P.ADR
             6D  75  6D  69  6E  69  6D  64  77  70  00334  P.ADT:   .ASCII   \pwdminimum\
                                                0033E           .BLKB    2
                                        0000000A   00340  P.ADS:   .LONG    10
                                        00000000'  00344            .ADDRESS P.ADT
         79  74  69  72  6F  69  72  70  65  75  71  00348  P.ADV:   .ASCII   \quepriority\
                                                00353           .BLKB    1
                                        0000000B   00354  P.ADU:   .LONG    11
                                        00000000'  00358            .ADDRESS P.ADV
                        65  74  6F  6D  65  72  0035C  P.ADX:   .ASCII   \remote\
                                                00362           .BLKB    2
                                        00000006   00364  P.ADW:   .LONG    6
                                        00000000'  00368            .ADDRESS P.ADX
                 59  4C  54  43  53  49  44  07  0036C  P.ADY:   .ASCII   <7>\DISCTLY\
                 00  49  4C  43  46  45  44  06  00374  P.ADZ:   .ASCII   <6>\DEFCLI\<0>
                 44  57  50  4B  43  4F  4C  07  0037C  P.AEA:   .ASCII   <7>\LOCKPWD\
                 45  56  49  54  50  41  43  07  00384  P.AEB:   .ASCII   <7>\CAPTIVE\
                 52  45  53  55  53  49  44  07  0038C  P.AEC:   .ASCII   <7>\DISUSER\
     00  45  4D  4F  43  4C  45  57  53  49  44  0A  00394  P.AED:   .ASCII   <10>\DISWELCOME\<0>
     00  4C  49  41  4D  57  45  4E  53  49  44  0A  003A0  P.AEE:   .ASCII   <10>\DISNEWMAIL\<0>
                 4C  49  41  4D  53  49  44  07  003AC  P.AEF:   .ASCII   <7>\DISMAIL\
                 00  44  57  50  4E  45  47  06  003B4  P.AEG:   .ASCII   <6>\GENPWD\<0>
     44  45  52  49  50  58  45  5F  44  57  50  0B  003BC  P.AEH:   .ASCII   <11>\PWD_EXPIRED\
00  00  44  45  52  49  50  58  45  5F  32  44  57  50  0C  003C8  P.AEI:   .ASCII   <12>\PWD2_EXPIRED\<0><0><0>
                                            00  003D7
```

```
                                                00 00 54 49 44 55 41 05  003D8 P.AEJ:   .ASCII  <5>\AUDIT\<0><0>
                                    00 00 54 52 4F 50 45 52 53 49 44 09  003E0 P.AEK:   .ASCII  <9>\DISREPORT\<0><0>
                                    00 00 50 55 4C 41 49 44 53 49 44 09  003EC P.AEL:   .ASCII  <9>\DISDIALUP\<0><0>
                                    00 4B 52 4F 57 54 45 4E 53 49 44 0A  003F8 P.AEM:   .ASCII  <10>\DISNETWORK\<0>
                                                00 59 41 44 4E 4F 4D 06  00404 P.AEN:   .ASCII  <6>\MONDAY\<0>
                                                59 41 44 53 45 55 54 07  0040C P.AEO:   .ASCII  <7>\TUESDAY\
                                    00 00 59 41 44 53 45 4E 44 45 57 09  00414 P.AEP:   .ASCII  <9>\WEDNESDAY\<0><0>
                                    00 00 00 59 41 44 53 52 55 48 54 08  00420 P.AEQ:   .ASCII  <8>\THURSDAY\<0><0><0>
                                                00 59 41 44 49 52 46 06  0042C P.AER:   .ASCII  <6>\FRIDAY\<0>
                                    00 00 00 59 41 44 52 55 54 41 53 08  00434 P.AES:   .ASCII  <8>\SATURDAY\<0><0><0>
                                                00 59 41 44 4E 55 53 06  00440 P.AET:   .ASCII  <6>\SUNDAY\<0>
45 44 43 42 41 39 38 37 36 35 34 33 32 31 30    46                       00448 P.AEU:   .ASCII  \0123456789ABCDEF\
                                                                         00457
                                                            4F 4E        00458 P.AEW:   .ASCII  \NO\
                                                                         0045A          .BLKB   2
                                                         00000002        0045C P.AEV:   .LONG   2
                                                         00000000'       00460          .ADDRESS P.AEW
4F 57 53 53 41 50 5F 45 54 41 52 45 4E 45 47            00 00 00 44 52  00464 P.AEY:   .ASCII  \GENERATE_PASSWORD\<0><0><0>
                                                                         00473
                                                         010E0011        00478 P.AEX:   .LONG   17694737
                                                         00000000'       0047C          .ADDRESS P.AEY
4F 57 53 53 41 50 5F 45 54 41 52 45 4E 45 47            00 00 00 44 52  00480 P.AFA:   .ASCII  \GENERATE_PASSWORD\<0><0><0>
                                                                         0048F
                                                         010E0011        00494 P.AEZ:   .LONG   17694737
                                                         00000000'       00498          .ADDRESS P.AFA
4F 57 53 53 41 50 5F 45 54 41 52 45 4E 45 47            00 00 00 44 52  0049C P.AFC:   .ASCII  \GENERATE_PASSWORD\<0><0><0>
                                                                         004AB
                                                         010E0011        004B0 P.AFB:   .LONG   17694737
                                                         00000000'       004B4          .ADDRESS P.AFC
                                    00 00 44 45 52 49 50 58 45 44 57 50  004B8 P.AFE:   .ASCII  \PWDEXPIRED\<0><0>
                                                         010E000A        004C4 P.AFD:   .LONG   17694730
                                                         00000000'       004C8          .ADDRESS P.AFE
                                                            45 4E 4F 4E  004CC P.AFF:   .ASCII  \NONE\

                                                                                       .PSECT  $OWN$,NOEXE,2

                                                00000000' 00004 FLAG_TABLE:
                                                                                       .LONG   26
                                                00000000' 00004                        .ADDRESS P.ADY
                                                00000000  00008                        .LONG   0
                                                00000000' 0000C                        .ADDRESS P.ADZ
                                                00000001  00010                        .LONG   1
                                                00000000' 00014                        .ADDRESS P.AEA
                                                00000002  00018                        .LONG   2
                                                00000000' 0001C                        .ADDRESS P.AEB
                                                00000003  00020                        .LONG   3
                                                00000000' 00024                        .ADDRESS P.AEC
                                                00000004  00028                        .LONG   4
                                                00000000' 0002C                        .ADDRESS P.AED
                                                00000005  00030                        .LONG   5
                                                00000000' 00034                        .ADDRESS P.AEE
                                                00000006  00038                        .LONG   6
                                                00000000' 0003C                        .ADDRESS P.AEF
                                                00000007  00040                        .LONG   7
                                                00000000' 00044                        .ADDRESS P.AEG
                                                00000008  00048                        .LONG   8
                                                00000000' 0004C                        .ADDRESS P.AEH
```

```
                                00000009  00050          .LONG   9
                                00000000' 00054          .ADDRESS P.AEI
                                0000000A  00058          .LONG   10
                                00000000' 0005C          .ADDRESS P.AEJ
                                0000000B  00060          .LONG   11
                                00000000' 00064          .ADDRESS P.AEK
                                0000000C  00068          .LONG   12
                                00000004  0006C OPFLAG_TABLE:
                                                         .LONG   4
                                00000000' 00070          .ADDRESS P.AEL
                                00000001  00074          .LONG   1
                                00000000' 00078          .ADDRESS P.AEM
                                00000002  0007C          .LONG   2
                                0000000E  00080 PDFLAG_TABLE:
                                                         .LONG   14
                                00000000' 00084          .ADDRESS P.AEN
                                00000000  00088          .LONG   0
                                00000000' 0008C          .ADDRESS P.AEO
                                00000001  00090          .LONG   1
                                00000000' 00094          .ADDRESS P.AEP
                                00000002  00098          .LONG   2
                                00000000' 0009C          .ADDRESS P.AEQ
                                00000003  000A0          .LONG   3
                                00000000' 000A4          .ADDRESS P.AER
                                00000004  000A8          .LONG   4
                                00000000' 000AC          .ADDRESS P.AES
                                00000005  000B0          .LONG   5
                                00000000' 000B4          .ADDRESS P.AET
                                00000006  000B8          .LONG   6
                                          000BC STATUS:  .BLKB   4
                                          000C0 CLI_STATUS:
                                                         .BLKB   4
                00000002        00000008  000C4 TPARSE_BLOCK:
                                                         .LONG   8, 2
                                          000CC          .BLKB   28
                                          000E8 CONVERTED_UIC:
                                                         .BLKB   4
                                          000EC ADDRESS: .BLKB   4
                                          000F0 LEFT_BIT:
                                                         .BLKB   4
                                          000F4 RIGHT_BIT:
                                                         .BLKB   4
                                          000F8 PRIMARY_ACCESS:
                                                         .BLKB   4
                                          000FC SECONDARY_ACCESS:
                                                         .BLKB   4
                                00000000  00100 NO_FLAG: .LONG   0
                                00000000  00104 PRIMARY: .LONG   0
                                00000000  00108 SECONDARY:
                                                         .LONG   0

                                                SD_TOKEN1=          P.AAA
                                                SD_TOKEN2=          P.AAC
                                                SD_ACCOUNT=         P.AAE
                                                SD_ASTLM=           P.AAG
                                                SD_BIOLM=           P.AAI
                                                SD_BYTLM=           P.AAK
```

```
SD_CLI=             P.AAM
SD_CPUTIME=         P.AAO
SD_DEVICE=          P.AAQ
SD_DIOLM=           P.AAS
SD_DIRECTORY=       P.AAU
SD_ENQLM=           P.AAW
SD_FILLM=           P.AAY
SD_FLAGS=           P.ABA
SD_LGICMD=          P.ABC
SD_MAXJOBS=         P.ABE
SD_OWNER=           P.ABG
SD_PASSWORD=        P.ABI
SD_PBYTLM=          P.ABK
SD_PFLAGS=          P.ABM
SD_PGFLQUOTA=       P.ABO
SD_P_RESTRICT=      P.ABQ
SD_PRCLM=           P.ABS
SD_PRIORITY=        P.ABU
SD_PRIVILEGES=      P.ABW
SD_SFLAGS=          P.ABY
SD_S_RESTRICT=      P.ACA
SD_SHRFILLM=        P.ACC
SD_TQELM=           P.ACE
SD_UIC=             P.ACG
SD_WSDEFAULT=       P.ACI
SD_WSEXTENT=        P.ACK
SD_WSQUOTA=         P.ACM
SD_DISPLAY=         P.ACO
SD_PRIMEDAYS=       P.ACQ
SD_MAXACCTJOBS=     P.ACS
SD_MAXDETACH=       P.ACU
SD_CLITABLES=       P.ACW
SD_JTQUOTA=         P.ACY
SD_ACCESS=          P.ADA
SD_BATCH=           P.ADC
SD_DEFPRIVILEGES=   P.ADE
SD_DIALUP=          P.ADG
SD_EXPIRATION=      P.ADI
SD_INTERACTIVE=     P.ADK
SD_LOCAL=           P.ADM
SD_NETWORK=         P.ADO
SD_PWDLIFETIME=     P.ADQ
SD_PWDMINIMUM=      P.ADS
SD_QUEPRIORITY=     P.ADU
SD_REMOTE=          P.ADW
NUMBERS=            P.AEU
NO_DSC=             P.AEV
        .EXTRN  GENERATE_PASSWORDS
        .EXTRN  SYS$ASSIGN, SYS$DASSGN
        .EXTRN  SYS$QIOW, LIB$GET_VM
        .EXTRN  STR$UPCASE, LIB$TPARSE
        .EXTRN  LIB$LOOKUP_KEY, CLI$DCL_PARSE
        .EXTRN  CLI$PRESENT, CLI$GET_VALUE
        .EXTRN  FAO$OUT, LGI$HPWD
        .EXTRN  LIB$CVT_DTIME, LIB$CVT_TIME
        .EXTRN  PRV$SETPRIV, LIB$SIGNAL
        .EXTRN  UAF$_BADVALUE, UAF$_EXTRAPARM
```

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                                                        .EXTRN  UAF$_INVDEV, UAF$_INVSTR
                                                        .EXTRN  UAF$_INVUSERSPEC
                                                        .EXTRN  UAF$_KEYNOTFND, UAF$_NAMETOOBIG
                                                        .EXTRN  UAF$_NOARG, UAF$_NOQUOTE
                                                        .EXTRN  UAF$_NOUSERSPEC
                                                        .EXTRN  UAF$_PRVNOTFND, UAF$_PRVNOTUNQ
                                                        .EXTRN  UAF$_PWDSYNTAX, UAF$_PWDNCH
                                                        .EXTRN  UAF$_PWDNOL, UAF$_UICERR
                                                        .EXTRN  UAF$_VALTOOBIG, UAF$_ZCONFLICT
                                                        .EXTRN  ENCRYPT, LIB$_AMBKEY
                                                        .EXTRN  LIB$_UNRKEY, CLI$_ABKEYW
                                                        .EXTRN  CLI$_IVKEYW, CLI$_NEGATED
                                                        .EXTRN  CLI$_ABSENT, PRV$_NOTUNQ
                                                        .EXTRN  PRV$_INVNAM, UAF$GL_CTLMSK
                                                        .EXTRN  AUTHORIZE_COMMANDS
                                                        .EXTRN  CMDLINDSC, CALL_COUNT
                                                        .EXTRN  SYMBOL_STR, MATCH_TOKENLEN
                                                        .EXTRN  MATCH_TOKEN, TOKENDSC
                                                        .EXTRN  TOKENLEN, TOKENPTR
                                                        .EXTRN  UIC_FLAG, GRP_WILD
                                                        .EXTRN  MEM_WILD, STR_WILD
                                                        .EXTRN  TIME_BUF, PWD_FLAG
                                                        .EXTRN  RECBUF

                                                        .PSECT  $CODE$,NOWRT,2

                                    0FFC 00000          .ENTRY  UPDATE_RECORD, Save R2,R3,R4,R5,R6,R7,R8,-      ; 0588
                                                                R9,R10,R11
                5B 00000000G   00    9E 00002          MOVAB   CLI$GET_VALUE, R11                              ;
                5A 00000000G   00    9E 00009          MOVAB   TOKENDSC, R10                                   ;
                59 00000000G   00    9E 00010          MOVAB   RECBUF+468, R9                                  ;
                58 00000000G   00    9E 00017          MOVAB   CLI$PRESENT, R8                                 ;
                57 00000000'   00    9E 0001E          MOVAB   STATUS, R7                                      ;
                56 00000000'   00    9E 00025          MOVAB   SD_PASSWORD, R6                                 ;
                               67    D4 0002C          CLRL    STATUS                                          ; 0623
                                 48  A7 7C 0002E        CLRQ    PRIMARY                                         ; 0624
                                 44  A7 D4 00031        CLRL    NO_FLAG                                         ; 0626
                           00000000G 00 D5 00034        TSTL    CALL_COUNT                                      ; 0632
                               13    13 00036          BEQL    1$                                              ;
                           00000000G 00 9F 00038        PUSHAB  AUTHORIZE_COMMANDS                              ; 0634
                           00000000G 00 9F 0003E        PUSHAB  CMDLINDSC                                       ;
00000000G  00                        02 FB 00044        CALLS   #2, CLI$DCL_PARSE                               ;
                     0360  C6 9F 00047 1$:              PUSHAB  P.AEX                                           ; 0637
                68                   01 FB 0004B        CALLS   #1, CLI$PRESENT                                 ;
                1D                   50 E9 0004E        BLBC    R0, 2$                                          ;
                                     56 DD 00051        PUSHL   R6                                              ; 0638
                68                   01 FB 00053        CALLS   #1, CLI$PRESENT                                 ;
00000000G  8F                        50 D1 00056        CMPL    R0, #CLI$_ABSENT                                ;
                                     0F 13 00059        BEQL    2$                                              ;
                           00000000G 8F DD 0005B        PUSHL   #UAF$_ZCONFLICT                                 ; 0641
00000000G  00                        01 FB 00061        CALLS   #1, LIB$SIGNAL                                  ;
                                     3A 11 00066        BRB     5$                                              ; 0637
                     037C  C6 9F 00068 2$:              PUSHAB  P.AEZ                                           ; 0644
                68                   01 FB 0006C        CALLS   #1, CLI$PRESENT                                 ;
                0E                   50 E8 0006F        BLBS    R0, 3$                                          ;
                                     56 DD 00072        PUSHL   R6                                              ; 0645
                68                   01 FB 00074        CALLS   #1, CLI$PRESENT                                 ;
```

```
                00000000G  8F              50  D1 00085          CMPL    R0, #CLI$_ABSENT                                    ;
                                           22  13 0008C          BEQL    5$                                                  ;
                                   0398    C6  9F 0008E 3$:      PUSHAB  P.AFB                                               ; 0648
                           68              01  FB 00092          CALLS   #1, CLI$PRESENT                                     ;
                           07              50  E9 00095          BLBC    R0, 4$                                              ;
                00000000V  00              00  FB 00098          CALLS   #0, UAF$GENERATE                                    ; 0649
                00000000V  00              00  FB 0009F 4$:      CALLS   #0, GETPASSWORD                                     ; 0650
                           63              50  E9 000A6          BLBC    R0, 10$                                             ;
                      01   A9              02  8A 000A9          BICB2   #2, RECBUF+469                                      ; 0652
                           67              01  D0 000AD          MOVL    #1, STATUS                                          ; 0653
                           03 00000000G    00  E9 000B0 5$:      BLBC    UAF$GL_CTLMSK, 6$                                   ; 0658
                                     0761  31  11 000B7          BRW     105$                                                ;
                                   0180    C6  9F 000BA 6$:      PUSHAB  SD_ACCESS                                           ; 0667
                           68              01  FB 000BE          CALLS   #1, CLI$PRESENT                                     ;
                      04   A7              50  D0 000C1          MOVL    R0, CLI_STATUS                                      ;
                           09              50  E8 000C5          BLBS    R0, 7$                                              ; 0668
                00000000G  8F              50  D1 000C8          CMPL    R0, #CLI$_NEGATED                                   ; 0669
                                           15  12 000CF          BNEQ    8$                                                  ;
                                           50  DD 000D1 7$:      PUSHL   R0                                                  ; 0672
                                           1F  DD 000D3          PUSHL   #31                                                 ;
                                   0180    C6  9F 000D5          PUSHAB  SD_ACCESS                                           ;
                00000000V  00              03  FB 000D9          CALLS   #3, GETACCESS                                       ;
                           55              50  E9 000E0          BLBC    R0, 13$                                             ;
                           67              01  D0 000E3          MOVL    #1, STATUS                                          ; 0674
                                   01E0    C6  9F 000E6 8$:      PUSHAB  SD_INTERACTIVE                                      ; 0677
                           68              01  FB 000EA          CALLS   #1, CLI$PRESENT                                     ;
                      04   A7              50  D0 000ED          MOVL    R0, CLI_STATUS                                      ;
                           09              50  E8 000F1          BLBS    R0, 9$                                              ; 0678
                00000000G  8F              50  D1 000F4          CMPL    R0, #CLI$_NEGATED                                   ; 0679
                                           15  12 000FB          BNEQ    11$                                                 ;
                                           50  DD 000FD 9$:      PUSHL   R0                                                  ; 0682
                                           1C  DD 000FF          PUSHL   #28                                                 ;
                                   01E0    C6  9F 00101          PUSHAB  SD_INTERACTIVE                                      ;
                00000000V  00              03  FB 00105          CALLS   #3, GETACCESS                                       ;
                           55              50  E9 0010C 10$:     BLBC    R0, 16$                                             ;
                           67              01  D0 0010F          MOVL    #1, STATUS                                          ; 0684
                                   0190    C6  9F 00112 11$:     PUSHAB  SD_BATCH                                            ; 0687
                           68              01  FB 00116          CALLS   #1, CLI$PRESENT                                     ;
                      04   A7              50  D0 00119          MOVL    R0, CLI_STATUS                                      ;
                           09              50  E8 0011D          BLBS    R0, 12$                                             ; 0688
                00000000G  8F              50  D1 00120          CMPL    R0, #CLI$_NEGATED                                   ; 0689
                                           15  12 00127          BNEQ    14$                                                 ;
                                           50  DD 00129 12$:     PUSHL   R0                                                  ; 0692
                                           02  DD 0012B          PUSHL   #2                                                  ;
                                   0190    C6  9F 0012D          PUSHAB  SD_BATCH                                            ;
                00000000V  00              03  FB 00131          CALLS   #3, GETACCESS                                       ;
                           55              50  E9 00138 13$:     BLBC    R0, 19$                                             ;
                           67              01  D0 0013B          MOVL    #1, STATUS                                          ; 0694
                                   01B8    C6  9F 0013E 14$:     PUSHAB  SD_DIALUP                                           ; 0697
                           68              01  FB 00142          CALLS   #1, CLI$PRESENT                                     ;
                      04   A7              50  D0 00145          MOVL    R0, CLI_STATUS                                      ;
                           09              50  E8 00149          BLBS    R0, 15$                                             ; 0698
                00000000G  8F              50  D1 0014C          CMPL    R0, #CLI$_NEGATED                                   ; 0699
                                           15  12 00153          BNEQ    17$                                                 ;
                                           50  DD 00155 15$:     PUSHL   R0                                                  ; 0702
                                           08  DD 00157          PUSHL   #8                                                  ;
                                   01B8    C6  9F 00159          PUSHAB  SD_DIALUP                                           ;
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                00000000V 00          03 FB 0015D          CALLS   #3, GETACCESS                                    ;
                          55          50 E9 00164 16$:     BLBC    R0, 22$                                         ;
                          67          01 D0 00167          MOVL    #1, STATUS                                      ; 0704
                              0200    C6 9F 0016A 17$:     PUSHAB  SD_NETWORK                                      ; 0707
                          68          01 FB 0016E          CALLS   #1, CLI$PRESENT                                 ;
                    04    A7          50 D0 00171          MOVL    R0, CLI_STATUS                                  ;
                          09          50 E8 00175          BLBS    R0, 18$                                         ; 0708
                00000000G 8F          50 D1 00178          CMPL    R0, #CLI$_NEGATED                               ; 0709
                                      15 12 0017F          BNEQ    20$                                             ;
                                      50 DD 00181 18$:     PUSHL   R0                                              ; 0712
                                      01 DD 00183          PUSHL   #1                                              ;
                              0200    C6 9F 00185          PUSHAB  SD_NETWORK                                      ;
                00000000V 00          03 FB 00189          CALLS   #3, GETACCESS                                   ;
                          7D          50 E9 00190 19$:     BLBC    R0, 26$                                         ;
                          67          01 D0 00193          MOVL    #1, STATUS                                      ; 0714
                              01F0    C6 9F 00196 20$:     PUSHAB  SD_LOCAL                                        ; 0717
                          68          01 FB 0019A          CALLS   #1, CLI$PRESENT                                 ;
                    04    A7          50 D0 0019D          MOVL    R0, CLI_STATUS                                  ;
                          09          50 E8 001A1          BLBS    R0, 21$                                         ; 0718
                00000000G 8F          50 D1 001A4          CMPL    R0, #CLI$_NEGATED                               ; 0719
                                      15 12 001AB          BNEQ    23$                                             ;
                                      50 DD 001AD 21$:     PUSHL   R0                                              ; 0722
                                      04 DD 001AF          PUSHL   #4                                              ;
                              01F0    C6 9F 001B1          PUSHAB  SD_LOCAL                                        ;
                000C0000V 00          03 FB 001B5          CALLS   #3, GETACCESS                                   ;
                          76          50 E9 001BC 22$:     BLBC    R0, 28$                                         ;
                          67          01 D0 001BF          MOVL    #1, STATUS                                      ; 0724
                              024C    C6 9F 001C2 23$:     PUSHAB  SD_REMOTE                                       ; 0727
                          68          01 FB 001C6          CALLS   #1, CLI$PRESENT                                 ;
                    04    A7          50 D0 001C9          MOVL    R0, CLI_STATUS                                  ;
                          09          50 E8 001CD          BLBS    R0, 24$                                         ; 0728
                00000000G 8F          50 D1 001D0          CMPL    R0, #CLI$_NEGATED                               ; 0729
                                      15 12 001D7          BNEQ    25$                                             ;
                                      50 DD 001D9 24$:     PUSHL   R0                                              ; 0732
                                      10 DD 001DB          PUSHL   #16                                             ;
                              024C    C6 9F 001DD          PUSHAB  SD_REMOTE                                       ;
                00000000V 00          03 FB 001E1          CALLS   #3, GETACCESS                                   ;
                          6F          50 E9 001E8          BLBC    R0, 30$                                         ;
                          67          01 D0 001EB          MOVL    #1, STATUS                                      ; 0734
                              FF10    C6 9F 001EE 25$:     PUSHAB  SD_ACCOUNT                                      ; 0737
                          68          01 FB 001F2          CALLS   #1, CLI$PRESENT                                 ;
                          1E          50 E9 001F5          BLBC    R0, 27$                                         ;
                                      5A DD 001F8          PUSHL   R10                                             ; 0740
                              FF10    C6 9F 001FA          PUSHAB  SD_ACCOUNT                                      ;
                          6B          02 FB 001FE          CALLS   #2, CLI$GET_VALUE                               ;
                                      02 DD 00201          PUSHL   #2                                              ; 0742
                                      08 DD 00203          PUSHL   #8                                              ;
                              FE60    C9 9F 00205          PUSHAB  RECBUF+52                                       ;
                00000000V 00          03 FB 00209          CALLS   #3, GETSTRING                                   ;
                          6C          50 E9 00210 26$:     BLBC    R0, 32$                                         ;
                          67          01 D0 00213          MOVL    #1, STATUS                                      ; 0744
                              FF20    C6 9F 00216 27$:     PUSHAB  SD_ASTLM                                        ; 0747
                          68          01 FB 0021A          CALLS   #1, CLI$PRESENT                                 ;
                          1B          50 E9 0021D          BLBC    R0, 29$                                         ;
                                      5A DD 00220          PUSHL   R10                                             ; 0750
                              FF20    C6 9F 00222          PUSHAB  SD_ASTLM                                        ;
                          6B          02 FB 00226          CALLS   #2, CLI$GET_VALUE                               ;
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                                 10  DD 00229          PUSHL   #16                         ; 0751
                          40     A9  9F 0022B          PUSHAB  RECBUF+532                  ;
              00000000V  00      02  FB 0022E          CALLS   #2, GETVAL                  ;
                         6F      50  E9 00235 28$:     BLBC    R0, 34$                     ;
                         67      01  D0 00238          MOVL    #1, STATUS                  ; 0753
                        FF30     C6  9F 0023B 29$:     PUSHAB  SD_BIOLM                    ; 0756
                         68      01  FB 0023F          CALLS   #1, CLI$PRESENT             ;
                         1B      50  E9 00242          BLBC    R0, 31$                     ;
                                 5A  DD 00245          PUSHL   R10                         ; 0759
                        FF30     C6  9F 00247          PUSHAB  SD_BIOLM                    ;
                         6B      02  FB 0024B          CALLS   #2, CLI$GET_VALUE           ;
                                 10  DD 0024E          PUSHL   #16                         ; 0760
                          3A     A9  9F 00250          PUSHAB  RECBUF+526                  ;
              00000000V  00      02  FB 00253          CALLS   #2, GETVAL                  ;
                         4A      50  E9 0025A 30$:     BLBC    R0, 34$                     ;
                         67      01  D0 0025D          MOVL    #1, STATUS                  ; 0762
                        FF40     C6  9F 00260 31$:     PUSHAB  SD_BYTLM                    ; 0765
                         68      01  FB 00264          CALLS   #1, CLI$PRESENT             ;
                         1B      50  E9 00267          BLBC    R0, 33$                     ;
                                 5A  DD 0026A          PUSHL   R10                         ; 0768
                        FF40     C6  9F 0026C          PUSHAB  SD_BYTLM                    ;
                         6B      02  FB 00270          CALLS   #2, CLI$GET_VALUE           ;
                                 20  DD 00273          PUSHL   #32                         ; 0769
                          5C     A9  9F 00275          PUSHAB  RECBUF+560                  ;
              00000000V  00      02  FB 00278          CALLS   #2, GETVAL                  ;
                         67      50  E9 0027F 32$:     BLBC    R0, 37$                     ;
                         67      01  D0 00282          MOVL    #1, STATUS                  ; 0771
                        FF4C     C6  9F 00285 33$:     PUSHAB  SD_CLI                      ; 0774
                         68      01  FB 00289          CALLS   #1, CLI$PRESENT             ;
                         38      50  E9 0028C          BLBC    R0, 36$                     ;
                                 5A  DD 0028F          PUSHL   R10                         ; 0777
                        FF4C     C6  9F 00291          PUSHAB  SD_CLI                      ;
                         6B      02  FB 00295          CALLS   #2, CLI$GET_VALUE           ;
                                 01  DD 00298          PUSHL   #1                          ; 0778
                                 20  DD 0029A          PUSHL   #32                         ;
                        FF40     C9  9F 0029C          PUSHAB  RECBUF+276                  ;
              00000000V  00      03  FB 002A0          CALLS   #3, GETSTRING               ;
                         66      50  E9 002A7 34$:     BLBC    R0, 39$                     ;
                                 50  D4 002AA          CLRL    R0                          ; 0781
                        FF60     C9  95 002AC          TSTB    RECBUF+308                  ;
                                 02  13 002B0          BEQL    35$                         ;
                                 50  D6 002B2          INCL    R0                          ;
00000000G  00       01           05  50  F0 002B4 35$: INSV    R0, #5, #1, UAF$GL_CTLMSK   ;
              00000000G  00      08  88 002BD          BISB2   #8, UAF$GL_CTLMSK           ; 0782
                         67      01  D0 002C4          MOVL    #1, STATUS                  ; 0783
                        0160     C6  9F 002C7 36$:     PUSHAB  SD_CLITABLES                ; 0786
                         68      01  FB 002CB          CALLS   #1, CLI$PRESENT             ;
                         25      50  E9 002CE          BLBC    R0, 38$                     ;
                                 5A  DD 002D1          PUSHL   R10                         ; 0789
                        0160     C6  9F 002D3          PUSHAB  SD_CLITABLES                ;
                         6B      02  FB 002D7          CALLS   #2, CLI$GET_VALUE           ;
                                 01  DD 002DA          PUSHL   #1                          ; 0790
                                 20  DD 002DC          PUSHL   #32                         ;
                        FF60     C9  9F 002DE          PUSHAB  RECBUF+308                  ;
              00000000V  00      03  FB 002E2          CALLS   #3, GETSTRING               ;
                         62      50  E9 002E9 37$:     BLBC    R0, 42$                     ;
              00000000G  00      10  88 002EC          BISB2   #16, UAF$GL_CTLMSK          ; 0792
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                    67 01 D0 002F3          MOVL    #1, STATUS                              ; 0793
                  FF5C C6 9F 002F6 38$:     PUSHAB  SD_CPUTIME                              ; 0796
                    68 01 FB 002FA          CALLS   #1, CLI$PRESENT                         ;
                    16 50 E9 002FD          BLBC    R0, 40$                                 ;
                       5A DD 00300          PUSHL   R10                                     ; 0799
                  FF5C C6 9F 00302          PUSHAB  SD_CPUTIME                              ;
                    5B 02 FB 00306          CALLS   #2, CLI$GET_VALUE                       ;
00000000V           00 00 FB 00309          CALLS   #0, GETCPUTIM                           ; 0800
                    7E 50 E9 00310 39$:     BLBC    R0, 45$                                 ;
                    67 01 D0 00313          MOVL    #1, STATUS                              ; 0802
                  01A8 C6 9F 00316 40$:     PUSHAB  SD_DEFPRIVILEGES                        ; 0805
                    68 01 FB 0031A          CALLS   #1, CLI$PRESENT                         ;
                    14 50 E9 0031D          BLBC    R0, 41$                                 ;
                    D0 A9 9F 00320          PUSHAB  RECBUF+420                              ; 0808
                  01A8 C6 9F 00323          PUSHAB  SD_DEFPRIVILEGES                        ;
00000000V           00 02 FB 00327          CALLS   #2, GETPRIV                             ;
                    60 50 E9 0032E          BLBC    R0, 45$                                 ;
                    67 01 D0 00331          MOVL    #1, STATUS                              ; 0810
                  FF6C C6 9F 00334 41$:     PUSHAB  SD_DEVICE                               ; 0813
                    68 01 FB 00338          CALLS   #1, CLI$PRESENT                         ;
                    16 50 E9 0033B          BLBC    R0, 43$                                 ;
                       5A DD 0033E          PUSHL   R10                                     ; 0816
                  FF6C C6 9F 00340          PUSHAB  SD_DEVICE                               ;
                    6B 02 FB 00344          CALLS   #2, CLI$GET_VALUE                       ;
00000000V           00 00 FB 00347          CALLS   #0, GETDEVICE                           ; 0817
                    63 50 E9 0034E 42$:     BLBC    R0, 47$                                 ;
                    67 01 D0 00351          MOVL    #1, STATUS                              ; 0819
                  FF7C C6 9F 00354 43$:     PUSHAB  SD_DIOLM                                ; 0822
                    68 01 FB 00358          CALLS   #1, CLI$PRESENT                         ;
                    1B 50 E9 0035B          BLBC    R0, 44$                                 ;
                       5A DD 0035E          PUSHL   R10                                     ; 0825
                  FF7C C6 9F 00360          PUSHAB  SD_DIOLM                                ;
                    6B 02 FB 00364          CALLS   #2, CLI$GET_VALUE                       ;
                       10 DD 00367          PUSHL   #16                                     ; 0826
                    3C A9 9F 00369          PUSHAB  RECBUF+528                              ;
00000000V           00 02 FB 0036C          CALLS   #2, GETVAL                              ;
                    3E 50 E9 00373          BLBC    R0, 47$                                 ;
                    67 01 D0 00376          MOVL    #1, STATUS                              ; 0828
                    90 A6 9F 00379 44$:     PUSHAB  SD_DIRECTORY                            ; 0831
                    68 01 FB 0037C          CALLS   #1, CLI$PRESENT                         ;
                    15 50 E9 0037F          BLBC    R0, 46$                                 ;
                       5A DD 00382          PUSHL   R10                                     ; 0834
                    90 A6 9F 00384          PUSHAB  SD_DIRECTORY                            ;
                    6B 02 FB 00387          CALLS   #2, CLI$GET_VALUE                       ;
00000000V           00 00 FB 0038A          CALLS   #0, GETDIRECTORY                        ; 0835
                    20 50 E9 00391 45$:     BLBC    R0, 47$                                 ;
                    67 01 D0 00394          MOVL    #1, STATUS                              ; 0837
                    A0 A6 9F 00397 46$:     PUSHAB  SD_ENQLM                                ; 0840
                    68 01 FB 0039A          CALLS   #1, CLI$PRESENT                         ;
                    1A 50 E9 0039D          BLBC    R0, 48$                                 ;
                       5A DD 003A0          PUSHL   R10                                     ; 0843
                    A0 A6 9F 003A2          PUSHAB  SD_ENQLM                                ;
                    6B 02 FB 003A5          CALLS   #2, CLI$GET_VALUE                       ;
                       10 DD 003A8          PUSHL   #16                                     ; 0844
                    42 A9 9F 003AA          PUSHAB  RECBUF+534                              ;
00000000V           00 02 FB 003AD          CALLS   #2, GETVAL                              ;
                    77 50 E9 003B4 47$:     BLBC    R0, 53$                                 ;
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                              67          01   D0 003B7          MOVL    #1, STATUS                                   : 0846
                                    01CC  C6   9F 003BA 48$:     PUSHAB  SD_EXPIRATION                                : 0849
                              68          01   FB 003BE          CALLS   #1, CLI$PRESENT                              :
                         04   A7          50   D0 003C1          MOVL    R0, CLI_STATUS                               :
                  00000000G   8F          50   D1 003C5          CMPL    R0, #CLI$_NEGATED                            : 0850
                                          09   12 003CC          BNEQ    49$                                          :
       08             00      6E          00   2C 003CE          MOVC5   #0, (SP), #0, #8, RECBUF+364                 : 0853
                                      98  A9      003D3                                                               :
                                          21   11 003D5          BRB     50$                                          : 0854
                              21          50   E9 003D7 49$:     BLBC    R0, 51$                                      : 0857
                                          5A   DD 003DA          PUSHL   R10                                          : 0860
                                    01CC  C6   9F 003DC          PUSHAB  SD_EXPIRATION                                :
                              6B          02   FB 003E0          CALLS   #2, CLI$GET_VALUE                            :
                                      98  A9   9F 003E3          PUSHAB  RECBUF+364                                   : 0861
                                          5A   DD 003E6          PUSHL   R10                                          :
                  00000000G   00          02   FB 003E8          CALLS   #2, LIB$CVT_TIME                             :
                              67          50   D0 003EF          MOVL    R0, STATUS                                   :
                              03          50   E8 003F2          BLBS    R0, 50$                                      :
                                        02D4   31 003F5          BRW     91$                                          :
                              67          01   D0 003F8 50$:     MOVL    #1, STATUS                                   : 0867
                                      B0  A6   9F 003FB 51$:     PUSHAB  SD_FILLM                                     : 0870
                              68          01   FB 003FE          CALLS   #1, CLI$PRESENT                              :
                              1A          50   E9 00401          BLBC    R0, 52$                                      :
                                          5A   DD 00404          PUSHL   R10                                          : 0873
                                      B0  A6   9F 00406          PUSHAB  SD_FILLM                                     :
                              6B          02   FB 00409          CALLS   #2, CLI$GET_VALUE                            :
                                          10   DD 0040C          PUSHL   #16                                          : 0874
                                      44  A9   9F 0040E          PUSHAB  RECBUF+536                                   :
                  00000000V   00          02   FB 00411          CALLS   #2, GETVAL                                   :
                              60          50   E9 00418          BLBC    R0, 56$                                      :
                              67          01   D0 0041B          MOVL    #1, STATUS                                   : 0876
                                      C0  A6   9F 0041E 52$:     PUSHAB  SD_FLAGS                                     : 0879
                              68          01   FB 00421          CALLS   #1, CLI$PRESENT                              :
                              0D          50   E9 00424          BLBC    R0, 54$                                      :
                  00000000V   00          00   FB 00427          CALLS   #0, GETFLAGS                                 : 0882
                              6D          50   E9 0042E 53$:     BLBC    R0, 58$                                      :
                              67          01   D0 00431          MOVL    #1, STATUS                                   : 0884
                                    0170  C6   9F 00434 54$:     PUSHAB  SD_JTQUOTA                                   : 0887
                              68          01   FB 00438          CALLS   #1, CLI$PRESENT                              :
                              1B          50   E9 0043B          BLBC    R0, 55$                                      :
                                          5A   DD 0043E          PUSHL   R10                                          : 0890
                                    0170  C6   9F 00440          PUSHAB  SD_JTQUOTA                                   :
                              6B          02   FB 00444          CALLS   #2, CLI$GET_VALUE                            :
                                          20   DD 00447          PUSHL   #32                                          : 0891
                                      64  A9   9F 00449          PUSHAB  RECBUF+568                                   :
                  00000000V   00          02   FB 0044C          CALLS   #2, GETVAL                                   :
                              6D          50   E9 00453          BLBC    R0, 60$                                      :
                              67          01   D0 00456          MOVL    #1, STATUS                                   : 0893
                                      D0  A6   9F 00459 55$:     PUSHAB  SD_LGICMD                                    : 0896
                              68          01   FB 0045C          CALLS   #1, CLI$PRESENT                              :
                              1F          50   E9 0045F          BLBC    R0, 57$                                      :
                                          5A   DD 00462          PUSHL   R10                                          : 0899
                                      D0  A6   9F 00464          PUSHAB  SD_LGICMD                                    :
                              6B          02   FB 00467          CALLS   #2, CLI$GET_VALUE                            :
                                          01   DD 0046A          PUSHL   #1                                           : 0900
                              7E      40  8F   9A 0046C          MOVZBL  #64, -(SP)                                   :
                                    FF00  C9   9F 00470          PUSHAB  RECBUF+212                                   :
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                00000000V 00            03 FB 00474             CALLS   #3, GETSTRING                                    ;
                          6A            50 E9 0047B 56$:        BLBC    R0, 62$                                          ;
                          67            01 D0 0047E             MOVL    #1, STATUS                                       ; 0902
                              E0        A6 9F 00481 57$:        PUSHAB  SD_MAXJOBS                                       ; 0905
                          68            01 FB 00484             CALLS   #1, CLI$PRESENT                                  ;
                          1A            50 E9 00487             BLBC    R0, 59$                                          ;
                                        5A DD 0048A             PUSHL   R10                                              ; 0908
                              E0        A6 9F 0048C             PUSHAB  SD_MAXJOBS                                       ;
                          6B            02 FB 0048F             CALLS   #2, CLI$GET_VALUE                                ;
                                        10 DD 00492             PUSHL   #16                                              ; 0909
                                  32    A9 9F 00494             PUSHAB  RECBUF+518                                       ;
                00000000V 00            02 FB 00497             CALLS   #2, GETVAL                                       ;
                          6D            50 E9 0049E 58$:        BLBC    R0, 64$                                          ;
                          67            01 D0 004A1             MOVL    #1, STATUS                                       ; 0911
                                0138    C6 9F 004A4 59$:        PUSHAB  SD_MAXACCTJOBS                                   ; 0914
                          68            01 FB 004A8             CALLS   #1, CLI$PRESENT                                  ;
                          1B            50 E9 004AB             BLBC    R0, 61$                                          ;
                                        5A DD 004AE             PUSHL   R10                                              ; 0917
                                0138    C6 9F 004B0             PUSHAB  SD_MAXACCTJOBS                                   ;
                          6B            02 FB 004B4             CALLS   #2, CLI$GET_VALUE                                ;
                                        10 DD 004B7             PUSHL   #16                                              ; 0918
                                  34    A9 9F 004B9             PUSHAB  RECBUF+520                                       ;
                00000000V 00            02 FB 004BC             CALLS   #2, GETVAL                                       ;
                          6B            50 E9 004C3 60$:        BLBC    R0, 66$                                          ;
                          67            01 D0 004C6             MOVL    #1, STATUS                                       ; 0920
                                014C    C6 9F 004C9 61$:        PUSHAB  SD_MAXDETACH                                     ; 0923
                          68            01 FB 004CD             CALLS   #1, CLI$PRESENT                                  ;
                          1B            50 E9 004D0             BLBC    R0, 63$                                          ;
                                        5A DD 004D3             PUSHL   R10                                              ; 0926
                                014C    C6 9F 004D5             PUSHAB  SD_MAXDETACH                                     ;
                          6B            02 FB 004D9             CALLS   #2, CLI$GET_VALUE                                ;
                                        10 DD 004DC             PUSHL   #16                                              ; 0927
                                  36    A9 9F 004DE             PUSHAB  RECBUF+522                                       ;
                00000000V 00            02 FB 004E1             CALLS   #2, GETVAL                                       ;
                          69            50 E9 004E8 62$:        BLBC    R0, 68$                                          ;
                          67            01 D0 004EB             MOVL    #1, STATUS                                       ; 0929
                              F0        A6 9F 004EE 63$:        PUSHAB  SD_OWNER                                         ; 0932
                          68            01 FB 004F1             CALLS   #1, CLI$PRESENT                                  ;
                          1D            50 E9 004F4             BLBC    R0, 65$                                          ;
                                        5A DD 004F7             PUSHL   R10                                              ; 0935
                              F0        A6 9F 004F9             PUSHAB  SD_OWNER                                         ;
                          6B            02 FB 004FC             CALLS   #2, CLI$GET_VALUE                                ;
                                        01 DD 004FF             PUSHL   #1                                               ; 0936
                                        20 DD 00501             PUSHL   #32                                              ;
                                FE80    C9 9F 00503             PUSHAB  RECBUF+84                                        ;
                00000000V 00            03 FB 00507             CALLS   #3, GETSTRING                                    ;
                          7B            50 E9 0050E 64$:        BLBC    R0, 71$                                          ;
                          67            01 D0 00511             MOVL    #1, STATUS                                       ; 0938
                                10      A6 9F 00514 65$:        PUSHAB  SD_PBYTLM                                        ; 0941
                          68            01 FB 00517             CALLS   #1, CLI$PRESENT                                  ;
                          1A            50 E9 0051A             BLBC    R0, 67$                                          ;
                                        5A DD 0051D             PUSHL   R10                                              ; 0944
                                10      A6 9F 0051F             PUSHAB  SD_PBYTLM                                        ;
                          6B            02 FB 00522             CALLS   #2, CLI$GET_VALUE                                ;
                                        20 DD 00525             PUSHL   #32                                              ; 0945
                                  60    A9 9F 00527             PUSHAB  RECBUF+564                                       ;
                00000000V 00            02 FB 0052A             CALLS   #2, GETVAL                                       ;
```

```
                                 75              50  E9 00531 66$:    BLBC    R0, 73$                         ;
                                 67              01  D0 00534         MOVL    #1, STATUS                      ; 0947
                                       34        A6  9F 00537 67$:    PUSHAB  SD_PGFLQUOTA                    ; 0950
                                 68              01  FB 0053A         CALLS   #1, CLI$PRESENT                 ;
                                 1A              50  E9 0053D         BLBC    R0, 69$                         ;
                                                 5A  DD 00540         PUSHL   R10                             ; 0953
                                       34        A6  9F 00542         PUSHAB  SD_PGFLQUOTA                    ;
                                 6B              02  FB 00545         CALLS   #2, CLI$GET_VALUE               ;
                                                 18  DD 00548         PUSHL   #24                             ; 0954
                                       54        A9  9F 0054A         PUSHAB  RECBUF+552                      ;
                           00000000V   00          02  FB 0054D         CALLS   #2, GETVAL                      ;
                                 6D              50  E9 00554 68$:    BLBC    R0, 75$                         ;
                                 67              01  D0 00557         MOVL    #1, STATUS                      ; 0956
                                       48        A6  9F 0055A 69$:    PUSHAB  SD_P_RESTRICT                   ; 0959
                                 68              01  FB 0055D         CALLS   #1, CLI$PRESENT                 ;
                                 10              50  E9 00560         BLBC    R0, 70$                         ;
                                       48        A6  9F 00563         PUSHAB  SD_P_RESTRICT                   ; 0962
                           00000000V   00          01  FB 00566         CALLS   #1, GETRESTRICT                 ;
                                 77              50  E9 0056D         BLBC    R0, 77$                         ;
                                 67              01  D0 00570         MOVL    #1, STATUS                      ; 0964
                                     00A0        C6  9F 00573 70$:    PUSHAB  SD_S_RESTRICT                   ; 0967
                                 68              01  FB 00577         CALLS   #1, CLI$PRESENT                 ;
                                 15              50  E9 0057A         BLBC    R0, 72$                         ;
                                       4C        A7  01  D0 0057D         MOVL    #1, SECONDARY                   ; 0970
                                     00A0        C6  9F 00581         PUSHAB  SD_S_RESTRICT                   ; 0971
                           00000000V   00          01  FB 00585         CALLS   #1, GETRESTRICT                 ;
                                 6F              50  E9 0058C 71$:    BLBC    R0, 79$                         ;
                                 67              01  D0 0058F         MOVL    #1, STATUS                      ; 0973
                                       20        A6  9F 00592 72$:    PUSHAB  SD_PFLAGS                       ; 0976
                                 68              01  FB 00595         CALLS   #1, CLI$PRESENT                 ;
                                 14              50  E9 00598         BLBC    R0, 74$                         ;
                                       48        A7  01  D0 0059B         MOVL    #1, PRIMARY                     ; 0979
                                       20        A6  9F 0059F         PUSHAB  SD_PFLAGS                       ; 0980
                           00000000V   00          01  FB 005A2         CALLS   #1, GETPFLAGS                   ;
                                 75              50  E9 005A9 73$:    BLBC    R0, 81$                         ;
                                 67              01  D0 005AC         MOVL    #1, STATUS                      ; 0982
                                     008C        C6  9F 005AF 74$:    PUSHAB  SD_SFLAGS                       ; 0985
                                 68              01  FB 005B3         CALLS   #1, CLI$PRESENT                 ;
                                 11              50  E9 005B6         BLBC    R0, 76$                         ;
                                     008C        C6  9F 005B9         PUSHAB  SD_SFLAGS                       ; 0988
                           00000000V   00          01  FB 005BD         CALLS   #1, GETPFLAGS                   ;
                                 76              50  E9 005C4 75$:    BLBC    R0, 83$                         ;
                                 67              01  D0 005C7         MOVL    #1, STATUS                      ; 0990
                                       58        A6  9F 005CA 76$:    PUSHAB  SD_PRCLM                        ; 0993
                                 68              01  FB 005CD         CALLS   #1, CLI$PRESENT                 ;
                                 1A              50  E9 005D0         BLBC    R0, 78$                         ;
                                                 5A  DD 005D3         PUSHL   R10                             ; 0996
                                       58        A6  9F 005D5         PUSHAB  SD_PRCLM                        ;
                                 6B              02  FB 005D8         CALLS   #2, CLI$GET_VALUE               ;
                                                 10  DD 005DB         PUSHL   #16                             ; 0997
                                       38        A9  9F 005DD         PUSHAB  RECBUF+524                      ;
                           00000000V   00          02  FB 005E0         CALLS   #2, GETVAL                      ;
                                 53              50  E9 005E7 77$:    BLBC    R0, 83$                         ;
                                 67              01  D0 005EA         MOVL    #1, STATUS                      ; 0999
                                     0124        C6  9F 005ED 78$:    PUSHAB  SD_PRIMEDAYS                    ; 1002
                                 68              01  FB 005F1         CALLS   #1, CLI$PRESENT                 ;
                                 0D              50  E9 005F4         BLBC    R0, 80$                         ;
```

```
                00000000V 00            00  FB 005F7          CALLS   #0, GETPRIMEDAYS                          ; 1005
                       3C               50  E9 005FE 79$:     BLBC    R0, 83$                                  ;
                       67               01  D0 00601          MOVL    #1, STATUS                               ; 1007
                                    68  A6  9F 00604 80$:     PUSHAB  SD_PRIORITY                              ; 1010
                       68               01  FB 00607          CALLS   #1, CLI$PRESENT                          ;
                       1A               50  E9 0060A          BLBC    R0, 82$                                  ;
                                        5A  DD 0060D          PUSHL   R10                                      ; 1013
                                    68  A6  9F 0060F          PUSHAB  SD_PRIORITY                              ;
                       6B               02  FB 00612          CALLS   #2, CLI$GET_VALUE                        ;
                                        08  DD 00615          PUSHL   #8                                       ; 1014
                                    30  A9  9F 00617          PUSHAB  RECBUF+516                               ;
                00000000V 00            02  FB 0061A          CALLS   #2, GETVAL                               ;
                       19               50  E9 00621 81$:     BLBC    R0, 83$                                  ;
                       67               01  D0 00624          MOVL    #1, STATUS                               ; 1016
                                    7C  A6  9F 00627 82$:     PUSHAB  SD_PRIVILEGES                            ; 1019
                       68               01  FB 0062A          CALLS   #1, CLI$PRESENT                          ;
                       16               50  E9 0062D          BLBC    R0, 85$                                  ;
                                    C8  A9  9F 00630          PUSHAB  RECBUF+412                               ; 1022
                                    7C  A6  9F 00633          PUSHAB  SD_PRIVILEGES                            ;
                00000000V 00            02  FB 00636          CALLS   #2, GETPRIV                              ;
                       03               50  E8 0063D 83$:     BLBS    R0, 84$                                  ;
                                    01E0    31 00640          BRW     107$                                     ;
                       67               01  D0 00643 84$:     MOVL    #1, STATUS                               ; 1024
                                03AC    C6  9F 00646 85$:     PUSHAB  P.AFD                                    ; 1027
                       68               01  FB 0064A          CALLS   #1, CLI$PRESENT                          ;
                    04 A7               50  D0 0064D          MOVL    R0, CLI_STATUS                           ;
                00000000G 8F            50  D1 00651          CMPL    R0, #CLI$_NEGATED                        ; 1028
                                        08  12 00658          BNEQ    86$                                      ;
                       50           A8  A9  9E 0065A          MOVAB   RECBUF+380, TIME                         ; 1031
                                        60  7C 0065E          CLRQ    (TIME)                                   ; 1032
                                        0E  11 00660          BRB     87$                                      ; 1033
                                    12  50  E9 00662 86$:     BLBC    R0, 88$                                  ; 1036
                                    50  A8  A9 9E 00665        MOVAB   RECBUF+380, TIME                         ; 1039
                                    60      01 CE 00669       MNEGL   #1, (TIME)                               ; 1040
                                04  A0      01 CE 0066C       MNEGL   #1, 4(TIME)                              ;
                                01  A9      02 8A 00670 87$:  BICB2   #2, RECBUF+469                           ; 1041
                                    67      01 D0 00674       MOVL    #1, STATUS                               ; 1042
                                        0214 C6 9F 00677 88$:  PUSHAB  SD_PWDLIFETIME                           ; 1045
                                    68      01 FB 0067B       CALLS   #1, CLI$PRESENT                          ;
                                04  A7      50 D0 0067E       MOVL    R0, CLI_STATUS                           ;
                            00000000G 8F    50 D1 00682       CMPL    R0, #CLI$_NEGATED                        ; 1046
                                            09 12 00689       BNEQ    89$                                      ;
08              00                  6E      00 2C 0068B       MOVC5   #0, (SP), #0, #8, RECBUF+372             ; 1049
                                        A0  A9    00690
                                            44 11 00692       BRB     93$                                      ; 1050
                                    48      50 E9 00694 89$:  BLBC    R0, 94$                                  ; 1054
                                            5A DD 00697       PUSHL   R10                                      ; 1057
                                        0214 C6 9F 00699      PUSHAB  SD_PWDLIFETIME                           ;
                                    6B      02 FB 0069D       CALLS   #2, CLI$GET_VALUE                        ;
                                    50  04  AA D0 006A0       MOVL    TOKENDSC+4, R0                           ; 1058
04              00                  60      6A 2D 006A4       CMPC5   TOKENDSC, (R0), #0, #4, P.AFF            ;
                                        03B4 C6   006A9
                                            0C 12 006AC       BNEQ    90$                                      ;
08              00                  6E      00 2C 006AE       MOVC5   #0, (SP), #0, #8, RECBUF+372             ; 1061
                                        A0  A9    006B3
                                    67      01 D0 006B5       MOVL    #1, STATUS                               ; 1062
                                            1E 11 006B8       BRB     93$                                      ; 1058
```

```
                                    A0  A9  9F 006BA 90$:    PUSHAB  RECBUF+372                      ; 1065
                                        5A  DD 006BD         PUSHL   R10                             ;
                00000000G  00           02  FB 006BF         CALLS   #2, LIB$CVT_DTIME               ;
                           67           50  D0 006C6         MOVL    R0, STATUS                      ;
                           0C           50  E8 006C9         BLBS    R0, 93$                         ;
                                        67  DD 006CC 91$:    PUSHL   STATUS                          ; 1068
                00000000G  00           01  FB 006CE         CALLS   #1, LIB$SIGNAL                  ;
                                    014B 31  006D5 92$:      BRW     107$                            ; 1069
                      01   A9           02  8A 006D8 93$:    BICB2   #2, RECBUF+469                  ; 1071
                           67           01  D0 006DC         MOVL    #1, STATUS                      ; 1072
                                0228    C6  9F 006DF 94$:    PUSHAB  SD_PWDMINIMUM                   ; 1075
                           68           01  FB 006E3         CALLS   #1, CLI$PRESENT                 ;
                           1B           50  E9 006E6         BLBC    R0, 95$                         ;
                                        5A  DD 006E9         PUSHL   R10                             ; 1078
                                0228    C6  9F 006EB         PUSHAB  SD_PWDMINIMUM                   ;
                           6B           02  FB 006EF         CALLS   #2, CLI$GET_VALUE               ;
                                        08  DD 006F2         PUSHL   #8                              ; 1079
                                  96    A9  9F 006F4         PUSHAB  RECBUF+362                      ;
                00000000V  00           02  FB 006F7         CALLS   #2, GETVAL                      ;
                           D4           50  E9 006FE         BLBC    R0, 92$                         ;
                           67           01  D0 00701         MOVL    #1, STATUS                      ; 1081
                                023C    C6  9F 00704 95$:    PUSHAB  SD_QUEPRIORITY                  ; 1084
                           68           01  FB 00708         CALLS   #1, CLI$PRESENT                 ;
                           1B           50  E9 0070B         BLBC    R0, 96$                         ;
                                        5A  DD 0070E         PUSHL   R10                             ; 1087
                                023C    C6  9F 00710         PUSHAB  SD_QUEPRIORITY                  ;
                           6B           02  FB 00714         CALLS   #2, CLI$GET_VALUE               ;
                                        08  DD 00717         PUSHL   #8                              ; 1088
                                  31    A9  9F 00719         PUSHAB  RECBUF+517                      ;
                00000000V  00           02  FB 0071C         CALLS   #2, GETVAL                      ;
                           AF           50  E9 00723         BLBC    R0, 92$                         ;
                           67           01  D0 00726         MOVL    #1, STATUS                      ; 1090
                                00B0    C6  9F 00729 96$:    PUSHAB  SD_SHRFILLM                     ; 1093
                           68           01  FB 0072D         CALLS   #1, CLI$PRESENT                 ;
                           1B           50  E9 00730         BLBC    R0, 97$                         ;
                                        5A  DD 00733         PUSHL   R10                             ; 1096
                                00B0    C6  9F 00735         PUSHAB  SD_SHRFILLM                     ;
                           6B           02  FB 00739         CALLS   #2, CLI$GET_VALUE               ;
                                        10  DD 0073C         PUSHL   #16                             ; 1097
                                  46    A9  9F 0073E         PUSHAB  RECBUF+538                      ;
                00000000V  00           02  FB 00741         CALLS   #2, GETVAL                      ;
                           8A           50  E9 00748         BLBC    R0, 92$                         ;
                           67           01  D0 0074B         MOVL    #1, STATUS                      ; 1099
                                00C0    C6  9F 0074E 97$:    PUSHAB  SD_TQELM                        ; 1102
                           68           01  FB 00752         CALLS   #1, CLI$PRESENT                 ;
                           1B           50  E9 00755         BLBC    R0, 98$                         ;
                                        5A  DD 00758         PUSHL   R10                             ; 1105
                                00C0    C6  9F 0075A         PUSHAB  SD_TQELM                        ;
                           6B           02  FB 0075E         CALLS   #2, CLI$GET_VALUE               ;
                                        10  DD 00761         PUSHL   #16                             ; 1106
                                  3E    A9  9F 00763         PUSHAB  RECBUF+530                      ;
                00000000V  00           02  FB 00766         CALLS   #2, GETVAL                      ;
                           6A           50  E9 0076D         BLBC    R0, 101$                        ;
                           67           01  D0 00770         MOVL    #1, STATUS                      ; 1108
                                00CC    C6  9F 00773 98$:    PUSHAB  SD_UIC                          ; 1111
                           68           01  FB 00777         CALLS   #1, CLI$PRESENT                 ;
                           16           50  E9 0077A         BLBC    R0, 99$                         ;
```

```
                              5A  DD 0077D         PUSHL   R10                          ; 1114
                     00CC  C6  9F 0077F         PUSHAB  SD_UIC                       ;
               6B              02  FB 00783         CALLS   #2, CLI$GET_VALUE            ;
      00000000V  00              00  FB 00786         CALLS   #0, GETUIC                   ; 1115
               72              50  E9 0078D         BLBC    R0, 103$                     ;
               67              01  D0 00790         MOVL    #1, STATUS                   ; 1117
                     00E0  C6  9F 00793 99$:    PUSHAB  SD_WSDEFAULT                 ; 1120
               6B              01  FB 00797         CALLS   #1, CLI$PRESENT              ;
               1E              50  E9 0079A         BLBC    R0, 100$                     ;
                              5A  DD 0079D         PUSHL   R10                          ; 1123
                     00E0  C6  9F 0079F         PUSHAB  SD_WSDEFAULT                 ;
               6B              02  FB 007A3         CALLS   #2, CLI$GET_VALUE            ;
                              11  DD 007A6         PUSHL   #17                          ; 1124
                       4C  A9  9F 007A8         PUSHAB  RECBUF+544                   ;
      00000000V  00              02  FB 007AB         CALLS   #2, GETVAL                   ;
               6E              50  E9 007B2         BLBC    R0, 107$                     ;
                       4E  A9  B4 007B5         CLRW    RECBUF+546                   ; 1126
               67              01  D0 007B8         MOVL    #1, STATUS                   ; 1127
                     00F0  C6  9F 007BB 100$:   PUSHAB  SD_WSEXTENT                  ; 1130
               6B              01  FB 007BF         CALLS   #1, CLI$PRESENT              ;
               1E              50  E9 007C2         BLBC    R0, 102$                     ;
                              5A  DD 007C5         PUSHL   R10                          ; 1133
                     00F0  C6  9F 007C7         PUSHAB  SD_WSEXTENT                  ;
               6B              02  FB 007CB         CALLS   #2, CLI$GET_VALUE            ;
                              11  DD 007CE         PUSHL   #17                          ; 1134
                       50  A9  9F 007D0         PUSHAB  RECBUF+548                   ;
      00000000V  00              02  FB 007D3         CALLS   #2, GETVAL                   ;
               46              50  E9 007DA 101$:   BLBC    R0, 107$                     ;
                       52  A9  B4 007DD         CLRW    RECBUF+550                   ; 1136
               67              01  D0 007E0         MOVL    #1, STATUS                   ; 1137
                     0100  C6  9F 007E3 102$:   PUSHAB  SD_WSQUOTA                   ; 1140
               6B              01  FB 007E7         CALLS   #1, CLI$PRESENT              ;
               1E              50  E9 007EA         BLBC    R0, 104$                     ;
                              5A  DD 007ED         PUSHL   R10                          ; 1143
                     0100  C6  9F 007EF         PUSHAB  SD_WSQUOTA                   ;
               6B              02  FB 007F3         CALLS   #2, CLI$GET_VALUE            ;
                              11  DD 007F6         PUSHL   #17                          ; 1144
                       48  A9  9F 007F8         PUSHAB  RECBUF+540                   ;
      00000000V  00              02  FB 007FB         CALLS   #2, GETVAL                   ;
               1E              50  E9 00802 103$:   BLBC    R0, 107$                     ;
                       4A  A9  B4 00805         CLRW    RECBUF+542                   ; 1146
               67              01  D0 00808         MOVL    #1, STATUS                   ; 1147
   08 00000000G  00              02  E0 0080B 104$:   BBS     #2, UAF$GL_CTLMSK, 105$      ; 1150
   04 00000000G  00              01  E1 00813         BBC     #1, UAF$GL_CTLMSK, 106$      ;
               50              01  D0 0081B 105$:   MOVL    #1, R0                       ; 1152
                              04 0081E         RET                                  ;
               50              67  D0 0081F 106$:   MOVL    STATUS, R0                   ; 1154
                              04 00822         RET                                  ;
                              50  D4 00823 107$:   CLRL    R0                           ; 1155
                              04 00825         RET                                  ;

; Routine Size:  2086 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  1064          1156  1 %sbttl 'getaccess - get hourly and daily access control flags'
;  1065          1157  1 routine getaccess (qual_name, access_type, qual_status) =
;  1066          1158  2 begin
;  1067          1159  2
;  1068          1160  2 !++
;  1069          1161  2 !
;  1070          1162  2 ! FUNCTIONAL DESCRIPTION:
;  1071          1163  2 !
;  1072          1164  2 !       Parse the value list for hourly login restrictions on the
;  1073          1165  2 !       selected access modes.
;  1074          1166  2 !
;  1075          1167  2 ! INPUTS:
;  1076          1168  2 !
;  1077          1169  2 !       qual_name - descriptor of qualifier name to use
;  1078          1170  2 !       access_type - bitvector representing the access modes to be affected
;  1079          1171  2 !       qual_status - status from cli$present for qualifier
;  1080          1172  2 !
;  1081          1173  2 ! IMPLICIT INPUTS:
;  1082          1174  2 !
;  1083          1175  2 !       none
;  1084          1176  2 !
;  1085          1177  2 ! OUTPUTS:
;  1086          1178  2 !
;  1087          1179  2 !       none
;  1088          1180  2 !
;  1089          1181  2 ! IMPLICIT OUTPUTS:
;  1090          1182  2 !
;  1091          1183  2 !       none
;  1092          1184  2 !
;  1093          1185  2 ! ROUTINE VALUE:
;  1094          1186  2 !
;  1095          1187  2 !       true -> all keywords and parameters were specified correctly
;  1096          1188  2 !
;  1097          1189  2 ! SIDE EFFECTS:
;  1098          1190  2 !
;  1099          1191  2 !       none
;  1100          1192  2 !--
;  1101          1193  2
;  1102          1194  2 map
;  1103          1195  2         access_type     : bitvector;
;  1104          1196  2
;  1105          1197  2 STRUCTURE
;  1106          1198  2     threebytevector [i; n, ext=0] =
;  1107          1199  2         [n*3]
;  1108          1200  2         (threebytevector+i*3)<0, 24, ext>;
;  1109          1201  2
;  1110          1202  2 $ASSUME ($BYTEOFFSET (uaf$b_network_access_s), EQL, $BYTEOFFSET (uaf$b_network_access_p)+3);
;  1111          1203  2 $ASSUME ($BYTEOFFSET (uaf$b_batch_access_p), EQL, $BYTEOFFSET (uaf$b_network_access_s)+3);
;  1112          1204  2 $ASSUME ($BYTEOFFSET (uaf$b_batch_access_s), EQL, $BYTEOFFSET (uaf$b_batch_access_p)+3);
;  1113          1205  2 $ASSUME ($BYTEOFFSET (uaf$b_local_access_p), EQL, $BYTEOFFSET (uaf$b_batch_access_s)+3);
;  1114          1206  2 $ASSUME ($BYTEOFFSET (uaf$b_local_access_s), EQL, $BYTEOFFSET (uaf$b_local_access_p)+3);
;  1115          1207  2 $ASSUME ($BYTEOFFSET (uaf$b_dialup_access_p), EQL, $BYTEOFFSET (uaf$b_local_access_s)+3);
;  1116          1208  2 $ASSUME ($BYTEOFFSET (uaf$b_dialup_access_s), EQL, $BYTEOFFSET (uaf$b_dialup_access_p)+3);
;  1117          1209  2 $ASSUME ($BYTEOFFSET (uaf$b_remote_access_p), EQL, $BYTEOFFSET (uaf$b_dialup_access_s)+3);
;  1118          1210  2 $ASSUME ($BYTEOFFSET (uaf$b_remote_access_s), EQL, $BYTEOFFSET (uaf$b_remote_access_p)+3);
;  1119          1211  2
;  1120          1212  2 bind
```

```
;  1121          1213  2          access_vector   = recbuf[uaf$b_network_access_p]
;  1122          1214  2                          : threebytevector;
;  1123          1215  2
;  1124          1216  2 !
;  1125          1217  2 ! Initialize output values.
;  1126          1218  2 !
;  1127          1219  2 primary_access = -1;
;  1128          1220  2 secondary_access = -1;
;  1129          1221  2 if not .qual_status then no_flag = true;
;  1130          1222  2
;  1131          1223  2 !
;  1132          1224  2 ! Fetch value list items and parse them.
;  1133          1225  2 !
;  1134          1226  2 while true
;  1135          1227  2 do
;  1136          1228  3     begin
;  1137          1229  3     if not cli$get_value (.qual_name, tokendsc)
;  1138          1230  3     then exitloop;
;  1139          1231  3
;  1140          1232  3     tparse_block[tpa$l_stringcnt] = .tokenlen;
;  1141          1233  3     tparse_block[tpa$l_stringptr] = .tokenptr;
;  1142          1234  3     if not lib$tparse (tparse_block, access_states, access_keys)
;  1143          1235  3     then return LIB$SIGNAL(UAF$_BADVALUE, 2, .tokenlen, .tokenptr);
;  1144          1236  2     end;
;  1145          1237  2
;  1146          1238  2 !
;  1147          1239  2 ! Default omitted values.
;  1148          1240  2 !
;  1149          1241  2 if not .primary and not .secondary
;  1150          1242  2 then secondary_access = .primary_access;
;  1151          1243  2 if .primary and not .secondary
;  1152          1244  2 then secondary_access = 0;
;  1153          1245  2 if .secondary and not .primary and .primary_access eql -1
;  1154          1246  2 then primary_access = 0;
;  1155          1247  2
;  1156          1248  2 if not .no_flag
;  1157          1249  2 then
;  1158          1250  3     begin
;  1159          1251  3     primary_access = not .primary_access;
;  1160          1252  3     secondary_access = not .secondary_access;
;  1161          1253  2     end;
;  1162          1254  2
;  1163          1255  2 !
;  1164          1256  2 ! Write the specified fields in the UAF record.
;  1165          1257  2 !
;  1166          1258  2 incr j from 0 to 4
;  1167          1259  2 do
;  1168          1260  3     begin
;  1169          1261  3     if .access_type[.j]
;  1170          1262  3     then
;  1171          1263  4         begin
;  1172          1264  4         access_vector [.j*2+0] = .primary_access;
;  1173          1265  4         access_vector [.j*2+1] = .secondary_access;
;  1174          1266  3         end;
;  1175          1267  2     end;
;  1176          1268  2
;  1177          1269  2 true
```

```
; 1178          1270  1 end;

                                003C 00000 GETACCESS:
                                                        .WORD   Save R2,R3,R4,R5                        ; 1157
                                55 00000000G   00  9E 00002     MOVAB   TOKENPTR, R5                    ;
                                54 00000000G   00  9E 00009     MOVAB   TOKENLEN, R4                    ;
                                53 00000000'   00  9E 00010     MOVAB   PRIMARY_ACCESS, R3              ;
                                63             01  CE 00017     MNEGL   #1, PRIMARY_ACCESS              ; 1219
                             04 A3             01  CE 0001A     MNEGL   #1, SECONDARY_ACCESS            ; 1220
                                04       0C    AC  E8 0001E     BLBS    QUAL_STATUS, 1$                 ; 1221
                             08 A3             01  D0 00022     MOVL    #1, NO_FLAG                     ;
                                   00000000G   00  9F 00026 1$:  PUSHAB  TOKENDSC                        ; 1229
                                         04    AC  DD 0002C     PUSHL   QUAL_NAME                       ;
                00000000G    00             02  FB 0002F     CALLS   #2, CLI$GET_VALUE               ;
                                36             50  E9 00036     BLBC    R0, 2$                          ;
                             D4 A3             64  3C 00039     MOVZWL  TOKENLEN, TPARSE_BLOCK+8        ; 1232
                             D8 A3             65  D0 0003D     MOVL    TOKENPTR, TPARSE_BLOCK+12       ; 1233
                                   00000000'   00  9F 00041     PUSHAB  ACCESS_KEYS                     ; 1234
                                   00000000'   00  9F 00047     PUSHAB  ACCESS_STATES                   ;
                                         CC    A3  9F 0004D     PUSHAB  TPARSE_BLOCK                    ;
                00000000G    00             03  FB 00050     CALLS   #3, LIB$TPARSE                  ;
                                CC             50  E8 00057     BLBS    R0, 1$                          ;
                                               65  DD 0005A     PUSHL   TOKENPTR                        ; 1235
                                7E             64  3C 0005C     MOVZWL  TOKENLEN, -(SP)                 ;
                                               02  DD 0005F     PUSHL   #2                              ;
                                   00000000G   8F  DD 00061     PUSHL   #UAF$_BADVALUE                  ;
                   00000000G    00             04  FB 00067     CALLS   #4, LIB$SIGNAL                  ;
                                               04  0006E     RET                                     ;
                                50       0C    A3  D0 0006F 2$:  MOVL    PRIMARY, R0                   ; 1241
                                0B             50  E8 00073     BLBS    R0, 4$                          ;
                                04       10    A3  E8 00076     BLBS    SECONDARY, 3$                   ;
                             04 A3             63  D0 0007A     MOVL    PRIMARY_ACCESS, SECONDARY_ACCESS ; 1242
                                07             50  E9 0007E 3$:  BLBC    R0, 5$                          ; 1243
                                07       10    A3  E8 00081 4$:  BLBS    SECONDARY, 6$                   ;
                                         04    A3  D4 00085     CLRL    SECONDARY_ACCESS                ; 1244
                                0E       10    A3  E9 00088 5$:  BLBC    SECONDARY, 7$                   ; 1245
                                0B             50  E8 0008C 6$:  BLBS    R0, 7$                          ;
                   FFFFFFFF     8F             63  D1 0008F     CMPL    PRIMARY_ACCESS, #-1             ;
                                               02  12 00096     BNEQ    7$                              ;
                                               63  D4 00098     CLRL    PRIMARY_ACCESS                  ; 1246
                                08       08    A3  E8 0009A 7$:  BLBS    NO_FLAG, 8$                     ; 1248
                                63             63  D2 0009E     MCOML   PRIMARY_ACCESS, PRIMARY_ACCESS  ; 1251
                             04 A3       04    A3  D2 000A1     MCOML   SECONDARY_ACCESS, SECONDARY_ACCESS ; 1252
                                               50  D4 000A6 8$:  CLRL    J                               ; 1258
                      21       08    AC        50  E1 000A8 9$:  BBC     J, ACCESS_TYPE, 10$             ; 1261
                                52             50  78 000AD     ASHL    #1, J, R2                       ; 1264
                                51             52  03 C5 000B1     MULL3   #3, R2, R1                      ;
00000000G0041                   18             00  63 F0 000B5     INSV    PRIMARY_ACCESS, #0, #24, ACCESS_VECTOR[R1]
                                51             52  03 C5 000BF     MULL3   #3, R2, R1                      ; 1265
00000000G0041                   18             00  04 A3 F0 000C3     INSV    SECONDARY_ACCESS, #0, #24, ACCESS_VECTOR+3-
                                                                                [R1]                    ;
                                D6             50  04 F3 000CE 10$:  AOBLEQ  #4, J, 9$                  ; 1258
                                               50  01 D0 000D2     MOVL    #1, R0                          ; 1270
```

```
                                                04 000D5        RET                                                             ;

; Routine Size:  214 bytes,    Routine Base:  $CODE$ + 0826
```

```
;  1180          1271  1 %sbttl 'check_primary - check presence of PRIMARY keyword'
;  1181          1272  1 routine check_primary =
;  1182          1273  2 begin
;  1183          1274  2 not .primary and not .secondary
;  1184          1275  1 end;


                                        0000 00000 CHECK_PRIMARY:
                                                           .WORD   Save nothing                                    ; 1272
                 50 00000000'  00 00000000'  00  C9 00002          BISL3   SECONDARY, PRIMARY, R0                  ; 1274
                               50            50  D2 0000E          MCOML   R0, R0                                  ; 1273
                                                 04 00011          RET                                             ; 1275

; Routine Size:  18 bytes,    Routine Base:  $CODE$ + 08FC
```

```
; 1186          1276  1 %sbttl 'check_secondary - check presence of SECONDARY keyword'
; 1187          1277  1 routine check_secondary =
; 1188          1278  2 begin
; 1189          1279  2 not .secondary
; 1190          1280  1 end;


                                    0000 00000 CHECK_SECONDARY:
                                                       .WORD   Save nothing                                    ; 1277
                          50 00000000'  00  D2 00002   MCOML   SECONDARY, R0                                   ; 1278
                                        04 00009       RET                                                     ; 1280

; Routine Size:  10 bytes,    Routine Base:  $CODE$ + 090E
```

```
;1192     1281  1 %sbttl 'set_range - set hourly restriction bits'
;1193     1282  1 global routine set_range  =
;1194     1283  2 begin
;1195     1284  2
;1196     1285  2 !++
;1197     1286  2 !
;1198     1287  2 ! FUNCTIONAL DESCRIPTION:
;1199     1288  2 !
;1200     1289  2 !       Set or clear appropriate hourly login restriction bits
;1201     1290  2 !
;1202     1291  2 ! INPUTS:
;1203     1292  2 !
;1204     1293  2 !       none
;1205     1294  2 !
;1206     1295  2 ! IMPLICIT INPUTS.
;1207     1296  2 !
;1208     1297  2 !
;1209     1298  2 ! OUTPUTS:
;1210     1299  2 !
;1211     1300  2 !       none
;1212     1301  2 !
;1213     1302  2 ! ROUTINE VALUE:
;1214     1303  2 !
;1215     1304  2 !       true -> successful completion
;1216     1305  2 !       false -> error in flag name
;1217     1306  2 !--
;1218     1307  2
;1219     1308  2 builtin
;1220     1309  2         ap;
;1221     1310  2
;1222     1311  2 map
;1223     1312  2         ap              : ref block [,byte];
;1224     1313  2
;1225     1314  2 local
;1226     1315  2         address,
;1227     1316  2         width,
;1228     1317  2         leftmost,
;1229     1318  2         wrap;
;1230     1319  2
;1231     1320  2 !
;1232     1321  2 ! Point to the flags longword to use.
;1233     1322  2 !
;1234     1323  2 if .secondary
;1235     1324  2 then address = secondary_access
;1236     1325  2 else address = primary_access;
;1237     1326  2
;1238     1327  2 !
;1239     1328  2 ! Get the ending bit - note that this is the same as the starting
;1240     1329  2 ! bit for a single hour.
;1241     1330  2 !
;1242     1331  2 left_bit = .ap[tpa$l_number];
;1243     1332  2
;1244     1333  2 !
;1245     1334  2 ! Make sure hour is not out of range
;1246     1335  2 !
;1247     1336  2 if .left_bit  gtru 23
;1248     1337  2 or .right_bit gtru 23
```

```
;  1249          1338  2 then
;  1250          1339  2     return false;
;  1251          1340  2
;  1252          1341  2 !
;  1253          1342  2 ! Clear out the default field value if this is the first real value.
;  1254          1343  2 !
;  1255          1344  2 if ..address eql -1
;  1256          1345  2 then .address = 0;
;  1257          1346  2
;  1258          1347  2 wrap = false;
;  1259          1348  2 leftmost = .left_bit;
;  1260          1349  2
;  1261          1350  2 !
;  1262          1351  2 ! If the starting bit is greater than the ending bit, allow field to wrap
;  1263          1352  2 !
;  1264          1353  2 if .left_bit lss .right_bit
;  1265          1354  2 then
;  1266          1355  3     begin
;  1267          1356  3     leftmost = 23;
;  1268          1357  3     wrap = true;
;  1269          1358  2     end;
;  1270          1359  2
;  1271          1360  2 !
;  1272          1361  2 ! Set field width(s) and set appropriate bits
;  1273          1362  2 !
;  1274          1363  2 width = .leftmost - .right_bit + 1;
;  1275          1364  2
;  1276          1365  2 (.address)<.right_bit, .width> = -1;
;  1277          1366  2
;  1278          1367  2 if .wrap
;  1279          1368  2 then (.address)<0, .left_bit+1> = -1;
;  1280          1369  2
;  1281          1370  2 return true;
;  1282          1371  2
;  1283          1372  1 end;


                                    003C 00000          .ENTRY  SET_RANGE, Save R2,R3,R4,R5                     ; 1282
                         55 00000000'   00   9E 00002   MOVAB   LEFT_BIT, R5                                    ;
                         06        18   A5   E9 00009   BLBC    SECONDARY, 1$                                   ; 1323
                         53        0C   A5   9E 0000D   MOVAB   SECONDARY_ACCESS, ADDRESS                       ; 1324
                                        04   11 00011   BRB     2$                                              ;
                         53        08   A5   9E 00013 1$: MOVAB   PRIMARY_ACCESS, ADDRESS                      ; 1325
                         65        1C   AC   D0 00017 2$: MOVL    28(AP), LEFT_BIT                            ; 1331
                         54             65   D0 0001B   MOVL    LEFT_BIT, R4                                    ; 1336
                         17             54   D1 0001E   CMPL    R4, #23                                         ;
                                        47   1A 00021   BGTRU   6$                                              ;
                         17        04   A5   D1 00023   CMPL    RIGHT_BIT, #23                                  ; 1337
                                        41   1A 00027   BGTRU   6$                                              ;
                   FFFFFFFF        8F   63   D1 00029   CMPL    (ADDRESS), #-1                                  ; 1344
                                        02   12 00030   BNEQ    3$                                              ;
                                        63   D4 00032   CLRL    (ADDRESS)                                       ; 1345
                                        52   D4 00034 3$: CLRL    WRAP                                            ; 1347
                         50             54   D0 00036   MOVL    R4, LEFTMOST                                    ; 1348
```

```
                                51        04    A5  D0 00039          MOVL    RIGHT_BIT, R1                                   ; 1353
                                51              54  D1 00043          CMPL    R4, R1
                                                06  18 00046          BGEQ    4$
                                50              17  D0 00048          MOVL    #23, LEFTMOST                                   ; 1356
                                52              01  D0 0004B          MOVL    #1, WRAP                                        ; 1357
                                50              51  C2 0004E  4$:      SUBL2   R1, R0                                          ; 1363
                                                50  D6 00051          INCL    WIDTH
        63              50      51 FFFFFFFF     8F  F0 00053          INSV    #-1, R1, WIDTH, (ADDRESS)                       ; 1365
                                0D              52  E9 0005C          BLBC    WRAP, 5$                                        ; 1367
                                50        01    A4  9E 0005F          MOVAB   1(R4), R0                                       ; 1368
        63              50      00 FFFFFFFF     8F  F0 00063          INSV    #-1, #0, R0, (ADDRESS)
                                50              01  D0 0006C  5$:      MOVL    #1, R0                                          ; 1370
                                                    04 0006F          RET
                                                50  D4 00070  6$:      CLRL    R0                                              ; 1372
                                                    04 00072          RET

; Routine Size:  109 bytes,    Routine Base:  $CODE$ + 0918
```

```
;1285        1373  1 %sbttl 'getcputim - get cpu time quota'
;1286        1374  1 global routine getcputim =
;1287        1375  2 begin
;1288        1376  2
;1289        1377  2 !++
;1290        1378  2 !
;1291        1379  2 ! FUNCTIONAL DESCRIPTION:
;1292        1380  2 !
;1293        1381  2 !       Fill in the CPU time limit in the proper field in RECBUF.
;1294        1382  2 !
;1295        1383  2 ! INPUTS:
;1296        1384  2 !
;1297        1385  2 !       none
;1298        1386  2 !
;1299        1387  2 ! OUTPUTS:
;1300        1388  2 !
;1301        1389  2 !       none
;1302        1390  2 !
;1303        1391  2 ! ROUTINE VALUE:
;1304        1392  2 !
;1305        1393  2 !       true -> success
;1306        1394  2 !       false -> invalid value supplied
;1307        1395  2 !
;1308        1396  2 !--
;1309        1397  2
;1310        1398  2 local
;1311        1399  2         delta_time      : vector [2, long], ! system delta time temporary
;1312        1400  2         cpu_time,                           ! CPU time work variables
;1313        1401  2         remainder;
;1314        1402  2
;1315        1403  2 builtin
;1316        1404  2         ediv;
;1317        1405  2
;1318        1406  2 !
;1319        1407  2 ! Convert ASCII to system delta time
;1320        1408  2 !
;1321        1409  2
;1322        1410  2 if not lib$cvt_dtime (tokendsc, delta_time)
;1323        1411  2 then
;1324        1412  2     return LIB$SIGNAL(UAF$_BADVALUE, 2, .tokenlen, .tokenptr);
;1325        1413  2
;1326        1414  2 !
;1327        1415  2 ! Convert system delta time to a longword value which is in .01 sec. units
;1328        1416  2 !
;1329        1417  2
;1330        1418  2 if (ediv (%ref (-200000), delta_time, cpu_time, remainder) and psl$m_v) neq 0
;1331        1419  2 then
;1332        1420  2     return LIB$SIGNAL(UAF$_VALTOOBIG, 2, .tokenlen, .tokenptr);
;1333        1421  2
;1334        1422  2 recbuf[uaf$l_cputim] = (.cpu_time ^ 1) + (if .remainder eql 0 then 0 else 1);
;1335        1423  2
;1336        1424  2 true
;1337        1425  1 end;
```

```
                                    003C 00000          .ENTRY  GETCPUTIM, Save R2,R3,R4,R5                     ; 1374
                          55 00000000G  00  9E 00002    MOVAB   TOKENLEN, R5                                    ;
                          54 00000000G  00  9E 00009    MOVAB   TOKENPTR, R4                                    ;
                          5E            08  C2 00010    SUBL2   #8, SP                                          ;
                                        5E  DD 00013    PUSHL   SP                                              ; 1410
                             00000000G  00  9F 00015    PUSHAB  TOKENDSC                                        ;
                 00000000G   00         02  FB 0001B    CALLS   #2, LIB$CVT_DTIME                               ;
                             0F         50  E8 00022    BLBS    R0, 1$                                          ;
                                        64  DD 00025    PUSHL   TOKENPTR                                        ; 1412
                             7E         65  3C 00027    MOVZWL  TOKENLEN, -(SP)                                 ;
                                        02  DD 0002A    PUSHL   #2                                              ;
                             00000000G  8F  DD 0002C    PUSHL   #UAF$_BADVALUE                                  ;
                                        1C  11 00032    BRB     2$                                              ;
        53          52                  6E FFFCF2C0  8F  7B 00034 1$:   EDIV    #-200000, DELTA_TIME, CPU_TIME, REMAINDER ; 1418
                                        50  DC 0003D    MOVPSL  R0                                              ;
                    15                  50  01  E1 0003F    BBC     #1, R0, 3$                                  ;
                                        64  DD 00043    PUSHL   TOKENPTR                                        ; 1420
                             7E         65  3C 00045    MOVZWL  TOKENLEN, -(SP)                                 ;
                                        02  DD 00048    PUSHL   #2                                              ;
                             00000000G  8F  DD 0004A    PUSHL   #UAF$_VALTOOBIG                                 ;
                 00000000G   00         04  FB 00050 2$:   CALLS   #4, LIB$SIGNAL                               ;
                                        04  00057    RET                                                     ;
                                        53  D5 00058 3$:   TSTL    REMAINDER                                   ; 1422
                                        04  12 0005A    BNEQ    4$                                          ;
                                        50  D4 0005C    CLRL    R0                                          ;
                                        03  11 0005E    BRB     5$                                          ;
                          50                01  D0 00060 4$:   MOVL    #1, R0                                  ;
                 00000000G   00         6042  3E 00063 5$:   MOVAW   (R0)[CPU_TIME], RECBUF+556                ;
                          50                01  D0 0006B    MOVL    #1, R0                                  ; 1425
                                            04  0006E    RET                                                     ;

; Routine Size:  111 bytes,    Routine Base:  $CODE$ + 0985
```

```
;  1339     1426  1 %sbttl 'getdevice - get default device name'
;  1340     1427  1 global routine getdevice =
;  1341     1428  2 begin
;  1342     1429  2
;  1343     1430  2 !++
;  1344     1431  2 !
;  1345     1432  2 ! FUNCTIONAL DESCRIPTION:
;  1346     1433  2 !
;  1347     1434  2 !       Fill in the default device name in RECBUF.
;  1348     1435  2 !       Will also append an ending colon if omitted.
;  1349     1436  2 !
;  1350     1437  2 ! INPUTS:
;  1351     1438  2 !
;  1352     1439  2 !       none
;  1353     1440  2 !
;  1354     1441  2 ! OUTPUTS:
;  1355     1442  2 !
;  1356     1443  2 !       none
;  1357     1444  2 !
;  1358     1445  2 ! ROUTINE VALUE:
;  1359     1446  2 !
;  1360     1447  2 !       true -> update successful
;  1361     1448  2 !       false -> error in specification
;  1362     1449  2 !--
;  1363     1450  2
;  1364     1451  2 local
;  1365     1452  2         strlen;
;  1366     1453  2
;  1367     1454  2 if not getstring (recbuf[uaf$t_defdev], uaf$s_defdev, counted_string)
;  1368     1455  2 then
;  1369     1456  2     return false;
;  1370     1457  2
;  1371     1458  2 !
;  1372     1459  2 ! Check to see that string has ending ':'
;  1373     1460  2 ! and add one if not.
;  1374     1461  2 ! If string length is zero, then field has been removed so
;  1375     1462  2 ! there's no need for the check.
;  1376     1463  2 !
;  1377     1464  2
;  1378     1465  2 strlen = .(recbuf[uaf$t_defdev])<0,8>;                    ! get string length
;  1379     1466  2
;  1380     1467  2 if .strlen eql 0
;  1381     1468  2 then
;  1382     1469  2     return true;
;  1383     1470  2
;  1384     1471  2 if .(recbuf[uaf$t_defdev] + .strlen)<0,8> neq colon
;  1385     1472  2 then
;  1386     1473  3     begin
;  1387     1474  3     if .strlen geq uaf$s_defdev-1
;  1388     1475  3     then
;  1389     1476  3         return LIB$SIGNAL(UAF$_INVDEV, 2, .tokenlen, .tokenptr);
;  1390     1477  3     (recbuf[uaf$t_defdev]+.strlen+1)<0,8> = colon;
;  1391     1478  3     (recbuf[uaf$t_defdev])<0,8> = .strlen + 1;
;  1392     1479  2     end;
;  1393     1480  2 return true;
;  1394     1481  1 end;
```

```
                                    000C 00000          .ENTRY  GETDEVICE, Save R2,R3                   ; 1427
                              53 00000000G  00   9E 00002       MOVAB   RECBUF+116, R3
                                            01   DD 00009       PUSHL   #1                              ; 1454
                                            20   DD 0000B       PUSHL   #32
                                            53   DD 0000D       PUSHL   R3
                        00000000V  00       03   FB 0000F       CALLS   #3, GETSTRING
                                   3A       50   E9 00016       BLBC    R0, 3$
                                   52       63   9A 00019       MOVZBL  RECBUF+116, STRLEN              ; 1465
                                            31   13 0001C       BEQL    2$                              ; 1467
                                   3A     6342   91 0001E       CMPB    RECBUF+116[STRLEN], #58         ; 1471
                                          2B   13 00022       BEQL    2$
                                   1F       52   D1 00024       CMPL    STRLEN, #31                     ; 1474
                                            1D   19 00027       BLSS    1$
                                 00000000G  00   DD 00029       PUSHL   TOKENPTR                        ; 1476
                                   7E 00000000G  00   3C 0002F       MOVZWL  TOKENLEN, -(SP)
                                            02   DD 00036       PUSHL   #2
                                 00000000G  8F   DD 00038       PUSHL   #UAF$_INVDEV
                        00000000G  00       04   FB 0003E       CALLS   #4, LIB$SIGNAL
                                            04 00045       RET
                              01 A342       3A   90 00046 1$:   MOVB    #58, RECBUF+117[STRLEN]         ; 1477
                        63       52       01   81 0004B       ADDB3   #1, STRLEN, RECBUF+116          ; 1478
                                 50       01   D0 0004F 2$:   MOVL    #1, R0                          ; 1480
                                            04 00052       RET
                                          50   D4 00053 3$:   CLRL    R0                              ; 1481
                                            04 00055       RET

; Routine Size:  86 bytes,    Routine Base:  $CODE$ + 09F4
```

```
;  1396          1482  1 %sbttl 'getdirectory - get default directory'
;  1397          1483  1 global routine getdirectory =
;  1398          1484  2 begin
;  1399          1485  2 !++
;  1400          1486  2 !
;  1401          1487  2 ! FUNCTIONAL DESCRIPTION:
;  1402          1488  2 !
;  1403          1489  2 !       This routine parses the user default directory and places
;  1404          1490  2 !       it into the buffer if the form is correct.  If delimiters
;  1405          1491  2 !       are not present, they are added.
;  1406          1492  2 !
;  1407          1493  2 ! INPUTS:
;  1408          1494  2 !
;  1409          1495  2 !       none
;  1410          1496  2 !
;  1411          1497  2 ! OUTPUTS:
;  1412          1498  2 !
;  1413          1499  2 !       none
;  1414          1500  2 !
;  1415          1501  2 ! IMPLICIT INPUTS:
;  1416          1502  2 !
;  1417          1503  2 !       TOKENLEN = length of default directory string
;  1418          1504  2 !       TOKENPTR = pointer to default directory string
;  1419          1505  2 !
;  1420          1506  2 !--
;  1421          1507  2 local BRACKETLESS;
;  1422          1508  2
;  1423          1509  2 !
;  1424          1510  2 ! Crank directory spec through tparse
;  1425          1511  2 !
;  1426          1512  2 tparse_block [tpa$l_stringcnt] = .tokenlen;
;  1427          1513  2 tparse_block [tpa$l_stringptr] = .tokenptr;
;  1428          1514  2
;  1429          1515  2 if not lib$tparse (tparse_block, dir_states, dir_keys)
;  1430          1516  2 then
;  1431          1517  2     return LIB$SIGNAL(UAF$_BADVALUE, 2, .tokenlen, .tokenptr);
;  1432          1518  2
;  1433          1519  2 !
;  1434          1520  2 ! Did the string have enclosing brackets (matching is guaranteed
;  1435          1521  2 ! by the command parser) ??
;  1436          1522  2 !
;  1437          1523  2 BRACKETLESS = (.(.tokenptr)<0,8> neq '[') and (.(.tokenptr)<0,8> neq '<');
;  1438          1524  2
;  1439          1525  2 !
;  1440          1526  2 ! Make sure that the string isn't too long
;  1441          1527  2 !
;  1442          1528  3 if (((.tokenlen+1)  geq  uaf$s_defdir) and not .BRACKETLESS)
;  1443          1529  3 or ((.tokenlen+3) geq uaf$s_defdir)
;  1444          1530  2 then
;  1445          1531  2     return LIB$SIGNAL(UAF$_INVSTR, 2, .tokenlen, .tokenptr);
;  1446          1532  2
;  1447          1533  2 !
;  1448          1534  2 ! Move the string into the UAF record
;  1449          1535  2 !
;  1450          1536  2 if .BRACKETLESS then
;  1451          1537  3    begin
;  1452          1538  3       vector[recbuf[uaf$t_defdir], 0;, byte] = .tokenlen + 2;
```

```
;  1453          1539  3        vector[recbuf[uaf$t_defdir], 1;, byte] = '[';
;  1454          1540  3        ch$copy(.tokenlen, .tokenptr, ' ',
;  1455          1541  3           uaf$s_defdir-2, recbuf[uaf$t_defdir]+2);
;  1456          1542  3        vector[recbuf[uaf$t_defdir], .tokenlen+2;, byte] = ']';
;  1457          1543  3     end
;  1458          1544  2  else
;  1459          1545  3     begin
;  1460          1546  3        (recbuf[uaf$t_defdir])<0,8> = .tokenlen;
;  1461          1547  3        ch$copy(.tokenlen, .tokenptr, ' ',
;  1462          1548  3           uaf$s_defdir-1, recbuf[uaf$t_defdir]+1);
;  1463          1549  2     end;
;  1464          1550  2
;  1465          1551  2  return true;
;  1466          1552  2
;  1467          1553  1  end;

                                                07FC 00000          .ENTRY  GETDIRECTORY, Save R2,R3,R4,R5,R6,R7,R8,R9,-  ; 1483
                                                                            R10                                           ;
                                     5A 00000000'   00   9E 00002   MOVAB   TPARSE_BLOCK+8, R10                            ;
                                     59 00000000G   00   9E 00009   MOVAB   TOKENLEN, R9                                   ;
                                     58 00000000G   00   9E 00010   MOVAB   TOKENPTR, R8                                   ;
                                     57 00000000G   00   9E 00017   MOVAB   RECBUF+148, R7                               ;
                                     6A             69   3C 0001E   MOVZWL  TOKENLEN, TPARSE_BLOCK+8                     ; 1512
                                04   AA             68   D0 00021   MOVL    TOKENPTR, TPARSE_BLOCK+12                    ; 1513
                                         00000000'  00   9F 00025   PUSHAB  DIR_KEYS                                      ; 1515
                                         00000000'  00   9F 0002B   PUSHAB  DIR_STATES                                   ;
                                                F8  AA   9F 00031   PUSHAB  TPARSE_BLOCK                                ;
                           00000000G     00         03   FB 00034   CALLS   #3, LIB$TPARSE                              ;
                                         0F         50   E8 0003B   BLBS    R0, 1$                                       ;
                                                    68   DD 0003E   PUSHL   TOKENPTR                                     ; 1517
                                         7E         69   3C 00040   MOVZWL  TOKENLEN, -(SP)                             ;
                                                    02   DD 00043   PUSHL   #2                                          ;
                                             00000000G  8F   DD 00045   PUSHL   #UAF$_BADVALUE                           ;
                                                    3F   11   0004B   BRB     6$                                        ;
                                         52         68   D0 0004D 1$:  MOVL    TOKENPTR, R2                             ; 1523
                                                    51   D4 00050     CLRL    R1                                       ;
                                     5B  8F         62   91 00052     CMPB    (R2), #91                                ;
                                                    02   13 00056     BEQL    2$                                       ;
                                                    51   D6 00058     INCL    R1                                       ;
                                                    50   D4 0005A 2$:  CLRL    R0                                       ;
                                         3C         62   91 0005C     CMPB    (R2), #60                                ;
                                                    02   13 0005F     BEQL    3$                                       ;
                                                    50   D6 00061     INCL    R0                                       ;
                                         53         51   D2 00063 3$:  MCOML   R1, BRACKETLESS                          ;
                                53       50         53   CB 00066     BICL3   BRACKETLESS, R0, BRACKETLESS             ;
                                         51         69   3C 0006A     MOVZWL  TOKENLEN, R1                             ; 1528
                                         50      01 A1   9E 0006D     MOVAB   1(R1), R0                                ;
                                         3F         50   D1 00071     CMPL    R0, #63                                  ;
                                                    03   15 00074     BLEQ    4$                                       ;
                                         09         53   E9 00076     BLBC    BRACKETLESS, 5$                          ;
                                         50      03 A1   9E 00079 4$:  MOVAB   3(R1), R0                                ; 1529
                                         3F         50   D1 0007D     CMPL    R0, #63                                  ;
                                                    12   15 00080     BLEQ    7$                                       ;
```

```
                                                    06  BB 00082 5$:     PUSHR   #^M<R1,R2>                              ; 1531
                                                    02  DD 00084         PUSHL   #2
                                          00000000G 8F  DD 00086         PUSHL   #UAF$_INVSTR
                              00000000G   00        04  FB 0008C 6$:     CALLS   #4, LIB$SIGNAL                          ;
                                                    04  00093           RET                                             ;
                                    50              69  3C 00094 7$:     MOVZWL  TOKENLEN, R0                            ; 1538
                                    51              68  D0 00097         MOVL    TOKENPTR, R1                            ; 1540
                                    1A              53  E9 0009A         BLBC    BRACKETLESS, 8$                         ; 1536
                                    56        02    A0  9E 0009D         MOVAB   2(R0), R6                               ; 1538
                                    67              56  90 000A1         MOVB    R6, RECBUF+148                          ;
                                 01 A7        5B    8F  90 000A4         MOVB    #91, RECBUF+149                         ; 1539
                  3E        20      61              50  2C 000A9         MOVC5   R0, (R1), #32, #62, RECBUF+150          ; 1541
                                                    02  A7    000AE       ;
                                  6746        5D    8F  90 000B0         MOVB    #93, RECBUF+148[R6]                     ; 1542
                                                    0A  11 000B5         BRB     9$                                      ; 1536
                                    67              50  90 000B7 8$:     MOVB    R0, RECBUF+148                          ; 1546
                  3F        20      61              50  2C 000BA         MOVC5   R0, (R1), #32, #63, RECBUF+149          ; 1548
                                                    01  A7    000BF       ;
                                    50              01  D0 000C1 9$:     MOVL    #1, R0                                  ; 1551
                                                        04 000C4         RET                                             ; 1553

; Routine Size:  197 bytes,    Routine Base:  $CODE$ + 0A4A
```

```
;  1469          1554  1 %sbttl 'checkvalue - check UFD group and member value'
;  1470          1555  1 routine checkvalue =
;  1471          1556  2 begin
;  1472          1557  2 builtin ap;
;  1473          1558  2 map ap: ref block [,byte];
;  1474          1559  2 if .ap[tpa$l_number] gtr %o'377' then return false else return true;
;  1475          1560  1 end;

                                     0000 00000 CHECKVALUE:
                                                        .WORD   Save nothing                    ;  1555
                000000FF   8F     1C   AC  D1 00002          CMPL    28(AP), #255                ;  1559
                                       03  15 0000A          BLEQ    1$                          ;
                                       50  D4 0000C          CLRL    R0                          ;
                                           04 0000E          RET                                 ;
                           50          01  D0 0000F 1$:      MOVL    #1, R0                      ;
                                           C4 00012          RET                                 ;  1560

; Routine Size:  19 bytes,    Routine Base:  $CODE$ + 0B0F
```

```
; 1477          1561  1 %sbttl 'checklength - check directory name length'
; 1478          1562  1 routine checklength =
; 1479          1563  2 begin
; 1480          1564  2 builtin ap;
; 1481          1565  2 map ap: ref block [,byte];
; 1482          1566  2 if .ap[tpa$l_tokencnt] gtr 39 then return false else return true;
; 1483          1567  1 end;


                                      0000 00000 CHECKLENGTH:
                                                         .WORD   Save nothing                                    ; 1562
                              27        10   AC  D1 00002        CMPL    16(AP), #39                             ; 1566
                                             03  15 00006        BLEQ    1$                                      ;
                                             50  D4 00008        CLRL    R0                                      ;
                                                 04 0000A        RET                                             ;
                              50             01  D0 0000B 1$:    MOVL    #1, R0                                  ;
                                                 04 0000E        RET                                             ; 1567

; Routine Size:  15 bytes,    Routine Base:  $CODE$ + 0B22
```

```
;1485     1568  1 %sbttl 'getflags - get flag bits'
;1486     1569  1 global routine getflags =
;1487     1570  2 begin
;1488     1571  2
;1489     1572  2 !++
;1490     1573  2 !
;1491     1574  2 ! FUNCTIONAL DESCRIPTION:
;1492     1575  2 !
;1493     1576  2 !       Get login flag bit settings.
;1494     1577  2 !
;1495     1578  2 ! INPUTS:
;1496     1579  2 !
;1497     1580  2 !       none
;1498     1581  2 !
;1499     1582  2 ! IMPLICIT INPUTS:
;1500     1583  2 !
;1501     1584  2 !       FLAG_TABLE - table of flag bit numbers and ascii names
;1502     1585  2 !
;1503     1586  2 ! OUTPUTS:
;1504     1587  2 !
;1505     1588  2 !       none
;1506     1589  2 !
;1507     1590  2 ! ROUTINE VALUE:
;1508     1591  2 !
;1509     1592  2 !       true -> successful completion
;1510     1593  2 !       false -> error in flag name
;1511     1594  2 !--
;1512     1595  2
;1513     1596  2 local
;1514     1597  2         status,
;1515     1598  2         keyword_dsc     : vector [2],
;1516     1599  2         no_flag,
;1517     1600  2         code,                           ! return from find_val
;1518     1601  2         ientry;
;1519     1602  2
;1520     1603  2 !
;1521     1604  2 ! Retrieve flag values as long as there are any present
;1522     1605  2 !
;1523     1606  2
;1524     1607  2 while cli$get_value (sd_flags, tokendsc) do
;1525     1608  2     !
;1526     1609  2     ! Initialize keyword descriptor
;1527     1610  2     !
;1528     1611  3     begin
;1529     1612  3     keyword_dsc [0] = .tokenlen;
;1530     1613  3     keyword_dsc [1] = .tokenptr;
;1531     1614  3     no_flag = false;
;1532     1615  3
;1533     1616  3     !
;1534     1617  3     ! If 'NO' prefix specified, set no_flag and adjust the
;1535     1618  3     !    keyword descriptor to remove the 'NO'
;1536     1619  3     !
;1537     1620  3     if ch$eql (2, .no_dsc [1], 2, .keyword_dsc [1])
;1538     1621  3     then
;1539     1622  4         begin
;1540     1623  4         keyword_dsc [0] = .keyword_dsc [0] - 2;
;1541     1624  4         keyword_dsc [1] = .keyword_dsc [1] + 2;
```

```
;  1542        1625  4          no_flag = true;
;  1543        1626  3          end;
;  1544        1627  3
;  1545        1628  4      if (status = lib$lookup_key (keyword_dsc, flag_table, code))
;  1546        1629  3      then
;  1547        1630  3          !
;  1548        1631  3          ! valid flag, set bit
;  1549        1632  3          !
;  1550        1633  3          (recbuf[uaf$l_flags])<.code,1> = not .no_flag
;  1551        1634  3      else
;  1552        1635  3          select .status of
;  1553        1636  3              set
;  1554        1637  3              !
;  1555        1638  3              ! ambiguous keyword?
;  1556        1639  3              !
;  1557        1640  3              [lib$_ambkey] : signal (cli$_abkeyw);
;  1558        1641  3              !
;  1559        1642  3              ! unrecognized keyword?
;  1560        1643  3              !
;  1561        1644  3              [lib$_unrkey] : signal (cli$_ivkeyw);
;  1562        1645  3              !
;  1563        1646  3              ! whatever, always return an error if we're in here
;  1564        1647  3              !
;  1565        1648  3              [always]      : return false;
;  1566        1649  3              tes;
;  1567        1650  3
;  1568        1651  2      end;
;  1569        1652  2
;  1570        1653  2 return true;
;  1571        1654  1 end;


                                                001C 00000          .ENTRY  GETFLAGS, Save R2,R3,R4                 ; 1569
                                    54 00000000G   00   9E 00002    MOVAB   LIB$SIGNAL, R4                          ;
                                    5E             0C   C2 00009    SUBL2   #12, SP                                 ;
                                       00000000G   00   9F 0000C 1$: PUSHAB  TOKENDSC                               ; 1607
                                       00000000'   00   9F 00012    PUSHAB  SD_FLAGS                                ;
                                00000000G   00             02   FB 00018    CALLS   #2, CLI$GET_VALUE               ;
                                            76             50   E9 0001F    BLBC    R0, 5$                          ;
                                      04    AE 00000000G   00   3C 00022    MOVZWL  TOKENLEN, KEYWORD_DSC           ; 1612
                                      08    AE 00000000G   00   D0 0002A    MOVL    TOKENPTR, KEYWORD_DSC+4         ; 1613
                                                           52   D4 00032    CLRL    NO_FLAG                         ; 1614
                                            50 00000000'   00   D0 00034    MOVL    NO_DSC+4, R0                    ; 1620
                                      08    BE             60   B1 0003B    CMPW    (R0), @KEYWORD_DSC+4            ;
                                                           0B   12 0003F    BNEQ    2$                              ;
                                      04    AE             02   C2 00041    SUBL2   #2, KEYWORD_DSC                 ; 1623
                                      08    AE             02   C0 00045    ADDL2   #2, KEYWORD_DSC+4               ; 1624
                                            52             01   D0 00049    MOVL    #1, NO_FLAG                     ; 1625
                                                           5E   DD 0004C 2$: PUSHL   SP                              ; 1628
                                               00000000'   00   9F 0004E    PUSHAB  FLAG_TABLE                      ;
                                                     0C    AE   9F 00054    PUSHAB  KEYWORD_DSC                     ;
                                00000000G   00             03   FB 00057    CALLS   #3, LIB$LOOKUP_KEY              ;
                                            53             50   D0 0005E    MOVL    R0, STATUS                      ;
                                            0E             53   E9 00061    BLBC    STATUS, 3$                      ;
```

```
                                 50     52 D2 00064         MCOML   NO_FLAG, R0                       ; 1633
000000000G  00        01         6E     50 F0 00067         INSV    R0, CODE, #1, RECBUF+468          ;
                                        9A 11 00070         BRB     1$                                ;
                     000000000G  8F     53 D1 00072 3$:     CMPL    STATUS, #LIB$_AMBKEY              ; 1640
                                        09 12 00079         BNEQ    4$                                ;
                          000000000G    8F DD 0007B         PUSHL   #CLI$_ABKEYW                      ;
                                 64     01 FB 00081         CALLS   #1, LIB$SIGNAL                    ;
                     000000000G  8F     53 D1 00084 4$:     CMPL    STATUS, #LIB$_UNRKEY              ; 1644
                                        0F 12 0008B         BNEQ    6$                                ;
                          000000000G    8F DD 0008D         PUSHL   #CLI$_IVKEYW                      ;
                                 64     01 FB 00093         CALLS   #1, LIB$SIGNAL                    ;
                                        04 11 00096         BRB     6$                                ; 1648
                                 50     01 D0 00098 5$:     MOVL    #1, R0                            ; 1653
                                           04 0009B         RET                                       ;
                                        50 D4 0009C 6$:     CLRL    R0                                ; 1654
                                           04 0009E         RET                                       ;

; Routine Size:  159 bytes,    Routine Base:  $CODE$ + 0B31
```

```
;1573     1655  1 %sbttl 'getpflags - get old per day login flags'
;1574     1656  1 global routine getpflags (qual_name) =
;1575     1657  2 begin
;1576     1658  2
;1577     1659  2 !++
;1578     1660  2 !
;1579     1661  2 ! FUNCTIONAL DESCRIPTION:
;1580     1662  2 !
;1581     1663  2 !       Get prime day login flag bit settings.
;1582     1664  2 !
;1583     1665  2 ! INPUTS:
;1584     1666  2 !
;1585     1667  2 !       qual_name - address of descriptor for qualifier name
;1586     1668  2 !
;1587     1669  2 ! IMPLICIT INPUTS:
;1588     1670  2 !
;1589     1671  2 !       OPFLAG_TABLE - table of flag bit numbers and ascii names
;1590     1672  2 !       PRIMARY - true if getting primary day, false if secondary
;1591     1673  2 !
;1592     1674  2 ! OUTPUTS:
;1593     1675  2 !
;1594     1676  2 !       none
;1595     1677  2 !
;1596     1678  2 ! ROUTINE VALUE:
;1597     1679  2 !
;1598     1680  2 !       true -> successful completion
;1599     1681  2 !       false -> error in flag name
;1600     1682  2 !--
;1601     1683  2
;1602     1684  2 local
;1603     1685  2         status,
;1604     1686  2         keyword_dsc     : vector [2],
;1605     1687  2         no_flag,
;1606     1688  2         code,                                   ! return from find_val
;1607     1689  2         ientry;
;1608     1690  2
;1609     1691  2 !
;1610     1692  2 ! Retrieve keywords as long as any are present
;1611     1693  2 !
;1612     1694  2 while cli$get_value (.qual_name, tokendsc) do
;1613     1695  2
;1614     1696  3     begin
;1615     1697  3     keyword_dsc [0] = .tokenlen;
;1616     1698  3     keyword_dsc [1] = .tokenptr;
;1617     1699  3     no_flag = 0;
;1618     1700  3
;1619     1701  3     !
;1620     1702  3     ! Test for presence of 'NO'prefix.  If present, adjust descriptor
;1621     1703  3     !    to remove it, and set no_flag.
;1622     1704  3     !
;1623     1705  3     if ch$eql (2, .no_dsc [1], 2, .keyword_dsc [1])
;1624     1706  3     then
;1625     1707  3
;1626     1708  4         begin
;1627     1709  4         keyword_dsc [0] = .keyword_dsc [0] - 2;
;1628     1710  4         keyword_dsc [1] = .keyword_dsc [1] + 2;
;1629     1711  4         no_flag = -1;
```

```
;  1630     1712  3          end;
;  1631     1713  3
;  1632     1714  4      if (status = lib$lookup_key (keyword_dsc, opflag_table, code))
;  1633     1715  3      then
;  1634     1716  3          !
;  1635     1717  3          ! valid flag, set bit
;  1636     1718  3          !
;  1637     1719  3          case .code from uaf$k_disdialup to uaf$k_disnetwork of
;  1638     1720  3              set
;  1639     1721  3              [uaf$k_disdialup]:
;  1640     1722  4                  begin
;  1641     1723  4                  if .primary
;  1642     1724  4                  then recbuf[uaf$b_dialup_access_p] = not .no_flag
;  1643     1725  4                  else recbuf[uaf$b_dialup_access_s] = not .no_flag;
;  1644     1726  3                  end;
;  1645     1727  3              [uaf$k_disnetwork]:
;  1646     1728  4                  begin
;  1647     1729  4                  if .primary
;  1648     1730  4                  then recbuf[uaf$b_remote_access_p] = not .no_flag
;  1649     1731  4                  else recbuf[uaf$b_remote_access_s] = not .no_flag;
;  1650     1732  3                  end;
;  1651     1733  3              tes
;  1652     1734  3      else
;  1653     1735  3          select .status of
;  1654     1736  3              set
;  1655     1737  3              !
;  1656     1738  3              ! ambiguous keyword?
;  1657     1739  3              !
;  1658     1740  3              [lib$_ambkey] : signal (cli$_abkeyw);
;  1659     1741  3              !
;  1660     1742  3              ! unrecognized keyword?
;  1661     1743  3              !
;  1662     1744  3              [lib$_unrkey] : signal (cli$_ivkeyw);
;  1663     1745  3              !
;  1664     1746  3              ! whatever, always return an error if we're in here
;  1665     1747  3              !
;  1666     1748  3              [always]      : return false;
;  1667     1749  3              tes;
;  1668     1750  3
;  1669     1751  2      end;
;  1671     1753  2 return true;
;  1672     1754  1 end;


                                    003C 00000          .ENTRY  GETPFLAGS, Save R2,R3,R4,R5                 ; 1656
                          55 00000000G  00  9E 00002    MOVAB   LIB$SIGNAL, R5                              ;
                          54 00000000G  00  9E 00009    MOVAB   RECBUF+490, R4                              ;
                          5E            0C  C2 00010    SUBL2   #12, SP                                     ;
                             00000000G  00  9F 00013 1$:  PUSHAB  TOKENDSC                                    ; 1694
                                   04   AC  DD 00019    PUSHL   QUAL_NAME                                   ;
                 00000000G  00          02  FB 0001C    CALLS   #2, CLI$GET_VALUE                           ;
                          03            50  E8 00023    BLBS    R0, 2$                                      ;
                                    009F  31 00026    2$: BRW     12$                                         ;
```

```
                                    04   AE 00000000G   00   3C 00029 2$:      MOVZWL  TOKENLEN, KEYWORD_DSC                    ; 1697
                                    08   AE 00000000G   00   D0 00031         MOVL    TOKENPTR, KEYWORD_DSC+4                  ; 1698
                                                        52   D4 00039         CLRL    NO_FLAG                                  ; 1699
                                         50 00000000'   00   D0 0003B         MOVL    NO_DSC+4, R0                             ; 1705
                                    08   BE             60   B1 00042         CMPW    (R0), @KEYWORD_DSC+4                     ;
                                                        0B   12 00046         BNEQ    3$                                       ;
                                    04   AE             02   C2 00048         SUBL2   #2, KEYWORD_DSC                          ; 1709
                                    08   AE             02   C0 0004C         ADDL2   #2, KEYWORD_DSC+4                        ; 1710
                                         52             01   CE 00050         MNEGL   #1, NO_FLAG                              ; 1711
                                                        5E   DD 00053 3$:      PUSHL   SP                                       ; 1714
                                            00000000'   00   9F 00055         PUSHAB  OPFLAG_TABLE                             ;
                                                  0C    AE   9F 0005B         PUSHAB  KEYWORD_DSC                              ;
                                   00000000G    00         03   FB 0005E         CALLS   #3, LIB$LOOKUP_KEY                       ;
                                                53         50   D0 00065         MOVL    R0, STATUS                               ;
                                                37         53   E9 00068         BLBC    STATUS, 10$                              ;
                                                51 00000000'   00   D0 0006B         MOVL    PRIMARY, R1                              ; 1723
                                                50         52   D2 00072         MCOML   NO_FLAG, R0                              ; 1724
                                          01    01         6E   CF 00075         CASEL   CODE, #1, #1                             ; 1719
                                        0016          0004       00079 4$:      .WORD   5$-4$,-                                  ;
                                                                                        8$-4$                                    ;
                                                07         51   E9 0007D 5$:      BLBC    R1, 7$                                   ; 1723
                                64        18    00         50   F0 00080         INSV    R0, #0, #24, RECBUF+490                  ; 1724
                                                           8C   11 00085 6$:      BRB     1$                                       ;
                           03   A4        18    00         50   F0 00087 7$:      INSV    R0, #0, #24, RECBUF+493                  ; 1725
                                                           84   11 0008D         BRB     1$                                       ; 1719
                                                08         51   E9 0008F 8$:      BLBC    R1, 9$                                   ; 1729
                           06   A4        18    00         50   F0 00092         INSV    R0, #0, #24, RECBUF+496                  ; 1730
                                                           EB   11 00098         BRB     6$                                       ;
                           09   A4        18    00         50   F0 0009A 9$:      INSV    R0, #0, #24, RECBUF+499                  ; 1731
                                                           E3   11 000A0         BRB     6$                                       ; 1719
                                   00000000G    8F         53   D1 000A2 10$:     CMPL    STATUS, #LIB$_AMBKEY                     ; 1740
                                                           09   12 000A9         BNEQ    11$                                      ;
                                            00000000G      8F   DD 000AB         PUSHL   #CLI$_ABKEYW                             ;
                                                65         01   FB 000B1         CALLS   #1, LIB$SIGNAL                           ;
                                   00000000G    8F         53   D1 000B4 11$:     CMPL    STATUS, #LIB$_UNRKEY                     ; 1744
                                                           0F   12 000BB         BNEQ    13$                                      ;
                                            00000000G      8F   DD 000BD         PUSHL   #CLI$_IVKEYW                             ;
                                                65         01   FB 000C3         CALLS   #1, LIB$SIGNAL                           ;
                                                           04   11 000C6         BRB     13$                                      ; 1748
                                                50         01   D0 000C8 12$:     MOVL    #1, R0                                   ; 1753
                                                           04   000CB         RET                                              ;
                                                           50   D4 000CC 13$:     CLRL    R0                                       ; 1754
                                                           04   000CE         RET                                              ;

; Routine Size:  207 bytes,    Routine Base:  $CODE$ + 0BD0
```

```
;1674     1755  1 %sbttl 'getrestrict - parse hourly restriction ranges'
;1675     1756  1 global routine getrestrict (qual_name) =
;1676     1757  2 begin
;1677     1758  2
;1678     1759  2 !++
;1679     1760  2 !
;1680     1761  2 ! FUNCTIONAL DESCRIPTION:
;1681     1762  2 !
;1682     1763  2 !       Parse hourly login restrictions for primary or secondary days
;1683     1764  2 !
;1684     1765  2 ! INPUTS:
;1685     1766  2 !
;1686     1767  2 !       qual_name - descriptor of qualifier name to use
;1687     1768  2 !
;1688     1769  2 ! IMPLICIT INPUTS:
;1689     1770  2 !
;1690     1771  2 !
;1691     1772  2 ! OUTPUTS:
;1692     1773  2 !
;1693     1774  2 !       none
;1694     1775  2 !
;1695     1776  2 ! ROUTINE VALUE:
;1696     1777  2 !
;1697     1778  2 !       true -> successful completion
;1698     1779  2 !       false -> error in flag name
;1699     1780  2 !--
;1700     1781  2
;1701     1782  2 !
;1702     1783  2 ! Initialize output values.
;1703     1784  2 !
;1704     1785  2 primary_access = 0;
;1705     1786  2 secondary_access = 0;
;1706     1787  2
;1707     1788  2 !
;1708     1789  2 ! Fetch value list items and parse them.
;1709     1790  2 !
;1710     1791  2 while true
;1711     1792  2 do
;1712     1793  3     begin
;1713     1794  3     if not cli$get_value (.qual_name, tokendsc)
;1714     1795  3     then exitloop;
;1715     1796  3
;1716     1797  3     tparse_block[tpa$l_stringcnt] = .tokenlen;
;1717     1798  3     tparse_block[tpa$l_stringptr] = .tokenptr;
;1718     1799  3     if not lib$tparse (tparse_block, access_states, access_keys)
;1719     1800  3     then return LIB$SIGNAL(UAF$_BADVALUE, 2, .tokenlen, .tokenptr);
;1720     1801  2     end;
;1721     1802  2
;1722     1803  2 !
;1723     1804  2 ! Write the modified fields into the UAF record.
;1724     1805  2 !
;1725     1806  2 if not .secondary
;1726     1807  2 then
;1727     1808  3     begin
;1728     1809  3     recbuf[uaf$b_network_access_p] = .primary_access;
;1729     1810  3     recbuf[uaf$b_batch_access_p] = .primary_access;
;1730     1811  3     recbuf[uaf$b_local_access_p] = .primary_access;
```

```
;  1731          1812  3     recbuf[uaf$b_dialup_access_p] = .primary_access;
;  1732          1813  3     recbuf[uaf$b_remote_access_p] = .primary_access;
;  1733          1814  3     end
;  1734          1815  2 else
;  1735          1816  3     begin
;  1736          1817  3     recbuf[uaf$b_network_access_s] = .secondary_access;
;  1737          1818  3     recbuf[uaf$b_batch_access_s] = .secondary_access;
;  1738          1819  3     recbuf[uaf$b_local_access_s] = .secondary_access;
;  1739          1820  3     recbuf[uaf$b_dialup_access_s] = .secondary_access;
;  1740          1821  3     recbuf[uaf$b_remote_access_s] = .secondary_access;
;  1741          1822  2     end;
;  1742          1823  2
;  1743          1824  2 true
;  1744          1825  1 end;


                                                003C 00000          .ENTRY  GETRESTRICT, Save R2,R3,R4,R5                   ; 1756
                                    55 00000000G   00  9E 00002     MOVAB   TOKENPTR, R5                                    ;
                                    54 00000000G   00  9E 00009     MOVAB   TOKENLEN, R4                                    ;
                                    53 00000000'   00  9E 00010     MOVAB   PRIMARY_ACCESS, R3                              ;
                                    52 00000000G   00  9E 00017     MOVAB   RECBUF+472, R2                                  ;
                                                   63  7C 0001E     CLRQ    PRIMARY_ACCESS                                  ; 1785
                                       00000000G   00  9F 00020 1$: PUSHAB  TOKENDSC                                       ; 1794
                                                04 AC  DD 00026     PUSHL   QUAL_NAME                                       ;
                                00000000G       00     02  FB 00029     CALLS   #2, CLI$GET_VALUE                       ;
                                                36     50  E9 00030     BLBC    R0, 2$                                  ;
                                      D4 A3             64  3C 00033     MOVZWL  TOKENLEN, TPARSE_BLOCK+8                ; 1797
                                      D8 A3             65  D0 00037     MOVL    TOKENPTR, TPARSE_BLOCK+12               ; 1798
                                         00000000'      00  9F 0003B     PUSHAB  ACCESS_KEYS                             ; 1799
                                         00000000'      00  9F 00041     PUSHAB  ACCESS_STATES                           ;
                                                  CC    A3  9F 00047     PUSHAB  TPARSE_BLOCK                            ;
                                00000000G       00     03  FB 0004A     CALLS   #3, LIB$TPARSE                          ;
                                                CC     50  E8 00051     BLBS    R0, 1$                                  ;
                                                       65  DD 00054     PUSHL   TOKENPTR                                ; 1800
                                                   7E  64  3C 00056     MOVZWL  TOKENLEN, -(SP)                         ;
                                                       02  DD 00059     PUSHL   #2                                      ;
                                       00000000G       8F  DD 0005B     PUSHL   #UAF$_BADVALUE                          ;
                                00000000G       00     04  FB 00061     CALLS   #4, LIB$SIGNAL                          ;
                                                       04  00068     RET                                             ;
                                                   22      10  A3  E8 00069 2$:  BLBS    SECONDARY, 3$                   ; 1806
                                                   50      63  D0 0006D     MOVL    PRIMARY_ACCESS, R0                  ; 1809
                                      62       18         00  50  F0 00070     INSV    R0, #0, #24, RECBUF+472             ;
                                06    A2       18         00  50  F0 00075     INSV    R0, #0, #24, RECBUF+478             ; 1810
                                0C    A2       18         00  50  F0 0007B     INSV    R0, #0, #24, RECBUF+484             ; 1811
                                12    A2       18         00  50  F0 00081     INSV    R0, #0, #24, RECBUF+490             ; 1812
                                18    A2       18         00  50  F0 00087     INSV    R0, #0, #24, RECBUF+496             ; 1813
                                                          22  11  0008D     BRB     4$                                  ; 1806
                                                   50      04  A3  D0 0008F 3$:  MOVL    SECONDARY_ACCESS, R0            ; 1817
                                03    A2       18         00  50  F0 00093     INSV    R0, #0, #24, RECBUF+475             ;
                                09    A2       18         00  50  F0 00099     INSV    R0, #0, #24, RECBUF+481             ; 1818
                                0F    A2       18         00  50  F0 0009F     INSV    R0, #0, #24, RECBUF+487             ; 1819
                                15    A2       18         00  50  F0 000A5     INSV    R0, #0, #24, RECBUF+493             ; 1820
                                1B    A2       18         00  50  F0 000AB     INSV    R0, #0, #24, RECBUF+499             ; 1821
                                                   50          01  D0 000B1 4$:  MOVL    #1, R0                          ; 1825
```

```
                                                04 000B4          RET                                                             ;

; Routine Size:  181 bytes,    Routine Base:  $CODE$ + 0C9F
```

```
;  1746          1826  1 %sbttl 'getprimedays - get primary day list'
;  1747          1827  1 global routine getprimedays =
;  1748          1828  2 begin
;  1749          1829  2
;  1750          1830  2 !++
;  1751          1831  2 !
;  1752          1832  2 ! FUNCTIONAL DESCRIPTION:
;  1753          1833  2 !
;  1754          1834  2 !       Get list of day considered prime days.
;  1755          1835  2 !
;  1756          1836  2 ! INPUTS:
;  1757          1837  2 !
;  1758          1838  2 !       none
;  1759          1839  2 !
;  1760          1840  2 ! IMPLICIT INPUTS:
;  1761          1841  2 !
;  1762          1842  2 !       PDFLAG_TABLE - table of flag bit numbers and ascii names
;  1763          1843  2 !
;  1764          1844  2 ! OUTPUTS:
;  1765          1845  2 !
;  1766          1846  2 !       none
;  1767          1847  2 !
;  1768          1848  2 ! ROUTINE VALUE:
;  1769          1849  2 !
;  1770          1850  2 !       true -> successful completion
;  1771          1851  2 !       false -> error in flag name
;  1772          1852  2 !--
;  1773          1853  2
;  1774          1854  2 local
;  1775          1855  2         status,
;  1776          1856  2         keyword_dsc     : vector [2],
;  1777          1857  2         no_flag,
;  1778          1858  2         code,                                   ! return from find_val
;  1779          1859  2         ientry;
;  1780          1860  2
;  1781          1861  2 !
;  1782          1862  2 ! Retrieve keywords as long as they are present
;  1783          1863  2 !
;  1784          1864  2 while cli$get_value (sd_primedays, tokendsc) do
;  1785          1865  2
;  1786          1866  3     begin
;  1787          1867  3     keyword_dsc [0] = .tokenlen;
;  1788          1868  3     keyword_dsc [1] = .tokenptr;
;  1789          1869  3     no_flag = false;
;  1790          1870  3
;  1791          1871  3     !
;  1792          1872  3     ! Test for presence of the 'NO' prefix.  If present, adjust the
;  1793          1873  3     !    descriptor to remove it, and set no_flag
;  1794          1874  3     !
;  1795          1875  3     if ch$eql (2, .no_dsc [1], 2, .keyword_dsc [1])
;  1796          1876  3     then
;  1797          1877  4         begin
;  1798          1878  4         keyword_dsc [0] = .keyword_dsc [0] - 2;
;  1799          1879  4         keyword_dsc [1] = .keyword_dsc [1] + 2;
;  1800          1880  4         no_flag = true;
;  1801          1881  3         end;
;  1802          1882  3
```

```
;  1803          1883  4     if (status = lib$lookup_key (keyword_dsc, pdflag_table, code))
;  1804          1884  3     then
;  1805          1885  3         !
;  1806          1886  3         ! valid flag, set bit
;  1807          1887  3         !
;  1808          1888  3         (recbuf[uaf$b_primedays])<.code,1> =  .no_flag
;  1809          1889  3     else
;  1810          1890  3         select .status of
;  1811          1891  3             set
;  1812          1892  3             !
;  1813          1893  3             ! ambiguous keyword?
;  1814          1894  3             !
;  1815          1895  3             [lib$_ambkey] : signal (cli$_abkeyw);
;  1816          1896  3             !
;  1817          1897  3             ! unrecognized keyword?
;  1818          1898  3             !
;  1819          1899  3             [lib$_unrkey] : signal (cli$_ivkeyw);
;  1820          1900  3             !
;  1821          1901  3             ! whatever, always return an error if we're in here
;  1822          1902  3             !
;  1823          1903  3             [always]      : return false;
;  1824          1904  3             tes;
;  1825          1905  3
;  1826          1906  2     end;
;  1827          1907  2
;  1828          1908  2 return true;
;  1829          1909  1 end;
```

```
                                                  001C 00000          .ENTRY  GETPRIMEDAYS, Save R2,R3,R4                 ; 1827
                                          54 00000000G   00   9E 00002      MOVAB   LIB$SIGNAL, R4                              ;
                                          5E             0C   C2 00009      SUBL2   #12, SP                                     ;
                                             00000000G   00   9F 0000C 1$:   PUSHAB  TOKENDSC                                   ; 1864
                                             00000000'   00   9F 00012      PUSHAB  SD_PRIMEDAYS                                ;
                                  00000000G  00          02   FB 00018      CALLS   #2, CLI$GET_VALUE                           ;
                                             73          50   E9 0001F      BLBC    R0, 5$                                      ;
                                        04   AE 00000000G 00   3C 00022      MOVZWL  TOKENLEN, KEYWORD_DSC                       ; 1867
                                        08   AE 00000000G 00   D0 0002A      MOVL    TOKENPTR, KEYWORD_DSC+4                     ; 1868
                                                          52   D4 00032      CLRL    NO_FLAG                                     ; 1869
                                             50 00000000' 00   D0 00034      MOVL    NO_DSC+4, R0                                ; 1875
                                        08   BE           60   B1 0003B      CMPW    (R0), @KEYWORD_DSC+4                        ;
                                                          0B   12 0003F      BNEQ    2$                                          ;
                                        04   AE           02   C2 00041      SUBL2   #2, KEYWORD_DSC                             ; 1878
                                        08   AE           02   C0 00045      ADDL2   #2, KEYWORD_DSC+4                           ; 1879
                                             52           01   D0 00049      MOVL    #1, NO_FLAG                                 ; 1880
                                                          5E   DD 0004C 2$:   PUSHL   SP                                         ; 1883
                                             00000000'    00   9F 0004E      PUSHAB  PDFLAG_TABLE                                ;
                                                       0C AE   9F 00054      PUSHAB  KEYWORD_DSC                                 ;
                                  00000000G  00          03   FB 00057      CALLS   #3, LIB$LOOKUP_KEY                          ;
                                             53          50   D0 0005E      MOVL    R0, STATUS                                  ;
                                             0B          53   E9 00061      BLBC    STATUS, 3$                                  ;
00000000G  00              01              6E          52   F0 00064      INSV    NO_FLAG, CODE, #1, RECBUF+514               ; 1888
                                                          9D   11 0006D      BRB     1$                                          ;
                                  00000000G  8F          53   D1 0006F 3$:   CMPL    STATUS, #LIB$_AMBKEY                        ; 1895
```

```
                                  09  12 00076          BNEQ    4$                            ;
                        00000000G 8F  DD 00078          PUSHL   #CLI$_ABKEYW                  ;
                               64 01  FB 0007E          CALLS   #1, LIB$SIGNAL                ;
              00000000G  8F       53  D1 00081 4$:      CMPL    STATUS, #LIB$_UNRKEY          ; 1899
                                  0F  12 00088          BNEQ    6$                            ;
                        00000000G 8F  DD 0008A          PUSHL   #CLI$_IVKEYW                  ;
                               64 01  FB 00090          CALLS   #1, LIB$SIGNAL                ;
                                  04  11 00093          BRB     6$                            ; 1903
                               50 01  D0 00095 5$:      MOVL    #1, R0                        ; 1908
                                      04 00098          RET                                   ;
                                  50  D4 00099 6$:      CLRL    R0                            ; 1909
                                      04 0009B          RET                                   ;

; Routine Size:  156 bytes,    Routine Base:  $CODE$ + 0D54
```

```
;  1831     1910  1 %sbttl 'getpriv - get process privileges'
;  1832     1911  1 global routine getpriv (qual_name, privadr) =
;  1833     1912  2 begin
;  1834     1913  2
;  1835     1914  2 !++
;  1836     1915  2 !
;  1837     1916  2 ! FUNCTIONAL DESCRIPTION:
;  1838     1917  2 !
;  1839     1918  2 !       Process privilege mask specification and set or
;  1840     1919  2 !       clear proper bits in privilege quadword in RECBUF.
;  1841     1920  2 !
;  1842     1921  2 ! INPUTS:
;  1843     1922  2 !
;  1844     1923  2 !       qual_name - descriptor of qualifier name to use
;  1845     1924  2 !       privadr - address to store privilege bits
;  1846     1925  2 !
;  1847     1926  2 ! IMPLICIT INPUTS:
;  1848     1927  2 !
;  1849     1928  2 !       none
;  1850     1929  2 !
;  1851     1930  2 ! OUTPUTS:
;  1852     1931  2 !
;  1853     1932  2 !       none
;  1854     1933  2 !
;  1855     1934  2 ! IMPLICIT OUTPUTS:
;  1856     1935  2 !
;  1857     1936  2 !       none
;  1858     1937  2 !
;  1859     1938  2 ! ROUTINE VALUE:
;  1860     1939  2 !
;  1861     1940  2 !       true -> input processed successfully
;  1862     1941  2 !       false -> error in privilege specification
;  1863     1942  2 !
;  1864     1943  2 ! SIDE EFFECTS:
;  1865     1944  2 !
;  1866     1945  2 !       none
;  1867     1946  2 !--
;  1868     1947  2
;  1869     1948  2 !
;  1870     1949  2 ! Loop through if this is a list and check all of the names.
;  1871     1950  2 ! Set or clear appropriate bits depending on the 'NO' prefix.
;  1872     1951  2 !
;  1873     1952  2
;  1874     1953  2 while cli$get_value (.qual_name, tokendsc) do
;  1875     1954  3     begin
;  1876     1955  3
;  1877     1956  3     select prv$setpriv (tokendsc, .privadr) of                                ;
;  1878     1957  3
;  1879     1958  3         set
;  1880     1959  3         !
;  1881     1960  3         ! Privilege name not found
;  1882     1961  3         !
;  1883     1962  3         [prv$_invnam]:
;  1884     1963  3             return LIB$SIGNAL(UAF$_PRVNOTFND, 2, .tokenlen, .tokenptr);
;  1885     1964  3
;  1886     1965  3         !
;  1887     1966  3         ! Privilege name not unique
```

```
; 1888          1967  3          !
; 1889          1968  3          [prv$_notunq]:
; 1890          1969  3              return LIB$SIGNAL(UAF$_PRVNOTUNQ, 2, .tokenlen, .tokenptr);
; 1891          1970  3
; 1892          1971  3      tes;
; 1893          1972  3
; 1894          1973  2      end;
; 1895          1974  2
; 1896          1975  2 return true;
; 1897          1976  1 end;


                                                003C 00000          .ENTRY  GETPRIV, Save R2,R3,R4,R5                       ; 1911
                                    55 00000000G   00   9E 00002    MOVAB   TOKENDSC, R5                                   ;
                                    54 00000000G   00   9E 00009    MOVAB   TOKENLEN, R4                                   ;
                                    53 00000000G   00   9E 00010    MOVAB   TOKENPTR, R3                                   ;
                                                   55   DD 00017 1$: PUSHL   R5                                           ; 1953
                                             04    AC   DD 00019    PUSHL   QUAL_NAME                                      ;
                                00000000G    00         02   FB 0001C    CALLS   #2, CLI$GET_VALUE                      ;
                                             45         50   E9 00023    BLBC    R0, 4$                                 ;
                                             08    AC   DD 00026    PUSHL   PRIVADR                                        ; 1956
                                                   55   DD 00029    PUSHL   R5                                             ;
                                00000000G    00         02   FB 0002B    CALLS   #2, PRV$SETPRIV                        ;
                                             52         50   D0 00032    MOVL    R0, R2                                 ;
                                00000000G    8F         52   D1 00035    CMPL    R2, #PRV$_INVNAM                       ; 1962
                                                   0F   12   0003C    BNEQ    2$                                     ;
                                                   63   DD 0003E    PUSHL   TOKENPTR                                       ; 1963
                                             7E         64   3C 00040    MOVZWL  TOKENLEN, -(SP)                        ;
                                                   02   DD 00043    PUSHL   #2                                             ;
                                      00000000G    8F   DD 00045    PUSHL   #UAF$_PRVNOTFND                                ;
                                                   16   11   0004B    BRB     3$                                     ;
                                00000000G    8F         52   D1 0004D 2$: CMPL    R2, #PRV$_NOTUNQ                       ; 1968
                                                   C1   12   00054    BNEQ    1$                                     ;
                                                   63   DD 00056    PUSHL   TOKENPTR                                       ; 1969
                                             7E         64   3C 00058    MOVZWL  TOKENLEN, -(SP)                        ;
                                                   02   DD 0005B    PUSHL   #2                                             ;
                                      00000000G    8F   DD 0005D    PUSHL   #UAF$_PRVNOTUNQ                                ;
                                00000000G    00         04   FB 00063 3$: CALLS   #4, LIB$SIGNAL                         ;
                                                        04   0006A    RET                                                    ;
                                             50         01   D0 0006B 4$: MOVL    #1, R0                                 ; 1975
                                                        04   0006E    RET                                                    ; 1976

; Routine Size:  111 bytes,    Routine Base:  $CODE$ + 0DF0
```

```
;  1899          1977  1 %sbttl 'getuic - get user identification code'
;  1900          1978  1 global routine getuic =
;  1901          1979  2 begin
;  1902          1980  2
;  1903          1981  2 !++
;  1904          1982  2 !
;  1905          1983  2 ! FUNCTIONAL DESCRIPTION:
;  1906          1984  2 !
;  1907          1985  2 !       Process UIC specification
;  1908          1986  2 !
;  1909          1987  2 ! INPUTS:
;  1910          1988  2 !
;  1911          1989  2 !       none
;  1912          1990  2 !
;  1913          1991  2 ! OUTPUTS:
;  1914          1992  2 !
;  1915          1993  2 !       none
;  1916          1994  2 !
;  1917          1995  2 ! ROUTINE VALUE:
;  1918          1996  2 !
;  1919          1997  2 !       none
;  1920          1998  2 !--
;  1921          1999  2
;  1922          2000  2 !
;  1923          2001  2 ! Parse UIC and return error if invalid.
;  1924          2002  2 ! Do not allow wild card group or member numbers
;  1925          2003  2 !
;  1926          2004  2
;  1927          2005  2 if not parse_uic (recbuf[uaf$w_grp], recbuf[uaf$w_mem], false)
;  1928          2006  2 then return LIB$SIGNAL(UAF$_UICERR, 2, .tokenlen, .tokenptr);
;  1929          2007  2
;  1930          2008  2 true
;  1931          2009  1 end;


                                        0000 00000          .ENTRY  GETUIC, Save nothing                    ;  1978
                                    7E  D4 00002            CLRL    -(SP)                                   ;  2005
                          00000000G 00  9F 00004            PUSHAB  RECBUF+36                               ;
                          00000000G 00  9F 0000A            PUSHAB  RECBUF+38                               ;
                00000000V 00            03  FB 00010        CALLS   #3, PARSE_UIC                           ;
                          1D            50  E8 00017        BLBS    R0, 1$                                  ;
                          00000000G 00  DD 0001A            PUSHL   TOKENPTR                                ;  2006
                          7E 00000000G  00  3C 00020        MOVZWL  TOKENLEN, -(SP)                         ;
                                        02  DD 00027        PUSHL   #2                                      ;
                          00000000G     8F  DD 00029        PUSHL   #UAF$_UICERR                            ;
                00000000G 00            04  FB 0002F        CALLS   #4, LIB$SIGNAL                          ;
                                            04 00036        RET                                             ;
                          50            01  D0 00037 1$:     MOVL    #1, R0                                  ;  2009
                                            04 0003A        RET                                             ;

; Routine Size:  59 bytes,    Routine Base:  $CODE$ + 0E5F
```

```
;  1933          2010  1 %sbttl 'parse_uic - obtain UIC group and member'
;  1934          2011  1 global routine parse_uic (retgrp, retmem, allow_wild) =
;  1935          2012  2 begin
;  1936          2013  2
;  1937          2014  2 !++
;  1938          2015  2 !
;  1939          2016  2 ! FUNCTIONAL DESCRIPTION:
;  1940          2017  2 !
;  1941          2018  2 !       Routine to parse and validate a UIC or directory string.
;  1942          2019  2 !       The UIC is returned as group and member elements.
;  1943          2020  2 !
;  1944          2021  2 ! INPUTS:
;  1945          2022  2 !
;  1946          2023  2 !       RETGRP          - address of a word to receive the group number
;  1947          2024  2 !       RETMEM          - address of a word to receive the member number
;  1948          2025  2 !       ALLOW_WILD      - TRUE => allow wild card group/member numbers
;  1949          2026  2 !
;  1950          2027  2 ! IMPLICIT INPUTS:
;  1951          2028  2 !
;  1952          2029  2 !       TOKENPTR - address of first character past delimiter
;  1953          2030  2 !
;  1954          2031  2 ! OUTPUTS:
;  1955          2032  2 !
;  1956          2033  2 !       RETGRP and RETMEM receive group and member numbers if
;  1957          2034  2 !       no errors are encountered.
;  1958          2035  2 !
;  1959          2036  2 ! IMPLICIT OUTPUTS:
;  1960          2037  2 !
;  1961          2038  2 !       none
;  1962          2039  2 !
;  1963          2040  2 ! ROUTINE VAUE:
;  1964          2041  2 !
;  1965          2042  2 !       true -> no errors found
;  1966          2043  2 !       false -> error in UIC specification
;  1967          2044  2 !
;  1968          2045  2 ! SIDE EFFECTS:
;  1969          2046  2 !
;  1970          2047  2 !       None
;  1971          2048  2 !--
;  1972          2049  2
;  1973          2050  2 !
;  1974          2051  2 ! Crank UIC through tparse
;  1975          2052  2 !
;  1976          2053  2 tparse_block [tpa$l_stringcnt] = .tokenlen;
;  1977          2054  2 tparse_block [tpa$l_stringptr] = .tokenptr;
;  1978          2055  2
;  1979          2056  2 if not lib$tparse (tparse_block, uic_states, uic_keys)
;  1980          2057  2 then return false;
;  1981          2058  2 if .converted_uic<00,16> gtru uic$k_wild_member
;  1982          2059  2 or .converted_uic<16,16> gtru uic$k_wild_group
;  1983          2060  2 then return false;
;  1984          2061  2 if not .allow_wild
;  1985          2062  2 then
;  1986          2063  2     if .converted_uic<00,16> eqlu uic$k_wild_member
;  1987          2064  2     or .converted_uic<16,16> eqlu uic$k_wild_group
;  1988          2065  2     then return false;
;  1989          2066  2
```

```
;1990          2067  2 !
;1991          2068  2 ! UIC was successfully parsed.  Return correct data, plus true indicaton.
;1992          2069  2 !
;1993          2070  2
;1994          2071  2 (.retgrp)<0,16> = .converted_uic<16,16>;
;1995          2072  2 (.retmem)<0,16> = .converted_uic<0,16>;
;1996          2073  2 return true;
;1997          2074  1 end;


                                                0004 00000          .ENTRY  PARSE_UIC, Save R2                      ;2011
                                52 00000000'    00   9E 00002      MOVAB   CONVERTED_UIC, R2
                                E4 A2 00000000G 00   3C 00009      MOVZWL  TOKENLEN, TPARSE_BLOCK+8                ;2053
                                E8 A2 00000000G 00   D0 00011      MOVL    TOKENPTR, TPARSE_BLOCK+12               ;2054
                                   00000000'    00   9F 00019      PUSHAB  UIC_KEYS                                ;2056
                                   00000000'    00   9F 0001F      PUSHAB  UIC_STATES
                                         DC     A2   9F 00025      PUSHAB  TPARSE_BLOCK
                          00000000G     00           03   FB 00028 CALLS   #3, LIB$TPARSE
                                        29           50   E9 0002F BLBC    R0, 2$
                                        50     02    A2   3C 00032 MOVZWL  CONVERTED_UIC+2, R0                     ;2059
                                   3FFF 8F           50   B1 00036 CMPW    R0, #16383
                                                     1E   1A 0003B BGTRU   2$
                                        0E     0C    AC   E8 0003D BLBS    ALLOW_WILD, 1$                          ;2061
                                   FFFF 8F           62   B1 00041 CMPW    CONVERTED_UIC, #65535                   ;2063
                                                     13   13 00046 BEQL    2$
                                   3FFF 8F           50   B1 00048 CMPW    R0, #16383                              ;2064
                                                     0C   13 0004D BEQL    2$
                                     04 BC           50   B0 0004F 1$:    MOVW    R0, @RETGRP                     ;2071
                                     08 BC           62   B0 00053       MOVW    CONVERTED_UIC, @RETMEM          ;2072
                                        50           01   D0 00057       MOVL    #1, R0                          ;2073
                                                          04 0005A       RET
                                                     50   D4 0005B 2$:    CLRL    R0                              ;2074
                                                          04 0005D       RET

; Routine Size:  94 bytes,    Routine Base:  $CODE$ + 0E9A
```

```
;1999     2075  1 %sbttl 'parse_wild - parse wildcarded user specification'
;2000     2076  1 global routine parse_wild (desc_addr,nulldefault) =
;2001     2077  2 begin
;2002     2078  2
;2003     2079  2 !++
;2004     2080  2 !
;2005     2081  2 ! FUNCTIONAL DESCRIPTION:
;2006     2082  2 !
;2007     2083  2 !       Parse one of six methods by which User Authorization File
;2008     2084  2 !       records may be specified.  This routine defines boolean
;2009     2085  2 !       variables for input to the WILD_USER routine.
;2010     2086  2 !
;2011     2087  2 ! INPUTS:
;2012     2088  2 !
;2013     2089  2 !       DESCADDR        Address of the token string descriptor
;2014     2090  2 !       NULLDEFAULT     TRUE => A null user specification defaults to *
;2015     2091  2 !
;2016     2092  2 ! IMPLICIT INPUTS:
;2017     2093  2 !
;2018     2094  2 !       The parsing variables NEXTTOKEN, TOKENLEN, and TOKENPTR are modified.
;2019     2095  2 !
;2020     2096  2 ! OUTPUTS:
;2021     2097  2 !
;2022     2098  2 !       none
;2023     2099  2 !
;2024     2100  2 ! IMPLICIT OUTPUTS:
;2025     2101  2 !
;2026     2102  2 !       The following boolean variables are decided:
;2027     2103  2 !
;2028     2104  2 !       UIC_FLAG - UIC form (instead of username)
;2029     2105  2 !       GRP_WILD - Group wild card (implies UIC_FLAG)
;2030     2106  2 !       MEM_WILD - Member wild card (implies UIC_FLAG)
;2031     2107  2 !       STR_WILD - all users alphabetically (implies NOT UIC_FLAG)
;2032     2108  2 !
;2033     2109  2 !       RECBUF - The appropriate keys are initialized
;2034     2110  2 !
;2035     2111  2 ! ROUTINE VALUE:
;2036     2112  2 !
;2037     2113  2 !       If the syntax does not follow one of the six methods the routine
;2038     2114  2 !       returns FALSE.  The outputs are meaningful only when the value
;2039     2115  2 !       returned is TRUE.
;2040     2116  2 !
;2041     2117  2 !--                                                                      ;
;2042     2118  2
;2043     2119  2
;2044     2120  2 ! Identify the next token in the command buffer.
;2045     2121  2 !
;2046     2122  2
;2047     2123  2 if not cli$present (.desc_addr) or
;2048     2124  2    not cli$get_value (.desc_addr, tokendsc) or
;2049     2125  2    .tokenlen eql 0
;2050     2126  2 then
;2051     2127  2     if not .nulldefault
;2052     2128  2     then
;2053     2129  2         return LIB$SIGNAL(UAF$_NOUSERSPEC)
;2054     2130  2     else
;2055     2131  3         begin
```

```
;  2056          2132  3          uic_flag = false;
;  2057          2133  3          grp_wild = false;
;  2058          2134  3          mem_wild = false;
;  2059          2135  3          str_wild = true;
;  2060          2136  3          match_token = '*';
;  2061          2137  3          match_tokenlen = 1;
;  2062          2138  3          return true;
;  2063          2139  3          end
;  2064          2140  2      else
;  2065          2141  3          begin
;  2066          2142  3          tokenlen = .tokenlen;
;  2067          2143  3          tokenptr = .tokenptr;
;  2068          2144  3          end;
;  2069          2145  2
;  2070          2146  2
;  2071          2147  2      !
;  2072          2148  2      ! Decide whether a UIC or a Username form was used.
;  2073          2149  2      !
;  2074          2150  2
;  2075          2151  2      if .(.tokenptr)<0,8> eql '['
;  2076          2152  2      then
;  2077          2153  3          begin
;  2078          2154  3
;  2079          2155  3          if not parse_wild_uic ( .tokenlen, .tokenptr )
;  2080          2156  3          then
;  2081          2157  3              return LIB$SIGNAL'UAF$_INVUSERSPEC, 2, .tokenlen, .tokenptr);
;  2082          2158  3
;  2083          2159  3          end
;  2084          2160  2      else
;  2085          2161  3          begin
;  2086          2162  3          uic_flag = false;
;  2087          2163  3          grp_wild = false;
;  2088          2164  3          mem_wild = false;
;  2089          2165  3
;  2090          2166  3          !
;  2091          2167  3          ! Decide whether or not the Username is wildcarded.
;  2092          2168  3          !
;  2093          2169  3
;  2094          2170  3          if not ch$fail (ch$find_ch (.tokenlen, .tokenptr, '*'))
;  2095          2171  3              or
;  2096          2172  3             not ch$fail (ch$find_ch (.tokenlen, .tokenptr, '%'))
;  2097          2173  3  !              OR
;  2098          2174  3  !           .by_account
;  2099          2175  3          then
;  2100          2176  4              begin
;  2101          2177  4              match_tokenlen = .tokenlen;
;  2102          2178  4              ch$move (.tokenlen  .tokenptr, match_token);
;  2103          2179  4              str_wild = true;
;  2104          2180  4              end
;  2105          2181  3          else
;  2106          2182  4              begin
;  2107          2183  4              str_wild = false;
;  2108          2184  4              ch$copy (.tokenlen, .tokenptr, %char (' '),
;  2109          2185  4                                  uaf$s_username, recbuf[uaf$t_username]);
;  2110          2186  3              end;
;  2111          2187  2          end;
;  2112          2188  2
```

```
; 2113          2189  2 true
; 2114          2190  1 end;


                                        0FFC 00000          .ENTRY  PARSE_WILD, Save R2,R3,R4,R5,R6,R7,R8,R9,-      ; 2076
                                                                    R10,R11
                                5B 00000000G   00  9E 00002         MOVAB   UIC_FLAG, R11
                                5A 00000000G   00  9E 00009         MOVAB   LIB$SIGNAL, R10
                                59 00000000G   00  9E 00010         MOVAB   STR_WILD, R9
                                58 00000000G   00  9E 00017         MOVAB   TOKENLEN, R8
                                        04     AC  DD 0001E         PUSHL   DESC_ADDR                               ; 2123
                    00000000G   00              01  FB 00021         CALLS   #1, CLI$PRESENT
                                17              50  E9 00028         BLBC    R0, 1$
                                   00000000G    00  9F 0002B         PUSHAB  TOKENDSC                                ; 2124
                                        04     AC  DD 00031         PUSHL   DESC_ADDR
                    00000000G   00              02  FB 00034         CALLS   #2, CLI$GET_VALUE
                                04              50  E9 0003B         BLBC    R0, 1$
                                                68  B5 0003E         TSTW    TOKENLEN                                ; 2125
                                                2F  12 00040         BNEQ    3$
                                0A          08  AC  E8 00042 1$:     BLBS    NULLDEFAULT, 2$                         ; 2127
                                   00000000G    8F  DD 00046         PUSHL   #UAF$_NOUSERSPEC                        ; 2129
                                6A              01  FB 0004C         CALLS   #1, LIB$SIGNAL
                                                04  04 0004F         RET                                             ; 2131
                                                6B  D4 00050 2$:     CLRL    UIC_FLAG                                ; 2132
                                   00000000G    00  D4 00052         CLRL    GRP_WILD                                ; 2133
                                   00000000G    00  D4 00058         CLRL    MEM_WILD                                ; 2134
                                69              01  D0 0005E         MOVL    #1, STR_WILD                            ; 2135
                    00000000G   00              2A  D0 00061         MOVL    #42, MATCH_TOKEN                        ; 2136
                    00000000G   00              01  D0 00068         MOVL    #1, MATCH_TOKENLEN                      ; 2137
                                                79  11 0006F         BRB     9$                                      ; 2138
                                57              68  3C 00071 3$:     MOVZWL  TOKENLEN, R7                            ; 2155
                                56 00000000G    00  D0 00074         MOVL    TOKENPTR, R6                            ; 2151
                          5B    8F              66  91 0007B         CMPB    (R6), #91
                                                23  12 0007F         BNEQ    4$
                                                56  DD 00081         PUSHL   R6                                      ; 2155
                                                57  DD 00083         PUSHL   R7
                    00000000V   00              02  FB 00085         CALLS   #2, PARSE_WILD_UIC
                                5B              50  E8 0008C         BLBS    R0, 9$
                                   00000000G    00  DD 0008F         PUSHL   TOKENPTR                                ; 2157
                                7E              68  3C 00095         MOVZWL  TOKENLEN, -(SP)
                                                02  DD 00098         PUSHL   #2
                                   00000000G    8F  DD 0009A         PUSHL   #UAF$_INVUSERSPEC
                                6A              04  FB 000A0         CALLS   #4, LIB$SIGNAL
                                                04  04 000A3         RET
                                                6B  D4 000A4 4$:     CLRL    UIC_FLAG                                ; 2162
                                   00000000G    00  D4 000A6         CLRL    GRP_WILD                                ; 2163
                                   00000000G    00  D4 000AC         CLRL    MEM_WILD                                ; 2164
                66              57              2A  3A 000B2         LOCC    #42, R7, (R6)                           ; 2170
                                                02  12 000B6         BNEQ    5$
                                                51  D4 000B8         CLRL    R1
                                                51  D5 000BA 5$:     TSTL    R1
                                                0C  12 000BC         BNEQ    7$
                66              57              25  3A 000BE         LOCC    #37, R7, (R6)                           ; 2172
                                                02  12 000C2         BNEQ    6$
```

```
                                                  51  D4 000C4          CLRL    R1                                                      ;
                                                  51  D5 000C6 6$:      TSTL    R1                                                      ;
                                                  14  13 000C8          BEQL    8$                                                      ;
                    00000000G  00                 57  D0 000CA 7$:      MOVL    R7, MATCH_TOKENLEN                                      ; 2177
          00000000G  00                           66  57  28 000D1      MOVC3   R7, (R6), MATCH_TOKEN                                   ; 2178
                                                  69  01  D0 000D9      MOVL    #1, STR_WILD                                            ; 2179
                                                      0C  11 000DC      BRB     9$                                                      ; 2170
                                                  69  D4 000DE 8$:      CLRL    STR_WILD                                                ; 2183
      20            20                          66  57  2C 000E0      MOVC5   R7, (R6), #32, #32, RECBUF+4                            ; 2185
                                        00000000G 00      000E5                                                                          ;
                                                  50  01  D0 000EA 9$:      MOVL    #1, R0                                          ; 2190
                                                      04  000ED          RET                                                             ;

; Routine Size:  238 bytes,    Routine Base:  $CODE$ + 0EF8
```

```
;  2116          2191  1 %sbttl 'parse_wild_uic - parse wildcarded UIC'
;  2117          2192  1 global routine parse_wild_uic ( strlen, strptr ) =
;  2118          2193  2 begin
;  2119          2194  2
;  2120          2195  2 !++
;  2121          2196  2 !
;  2122          2197  2 ! FUNCTIONAL DESCRIPTION:
;  2123          2198  2 !
;  2124          2199  2 !       Parse the uic methods by which User Authorization File
;  2125          2200  2 !       records may be specified.  This routine defines boolean
;  2126          2201  2 !       variables for input to the WILD_USER routine.
;  2127          2202  2 !
;  2128          2203  2 ! INPUTS:
;  2129          2204  2 !
;  2130          2205  2 !       STRLEN  - Length of UIC string
;  2131          2206  2 !       STRPTR  - Address of UIC string
;  2132          2207  2 !
;  2133          2208  2 ! IMPLICIT INPUTS:
;  2134          2209  2 !
;  2135          2210  2 !
;  2136          2211  2 ! OUTPUTS:
;  2137          2212  2 !
;  2138          2213  2 !       True  - success
;  2139          2214  2 !       False - failure
;  2140          2215  2 !
;  2141          2216  2 ! IMPLICIT OUTPUTS:
;  2142          2217  2 !
;  2143          2218  2 !       The following boolean variables are decided:
;  2144          2219  2 !
;  2145          2220  2 !       UIC_FLAG - UIC form (instead of username)
;  2146          2221  2 !       GRP_WILD - Group wild card (implies UIC_FLAG)
;  2147          2222  2 !       MEM_WILD - Member wild card (implies UIC_FLAG)
;  2148          2223  2 !       STR_WILD - all users alphabetically (implies NOT UIC_FLAG)
;  2149          2224  2 !
;  2150          2225  2 !       RECBUF - The appropriate keys are initialized
;  2151          2226  2 !
;  2152          2227  2 ! ROUTINE VALUE:
;  2153          2228  2 !
;  2154          2229  2 !       If the syntax does not follow one of the six methods the routine
;  2155          2230  2 !       returns FALSE.  The outputs are meaningful only when the value
;  2156          2231  2 !       returned is TRUE.
;  2157          2232  2 !
;  2158          2233  2 !--                                                                    ;
;  2159          2234  2
;  2160          2235  2 uic_flag = true;
;  2161          2236  2 str_wild = false;
;  2162          2237  2
;  2163          2238  2 !
;  2164          2239  2 ! Crank UIC through tparse
;  2165          2240  2 !
;  2166          2241  2 tparse_block [tpa$l_stringcnt] = .strlen;
;  2167          2242  2 tparse_block [tpa$l_stringptr] = .strptr;
;  2168          2243  2
;  2169          2244  2 if not lib$tparse (tparse_block, uic_states, uic_keys)
;  2170          2245  2 then
;  2171          2246  2     return false ;
;  2172          2247  2
```

```
;  2173          2248  2 !
;  2174          2249  2 ! Decide whether or not the Group subfield is wildcarded.
;  2175          2250  2 !
;  2176          2251  2 if .converted_uic<16,16> eql uic$k_wild_group
;  2177          2252  2 then
;  2178          2253  3     begin
;  2179          2254  3     grp_wild = true;
;  2180          2255  3     recbuf[uaf$w_grp] = 0;
;  2181          2256  3     end
;  2182          2257  3
;  2183          2258  2 else
;  2184          2259  3     begin
;  2185          2260  3     grp_wild = false;
;  2186          2261  3     recbuf[uaf$w_grp] = .converted_uic<16,16>;
;  2187          2262  2     end;
;  2188          2263  2
;  2189          2264  2 !
;  2190          2265  2 ! Dec de whether or not the Member subfield is wildcarded.
;  2191          2266  2 !
;  2192          2267  2
;  2193          2268  2 if .converted_uic<0,16> eql uic$k_wild_member
;  2194          2269  2 then
;  2195          2270  3     begin
;  2196          2271  3     mem_wild = true;
;  2197          2272  3
;  2198          2273  3     !
;  2199          2274  3     ! Whether it is wildcarded or not this subfield is initialized
;  2200          2275  3     ! for the wildcard processor.
;  2201          2276  3     !
;  2202          2277  3
;  2203          2278  3     recbuf[uaf$w_mem] = 0;
;  2204          2279  3     end
;  2205          2280  2 else
;  2206          2281  3     begin
;  2207          2282  3     mem_wild = false;
;  2208          2283  3     recbuf[uaf$w_mem] = .converted_uic<0,16>;
;  2209          2284  2     end;
;  2210          2285  2
;  2211          2286  2 return true ;
;  2212          2287  1 end ;


                                                003C 00000          .ENTRY  PARSE_WILD_UIC, Save R2,R3,R4,R5                ; 2192
                                    55 00000000G    00    9E 00002  MOVAB   MEM_WILD, R5                                    ;
                                    54 00000000G    00    9E 00009  MOVAB   GRP_WILD, R4                                    ;
                                    53 00000000G    00    9E 00010  MOVAB   RECBUF+38, R3                                   ;
                                    52 00000000'    00    9E 00017  MOVAB   CONVERTED_UIC, R2                               ;
                          00000000G  00                   01    D0 0001E  MOVL    #1, UIC_FLAG                              ; 2235
                                     00000000G    00    D4 00025  CLRL    STR_WILD                                        ; 2236
                                E4   A2          04    AC    7D 0002B  MOVQ    STRLEN, TPARSE_BLOCK+8                    ; 2241
                                     00000000'    00    9F 00030  PUSHAB  UIC_KEYS                                        ; 2244
                                     00000000'    00    9F 00036  PUSHAB  UIC_STATES                                      ;
                                           DC     A2    9F 0003C  PUSHAB  TPARSE_BLOCK                                    ;
                          00000000G  00                   03    FB 0003F  CALLS   #3, LIB$TPARSE                          ;
```

```
                                33          50  E9 00046          BLBC    R0, 5$                                      ;
                                50      02  A2  3C 00049          MOVZWL  CONVERTED_UIC+2, R0                         ; 2251
                          3FFF  8F          50  B1 0004D          CMPW    R0, #16383                                  ;
                                            07  12 00052          BNEQ    1$                                          ;
                                64          01  D0 00054          MOVL    #1, GRP_WILD                                ; 2254
                                            63  B4 00057          CLRW    RECBUF+38                                   ; 2255
                                            05  11 00059          BRB     2$                                          ; 2251
                                            64  D4 0005B 1$:       CLRL    GRP_WILD                                    ; 2260
                                63          50  B0 0005D          MOVW    R0, RECBUF+38                               ; 2261
                                50          62  3C 00060 2$:       MOVZWL  CONVERTED_UIC, R0                           ; 2268
                          FFFF  8F          50  B1 00063          CMPW    R0, #65535                                  ;
                                            08  12 00068          BNEQ    3$                                          ;
                                65          01  D0 0006A          MOVL    #1, MEM_WILD                                ; 2271
                                        FE  A3  B4 0006D          CLRW    RECBUF+36                                   ; 2278
                                            06  11 00070          BRB     4$                                          ; 2268
                                            65  D4 00072 3$:       CLRL    MEM_WILD                                    ; 2282
                            FE  A3          50  B0 00074          MOVW    R0, RECBUF+36                               ; 2283
                                50          01  D0 00078 4$:       MOVL    #1, R0                                      ; 2286
                                                04 0007B          RET                                                 ;
                                            50  D4 0007C 5$:       CLRL    R0                                          ; 2287
                                                04 0007E          RET                                                 ;

; Routine Size:  127 bytes,    Routine Base:  $CODE$ + 0FE6
```

```
;  2214          2288  1 %sbttl 'getstring - get string from input'
;  2215          2289  1 global routine getstring (addr, maxsize, type) =
;  2216          2290  2 begin
;  2217          2291  2
;  2218          2292  2 !++
;  2219          2293  2 !
;  2220          2294  2 ! FUNCTIONAL DESCRIPTION:
;  2221          2295  2 !
;  2222          2296  2 !       This routine reads a string variable and stores it as
;  2223          2297  2 !       a blank filled or counted string in the field supplied.
;  2224          2298  2 !       The first character is checked to see if it is a quote
;  2225          2299  2 !       or double quote and if so, a different terminator
;  2226          2300  2 !       set is used so that embedded blanks may be contained
;  2227          2301  2 !       in the string.
;  2228          2302  2 !
;  2229          2303  2 ! INPUTS:
;  2230          2304  2 !
;  2231          2305  2 !       ADDR - address to store string
;  2232          2306  2 !       MAXSIZE - size of field in which string will be stored.
;  2233          2307  2 !                 If this is a counted string, the maximum input
;  2234          2308  2 !                 acceptable is MAXSIZE - 1
;  2235          2309  2 !       TYPE - string type, either COUNTED_STRING or FILLED_STRING
;  2236          2310  2 !
;  2237          2311  2 ! IMPLICIT INPUTS:
;  2238          2312  2 !
;  2239          2313  2 !       none
;  2240          2314  2 !
;  2241          2315  2 ! OUTPUTS:
;  2242          2316  2 !
;  2243          2317  2 !       none
;  2244          2318  2 !
;  2245          2319  2 ! IMPLICIT OUTPUTS:
;  2246          2320  2 !
;  2247          2321  2 !       none
;  2248          2322  2 !
;  2249          2323  2 ! ROUTINE VALUE:
;  2250          2324  2 !
;  2251          2325  2 !       true -> string inserted successfully
;  2252          2326  2 !       false -> string too long
;  2253          2327  2 !
;  2254          2328  2 ! SIDE EFFECTS:
;  2255          2329  2 !
;  2256          2330  2 !       none
;  2257          2331  2 !--
;  2258          2332  2
;  2259          2333  2
;  2260          2334  2 if .type eql counted_string
;  2261          2335  2 then
;  2262          2336  2     maxsize = .maxsize - 1;
;  2263          2337  2
;  2264          2338  2 if .tokenlen gtr .maxsize
;  2265          2339  2 then
;  2266          2340  2     return
;  2267          2341  2         LIB$SIGNAL(UAF$_INVSTR, 2, .tokenlen, .tokenptr);
;  2268          2342  2
;  2269          2343  2 if .type eql counted_string
;  2270          2344  2 then
```

```
; 2271          2345  3     begin
; 2272          2346  3     (.addr)<0,8> = .tokenlen;
; 2273          2347  3     ch$copy (.tokenlen, .tokenptr, %char (blank),
; 2274          2348  3                 .maxsize-1, .addr+1);
; 2275          2349  3     end
; 2276          2350  2 else
; 2277          2351  2     ch$copy (.tokenlen, .tokenptr, %char (blank),
; 2278          2352  2                 .maxsize, .addr);
; 2279          2353  2 return true;
; 2280          2354  1 end;


                                                00FC 00000          .ENTRY  GETSTRING, Save R2,R3,R4,R5,R6,R7       ; 2289
                                    57 00000000G  00   9E 00002     MOVAB   TOKENLEN, R7                           ;
                                    56 00000000G  00   9E 00009     MOVAB   TOKENPTR, R6                           ;
                                                  54   D4 00010     CLRL    R4                                     ; 2334
                                    01       0C   AC   D1 00012     CMPL    TYPE, #1                               ;
                                                  05   12 00016     BNEQ    1$                                     ;
                                                  54   D6 00018     INCL    R4                                     ;
                                             08   AC   D7 0001A     DECL    MAXSIZE                                ; 2336
                                    50            67   3C 0001D 1$:  MOVZWL  TOKENLEN, R0                          ; 2338
                                08  AC            50   D1 00020     CMPL    R0, MAXSIZE                            ;
                                                  14   15 00024     BLEQ    2$                                     ;
                                                  66   DD 00026     PUSHL   TOKENPTR                               ; 2341
                                                  50   DD 00028     PUSHL   R0                                     ;
                                                  02   DD 0002A     PUSHL   #2                                     ;
                                          00000000G  8F   DD 0002C     PUSHL   #UAF$_INVSTR                           ;
                                00000000G 00             04   FB 00032     CALLS   #4, LIB$SIGNAL                         ;
                                                         04   00039     RET                                            ;
                                          50       04   AC   D0 0003A 2$:  MOVL    ADDR, R0                           ; 2346
                                          52            67   3C 0003E     MOVZWL  TOKENLEN, R2                       ;
                                          53            66   D0 00041     MOVL    TOKENPTR, R3                       ; 2347
                                          11            54   E9 00044     BLBC    R4, 3$                             ;
                                          60            52   90 00047     MOVB    R2, (R0)                           ; 2346
                                    51       08   AC             01   C3 0004A     SUBL3   #1, MAXSIZE, R1                ; 2348
                                51  20            63             52   2C 0004F     MOVC5   R2, (R3), #32, R1, 1(R0)       ;
                                                                01   A0 00054                                         ;
                                                  07   11 00056     BRB     4$                                     ; 2343
                            08  AC  20            63             52   2C 00058 3$:  MOVC5   R2, (R3), #32, MAXSIZE, (R0)  ; 2352
                                                                60   0005E                                          ;
                                          50            01   D0 0005F 4$:  MOVL    #1, R0                             ; 2353
                                                         04   00062     RET                                            ; 2354

; Routine Size:  99 bytes,    Routine Base:  $CODE$ + 1065
```

```
;2282     2355  1 %sbttl 'getval - get numeric value from user'
;2283     2356  1 global routine getval (addr, size) =
;2284     2357  2 begin
;2285     2358  2
;2286     2359  2 !++
;2287     2360  2 !
;2288     2361  2 ! FUNCTIONAL DESCRIPTION:
;2289     2362  2 !
;2290     2363  2 !       Routine to return binary value for next ASCII decimal
;2291     2364  2 !       number in the input stream.
;2292     2365  2 !
;2293     2366  2 ! INPUTS:
;2294     2367  2 !
;2295     2368  2 !       ADDR - address to return converted value
;2296     2369  2 !       SIZE - size in bits of field in which to return value
;2297     2370  2 !
;2298     2371  2 ! IMPLICIT INPUTS:
;2299     2372  2 !
;2300     2373  2 !       NEXTTOKEN - contains address of delimiter preceeding the number
;2301     2374  2 !
;2302     2375  2 ! OUTPUTS:
;2303     2376  2 !
;2304     2377  2 !       field described by ADDR and SIZE receives binary value
;2305     2378  2 !
;2306     2379  2 ! IMPLICIT OUTPUTS:
;2307     2380  2 !
;2308     2381  2 !       none
;2309     2382  2 !
;2310     2383  2 ! ROUTINE VALUE:
;2311     2384  2 !
;2312     2385  2 !       true -> value converted successfully
;2313     2386  2 !       false -> non-numeric character encounted before next
;2314     2387  2 !                delimiter found
;2315     2388  2 !
;2316     2389  2 ! SIDE EFFECTS:
;2317     2390  2 !
;2318     2391  2 !       If error is encountered, an error message will be printed.
;2319     2392  2 !
;2320     2393  2 !--
;2321     2394  2
;2322     2395  2 local
;2323     2396  2         value;                          ! for value returned
;2324     2397  2                                         ! by CVTNUM routine
;2325     2398  2
;2326     2399  2 !
;2327     2400  2 ! Check for no value supplied
;2328     2401  2 !
;2329     2402  2
;2330     2403  2 if .tokenlen eql 0
;2331     2404  2 then
;2332     2405  2     return LIB$SIGNAL(UAF$_NOARG, 2, .tokenlen, .tokenptr);
;2333     2406  2
;2334     2407  2 !
;2335     2408  2 ! Convert to decimal. Report error if any non-numerics encountered.
;2336     2409  2 !
;2337     2410  2
;2338     2411  2 if not cvtnum (.tokenlen, .tokenptr, 10, value)
```

```
;  2339     2412  2 then
;  2340     2413  2     return LIB$SIGNAL(UAF$_BADVALUE, 2, .tokenlen, .tokenptr);
;  2341     2414  2
;  2342     2415  2 !
;  2343     2416  2 ! Check that the value supplied is within the size of
;  2344     2417  2 ! the field to be stored.
;  2345     2418  2 !
;  2346     2419  2
;  2347     2420  2 if .value<.size - 1, 32 - .size + 1> neq 0
;  2348     2421  2 then
;  2349     2422  2     return LIB$SIGNAL(UAF$_VALTOOBIG, 2, .tokenlen, .tokenptr);
;  2350     2423  2
;  2351     2424  2 !
;  2352     2425  2 ! Finally, store the value in field specified .
;  2353     2426  2 !
;  2354     2427  2
;  2355     2428  2 (.addr)<0, .size> = .value;
;  2356     2429  2
;  2357     2430  2 return true;
;  2358     2431  1 end;
```

```
                                                001C 00000          .ENTRY  GETVAL, Save R2,R3,R4                                   ; 2356
                                    54 00000000G  00   9E 00002     MOVAB   TOKENLEN, R4                                            ;
                                    53 00000000G  00   9E 00009     MOVAB   TOKENPTR, R3                                            ;
                                    5E            04   C2 00010     SUBL2   #4, SP                                                  ;
                                    50            64   3C 00013     MOVZWL  TOKENLEN, R0                                            ; 2403
                                                  0E   12 00016     BNEQ    1$                                                      ;
                                                  63   DD 00018     PUSHL   TOKENPTR                                                ; 2405
                                                  50   DD 0001A     PUSHL   R0                                                      ;
                                                  02   DD 0001C     PUSHL   #2                                                      ;
                                         00000000G  8F   DD 0001E     PUSHL   #UAF$_NOARG                                             ;
                                                  40   11 00024     BRB     3$                                                      ;
                                                  5E   DD 00026 1$:   PUSHL   SP                                                      ; 2411
                                                  0A   DD 00028     PUSHL   #10                                                     ;
                                                  63   DD 0002A     PUSHL   TOKENPTR                                                ;
                                       7E         64   3C 0002C     MOVZWL  TOKENLEN, -(SP)                                         ;
                              00000000V   00      04   FB 0002F     CALLS   #4, CVTNUM                                              ;
                                       0F         50   E8 00036     BLBS    R0, 2$                                                  ;
                                                  63   DD 00039     PUSHL   TOKENPTR                                                ; 2413
                                       7E         64   3C 0003B     MOVZWL  TOKENLEN, -(SP)                                         ;
                                                  02   DD 0003E     PUSHL   #2                                                      ;
                                         00000000G  8F   DD 00040     PUSHL   #UAF$_BADVALUE                                          ;
                                                  1E   11 00046     BRB     3$                                                      ;
                                 52       08      AC   01   C3 00048 2$:   SUBL3   #1, SIZE, R2                                     ; 2420
                                 50                21   AC   C3 0004D     SUBL3   SIZE, #33, R0                                       ;
                           51    6E                50   EF   52 00052     EXTZV   R2, R0, VALUE, R1                                   ;
                                                  15   13   BEQL 00057     BEQL    4$                                              ;
                                                  63   DD   PUSHL 00059     PUSHL   TOKENPTR                                        ; 2422
                                       7E         64   3C   MOVZWL 0005B     MOVZWL  TOKENLEN, -(SP)                                 ;
                                                  02   DD   PUSHL 0005E     PUSHL   #2                                              ;
                                         00000000G  8F   DD   PUSHL 00060     PUSHL   #UAF$_VALTOOBIG                                 ;
                              00000000G   00      04   FB   CALLS 00066 3$:   CALLS   #4, LIB$SIGNAL                               ;
                                                  04   RET  00069           RET                                                     ;
```

```
      04   BC       08   AC            00            6E  F0 0006E 4$:     INSV    VALUE, #0, SIZE, @ADDR                  ; 2428
                                       50            01  D0 00075         MOVL    #1, R0                                  ; 2430
                                                         04 00078         RET                                             ; 2431

; Routine Size:  121 bytes,    Routine Base:  $CODE$ + 10C8
```

```
;2360     2432  1 %sbttl 'cvtnum - convert decimal ascii to binary'
;2361     2433  1 routine cvtnum (size, adr, radix, valadr) =
;2362     2434  2 begin
;2363     2435  2
;2364     2436  2 !++
;2365     2437  2 !
;2366     2438  2 ! FUNCTIONAL DESCIRPTION:
;2367     2439  2 !
;2368     2440  2 !       Routine to convert ascii digits to binary.
;2369     2441  2 !
;2370     2442  2 ! INPUTS:
;2371     2443  2 !
;2372     2444  2 !       SIZE - number of digits in input buffer
;2373     2445  2 !       ADR - address of the buffer containing ascii digits
;2374     2446  2 !       RADIX - radix of number to be converted
;2375     2447  2 !       VALADR - address of longword to receive converted value
;2376     2448  2 !
;2377     2449  2 ! IMPLICIT INPUTS:
;2378     2450  2 !
;2379     2451  2 !       none
;2380     2452  2 !
;2381     2453  2 ! OUTPUTS:
;2382     2454  2 !
;2383     2455  2 !       longword pointed to by VALADR receives converted value
;2384     2456  2 !
;2385     2457  2 ! IMPLICIT OUTPUTS:
;2386     2458  2 !
;2387     2459  2 !       none
;2388     2460  2 !
;2389     2461  2 ! ROUTINE VALUE:
;2390     2462  2 !
;2391     2463  2 !       true -> value successfully converted
;2392     2464  2 !       false -> non-numeric encountered before end of string
;2393     2465  2 !
;2394     2466  2 ! SIDE EFFECTS:
;2395     2467  2 !
;2396     2468  2 !       none
;2397     2469  2 !--
;2398     2470  2
;2399     2471  2 bind
;2400     2472  2         sum = .valadr;                  ! address ref scaler
;2401     2473  2
;2402     2474  2
;2403     2475  2 sum = 0;
;2404     2476  2
;2405     2477  2 !
;2406     2478  2 ! Loop thorugh buffer.  Stop on end of string or non-decimal digit.
;2407     2479  2 !
;2408     2480  2
;2409     2481  3 incr i from .adr to  (.adr + .size - 1)
;2410     2482  2 do
;2411     2483  3     begin
;2412     2484  3     local
;2413     2485  3         digit,
;2414     2486  3         pointer;
;2415     2487  3
;2416     2488  3     digit = .(.i)<0,8>;
```

```
; 2417          2489  3
; 2418          2490  3       !
; 2419          2491  3       ! Check validity of digit depending on radix
; 2420          2492  3       !
; 2421          2493  3
; 2422          2494  3
; 2423          2495  3       if ch$fail (pointer = ch$find_ch (.radix, numbers, .digit))
; 2424          2496  3       then
; 2425          2497  3           return false
; 2426          2498  3       else
; 2427          2499  4           sum = (.sum*.radix) +  (.pointer - numbers)
; 2428          2500  2       end;
; 2429          2501  2
; 2430          2502  2 return true;
; 2431          2503  1 end;



                                 003C 00000 CVTNUM: .WORD    Save R2,R3,R4,R5                       ; 2433
                   55 00000000'  00  9E 00002          MOVAB    NUMBERS, R5                            ;
                           10    BC  D4 00009          CLRL     @VALADR                                ; 2475
        54     08  AC      04    AC  C1 0000C          ADDL3    SIZE, ADR, R4                          ; 2481
        53     08  AC            01  C3 00012          SUBL3    #1, ADR, I                             ; 2495
                                 21  11 00017          BRB      3$                                     ;
                   50            63  9A 00019 1$:      MOVZBL   (I), DIGIT                             ; 2488
        65     0C  AC            50  3A 0001C          LOCC     DIGIT, RADIX, NUMBERS                  ; 2495
                                 02  12 00021          BNEQ     2$                                     ;
                                 51  D4 00023          CLRL     R1                                     ;
                                 51  D5 00025 2$:      TSTL     POINTER                                ;
                                 19  13 00027          BEQL     4$                                     ;
        52     10  BC      0C    AC  C5 00029          MULL3    RADIX, @VALADR, R2                     ; 2499
                   50            65  9E 0002F          MOVAB    NUMBERS, R0                            ;
                   51            50  C2 00032          SUBL2    R0, R1                                 ;
    10  BC         52            51  C1 00035          ADDL3    R1, R2, @VALADR                        ;
        DB         53            54  F2 0003A 3$:      AOBLSS   R4, I, 1$                              ; 2495
                   50            01  D0 0003E          MOVL     #1, R0                                 ; 2502
                                     04 00041          RET                                             ;
                                 50  D4 00042 4$:      CLRL     R0                                     ; 2503
                                     04 00044          RET                                             ;

; Routine Size:  69 bytes,    Routine Base:  $CODE$ + 1141
```

```
;  2433          2504  1 %sbttl 'PASSWORD MACROS -- for N-ary passwords'
;  2434          2505  1
;  2435          2506  1 !++
;  2436          2507  1 !
;  2437          2508  1 ! FUNCTIONAL DESCRIPTION:
;  2438          2509  1 !
;  2439          2510  1 !       These macros and the routines that follow allow for
;  2440          2511  1 !       the use of any number of passwords. At the time of
;  2441          2512  1 !       this writing, only two (primary and secondary) pass-
;  2442          2513  1 !       words were in effect. When a change is made to the
;  2443          2514  1 !       number of passwords, it will be necessary, only, to
;  2444          2515  1 !       update the argument list macros below.
;  2445          2516  1 !
;  2446          2517  1 !--
;  2447          2518  1
;  2448          2519  1 macro
;  2449          2520  1
;  2450          2521  1     $NARY_LIST    = 'PRIMARY', '', 'SECONDARY', '2' %,
;  2451          2522  1     $N_LIST       =            '',               '2' %;
;  2452          2523  1
;  2453          2524  1 !
;  2454          2525  1 !       The remainder of the text will need no modification for N-ary passwords
;  2455          2526  1 !
;  2456          2527  1
;  2457          2528  1 macro $PASSWORD(n) = %name('PASSWORD_',n) %;
;  2458          2529  1 macro $PRESENT(n) = %name('PRESENT_',n) %;
;  2459          2530  1
;  2460        M 2531  1 macro OWN_PASSWORD[n] =
;  2461        M 2532  1     own $PASSWORD(n): block[DSC$K_D_BLN, byte]
;  2462          2533  1         preset([DSC$B_CLASS] = DSC$K_CLASS_D); %;
;  2463          2534  1
;  2464          2535  1 OWN_PASSWORD($N_LIST);
```

```
;  2466          2536  1 %sbttl 'UAF$GENERATE -- Generate random passwords'
;  2467          2537  1 routine UAF$GENERATE =
;  2468          2538  2 begin
;  2469          2539  2
;  2470          2540  2 !++
;  2471          2541  2 !
;  2472          2542  2 ! FUNCTIONAL DESCRIPTION:
;  2473          2543  2 !
;  2474          2544  2 !       Decide which passwords to generate
;  2475          2545  2 !
;  2476          2546  2 ! INPUTS:
;  2477          2547  2 !
;  2478          2548  2 !       none
;  2479          2549  2 !
;  2480          2550  2 ! IMPLICIT INPUTS:
;  2481          2551  2 !
;  2482          2552  2 !       CLI$GET_VALUE(%ascid'GENERATE_PASSWORD')
;  2483          2553  2 !
;  2484          2554  2 ! OUTPUTS:
;  2485          2555  2 !
;  2486          2556  2 !       none
;  2487          2557  2 !
;  2488          2558  2 ! IMPLICIT OUTPUTS:
;  2489          2559  2 !
;  2490          2560  2 !       Places new values in $PASSWORD(n)'s
;  2491          2561  2 !
;  2492          2562  2 ! ROUTINE VALUE:
;  2493          2563  2 !
;  2494          2564  2 !       none
;  2495          2565  2 !
;  2496          2566  2 ! SIDE EFFECTS:
;  2497          2567  2 !
;  2498          2568  2 !        none
;  2499          2569  2 !
;  2500          2570  2 !--
;  2501          2571  2
;  2502          2572  2     own WHICH: block[DSC$K_D_BLN, byte] preset([DSC$B_CLASS] = DSC$K_CLASS_D);
;  2503          2573  2
;  2504        M 2574  2     macro ACTIVE_PASSWORD(n) =
;  2505          2575  2        ch$neq(%name('UAF$S_PWD',n), RECBUF[%name('UAF$Q_PWD',n)], 0, 0, 0) %;
;  2506        M 2576  2     macro WHICH_EQL[THIS] =
;  2507        M 2577  2        ch$eql( .WHICH[DSC$W_LENGTH], .WHICH[DSC$A_POINTER],
;  2508          2578  2                %charcount(THIS), uplit(%ascii %string(THIS)) ) %;
;  2509        M 2579  2     macro GENERATE_NEW_PASSWORD[THIS, n] =
;  2510        M 2580  2        if (ACTIVE_PASSWORD(n) and (FALSE or WHICH_EQL('CURRENT')))
;  2511        M 2581  2        or WHICH_EQL(THIS, 'BOTH', 'ALL') then
;  2512        M 2582  2           AUTHORIZE_GENERATE($PASSWORD(n), uplit(%ascii THIS), %charcount(THIS))
;  2513        M 2583  2        else
;  2514          2584  2           $PASSWORD(n)[DSC$W_LENGTH] = 0; %;
;  2515          2585  2
;  2516          2586  2     CLI$GET_VALUE(%ascid'GENERATE_PASSWORD', WHICH);
;  2517          2587  2     GENERATE_NEW_PASSWORD($NARY_LIST);
;  2518          2588  2
;  2519          2589  2     return TRUE;
;  2520          2590  2
;  2521          2591  1 end;
```

```
                                                                          .PSECT  $PLIT$,NOWRT,NOEXE,2

4F 57 53 53 41 50 5F 45 54 41 52 45 4E 45 47  004D0 P.AFH:  .ASCII  \GENERATE_PASSWORD\<0><0><0>      ;
                              00 00 00 44 52  004DF                                                  ;
                                    010E0011  004E4 P.AFG:  .LONG   17694737                         ;
                                   00000000'  004E8         .ADDRESS P.AFH                           ;
                     00 54 4E 45 52 52 55 43  004EC P.AFI:  .ASCII  \CURRENT\<0>                     ;
                     00 59 52 41 4D 49 52 50  004F4 P.AFJ:  .ASCII  \PRIMARY\<0>                     ;
                                 48 54 4F 42  004FC P.AFK:  .ASCII  \BOTH\                           ;
                                 00 4C 4C 41  00500 P.AFL:  .ASCII  \ALL\<0>                         ;
                     00 59 52 41 4D 49 52 50  00504 P.AFM:  .ASCII  \PRIMARY\<0>                     ;
                     00 54 4E 45 52 52 55 43  0050C P.AFN:  .ASCII  \CURRENT\<0>                     ;
         00 00 00 59 52 41 44 4E 4F 43 45 53  00514 P.AFO:  .ASCII  \SECONDARY\<0><0><0>             ;
                                 48 54 4F 42  00520 P.AFP:  .ASCII  \BOTH\                           ;
                                 00 4C 4C 41  00524 P.AFQ:  .ASCII  \ALL\<0>                         ;
         00 00 00 59 52 41 44 4E 4F 43 45 53  00528 P.AFR:  .ASCII  \SECONDARY\<0><0><0>             ;

                                                            .PSECT  $OWN$,NOEXE,2

                                        00#  0010C PASSWORD_:
                                                            .BYTE   0[3]                             ;
                                        02   0010F          .BYTE   2                                ;
                                             00110          .BLKB   4                                ;
                                        00#  00114 PASSWORD_2:
                                                            .BYTE   0[3]                             ;
                                        02   00117          .BYTE   2                                ;
                                             00118          .BLKB   4                                ;
                                        00#  0011C WHICH:   .BYTE   0[3]                             ;
                                        02   0011F          .BYTE   2                                ;
                                             00120          .BLKB   4                                ;


                                                            .PSECT  $CODE$,NOWRT,2

                                      007C   00000 UAF$GENERATE:
                                                            .WORD   Save R2,R3,R4,R5,R6              ; 2537
                    56 00000000V  00   9E  00002            MOVAB   AUTHORIZE_GENERATE, R6           ;
                    55 00000000'  00   9E  00009            MOVAB   P.AFG, R5                        ;
                    54 00000000'  00   9E  00010            MOVAB   WHICH, R4                        ;
                                  54   DD  00017            PUSHL   R4                               ; 2586
                                  55   DD  00019            PUSHL   R5                               ;
        00000000G 00              02   FB  0001B            CALLS   #2, CLI$GET_VALUE                ;
   00      00 00000000G 00        08   2D  00022            CMPC5   #8, RECBUF+340, #0, #0, @#^X00000000  ; 2587
                       00000000   9F       0002B                                                     ;
                                  0D   13  00030            BEQL    1$                               ;
                    50       04   A4   D0  00032            MOVL    WHICH+4, R0                      ;
   07          00   60            64   2D  00036            CMPC5   WHICH, (R0), #0, #7, P.AFI       ;
                             08   A5       0003B                                                     ;
                                  27   13  0003D            BEQL    2$                               ;
                    50       04   A4   D0  0003F 1$:        MOVL    WHICH+4, R0                      ;
   07          00   60            64   2D  00043            CMPC5   WHICH, (R0), #0, #7, P.AFJ       ;
                             10   A5       00048                                                     ;
                                  1A   13  0004A            BEQL    2$                               ;
                    50       04   A4   D0  0004C            MOVL    WHICH+4, R0                      ;
```

```
                04          00          60                  64  2D 00050          CMPC5   WHICH, (R0), #0, #4, P.AFK
                                                        18  A5     00055
                                                        0D  13 00057              BEQL    2$
                                                    50  04  A4 DO 00059          MOVL    WHICH+4, R0
                03          00          60                  64  2D 0005D          CMPC5   WHICH, (R0), #0, #3, P.AFL
                                                        1C  A5     00062
                                                        0D  12 00064              BNEQ    3$
                                                        07  DD 00066 2$:         PUSHL   #7
                                                        20  A5 9F 00068          PUSHAB  P.AFM
                                                        F0  A4 9F 0006B          PUSHAB  PASSWORD
                                                    66      03 FB 0006E          CALLS   #3, AUTHORIZE_GENERATE
                                                        03  11 00071              BRB     4$
                                                        F0  A4 B4 00073 3$:      CLRW    PASSWORD
                00          00  00000000G   00              08  2D 00076 4$:     CMPC5   #8, RECBUF+348, #0, #0, a#^X00000000
                                                00000000    9F     0007F
                                                        0D  13 00084              BEQL    5$
                                                    50  04  A4 DO 00086          MOVL    WHICH+4, R0
                07          00          60                  64  2D 0008A          CMPC5   WHICH, (R0), #0, #7, P.AFN
                                                        28  A5     0008F
                                                        27  13 00091              BEQL    6$
                                                    50  04  A4 DO 00093 5$:      MOVL    WHICH+4, R0
                09          00          60                  64  2D 00097          CMPC5   WHICH, (R0), #0, #9, P.AFO
                                                        30  A5     0009C
                                                        1A  13 0009E              BEQL    6$
                                                    50  04  A4 DO 000A0          MOVL    WHICH+4, R0
                04          00          60                  64  2D 000A4          CMPC5   WHICH, (R0), #0, #4, P.AFP
                                                        3C  A5     000A9
                                                        0D  13 000AB              BEQL    6$
                                                    50  04  A4 DO 000AD          MOVL    WHICH+4, R0
                03          00          60                  64  2D 000B1          CMPC5   WHICH, (R0), #0, #3, P.AFQ
                                                        40  A5     000B6
                                                        0D  12 000B8              BNEQ    7$
                                                        09  DD 000BA 6$:         PUSHL   #9
                                                        44  A5 9F 000BC          PUSHAB  P.AFR
                                                        F8  A4 9F 000BF          PUSHAB  PASSWORD_2
                                                    66      03 FB 000C2          CALLS   #3, AUTHORIZE_GENERATE
                                                        03  11 000C5              BRB     8$
                                                        F8  A4 B4 000C7 7$:      CLRW    PASSWORD_2
                                                    50      01 DO 000CA 8$:      MOVL    #1, R0                          ; 2589
                                                           04 000CD              RET                                     ; 2591

; Routine Size:  206 bytes,    Routine Base:  $CODE$ + 1186
```

```
;  2523          2592  1 %sbttl 'GETPASSWORD - get user password'
;  2524          2593  1 routine GETPASSWORD =
;  2525          2594  2 begin
;  2526          2595  2
;  2527          2596  2 !++
;  2528          2597  2 !
;  2529          2598  2 ! FUNCTIONAL DESCRIPTION:
;  2530          2599  2 !
;  2531          2600  2 !       Action routine to process password.
;  2532          2601  2 !
;  2533          2602  2 ! INPUTS:
;  2534          2603  2 !
;  2535          2604  2 !       none
;  2536          2605  2 !
;  2537          2606  2 ! IMPLICIT INPUTS:
;  2538          2607  2 !
;  2539          2608  2 !       none
;  2540          2609  2 !
;  2541          2610  2 ! OUTPUTS:
;  2542          2611  2 !
;  2543          2612  2 !       none
;  2544          2613  2 !
;  2545          2614  2 ! IMPLICIT OUTPUTS:
;  2546          2615  2 !
;  2547          2616  2 !       sets hashed password field in recbuf
;  2548          2617  2 !
;  2549          2618  2 ! ROUTINE VALUE:
;  2550          2619  2 !
;  2551          2620  2 !       true -> success
;  2552          2621  2 !       false -> failure
;  2553          2622  2 !
;  2554          2623  2 ! SIDE EFFECTS:
;  2555          2624  2 !
;  2556          2625  2 !       none
;  2557          2626  2 !--
;  2558          2627  2
;  2559          2628  2     own
;  2560          2629  2
;  2561          2630  2        USER_DSC: $bblock[8],
;  2562          2631  2        REC_ENCRYPT_DSC: $bblock[8];
;  2563          2632  2
;  2564        M 2633  2     macro LOCAL_PRESENT[n] =
;  2565          2634  2        local $PRESENT(n): initial(TRUE); %;
;  2566          2635  2
;  2567          2636  2     LOCAL_PRESENT($N_LIST);
;  2568          2637  2
;  2569          2638  2 !
;  2570          2639  2 !       What are the passwords ???
;  2571          2640  2 !
;  2572          2641  2
;  2573          2642  2     if CLI$PRESENT(SD_PASSWORD) eql CLI$_NEGATED then
;  2574          2643  3        begin
;  2575          2644  3           macro BLANK_PASSWORD[n] = $PRESENT(n) = FALSE; %;
;  2576          2645  3           BLANK_PASSWORD($N_LIST);
;  2577          2646  3        end
;  2578          2647  2     else if CLI$PRESENT(SD_PASSWORD) then
;  2579          2648  3        begin
```

```
; 2580        M 2649  3          macro GET_PASSWORD[n] =
; 2581        M 2650  3             $PASSWORD(n)[DSC$W_LENGTH] = 0;
; 2582        M 2651  3             $PASSWORD(n)[DSC$A_POINTER] = 0;
; 2583          2652  3             $PRESENT(n) = CLI$GET_VALUE(SD_PASSWORD, $PASSWORD(n)); %;
; 2584          2653  3          GET_PASSWORD($N_LIST);
; 2585          2654  2       end;
; 2586          2655  2
; 2587          2656  2 !
; 2588          2657  2 !       When is it being changed ???
; 2589          2658  2 !
; 2590          2659  2
; 2591          2660  2    $GETTIM(timadr=TIME_BUF);
; 2592          2661  2
; 2593          2662  2 !
; 2594          2663  2 !       If this is a new password ...
; 2595          2664  2 !
; 2596          2665  2
; 2597          2666  2    if .RECBUF[UAF$W_SALT] eql 0 then
; 2598          2667  2       RECBUF[UAF$W_SALT] = .TIME_BUF<3*8,16>;
; 2599          2668  2
; 2600          2669  2 !
; 2601          2670  2 !       Find the length of the username
; 2602          2671  2 !
; 2603          2672  2
; 2604          2673  3    begin
; 2605          2674  3
; 2606          2675  3       builtin LOCC;
; 2607          2676  3       builtin R0;
; 2608          2677  3       LOCC(%ref(%char(BLANK)), %ref(UAF$S_USERNAME), RECBUF[UAF$T_USERNAME]);
; 2609          2678  3       USER_DSC[DSC$W_LENGTH] = UAF$S_USERNAME - .R0;
; 2610          2679  3       USER_DSC[DSC$A_POINTER] = RECBUF[UAF$T_USERNAME];
; 2611          2680  3
; 2612          2681  2    end;
; 2613          2682  2
; 2614          2683  2 !
; 2615          2684  2 !       Check the new passwords for syntax
; 2616          2685  2 !
; 2617          2686  2
; 2618          2687  3    begin
; 2619          2688  3
; 2620        M 2689  3       macro CHECK_PASSWORD[n] =
; 2621        M 2690  3
; 2622        M 2691  3          if .$PASSWORD(n)[DSC$W_LENGTH] gtru 31 then
; 2623        M 2692  3             return LIB$SIGNAL(UAF$_PWDSYNTAX);
; 2624        M 2693  3          incr COUNTER to .$PASSWORD(n)[DSC$W_LENGTH]-1 do
; 2625        M 2694  3             if ch$fail( ch$find_ch(.SYMBOL_STR<0,8>, SYMBOL_STR+1,
; 2626        M 2695  3                         .vector[.$PASSWORD(n)[DSC$A_POINTER],
; 2627        M 2696  3                         .COUNTER;, byte]) )
; 2628        M 2697  3                then
; 2629          2698  3                   return LIB$SIGNAL(UAF$_PWDSYNTAX); %;
; 2630          2699  3
; 2631          2700  3       CHECK_PASSWORD($N_LIST);
; 2632          2701  3
; 2633          2702  2    end;
; 2634          2703  2
; 2635          2704  2 !
; 2636          2705  2 !       Modify the passwords
```

```
;  2637          2706  2 !
;  2638          2707  2
;  2639          2708  3     begin
;  2640          2709  3
;  2641        M 2710  3        macro MODIFY_PASSWORD[n] =
;  2642        M 2711  3
;  2643        M 2712  3           if not .$PRESENT(n) then
;  2644        M 2713  3              begin ! Blank out the current values
;  2645        M 2714  3
;  2646        M 2715  3                 ch$fill(0, %name('UAF$S_PWD',n), RECBUF[%name('UAF$Q_PWD',n)]);
;  2647        M 2716  3                 ch$fill(0, %name('UAF$S_PWD',n,'_DATE'),
;  2648        M 2717  3                           RECBUF[%name('UAF$Q_PWD',n,'_DATE')]);
;  2649        M 2718  3
;  2650        M 2719  3                 RECBUF[%name('UAF$V_PWD',n,'_EXPIRED')] = FALSE;
;  2651        M 2720  3                 PWD_FLAG = FALSE;
;  2652        M 2721  3
;  2653        M 2722  3              end
;  2654        M 2723  3           else if .$PASSWORD(n)[DSC$W_LENGTH] neq 0 then
;  2655        M 2724  3              begin ! Encrypt the new values
;  2656        M 2725  3
;  2657        M 2726  3                 RECBUF[%name('UAF$B_ENCRYPT',n)] = ENCRYPT;
;  2658        M 2727  3                 REC_ENCRYPT_DSC[DSC$W_LENGTH] = %name('UAF$S_PWD',n);
;  2659        M 2728  3                 REC_ENCRYPT_DSC[DSC$A_POINTER] = RECBUF[%name('UAF$Q_PWD',n)];
;  2660        M 2729  3                 PWD_FLAG = FALSE;
;  2661        M 2730  3
;  2662        M 2731  3                 LGI$HPWD(REC_ENCRYPT_DSC, $PASSWORD(n),
;  2663        M 2732  3                    .RECBUF[%name('UAF$B_ENCRYPT',n)], .RECBUF[UAF$W_SALT],
;  2664        M 2733  3                    user_dsc);
;  2665        M 2734  3
;  2666        M 2735  3                 ch$move( %name('UAF$S_PWD',n,'_DATE'), TIME_BUF,
;  2667        M 2736  3                           RECBUF[%name('UAF$Q_PWD',n,'_DATE')]);
;  2668        M 2737  3
;  2669          2738  3              end; %;
;  2670          2739  3
;  2671          2740  3        MODIFY_PASSWORD($N_LIST);
;  2672          2741  3
;  2673          2742  2     end;
;  2674          2743  2
;  2675          2744  2 !
;  2676          2745  2 !       That's all folks ...
;  2677          2746  2 !
;  2678          2747  2
;  2679          2748  2     return TRUE;
;  2680          2749  2
;  2681          2750  1 end;


                                                                .PSECT  $OWN$,NOEXE,2

                                                        00124 USER_DSC:
                                                                .BLKB   8
                                                        0012C REC_ENCRYPT_DSC:
                                                                .BLKB   8

                                                                .EXTRN  SYS$GETTIM
```

```
                                                        .PSECT  $CODE$,NOWRT,2

                                                OFFC 00000 GETPASSWORD:
                                                        .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11            ; 2593
                                    5B 00000000G    00  9E 00002        MOVAB   PWD_FLAG, R11
                                    5A 00000000G    00  9E 00009        MOVAB   SYMBOL_STR, R10
                                    59 00000000G    00  9E 00010        MOVAB   TIME_BUF, R9
                                    58 00000000G    00  9E 00017        MOVAB   RECBUF+358, R8
                                    57 00000000'    00  9E 0001E        MOVAB   PASSWORD_, R7
                                    54              01  D0 00025        MOVL    #1, PRESENT_                    ; 2594
                                    56              01  D0 00028        MOVL    #1, PRESENT_2
                                        00000000'   00  9F 0002B        PUSHAB  SD_PASSWORD                     ; 2642
                            00000000G   00          01  FB 00031        CALLS   #1, CLI$PRESENT
                            00000000G   8F          50  D1 00038        CMPL    R0, #CLI$_NEGATED
                                                06  12 0003F        BNEQ    1$
                                                54  D4 00041        CLRL    PRESENT_                        ; 2645
                                                56  D4 00043        CLRL    PRESENT_2
                                                40  11 00045        BRB     2$                              ; 2642
                                        00000000'   00  9F 00047 1$:    PUSHAB  SD_PASSWORD                     ; 2647
                            00000000G   00          01  FB 0004D        CALLS   #1, CLI$PRESENT
                                    30              50  E9 00054        BLBC    R0, 2$
                                                67  B4 00057        CLRW    PASSWORD_                       ; 2653
                                            04  A7  D4 00059        CLRL    PASSWORD_+4
                                                57  DD 0005C        PUSHL   R7
                                        00000000'   00  9F 0005E        PUSHAB  SD_PASSWORD
                            00000000G   00          02  FB 00064        CALLS   #2, CLI$GET_VALUE
                                    54              50  D0 0006B        MOVL    R0, PRESENT_
                                            08  A7  B4 0006E        CLRW    PASSWORD_2
                                            0C  A7  D4 00071        CLRL    PASSWORD_2+4
                                            08  A7  9F 00074        PUSHAB  PASSWORD_2
                                        00000000'   00  9F 00077        PUSHAB  SD_PASSWORD
                            00000000G   00          02  FB 0007D        CALLS   #2, CLI$GET_VALUE
                                    56              50  D0 00084        MOVL    R0, PRESENT_2
                                                59  DD 00087 2$:    PUSHL   R9                              ; 2660
                            00000000G   00          01  FB 00089        CALLS   #1, SYS$GETTIM
                                                68  B5 00090        TSTW    RECBUF+358                      ; 2666
                                                04  12 00092        BNEQ    3$
                                    68          03  A9  B0 00094        MOVW    TIME_BUF+3, RECBUF+358          ; 2667
                        FE9E    C8              20  20  3A 00098 3$:    LOCC    #32, #32, RECBUF+4              ; 2677
                          18    A7              20  50  A3 0009E        SUBW3   R0, #32, USER_DSC               ; 2678
                                        1C  A7      FE9E    C8  9E 000A3        MOVAB   RECBUF+4, USER_DSC+4    ; 2679
                                    1F              67  B1 000A9        CMPW    PASSWORD_, #31                  ; 2700
                                                45  1A 000AC        BGTRU   9$
                                    53              67  3C 000AE        MOVZWL  PASSWORD_, R3
                                    52              01  CE 000B1        MNEGL   #1, COUNTER
                                                15  11 000B4        BRB     6$
                                    51              6A  9A 000B6 4$:    MOVZBL  SYMBOL_STR, R1
                                    50          04  A7  D0 000B9        MOVL    PASSWORD_+4, R0
                          01    AA              51      6240    3A 000BD        LOCC    (COUNTER)[R0], R1, SYMBOL_STR+1
                                                02  12 000C3        BNEQ    5$
                                                51  D4 000C5        CLRL    R1
                                                51  D5 000C7 5$:    TSTL    R1
                                                28  13 000C9        BEQL    9$
                                E7              52  F2 000CB 6$:    AOBLSS  R3, COUNTER, 4$
                                            08  A7  B1 000CF        CMPW    PASSWORD_2, #31
                                                1E  1A 000D3        BGTRU   9$
                                    53          08  A7  3C 000D5        MOVZWL  PASSWORD_2, R3
```

```
                                52              01  CE 000D9          MNEGL   #1, COUNTER
                                                23  11 000DC          BRB     10$
                                51              6A  9A 000DE 7$:      MOVZBL  SYMBOL_STR, R1
                                50        0C    A7  D0 000E1          MOVL    PASSWORD_2+4, R0
                          01    AA        51        6240  3A 000E5    LOCC    (COUNTER)[R0], R1, SYMBOL_STR+1
                                                02  12 000EB          BNEQ    8$
                                                51  D4 000ED          CLRL    R1
                                                51  D5 000EF 8$:      TSTL    R1
                                                0E  12 000F1          BNEQ    10$
                                      00000000G 8F  DD 000F3 9$:      PUSHL   #UAF$_PWDSYNTAX
                             00000000G  00        01  FB 000F9          CALLS   #1, LIB$SIGNAL
                                                    04 00100          RET
                          D9                52        53  F2 00101 10$:     AOBLSS  R3, COUNTER, 7$
                                            16        54  E8 00105          BLBS    PRESENT, 11$                    2740
                    08    00                6E        00  2C 00108          MOVC5   #0, (SP), #0, #8, RECBUF+340
                                                EE    A8      0010D
                    08    00                6E        00  2C 0010F          MOVC5   #0, (SP), #0, #8, RECBUF+380
                                                16    A8      00114
                                6F    A8              02  8A 00116          BICB2   #2, RECBUF+469
                                                      6B  D4 0011A          CLRL    PWD_FLAG
                                                      2F  11 0011C          BRB     12$
                                                      67  B5 0011E 11$:      TSTW    PASSWORD_
                                                      2B  13 00120          BEQL    12$
                                02    A8        00G   8F  90 00122          MOVB    #ENCRYPT, RECBUF+360
                                20    A7              08  B0 00127          MOVW    #8, REC_ENCRYPT_DSC
                                24    A7        EE    A8  9E 0012B          MOVAB   RECBUF+340, REC_ENCRYPT_DSC+4
                                                      6B  D4 00130          CLRL    PWD_FLAG
                                                18    A7  9F 00132          PUSHAB  USER_DSC
                                            7E        68  3C 00135          MOVZWL  RECBUF+358, -(SP)
                                            7E    02  A8  9A 00138          MOVZBL  RECBUF+360, -(SP)
                                                      57  DD 0013C          PUSHL   R7
                                                20    A7  9F 0013E          PUSHAB  REC_ENCRYPT_DSC
                                      00000000G 00        05  FB 00141          CALLS   #5, LGI$HPWD
                          16    A8                69        08  28 00148          MOVC3   #8, TIME_BUF, RECBUF+380
                                                  16        56  E8 0014D 12$:      BLBS    PRESENT_2, 13$
                    08          00                6E        00  2C 00150          MOVC5   #0, (SP), #0, #8, RECBUF+348
                                                F6    A8      00155
                    08          00                6E        00  2C 00157          MOVC5   #0, (SP), #0, #8, RECBUF+388
                                                1E    A8      0015C
                                6F    A8              04  8A 0015E          BICB2   #4, RECBUF+469
                                                      6B  D4 00162          CLRL    PWD_FLAG
                                                      31  11 00164          BRB     14$
                                                08    A7  B5 00166 13$:      TSTW    PASSWORD_2
                                                      2C  13 00169          BEQL    14$
                                03    A8        00G   8F  90 0016B          MOVB    #ENCRYPT, RECBUF+361
                                20    A7              08  B0 00170          MOVW    #8, REC_ENCRYPT_DSC
                                24    A7        F6    A8  9E 00174          MOVAB   RECBUF+348, REC_ENCRYPT_DSC+4
                                                      6B  D4 00179          CLRL    PWD_FLAG
                                                18    A7  9F 0017B          PUSHAB  USER_DSC
                                            7E        68  3C 0017E          MOVZWL  RECBUF+358, -(SP)
                                            7E    03  A8  9A 00181          MOVZBL  RECBUF+361, -(SP)
                                                08    A7  9F 00185          PUSHAB  PASSWORD_2
                                                20    A7  9F 00188          PUSHAB  REC_ENCRYPT_DSC
                                      00000000G 00        05  FB 0018B          CALLS   #5, LGI$HPWD
                          1E    A8                69        08  28 00192          MOVC3   #8, TIME_BUF, RECBUF+388
                                                  50        01  D0 00197 14$:      MOVL    #1, R0                  2748
                                                            04 0019A          RET                             2750
```

; Routine Size: 411 bytes,   Routine Base: $CODE$ + 1254

```
;  2683          2751  1 %sbttl 'AUTHORIZE_GENERATE -- Interface to PL/I GENERATE_PASSWORDS routine'
;  2684          2752  1 routine AUTHORIZE_GENERATE( NEW_PASSWORD: ref block[DSC$K_D_BLN, byte],
;  2685          2753  1                             THIS, TLENGTH ) =
;  2686          2754  2 begin
;  2687          2755  2
;  2688          2756  2 !++
;  2689          2757  2 !
;  2690          2758  2 ! FUNCTIONAL DESCRIPTION:
;  2691          2759  2 !
;  2692          2760  2 !       Interface to PL/I procedure GENERATE_PASSWORD, which
;  2693          2761  2 !       generates random, pronounceable passwords. This routine
;  2694          2762  2 !       must prompt the user for input with NOECHO in effect
;  2695          2763  2 !
;  2696          2764  2 ! INPUTS:
;  2697          2765  2 !
;  2698          2766  2 !       None
;  2699          2767  2 !
;  2700          2768  2 ! IMPLICIT INPUTS:
;  2701          2769  2 !
;  2702          2770  2 !       Input from user terminal.
;  2703          2771  2 !
;  2704          2772  2 ! OUTPUTS:
;  2705          2773  2 !
;  2706          2774  2 !       PASSWORD, by descriptor.
;  2707          2775  2 !
;  2708          2776  2 ! IMPLICIT OUTPUTS:
;  2709          2777  2 !
;  2710          2778  2 !       User prompt.
;  2711          2779  2 !
;  2712          2780  2 ! ROUTINE VALUE:
;  2713          2781  2 !
;  2714          2782  2 !       None
;  2715          2783  2 !
;  2716          2784  2 ! NOTE:
;  2717          2785  2 !
;  2718          2786  2 !       PL/I apparently uses a form of ASCIC to represent its strings,
;  2719          2787  2 !       however, PL/I uses a word for the character count, not a byte.
;  2720          2788  2 !
;  2721          2789  2 !--
;  2722          2790  2
;  2723          2791  2     macro
;  2724          2792  2
;  2725          2793  2         DSC$L_L1 = 24, 0, 32, 0 %,
;  2726          2794  2         DSC$L_U1 = 28, 0, 32, 0 %;
;  2727          2795  2
;  2728          2796  2     literal
;  2729          2797  2
;  2730          2798  2         MAX = 10,
;  2731          2799  2         MIN = 6,
;  2732          2800  2         N_WORDS = 5;
;  2733          2801  2
;  2734          2802  2     own
;  2735          2803  2
;  2736          2804  2         CHANNEL,
;  2737          2805  2         DSC: block[DSC$K_S_BLN, byte] preset([DSC$B_CLASS]=DSC$K_CLASS_S),
;  2738          2806  2         FUNCTION: initial(IO$_READPROMPT or IO$M_CVTLOW or IO$M_NOECHO),
;  2739          2807  2         PLENGTH,
```

```
;2740     2808  2        PROMPT: vector[45, byte] preset([0]=13, [1]=10,
;2741     2809  2           [2]='E', [3]='n', [4]='t', [5]='e', [6]='r', [7]=' ');
;2742     2810  2
;2743     2811  2    bind
;2744     2812  2
;2745     2813  2        P2 = UPLIT(' password: ');
;2746     2814  2
;2747     2815  2  !
;2748     2816  2  !       The password generator requires a complex descriptor
;2749     2817  2  !
;2750     2818  2
;2751   M 2819  2    macro PLI$VARYING_CHARACTER_ARRAY[NAME, LENGTH, WIDTH] =
;2752   M 2820  2
;2753   M 2821  2        own
;2754   M 2822  2
;2755   M 2823  2           %name(NAME): blockvector[LENGTH, (WIDTH+2), byte],
;2756   M 2824  2           %name(NAME,'_DSC'): block[32, byte]
;2757   M 2825  2              preset([DSC$W_MAXSTRLEN] = WIDTH,
;2758   M 2826  2                     [DSC$B_DTYPE] = 37,
;2759   M 2827  2                     [DSC$B_CLASS] = DSC$K_CLASS_VSA,
;2760   M 2828  2                     [DSC$A_POINTER] = %name(NAME),
;2761   M 2829  2                     [DSC$B_DIMCT] = 1,
;2762   M 2830  2                     [DSC$A_A0] = %name(NAME) - (WIDTH+2),
;2763   M 2831  2                     [DSC$L_S1] = (WIDTH+2),
;2764   M 2832  2                     [DSC$L_L1] = 1,
;2765     2833  2                     [DSC$L_U1] = LENGTH); %;
;2766     2834  2
;2767     2835  2    PLI$VARYING_CHARACTER_ARRAY('PWD', N_WORDS, MAX, 'HYPH', N_WORDS, 2*MAX);
;2768     2836  2
;2769     2837  2  !
;2770     2838  2  !       Build the prompt string
;2771     2839  2  !
;2772     2840  2
;2773     2841  2    ch$move(.TLENGTH, .THIS, PROMPT[8]);
;2774     2842  2    ch$move(11, P2, PROMPT[8+.TLENGTH]);
;2775     2843  2
;2776     2844  2    PLENGTH = 8 + .TLENGTH + 11;
;2777     2845  2
;2778     2846  2  !
;2779     2847  2  !       Open a channel to the user
;2780     2848  2  !
;2781     2849  2
;2782     2850  2    SYS$ASSIGN(%ascid'SYS$COMMAND:', CHANNEL, 0, 0);
;2783     2851  2    NEW_PASSWORD[DSC$W_LENGTH] = 0;
;2784     2852  2
;2785     2853  2  !
;2786     2854  2  !       Generate random passwords ...
;2787     2855  2  !
;2788     2856  2
;2789     2857  2    while .NEW_PASSWORD[DSC$W_LENGTH] eql 0 do
;2790     2858  3       begin
;2791     2859  3
;2792     2860  3        own
;2793     2861  3           BUFFER: vector[128, byte],
;2794     2862  3           IOSB: vector[4, word],
;2795     2863  3           LISTED;
;2796     2864  3
```

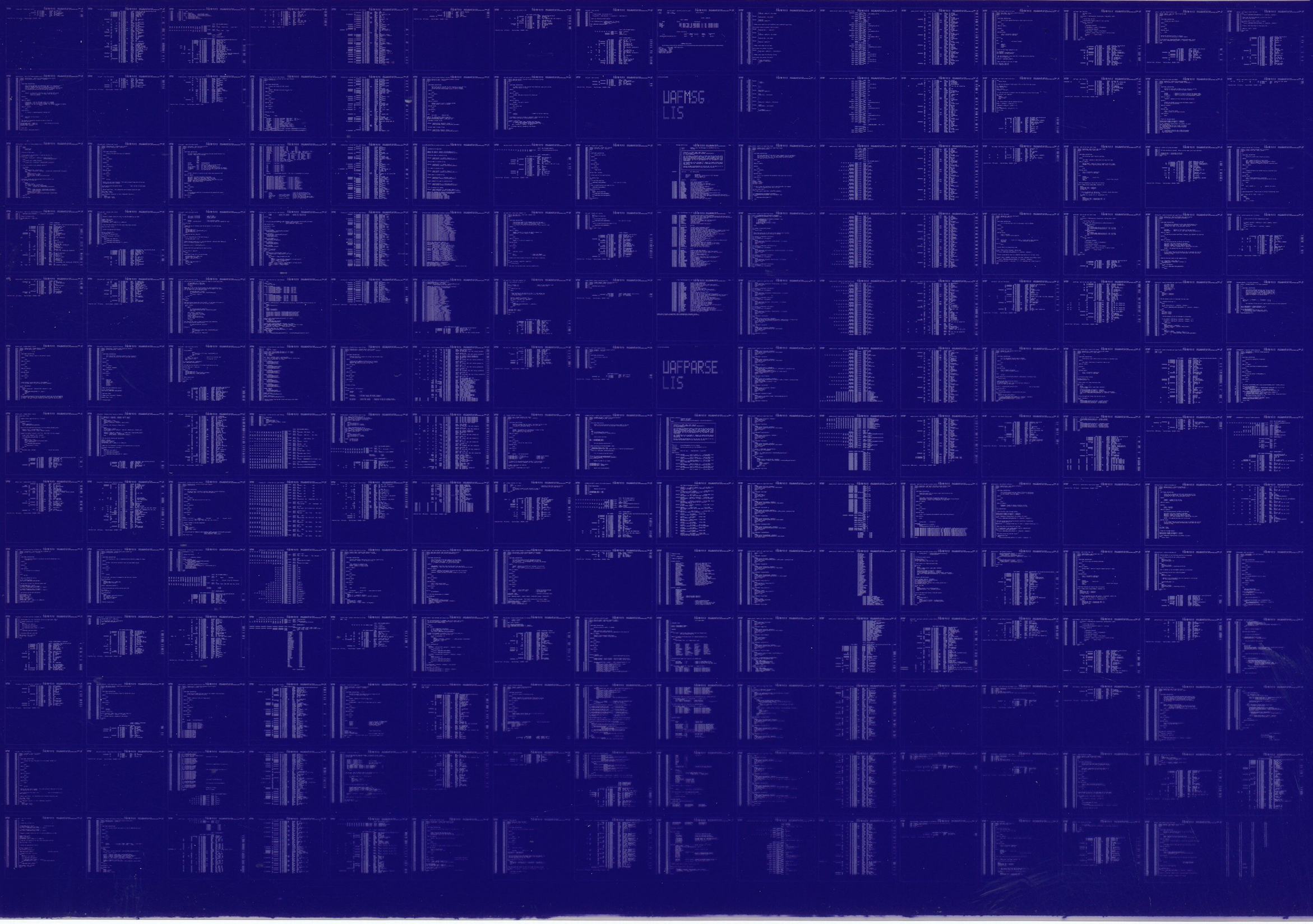
```
;2797     2865  3          LISTED = FALSE;
;2798     2866  3
;2799     2867  3          SYS$QIOW(0, .CHANNEL, IO$_WRITEVBLK, 0,0,0, 0, 0, 0, 32, 0,0);
;2800     2868  3
;2801     2869  3          GENERATE_PASSWORDS(PWD_DSC, HYPH_DSC,
;2802     2870  3             uplit(MIN), uplit(MAX), uplit(N_WORDS));
;2803     2871  3
;2804     2872  3          SYS$QIOW(0, .CHANNEL, IO$_WRITEVBLK, 0,0,0, 0, 0, 0, 32, 0,0);
;2805     2873  3
;2806     2874  3          incr i to N_WORDS-1 do
;2807     2875  4             begin
;2808     2876  4                DSC[DSC$W_LENGTH] = .PWD[.i, 0, 0, 16, 0];
;2809     2877  4                DSC[DSC$A_POINTER] = PWD[.i, 2, 0, 0, 0];
;2810     2878  4                STR$UPCASE(DSC, DSC);
;2811     2879  3             end;
;2812     2880  3
;2813     2881  3          while not .LISTED do
;2814     2882  4             begin
;2815     2883  4
;2816     2884  4                SYS$QIOW(0, .CHANNEL, .FUNCTION, IOSB, 0, 0,
;2817     2885  4                   BUFFER, 127, 0, 0, PROMPT, .PLENGTH);
;2818     2886  4
;2819     2887  4                if .BUFFER[.IOSB[1]] eql 26 then ! CTRL/Z
;2820     2888  4                   return LIB$SIGNAL(UAF$_PWDNCH, 2, .TLENGTH, .THIS)
;2821     2889  4                else if .IOSB[1] eql 0 then
;2822     2890  4                   exitloop;
;2823     2891  4
;2824     2892  4                incr i to N_WORDS-1 do
;2825     2893  4                   LISTED = .LISTED or
;2826     2894  4                      ch$eql(.IOSB[1], BUFFER,
;2827     2895  4                         .PWD[.i, 0, 0, 16, 0], PWD[.i, 2, 0, 0, 0]);
;2828     2896  4
;2829     2897  4                if .LISTED then
;2830     2898  5                   begin
;2831     2899  5                      NEW_PASSWORD[DSC$W_LENGTH] = .IOSB[1];
;2832     2900  5                      LIB$GET_VM(%ref(.IOSB[1]), NEW_PASSWORD[DSC$A_POINTER]);
;2833     2901  5                      ch$move(.IOSB[1], BUFFER, .NEW_PASSWORD[DSC$A_POINTER]);
;2834     2902  5                   end
;2835     2903  4                else
;2836     2904  4                   LIB$SIGNAL(UAF$_PWDNOL);
;2837     2905  4
;2838     2906  3             end;
;2839     2907  3
;2840     2908  2       end;
;2841     2909  2
;2842     2910  2 !
;2843     2911  2 !       That's all folks ...
;2844     2912  2 !
;2845     2913  2
;2846     2914  2    return SYS$DASSGN(.CHANNEL);
;2847     2915  2
;2848     2916  1 end;


                                                                .PSECT  $PLIT$,NOWRT,NOEXE,2
```

```
00 20 3A 64 72 6F 77 73 73 61 70 20  00534 P.AFS:   .ASCII  \ password: \<0>                                    ;
3A 44 4E 41 4D 4D 4F 43 24 53 59 53  00540 P.AFU:   .ASCII  \SYS$COMMAND:\                                      ;
                                     0054C P.AFT:   .LONG   17694732                                           ;
                                     00550          .ADDRESS P.AFU                                             ;
                                     00554 P.AFV:   .LONG   6                                                  ;
                                     00558 P.AFW:   .LONG   10                                                 ;
                                     0055C P.AFX:   .LONG   5                                                  ;

                                                    .PSECT  $OWN$,NOEXE,2

                                     00134 CHANNEL: .BLKB   4
                                  00# 00138 DSC:    .BYTE   0[3]                                              ;
                                  01  0013B         .BYTE   1                                                 ;
                                     0013C          .BLKB   4
                                     00140 FUNCTION:
                                                    .LONG   375                                               ;
                                     00144 PLENGTH: .BLKB   4
20 72 65 74 6E 45 0A 0D              00148 PROMPT:  .BYTE   13, 10, 69, 110, 116, 101, 114, 32                 ;
                                     00150          .BLKB   37
                                     00175          .BLKB   3
                                     00178 PWD:     .BLKB   60
                                  000A  001B4 PWD_DSC: .WORD   10
                                  0C 25 001B6         .BYTE   37, 12                                            ;
                                  00000000' 001B8     .ADDRESS PWD                                              ;
                                  00# 001BC           .BYTE   0[3]                                              ;
                                  01  001BF           .BYTE   1                                                 ;
                                  00# 001C0           .BYTE   0[4]                                              ;
                                  00000000' 001C4     .ADDRESS PWD-12                                           ;
00000005 00000001 0000000C           001C8          .LONG   12, 1, 5                                          ;
                                     001D4 HYPH:    .BLKB   110
                                     00242          .BLKB   2
                                  0014  00244 HYPH_DSC:
                                                    .WORD   20                                                ;
                                  0C 25 00246         .BYTE   37, 12                                            ;
                                  00000000' 00248     .ADDRESS HYPH                                             ;
                                  00# 0024C           .BYTE   0[3]                                              ;
                                  01  0024F           .BYTE   1                                                 ;
                                  00# 00250           .BYTE   0[4]                                              ;
                                  00000000' 00254     .ADDRESS HYPH-22                                          ;
00000005 00000001 00000016           00258          .LONG   22, 1, 5                                          ;
                                     00264 BUFFER:  .BLKB   128
                                     002E4 IOSB:    .BLKB   8
                                     002EC LISTED:  .BLKB   4

                                           P2=              P.AFS


                                                    .PSECT  $CODE$,NOWRT,2

                                  03FC 00000 AUTHORIZE_GENERATE:
                                                    .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9                      ; 2752
                59 00000000G   00  9E 00002         MOVAB   LIB$SIGNAL, R9                                    ;
                58 00000000G   00  9E 00009         MOVAB   SYS$QIOW, R8                                      ;
                57 00000000'   00  9E 00010         MOVAB   P2, R7                                            ;
                56 00000000'   00  9E 00017         MOVAB   CHANNEL, R6                                       ;
                5E             04  C2 0001E         SUBL2   #4, SP                                            ;
1C A6     08    BC     0C    AC  28 00021         MOVC3   TLENGTH, @THIS, PROMPT+8                          ; 2841
```

```
                                50        1C    A6  9E 00028          MOVAB   PROMPT+8, R0                                  ; 2842
                             0C BC40              67  0B 28 0002C     MOVC3   #11, P2, @TLENGTH[R0]
                             10   A6        0C   AC     13 C1 00032   ADDL3   #19, TLENGTH, PLENGTH                       ; 2844
                                                    7E  7C 00038      CLRQ    -(SP)                                      ; 2850
                                                    56  DD 0003A      PUSHL   R6
                                                 18 A7  9F 0003C      PUSHAB  P.AFT
                                   00000000G    00     04  FB 0003F   CALLS   #4, SYS$ASSIGN
                                                 04 BC  B4 00046      CLRW    @NEW_PASSWORD                              ; 2851
                                                 04 BC  B5 00049 1$:  TSTW    @NEW_PASSWORD                              ; 2857
                                                    03  13 0004C      BEQL    2$
                                                  0111  31 0004E      BRW     11$
                                              01B8 C6  D4 00051 2$:   CLRL    LISTED                                     ; 2865
                                                    7E  7C 00055      CLRQ    -(SP)                                      ; 2867
                                                    20  DD 00057      PUSHL   #32
                                                    7E  7C 00059      CLRQ    -(SP)
                                                    7E  7C 0005B      CLRQ    -(SP)
                                                    7E  7C 0005D      CLRQ    -(SP)
                                                    30  DD 0005F      PUSHL   #48
                                                    66  DD 00061      PUSHL   CHANNEL
                                                    7E  D4 00063      CLRL    -(SP)
                                50                  0C  FB 00065      CALLS   #12, SYS$QIOW
                                                 28 A7  9F 00068      PUSHAB  P.AFX                                      ; 2870
                                                 24 A7  9F 0006B      PUSHAB  P.AFW
                                                 20 A7  9F 0006E      PUSHAB  P.AFV
                                              0110 C6  9F 00071      PUSHAB  HYPH_DSC                                   ; 2869
                                              0080 C6  9F 00075      PUSHAB  PWD_DSC
                                   00000000G    00     05  FB 00079   CALLS   #5, GENERATE_PASSWORDS
                                                    7E  7C 00080      CLRQ    -(SP)                                      ; 2872
                                                    20  DD 00082      PUSHL   #32
                                                    7E  7C 00084      CLRQ    -(SP)
                                                    7E  7C 00086      CLRQ    -(SP)
                                                    7E  7C 00088      CLRQ    -(SP)
                                                    30  DD 0008A      PUSHL   #48
                                                    66  DD 0008C      PUSHL   CHANNEL
                                                    7E  D4 0008E      CLRL    -(SP)
                                50                  0C  FB 00090      CALLS   #12, SYS$QIOW
                                                    52  D4 00093      CLRL    I                                          ; 2874
                             50                     0C  C5 00095 3$:  MULL3   #12, I, R0                                 ; 2876
                                                 44 A640 9F 00099      PUSHAB  PWD[R0]
                                           04    A6      9E  B0 0009D  MOVW    @(SP)+, DSC
                                           08    A6   46 A640 9E 000A1 MOVAB   PWD+2[R0], DSC+4                           ; 2877
                                                 04   A6  9F 000A7      PUSHAB  DSC                                        ; 2878
                                                 04   A6  9F 000AA      PUSHAB  DSC
                                   00000000G    00     02  FB 000AD   CALLS   #2, STR$UPCASE
                                DD                  52  04  F3 000B4  AOBLEQ  #4, I, 3$                                 ; 2874
                                                    8C  01B8 C6 E8 000B8 4$:  BLBS    LISTED, 1$                         ; 2881
                                                      10 A6  DD 000BD     PUSHL   PLENGTH                                ; 2885
                                                      14 A6  9F 000C0     PUSHAB  PROMPT                                 ; 2884
                                                         7E  7C 000C3     CLRQ    -(SP)
                                                    7E    7F  8F 9A 000C5 MOVZBL  #127, -(SP)
                                                       0130 C6  9F 000C9  PUSHAB  BUFFER
                                                         7E  7C 000CD     CLRQ    -(SP)
                                                       01B0 C6  9F 000CF  PUSHAB  IOSB
                                                         0C A6  DD 000D3  PUSHL   FUNCTION
                                                         66  DD 000D6    PUSHL   CHANNEL
                                                         7E  D4 000D8    CLRL    -(SP)
                                                    68                   0C  FB 000DA  CALLS   #12, SYS$QIOW
```

```
                                50      01B2    C6  3C 000DD          MOVZWL  IOSB+2, R0                                      ; 2887
                                1A      0130 C640   91 000E2          CMPB    BUFFER[R0], #26
                                               12   12 000E8          BNEQ    5$
                                          08    AC  DD 000EA          PUSHL   THIS                                           ; 2888
                                          0C    AC  DD 000ED          PUSHL   TLENGTH
                                                02  DD 000F0          PUSHL   #2
                                   00000000G    8F  DD 000F2          PUSHL   #UAF$_PWDNCH
                                69             04  FB 000F8          CALLS   #4, LIB$SIGNAL
                                               04  00 000FB          RET
                                               50  D5 000FC 5$:      TSTL    R0                                             ; 2889
                                               03  12 000FE          BNEQ    6$
                                             FF46  31 00100          BRW     1$
                                               54  D4 00103 6$:      CLRL    I                                              ; 2892
                        50                     54  C5 00105 7$:      MULL3   #12, I, R0                                     ; 2895
                                               55  D4 00109          CLRL    R5
                                            44 A640 9F 0010B          PUSHAB  PWD[R0]
        9E      00      0130    C6      01B2    C6  2D 0010F          CMPC5   IOSB+2, BUFFER, #0, @(SP)+, PWD+2[R0]
                                            46 A640     00118
                                               02  12 0011B          BNEQ    8$                                             ; 2893
                                               55  D6 0011D          INCL    R5
                        01B8    C6             55  C8 0011F 8$:      BISL2   R5, LISTED
                    DD                         54  F3 00124          AOBLEQ  #4, I, 7$                                      ; 2897
                                29      01B8    C6  E9 00128          BLBC    LISTED, 9$                                     ; 2899
                                50      01B2    C6  3C 0012D          MOVZWL  IOSB+2, R0
                          04    BC              50  B0 00132          MOVW    R0, @NEW_PASSWORD
                                52        04    AC  D0 00136          MOVL    NEW_PASSWORD, R2                               ; 2900
                                          04    A2  9F 0013A          PUSHAB  4(R2)
                          04    AE              50  D0 0013D          MOVL    R0, 4(SP)
                                          04    AE  9F 00141          PUSHAB  4(SP)
                    00000000G   00              02  FB 00144          CALLS   #2, LIB$GET_VM
                04  B2      0130    C6      01B2    C6  28 0014B      MOVC3   IOSB+2, BUFFER, @4(R2)                         ; 2901
                                               09  11 00154          BRB     10$                                            ; 2897
                                   00000000G    8F  DD 00156 9$:      PUSHL   #UAF$_PWDNOL                                   ; 2904
                                69             01  FB 0015C          CALLS   #1, LIB$SIGNAL
                                             FF56  31 0015F 10$:     BRW     4$                                             ; 2881
                                               66  DD 00162 11$:     PUSHL   CHANNEL                                        ; 2914
                          00000000G   00        01  FB 00164          CALLS   #1, SYS$DASSGN
                                               04  00 0016B          RET                                                    ; 2916

; Routine Size:  364 bytes,    Routine Base:  $CODE$ + 13EF

; 2849          2917  1
; 2850          2918  1 end
; 2851          2919  0 eludom



                                                                    .EXTRN  LIB$SIGNAL

;                                  PSECT SUMMARY
;
;       Name                    Bytes                           Attributes
;
;  $PLIT$                         1376  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $OWN$                           752  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
```

```
;  _LIB$KEY0$                        4  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(1)
;  _LIB$STATE$                     158  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(1)
;  _LIB$KEY1$                       19  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(1)
;  $CODE$                         5467  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)



;                              Library Statistics
;
;                                        -------- Symbols --------      Pages       Processing
;      File                              Total    Loaded   Percent      Mapped      Time
;
;  _$255$DUA28:[SYSLIB]TPAMAC.L32;1        42        30        71          14        00:00.1
;  _$255$DUA28:[SYSLIB]LIB.L32;1        18619       125         0        1000        00:02.2




;                                    COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:UAFPARSE/OBJ=OBJ$:UAFPARSE MSRC$:UAFPARSE/UPDATE=(ENH$:UAFPARSE)

; Size:          5467 code + 2309 data bytes
; Run Time:        01:43.8
; Elapsed Time:    01:50.7
; Lines/CPU Min:    1686
; Lexemes/CPU-Min: 26833
; Memory Used:  685 pages
; Compilation Complete
```



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