```
3-Apr-86 21:33:56 {LOGOS:AFB:SIP}<DOUG>LISP>ACCESS.;3
 File created:
  changes to:
                (VARS ACCESSCOMS)
                (FNS ACCESS)
previous date:
                1-Apr-86 17:15:26
                                     {LOGOS:AFB:SIP}<DOUG>LISP>ACCESS.;2
 Read Table:
               OLD-INTERLISP-FILE
    Package:
               INTERLISP
       Format:
                 XCCS
            * Copyright (c) 1986 by Speech Input Project, Univ. of Edinburgh.
           All rights reserved.)
(RPAQQ ACCESSCOMS ((FNS ACCESS.PARSE ACCESS.PARSE.DIRECTORY ACCESS.DIRECTORYNAME ACCESS.MKDIR
                             ACCESS.PARSE.OBJ ACCESS.PARSE.ACCESS ACCESS.DO.COMMAND ACCESS.OPEN ACCESS.SHOW
                             ACCESS.ADD ACCESS.REMOVE ACCESS.CHANGE ACCESS.SLASHIFY.DIRNAME ACCESS.NUM.TO.STRING
                             ACCESS.STRING.TO.NUM)))
(DEFINEQ
(ACCESS
                                                                        (* drc: " 3-Apr-86 21:32")
  [LAMBDA NIL
           (* * Top level function. Parses a command line, checks args and performs commands.)
                        (\INTERNAL/GETPASSWORD NIL NIL NIL NIL 'NS))
    (bind (USER/PWD
          COM DIR OBJ ACCESS VALUE do [SETQ VALUE (NLSETQ (LET ((COMMAND (ACCESS.PARSE DIR OBJ ACCESS USER/PWD)
                                                                              ))
                                                                      (SELECTQ (SETQ COM (CAR COMMAND))

(ABORT (PRINTOUT T "[aborted]"))
                                                                           (Q (TERPRI T))
                                                                           (L (SETQ USER/PWD (CDR COMMAND)))
                                                                              (TERPRI T)
                                                                           (P
                                                                              (USEREXEC'
                                                                                            ))
                                                                           (PROGN (for X in '(CDR COMMAND) as Y in '(DIR OBJ ACCESS)
                                                                                      do (SET Y X))
                                                                                   (ACCESS.DO.COMMAND USER/PWD COM DIR
                                                                                          OBJ ACCESS]
                                          [if (NLISTP VALUE)
                                              then (LET ((ERROR (ERRORN)))
                                                                        (* printout error messages, but treat CONROL-E errors as
                                                                        aborts)
                                                         (if (EQ (CAR ERROR)
                                                                 47)
                                                             then (PRINTOUT T "[aborted]")
                                                           else (ERRORMESS ERROR]
       until (EQ COM 'Q])
(ACCESS.PARSE
  [LAMBDA (DIR.DEFAULT OBJ.DEFAULT ACCESS.DEFAULT USER/PWD)
                                                                        (* drc: " 1-Apr-86 17:09")
           (* * Prompts for and parses one command line. Simulates ASKUSER.)
    (RESETFORM (CONTROL T)
            (PROG (CHAR COMMAND DIR OBJ ACCESS USER PWD)
              PARSE
                   (FRESHLINE T)
                   (printout T "FS: ")
                   (SETQ CHAR (CHCON1 (READC T T)))
                   (SELCHARQ CHAR
                        ((L 1)
                              (printout T "ogin")
                              (SETQQ COMMAND L)
                              (GO LOGIN))
                        ((S s)
                              (printout T "how")
                              (SETQQ COMMAND S))
                         ((A a)
                              (printout T "dd")
                              (SETQQ COMMAND A))
                         ((R r)
                              (printout T "emove")
                              (SETQQ COMMAND R))
                         ((C c)
                              (printout T "hange")
                              (SETQQ COMMAND C))
                         ((P p)
                              (printout T "ush (type OK to return)")
                              (RETURN (LIST 'P)))
                         ((^Y)
                              (printout T " (type OK to return)")
(RETURN (LIST 'P)))
```

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{MEDLEY}spusers>ACCESS.;1 (ACCESS.PARSE cont.)
                                                                                                                           Page 2
                               (printout T "uit")
                               (RETURN (LIST 'Q)))
                         ((H h ?)
                               (printout T " one of: " T " L - Login, " T " S - Show, " T " A - Add, "
Remove, " T " C - Change, " T " P, ^Y - Push, " T "or Q - Quit.")
                                                                                                        A - Add, " T "
                         ((CR LF)
                               (GO PARSE))
                         (PROGN (PRIN1 (CHARACTER (CHARCODE ^G)))
                   (SETQ DIR (ACCESS.PARSE.DIRECTORY DIR.DEFAULT USER/PWD))
                   (OR DIR (RETURN ' (ABORT)))
                   [SELECTQ COMMAND
                                                                          (* done w/ List parse)
                        (RETURN (LIST COMMAND DIR)))
(PROGN (SETQ OBJ (ACCESS.PARSE.OBJ OBJ.DEFAULT COMMAND))
                                 (OR OBJ (RETURN ' (ABORT)))
                                 (SELECTO COMMAND
                                      (* done w/ Remove parse)
(RETURN (LIST COMMAND DIR OBJ)))
(PROGN (SETO ACCESS (ACCESS.PARSE.ACCESS ACCESS.DEFAULT COMMAND))
                                               (if ACCESS
                                                then (RETURN (LIST COMMAND DIR OBJ ACCESS))
else (RETURN ' (ABORT)))
(* done w/ add parse)
              LOGIN
                   [SETQ USER (MKATOM (PROMPTFORWORD " (username)" (CAR USER/PWD)
                                                 NIL NIL NIL (LIST (CHARCODE CR)
                                                                            (CHARCODE LF1
                   (OR USER (RETURN ' (ABORT)))
                    (SETQ PWD (\ENCRYPT.PWD (PROMPTFORWORD " (password) " NIL NIL "*")))
                   (OR PWD (RETURN ' (ABORT)))
                    (RETURN (CONS COMMAND (CONS USER PWD])
(ACCESS.PARSE.DIRECTORY
          (DIR.DEFAULT USER/PWD DON'T.CHECK)
                                                                          (* drc: " 1-Apr-86 16:13")
    (DECLARE (GLOBALVARS \CONNECTED.DIRECTORY))
    (LET ((DIR (PROMPTFORWORD " (access to directory)" DIR.DEFAULT "the name of an NS directory")))
          (if (NOT DIR)
              then
                                                                          (* user just typed CR)
                                                                          (* default host to connected host)
                 [OR (FILENAMEFIELD DIR 'HOST)
                      (SETQ DIR (MKSTRING (PACKFILENAME 'HOST (FILENAMEFIELD \CONNECTED.DIRECTORY 'HOST)
                                                     'DIRECTORY DIR]
                 (if DON'T.CHECK
                      then DIR
                   elseif (ACCESS.DIRECTORYNAME DIR USER/PWD)
                   else (printout T " not an NS directory.")
(ACCESS.DIRECTORYNAME
  [LAMBDA (HOST/DIR USER/PWD)
(if (AND (STRPOS ":" HOST/DIR)
                                                                          (* drc: " 1-Apr-86 16:35")
             (DIRECTORYNAMEP HOST/DIR))
        then HOST/DIR
                                                                          (* there are two >'s in HOST/DIR --
      elseif [LET ((POS (STRPOS ">" HOST/DIR)))
                                                                          could be a non-existant subdirectoryt)
        (AND POS (STRPOS ">" HOST/DIR (ADD1 POS]

then (SELECTQ (ASKUSER DWIMWAIT 'Y (CONCAT " Create subdirectory " HOST/DIR " ? "))
                   (Y (ACCESS.MKDIR HOST/DIR USER/PWD))
                   NIL])
(ACCESS.MKDIR
  [LAMBDA (HOST/DIR USER/PWD)
                                                                          (* drc: " 1-Apr-86 16:54")
    (RESETLST
                ((HOST (FILENAMEFIELD HOST/DIR 'HOST))
                 (DIR (ACCESS.SLASHIFY.DIRNAME (FILENAMEFIELD HOST/DIR 'DIRECTORY)))
                 [PARENT (CONCATLIST (DREVERSE (CDR (FMEMB '/ (DREVERSE (UNPACK DIR]
                 (CONNECTION (ACCESS.OPEN HOST PARENT USER/PWD))
                 (STREAM (CAR CONNECTION))
                 (SESSION (CADR CONNECTION))
                 (HANDLE (CADDR CONNECTION)))
                (COURIER.CALL STREAM 'FILING 'CREATE HANDLE (BOUOTE ((NAME , DIR)
```

(IS.DIRECTORY T) (FILE.TYPE 1)))

(\* drc: "28-Mar-86 13:24")

## (ACCESS.PARSE.OBJ

[LAMBDA (OBJ.DEFAULT COMMAND)

HOST/DIR))])

NIL SESSION 'RETURNERRORS)

```
{MEDLEY}spusers>ACCESS.;1 (ACCESS.PARSE.OBJ cont.)
                                                                                                                              Page 3
    (LET [(OBJ (PROMPTFORWORD (CONCAT " (" (SELECTQ COMMAND (C "for ") ^{\prime\prime}
                                                        11 11 1
                                            "user or group)")
                         OBJ.DEFAULT "an NS user or group name" NIL NIL NIL (LIST (CHARCODE CR)
          (if (NOT OBJ)
                                                                            (* user typed CR)
               then
                    NIL
            else (if (CH.LOOKUP.OBJECT OBJ)
                    else (printout T " not an NS object.")
(ACCESS.PARSE.ACCESS
  [LAMBDA (ACCESS.DEFAULT COMMAND)
                                                                            (* drc: "28-Mar-86 13:25")
    (ACCESS DEFAULT COMMAND)

(LET ((ACCESS (PROMPTFORWORD (SELECTQ COMMAND

(C " (to be)")

(A " (with access)")

(SHOULDNT "UNKNOWN COMMAND"))
                              (AND ACCESS.DEFAULT (ACCESS.NUM.TO.STRING ACCESS.DEFAULT))
                              "A sequence of letters (R=Read, W=Write, A=Add, D=Delete, C=Change access list)"))
            (ACCESS.BYTE NIL))
          (if (NOT ACCESS)
                                                                            (* user just typed CR)
               then
                    NTT.
            else (SETQ ACCESS.BYTE (ACCESS.STRING.TO.NUM ACCESS))
                  (if (AND ACCESS.BYTE (IGREATERP ACCESS.BYTE 0)
                           (ILESSP ACCESS.BYTE 32))
                      then ACCESS.BYTE
                    else (printout T " bad access specification.")
(ACCESS.DO.COMMAND
  [LAMBDA (USER/PWD COMMAND HOST/DIR NSNAME ACCESS)
                                                                            (* drc: " 1-Apr-86 16:37")
           (* * Performs COMMAND (one of S, A, R, or C) * HOST/DIR should be an NS host & dir, NSNAME should be a valid NS name (not used for S command), ACCESS should be an integer between 1 and 31
           (not used for S or R commands)%.)
    (RESETLST
         (PROG ((HOST (FILENAMEFIELD HOST/DIR 'HOST))
                 (DIR (FILENAMEFIELD HOST/DIR 'DIRECTORY))
CONNECTION STREAM SESSION HANDLE OLD.LIST)
                (SETQ CONNECTION (ACCESS.OPEN HOST DIR USER/PWD))
                (SETQ STREAM (CAR CONNECTION))
                (SETQ SESSION (CADR CONNECTION))
                (SETO HANDLE (CADDR CONNECTION))
                (SETQ OLD.LIST (CAADAR (COURIER.CALL STREAM 'FILING 'GET.ATTRIBUTES HANDLE (LIST 19)
                                                                            (* list of triples ala (NSNAME GroupOrIndividual Access#))
                                                    SESSION)))
                (SELECTQ COMMAND
                      (S (ACCESS.SHOW HOST/DIR OLD.LIST))
                         (ACCESS.REMOVE NSNAME HOST/DIR OLD.LIST STREAM HANDLE SESSION))
                         (ACCESS.ADD NSNAME HOST/DIR ACCESS OLD.LIST STREAM HANDLE SESSION))
                         (ACCESS.CHANGE NSNAME HOST/DIR ACCESS OLD.LIST STREAM HANDLE SESSION))
                      (SHOULDNT)))))))
(ACCESS.OPEN
  [LAMBDA (HOST DIR USER/PWD)
                                                                            (* drc: " 1-Apr-86 16:26")
             returns a list of a courier stream and a courier session on HOST for USER/PWD.
           If DIR is NON-nil, will also return a handle for it. Note that this expects to be called from within a RESETLST.)
    (LET ((CREDENTIALS (NS.MAKE.SIMPLE.CREDENTIALS USER/PWD))
           (STREAM (COURIER.OPEN HOST NIL NIL (CONCAT HOST " Access")))
           SESSION HANDLE)
           (RESETSAVE NIL (LIST 'CLOSEF? STREAM))
          (SETQ SESSION (COURIER.CALL STREAM 'FILING 'LOGON (PARSE.NSNAME HOST)
                                   (CAR CREDENTIALS)
                                    (CDR CREDENTIALS)))
          (if DIR
               then (SETQ HANDLE (COURIER.CALL STREAM 'FILING 'OPEN (LIST 'PATHNAME (ACCESS.SLASHIFY.DIRNAME
                                            \NSFILING.NULL.HANDLE NIL SESSION))
                     (RESETSAVE NIL (LIST 'COURIER.CALL STREAM 'FILING 'CLOSE HANDLE SESSION T)))
          (LIST STREAM SESSION HANDLE])
(ACCESS.SHOW
  [LAMBDA (HOST/DIR L)
                                                                            (* edited: "11-Mar-86 11:01")
    AMBDA (HOST/DIR L)
(printout T T "Access list for " HOST/DIR ":")
(for X in L do (printout T T " " (CAR X)
.TAB 20 " (" (L-CASE (CADR X))
" with "
                             (ACCESS.NUM.TO.STRING (CADDR X))
```

" access) "])

```
(ACCESS.ADD
  [LAMBDA (NSNAME HOST/DIR ACCESS OLD.LIST STREAM HANDLE SESSION)
                                                                     (* drc: "15-Mar-86 13:13")
    (LET ((TRIPLE (if (CH.RETRIEVE.ITEM NSNAME 'USER)
                       then (LIST NSNAME 'INDIVIDUAL ACCESS)
                     elseif (CH.RETRIEVE.ITEM NSNAME 'USERGROUP)
                       then (LIST NSNAME 'GROUP ACCESS)
                     else (ERROR NSNAME "NOT AN NS OBJECT")))
          VALUE)
         (SETO VALUE (COURIER.CALL STREAM 'FILING 'CHANGE.ATTRIBUTES HANDLE
                              (LIST (LIST 'ACCESS.LIST (LIST (CONS TRIPLE OLD.LIST)
                                                              NIL)))
                             SESSION 'RETURNERRORS))
         (if (EQ (CAR VALUE)
                 'ERROR)
           (ACCESS.REMOVE
  [LAMBDA (NSNAME HOST/DIR OLD.LIST STREAM HANDLE SESSION)
                                                                     (* drc: "15-Mar-86 13:14")
    (LET ([ENTRY (bind (NAME.STRING \_ (NSNAME.TO.STRING NSNAME)) for X in OLD.LIST
                     thereis (STREOUAL NAME.STRING (NSNAME.TO.STRING (CAR X)
          VALUE)
         (if ENTRY
             then (SETQ VALUE (COURIER.CALL STREAM 'FILING 'CHANGE.ATTRIBUTES HANDLE
                                       (LIST (LIST 'ACCESS.LIST (LIST (REMOVE ENTRY OLD.LIST)
                                      SESSION 'RETURNERRORS))
                   (if (EQ (CAR VALUE)
'ERROR)
                      then (printout T T VALUE " Not removed.")
           else (printout T T "OK, " NSNAME " removed from access list of " HOST/DIR "."))
else (printout T T NSNAME " not on access list for " HOST/DIR "."])
(ACCESS.CHANGE
 [LAMBDA (NSNAME HOST/DIR ACCESS OLD.LIST STREAM HANDLE SESSION)
                                                                    (* drc: "13-Mar-86 10:49")
                                            (NSNAME.TO.STRING NSNAME)) for X in OLD.LIST
    (LET ([OLD.ENTRY (bind (NAME.STRING _
                         thereis (STREQUAL NAME.STRING (NSNAME.TO.STRING (CAR X]
          NEW.ENTRY VALUE)
         (if OLD.ENTRY
             then (SETQ NEW.ENTRY (LIST NSNAME (CADR OLD.ENTRY)
                                          ACCESS))
                  (SETQ VALUE (COURIER.CALL STREAM 'FILING 'CHANGE.ATTRIBUTES HANDLE
                                       (LIST (LIST 'ACCESS.LIST (LIST (SUBST NEW.ENTRY OLD.ENTRY OLD.LIST)
                                                                        NIL)))
                                      SESSION 'RETURNERRORS))
                   (if (EQ (CAR VALUE)
                          'ERROR)
                      then (printout T T VALUE " Access not changed.")
                    else (printout T T "OK, " NSNAME "'s access to " HOST/DIR " changed to "
                                                                                                  ACCESS.NUM.TO.STRING
                                                                                                   ACCESS)
                                . .,
           else (printout T T NSNAME " not on access list for " HOST/DIR "."])
(ACCESS.SLASHIFY.DIRNAME
  [LAMBDA (DIR)
                                                                     (* drc: " 1-Apr-86 15:33")
    (CONCATLIST (SUBST '/ '> (UNPACK DIR])
(ACCESS.NUM.TO.STRING
                                                                     (* edited: "11-Mar-86 11:24")
  [LAMBDA (NUM)
          (* * Converts a numeric access code to a string representation)
    (CONCATLIST (for MASK in ' (16 8 4 2 1) as PROTECTION in ' (R W C A D) when (BITTEST NUM MASK) collect
                                                                                                              PROTECTION
                     1)
(ACCESS.STRING.TO.NUM
                                                                    (* edited: "11-Mar-86 11:16")
  [LAMBDA (STRING)
          (* * Converts from a string to a numeric representation of an access code. Does not do much error checking. Error is signalled by a returning 0)
    (APPLY (FUNCTION IPLUS)
           (for CHAR in (UNPACK (U-CASE STRING)) collect (SELECTQ CHAR
```

(D 1)

```
(A 2)
(C 4)
(W 8)
(R 16)
(RETURN NIL])

(PUTPROPS ACCESS COPYRIGHT ("Speech Input Project, Univ. of Edinburgh" 1986))
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## {MEDLEY}lispusers>ACCESS.;1 28-Jun-2024 18:34:03 -- Listed on 30-Jun-2024 13:13:33 --

## **FUNCTION INDEX**

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