

File created: 21-Apr-2021 11:56:06 {DSK}<Users>kaplan>Local>medley3.5>git-medley>lispusers>NSPROTECTI
ON.;4

changes to: (FNS NSPROT.LIMITCHARS)

previous date: 7-Sep-89 12:31:44 {DSK}<Users>kaplan>Local>medley3.5>git-medley>lispusers>NSPROTECTION.;2

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

::
::
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```
(RPAQQ NSPROTECTIONCOMS
  [(COMS
    ; Main window selection handlers
    (FNS NSPROTECTION NSPROT.SHOW NSPROT.FETCH.PROTECTION NSPROT.NEW.ENTRY NSPROT.APPLY
      NSPROT.SET.PROTECTION NSPROT.SET.PROTECTION.ONE NSPROT.SET.MULTIPLE NSPROT.SET.TO.DEFAULT
      NSPROT.BEGIN.COMMAND)
    (FNS NSPROT.HANDLE.TYPE NSPROT.RESTORE.TYPE NSPROT.HANDLE.VERIFY NSPROT.RESTORE.VERIFY
      NSPROT.PARSE.FILENAME NSPROT.PARSE.PROTECTIONS NSPROT.STRIPE.HOST NSPROT.EXPAND.FULLNAME))
    (COMS
      ; Handle protection submenus
      (FNS NSPROT.GET.SUBMENU NSPROT.ADD.SUBMENU NSPROT.REMOVE.SUBMENUS NSPROT.CHANGE.STATE
        NSPROT.HANDLE.ALL NSPROT.MESSAGE.ALL NSPROT.HANDLE.SUBTYPE NSPROT.SHOW.PROT.VALUE))
    (COMS
      ; utilities
      (FNS NSPROT.DIRECTORY.SYNTAXP NSPROT.TOP.LEVELP NSPROT.GET.FONT NSPROT.PROMPT NSPROT.CLEAR.PROMPT
        NSPROT.LIMITCHARS NSPROT.PAGEFULLFN NSPROT.ICONFN))
    (INITVARS NSPROT.PLAIN.FONT NSPROT.BOLD.FONT)
    (VARS NSPROT.ICON)
    (GLOBALVARS NSPROT.PLAIN.FONT NSPROT.BOLD.FONT \NSFILING.ATTRIBUTES NSPROT.ICON \DEFAULTTTYDISPLAYSTREAM
      )
    (LOCALVARS . T)
    [COMS [DECLARE%: DONTEVAL@LOAD DOCOPY (P (AND (EQ MAKESYSNAME :LYRIC)
      (FILESLOAD (SYSLOAD)
        NSRANDOM]
      (FNS ADD.NSPROTECTION)
      (DECLARE%: DONTEVAL@LOAD DOCOPY (P (ADD.NSPROTECTION]
      (DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVARS (ADDVARS (NLAMA)
        (NLAML)
        (LAMA])
```

:: Main window selection handlers

(DEFINEQ

(**NSPROTECTION**

[LAMBDA NIL

; Edited 1-Sep-87 10:31 by bvm:

:: Main entry--create the NS protection tool main window and prompt window.

```
(LET* ((PLAINFONT (NSPROT.GET.FONT))
  (BOLDFONT (NSPROT.GET.FONT T))
  [HEIGHTDIFFERENCE (- (FONTPROP BOLDFONT 'HEIGHT)
    (FONTPROP PLAINFONT 'HEIGHT]
  (W (FREEMENU `[ (PROPS COLUMNSPACE 14 FONT ,BOLDFONT)
    ((LABEL "Show" SELECTEDFN NSPROT.SHOW MESSAGE "Show the current protection of the
      specified directory/file.")
    (LABEL "New Entry" SELECTEDFN NSPROT.NEW.ENTRY MESSAGE "Add a new protection entry
      (you fill it in).")
    (LABEL "Apply" SELECTEDFN NSPROT.APPLY MESSAGE "Apply the indicated protections to
      the file.")
    (LABEL "Set to Default" SELECTEDFN NSPROT.SET.TO.DEFAULT MESSAGE "Make the file
      inherit protection from its parent (sub)directory." MAXWIDTH 275))
    [(PROPS COLUMNSPACE 4)
    (LABEL "Type:" TYPE STATE CHANGESTATE NSPROT.HANDLE.TYPE INITSTATE "Principal"
      MESSAGE "Show directory's own protection, or default for its children? (can be
      different)" ID TYPE LINKS (DISPLAY PROTECTION-TYPE))
    (LABEL "" TYPE DISPLAY ID PROTECTION-TYPE FONT ,PLAINFONT BOTTOM ,HEIGHTDIFFERENCE
      MAXWIDTH ,(STRINGWIDTH "Children Only " PLAINFONT))
    (LABEL "Check:" TYPE STATE CHANGESTATE NSPROT.HANDLE.VERIFY INITSTATE "New Names
      Only" MESSAGE "Check names in protection entries against Clearinghouse?" ID
      CHECK LINKS (DISPLAY VERIFYFLG))
    (LABEL "" TYPE DISPLAY ID VERIFYFLG FONT ,PLAINFONT BOTTOM ,HEIGHTDIFFERENCE MAXWIDTH
      ,(STRINGWIDTH "New Names Only" PLAINFONT]
    [(PROPS COLUMNSPACE ,(+ 6 (- (STRINGWIDTH "Dir/File:" BOLDFONT)
      (STRINGWIDTH "Host:" BOLDFONT]
    (LABEL "Host:" TYPE EDITSTART MESSAGE "Fill in the name of the NS file server" LINKS
      (EDIT HOST))
    (LABEL ,(CONCAT)
      TYPE EDIT ID HOST LIMITCHARS NSPROT.LIMITCHARS FONT ,PLAINFONT BOTTOM
      ,HEIGHTDIFFERENCE))
    [(PROPS COLUMNSPACE 6)
    (LABEL "Dir/File:" TYPE EDITSTART MESSAGE "Fill in the name of the desired directory
      or file." LINKS (EDIT DIR))
    (LABEL ,(CONCAT)
```

(NSPROT.SHOW

(NSPROT.FETCH.PROTECTION

```

[LAMBDA (WINDOW DEV FILESPEC)
;; Return the access list of FILESPEC on DEV of the flavor requested by window (or implicitly by the filespec being a non-directory). This fn prints
;; its own messages when the defaulting is interesting.
(if (SETQ FILESPEC (NSPROT.EXPAND.FULLNAME WINDOW DEV FILESPEC))
  then (LET* ((TYPE (if (WINDOWPROP WINDOW 'USE-DEFAULT-ACCESS)
                          then 'DEFAULT.ACCESS.LIST
                          else 'ACCESS.LIST)))
    TOPLEVELP
    (DIRP (NSPROT.DIRECTORY.SYNTAXP FILESPEC))
    [DESIREDPROPS (if DIRP
                      then
; Check both kinds of access list, and if top-level also get usage
; stats
      '[,[@(CONSTANT (LIST (\FILING.ATTRIBUTE.TYPE 'ACCESS.LIST)
                          (\FILING.ATTRIBUTE.TYPE 'DEFAULT.ACCESS.LIST)
      ,[@(AND (EQ TYPE 'ACCESS.LIST)
              (SETQ TOPLEVELP (NSPROT.TOP.LEVELP FILESPEC))
              (CONSTANT (LIST (\FILING.ATTRIBUTE.TYPE 'SUBTREE.SIZE)
                              (\FILING.ATTRIBUTE.TYPE 'SUBTREE.SIZE.LIMIT)
              else (LIST (\FILING.ATTRIBUTE.TYPE TYPE)
              (PROPS (\NSFILING.GET/SETINFO DEV FILESPEC (FUNCTION \NSFILING.GET.ATTRIBUTES)))
              (PROT OTHER))
      (DECLARE (CL:SPECIAL DESIREDPROPS))
; Go thru internal filing interface in order to intercept errors and
; get more than one attribute at once. DESIREDPROPS is used
; free under \nsfiling.get/setinfo.
    (if (OR (NULL PROPS)
          (EQ (CAR PROPS)
                'ERROR))
      then (NSPROT.PROMPT WINDOW "Failed: ~A" (CADDR PROPS))
      elseif [NULL (SETQ PROT (CADR (ASSOC TYPE PROPS))
                    then (NSPROT.PROMPT WINDOW "Failed to fetch protection.")
                    else [if (AND DIRP (EQ TYPE 'ACCESS.LIST)
                              (SETQ OTHER (CADR (ASSOC 'DEFAULT.ACCESS.LIST PROPS)))
                              (NOT (COURIER.FETCH (FILING . ACCESS.LIST)
                                      (DEFAULTED of OTHER)))
                                then
; We're fetching the principal access list for a directory, but it has
; a non-defaulted DEFAULT.ACCESS.LIST, so warn user
      (NSPROT.PROMPT WINDOW "Note: this ~:[~;protection is inherited, but the
~]directory has a separate default protection for its children."
      (COURIER.FETCH (FILING . ACCESS.LIST)
                      (DEFAULTED of PROT))
      elseif (COURIER.FETCH (FILING . ACCESS.LIST)
                      (DEFAULTED of PROT))
        then
; defaulted value. explain.

```

```

      (if (EQ TYPE 'ACCESS.LIST)
          then (NSPROT.PROMPT WINDOW "The protection shown is inherited from the
              parent.")
          else (NSPROT.PROMPT WINDOW "This is the directory's principal
              protection~:[~;, which is itself inherited~]."
              (AND (SETQ OTHER (CADR (ASSOC 'ACCESS.LIST PROPS)))
                  (COURIER.FETCH (FILING . ACCESS.LIST)
                      DEFAULTED of OTHER])

[if TOPLEVELP
  then
    (LET [(USED (CADR (ASSOC 'SUBTREE.SIZE PROPS)))
          (LIMIT (CADR (ASSOC 'SUBTREE.SIZE.LIMIT PROPS))
              (NSPROT.PROMPT WINDOW "~&Directory contains ~D pages ~:[(unlimited
              allocation)~;out of ~:*~D allocated~]" (FOLDHI USED BYTESPERPAGE)
              (AND (>= LIMIT 0)
                  (FOLDHI LIMIT BYTESPERPAGE])
              (COURIER.FETCH (FILING . ACCESS.LIST)
                  ENTRIES of PROT])

```

(NSPROT.NEW.ENTRY

```
[LAMBDA (ITEM WINDOW BUTTONS) ; Edited 24-Aug-87 16:14 by bvm:
```

```
;; Handles the NEW ENTRY button -- adds another protection entry and starts editing the name field of it
```

```

(NSPROT.BEGIN.COMMAND WINDOW)
(LET* ((SUBW (NSPROT.GET.SUBMENU WINDOW))
      (NAMEITEM (FM.GETITEM 'NAME NIL SUBW))
      (FM.CHANGESTATE (FM.GETITEM 'READ NIL SUBW)
          T SUBW) ; Initial protection = READ
      (FM.CHANGELABEL NAMEITEM (CONCAT
          SUBW) ; Initial name is empty
      (WINDOWPROP SUBW 'KNOWN-VALUE NIL) ; erase any previous cache
      (NSPROT.ADD.SUBMENU SUBW WINDOW)
      (FM.EDITITEM NAMEITEM SUBW])

```

(NSPROT.APPLY

```
[LAMBDA (ITEM WINDOW BUTTONS) ; Edited 27-Aug-87 14:38 by bvm:
```

```

(LET (DEV&FILESPEC PROT)
  (if (AND (MOUSECONFIRM "Click LEFT to confirm setting the displayed protection" T (GETPROMPTWINDOW
      WINDOW))
      (SETQ DEV&FILESPEC (NSPROT.PARSE.FILENAME WINDOW))
      (SETQ PROT (NSPROT.PARSE.PROTECTIONS WINDOW)))
  then [if (AND (NULL (SETQ PROT (CAR PROT)))
              (NEQ (WINDOWPROP WINDOW 'VERIFYFLG)
                  :NO))
          then (NSPROT.PROMPT WINDOW "Can't set empty protection.")
          elseif (AND (for PAIR in PROT never (MEMB 'OWNER (CADR PAIR)))
              (NEQ (WINDOWPROP WINDOW 'VERIFYFLG)
                  :NO))
              then (NSPROT.PROMPT WINDOW T "Can't: Somebody must retain owner access.")
              else (CL:MULTIPLE-VALUE-BIND (RESULT CONDITION)
                  (IGNORE-ERRORS (DESTRUCTURING-BIND (DEV . FILESPEC)
                      DEV&FILESPEC
                      (NSPROT.SET.PROTECTION WINDOW DEV FILESPEC PROT)))
                  (IF CONDITION
                      THEN (NSPROT.PROMPT WINDOW "Failed: ~A" CONDITION)))
      (NSPROT.RESTORE.VERIFY WINDOW)])

```

(NSPROT.SET.PROTECTION

```
[LAMBDA (WINDOW DEV FILESPEC PROT) ; Edited 31-Aug-87 18:22 by bvm:
```

```

(if (STRPOS "*" FILESPEC)
  then (NSPROT.SET.MULTIPLE WINDOW DEV FILESPEC PROT)
  elseif (NULL (NSPROT.EXPAND.FULLNAME WINDOW DEV FILESPEC))
  elseif (NSPROT.SET.PROTECTION.ONE DEV FILESPEC PROT (WINDOWPROP WINDOW 'USE-DEFAULT-ACCESS))
  then (NSPROT.PROMPT WINDOW "Done, ~:[~;children's default ~]protection set ~A." (WINDOWPROP
      WINDOW
      'USE-DEFAULT-ACCESS)

  (if (EQ PROT T)
      then "to default"
      else "as shown"))
  else (NSPROT.PROMPT WINDOW "Failed to set protection."))

```

(NSPROT.SET.PROTECTION.ONE

```
[LAMBDA (DEV FILESPEC PROT DEFAULTP) ; Edited 27-Aug-87 13:51 by bvm:
```

```
;; Performs the filing call that sets the protection of FILESPEC on DEV to be PROT. PROT=T means default protection. DEFAULTP = NIL means
;; access, T means default access.
```

```

(if (EQ PROT T)
  then
    ; Set to default protection. Can't do this in the obvious way,
    ; because the PROTECTION attribute hides the hair about
    ; defaulted
    (\NSFILING.SETFILEINFO FILESPEC [if DEFAULTP
        then (CONSTANT (\FILING.ATTRIBUTE.TYPE 'DEFAULT.ACCESS.LIST))
        else (CONSTANT (\FILING.ATTRIBUTE.TYPE 'ACCESS.LIST])

```

```

(CONSTANT (COURIER.WRITE.REP (COURIER.CREATE (FILING . ACCESS.LIST)
                                              ENTRIES _ NIL DEFAULTED _ T)
          'FILING
          'ACCESS.LIST))
DEV)
else (\NSFILING.SETFILEINFO FILESPEC (if DEFAULTP
                                         then 'DEFAULT.ACCESS.LIST
                                         else 'PROTECTION)
     PROT DEV))

```

(NSPROT.SET.MULTIPLE

; Edited 7-Sep-89 12:31 by bvm

```

[LAMBDA (WINDOW DEV FILESPEC PROT)
  (if (NSPROT.RESTORE.TYPE WINDOW)
      then (NSPROT.PROMPT WINDOW "(Will set Principal protection) ")
      (NSPROT.PROMPT WINDOW "Enumerating...")
  (LET [(FILES (RESETLST
                (LET* ((FILING.ENUMERATION.DEPTH MAX.SMALLP)
                      [GEN (\GENERATEFILES (DIRECTORY.FILL.PATTERN FILESPEC)
                                             ' (FILE.ID)
                                             ' (RESETLST) ]
                      FILE)
                (DECLARE (CL:SPECIAL FILING.ENUMERATION.DEPTH)
                          ; sets depth to infinity without telling the generator to filter out
                          ; directories.
                          (while (SETQ FILE (\GENERATENEXTFILE GEN)) collect [NSPROT.PROMPT
                                                                              WINDOW T "~A" (SETQ FILE
                                                                              (CDR (
                                                                              NSPROT.STRIPE.HOST
                                                                              FILE]
                                                                              (LIST (\GENERATEFILEINFO GEN
                                                                              'FILE.ID)
                                                                              (\GENERATEFILEINFO GEN
                                                                              'IS.DIRECTORY)
                                                                              FILE))))])
          (if (NULL FILES)
              then (NSPROT.PROMPT WINDOW "no files match the pattern.")
              else (NSPROT.PROMPT WINDOW T "Setting...")
              (for F in FILES bind (OK _ 0)
                                (FAILED _ 0)
              do
                ;; Set explicit protection for file with this id. If it's a directory, also set its default access list to defaulted.
                (if (AND (NSPROT.SET.PROTECTION.ONE DEV `(FILE.ID , (CAR F))
                        PROT)
                    (OR (NULL (CADR F))
                        (NSPROT.SET.PROTECTION.ONE DEV `(FILE.ID , (CAR F))
                        T T)))
                    then (add OK 1)
                    else (add FAILED 1)
                    (NSPROT.PROMPT WINDOW T "Failed on ~A" (CADDR F)))
              finally (NSPROT.PROMPT WINDOW T "Done, set ~A on ~D files~:[~; out of ~D~].")
                      (if (EQ PROT T)
                          then "default protection"
                          else "the displayed protection")
                      OK
                      (NEQ FAILED 0)
                      (+ OK FAILED]))

```

(NSPROT.SET.TO.DEFAULT

; Edited 20-Nov-87 12:26 by bvm:

```

[LAMBDA (ITEM WINDOW BUTTONS)
  (LET (DEV&FILESPEC PROT)
    (if (AND (MOUSECONFIRM "Click LEFT to confirm restoring the file to inherited protection" T (
                                                                GETPROMPTWINDOW
                                                                WINDOW) )
        (SETQ DEV&FILESPEC (NSPROT.PARSE.FILENAME WINDOW)))
    then (CL:MULTIPLE-VALUE-BIND (RESULT CONDITION)
        [IGNORE-ERRORS (DESTRUCTURING-BIND (DEV . FILESPEC)
        DEV&FILESPEC
        (if (AND (NSPROT.TOP.LEVELP FILESPEC)
            (NOT (WINDOWPROP WINDOW 'USE-DEFAULT-ACCESS))
            (NEQ (WINDOWPROP WINDOW 'VERIFYFLG)
                :NO))
            THEN ; Dangerous operation!
            (NSPROT.PROMPT WINDOW "Can't set top-level directory to
            default protection.")
            ELSE (NSPROT.SET.PROTECTION WINDOW DEV FILESPEC T]
        (IF CONDITION
            THEN (NSPROT.PROMPT WINDOW "Failed: ~A" CONDITION)))
    (NSPROT.RESTORE.VERIFY WINDOW]))

```

(NSPROT.BEGIN.COMMAND

; Edited 20-Aug-87 17:35 by bvm:

```

[LAMBDA (WINDOW)
  ;; Begin a new command. Clear old prompt window, if any, and stop any editing.
  (LET ((PW (GETPROMPTWINDOW WINDOW NIL NIL T)))

```

```

    (AND PW (CLEARW PW)))
  (FM.ENDEDIT WINDOW)
  (for W in (WINDOWPROP WINDOW 'PROTMENUS) do (FM.ENDEDIT W))
  (if (EQ (GETSTREAM WINDOW)
          (TTYDISPLAYSTREAM))
      then
        (TTYDISPLAYSTREAM \DEFAULTTTYDISPLAYSTREAM])
; Bug--freemenu leaves this guy being the ttydisplaystream
)

```

(DEFINEQ

(NSPROT.HANDLE.TYPE

```

[LAMBDA (ITEM WINDOW BUTTONS)
  (LET (LABEL)
    (WINDOWPROP WINDOW 'USE-DEFAULT-ACCESS (SELECTQ (WINDOWPROP WINDOW 'USE-DEFAULT-ACCESS)
      (T (SETQ LABEL "Principal")
        NIL)
      (NIL (SETQ LABEL "Children Only")
        T)
      (SHOULDNT)))
    LABEL])
; Edited 27-Aug-87 13:53 by bvm:

```

(NSPROT.RESTORE.TYPE

```

[LAMBDA (WINDOW)
  ;; Replace the "children only" state with "Principal"--do this when working on a non-directory. Returns T if it changed.
  (if (WINDOWPROP WINDOW 'USE-DEFAULT-ACCESS NIL)
      then (FM.CHANGESTATE (FM.GETITEM 'TYPE NIL WINDOW)
        "Principal" WINDOW)
      T])
; Edited 27-Aug-87 13:56 by bvm:

```

(NSPROT.HANDLE.VERIFY

```

[LAMBDA (ITEM WINDOW BUTTONS)
  (LET (LABEL)
    (WINDOWPROP WINDOW 'VERIFYFLG (SELECTQ (WINDOWPROP WINDOW 'VERIFYFLG)
      (:NEW (SETQ LABEL "All Names")
        T)
      (T (SETQ LABEL "Don't")
        NIL)
      (NIL (SETQ LABEL "I really mean it")
        :NO)
      (:NO (SETQ LABEL "New Names Only")
        :NEW)
      (SHOULDNT)))
    LABEL])
; Edited 24-Aug-87 14:53 by bvm:

```

(NSPROT.RESTORE.VERIFY

```

[LAMBDA (WINDOW)
  ;; Replace the "I really mean it" state with a better one.
  (if (EQ (WINDOWPROP WINDOW 'VERIFYFLG)
        :NO)
      then (FM.CHANGESTATE (FM.GETITEM 'CHECK NIL WINDOW)
        "New Names Only" WINDOW)
      (WINDOWPROP WINDOW 'VERIFYFLG :NEW])
; Edited 24-Aug-87 15:11 by bvm:

```

(NSPROT.PARSE.FILENAME

```

[LAMBDA (WINDOW)
  (NSPROT.BEGIN.COMMAND WINDOW)
  (PROG ((STATE (FM.GETSTATE WINDOW))
    HOST FILENAME FULLNAME HOST&FILE FULLHOST DEV)
    (for TL on STATE by (CDDR TL) do (SELECTQ (CAR TL)
      (HOST (SETQ HOST (CADR TL)))
      (DIR (SETQ FILENAME (CADR TL)))
      NIL))
    (if (OR (NULL FILENAME)
      (EQ (NCHARS FILENAME)
        0))
        then (NSPROT.PROMPT WINDOW "No directory or file name was specified.")
      (RETURN NIL))
    (if (SETQ HOST&FILE (NSPROT.STRIP.HOST FILENAME))
        then
          ;; User gave a full file name including host in the "Dir/File" field. Separate them out now.
          (FM.CHANGELABEL (FM.GETITEM 'DIR NIL WINDOW)
            (SETQ FILENAME (CDR HOST&FILE))
            WINDOW)
          (FM.CHANGELABEL (FM.GETITEM 'HOST NIL WINDOW)
            (SETQ HOST (CAR HOST&FILE))
            WINDOW)
        (if (OR (NULL HOST)
          (EQ (NCHARS HOST)
            0))

```

```

    then (NSPROT.PROMPT WINDOW "No host was specified.")
          (RETURN NIL))
  (SETQ FULLHOST (CAR (LOOKUP.NS.SERVER HOST NIL T)))
  (if [NOT (STRING-EQUAL HOST (SETQ HOST (NSNAME.TO.STRING (OR FULLHOST (PARSE.NSNAME HOST))
    T]
    then ;; Show fully-qualified name, either from lookup or from parse. In latter case, we may be reminding user of default domain.
          (FM.CHANGELABEL (FM.GETITEM 'HOST NIL WINDOW)
            HOST WINDOW))
  (if (NEQ (CHCON1 FILENAME)
    (CHARCODE "<"))
    then (SETQ FILENAME (CONCAT "<" FILENAME))
          (if (NOT (STRPOS ">" FILENAME 2))
            then (SETQ FILENAME (CONCAT FILENAME ">"))))
          ; Show modified file name
          (FM.CHANGELABEL (FM.GETITEM 'DIR NIL WINDOW)
            FILENAME WINDOW))
  (if [OR (NOT FULLHOST)
    (NULL (SETQ DEV (\GETDEVICEFROMNAME (SETQ FULLNAME (CONCAT "{" HOST "}" FILENAME))
    T]
    then (NSPROT.PROMPT WINDOW "Server ~A not found." HOST)
          (RETURN NIL))
  (RETURN (CONS DEV FULLNAME]))

```

(NSPROT.PARSE.PROTECTIONS

[LAMBDA (WINDOW)

; Edited 27-Aug-87 14:45 by bvm:

```

;; Parse and as necessary validate the protection entries attached to WINDOW, returning a valid PROTECTION value, or NIL if something is
;; wrong.

```

```

(LET
  ((PROTWINDOWS (WINDOWPROP WINDOW 'PROTMENUS))
   (VERIFYFLG (WINDOWPROP WINDOW 'VERIFYFLG))
   WHO HOW NSWHO OLDWHO FULLNAME DEADWINDOWS PROT VERIFIEDNAME)
  (for w in PROTWINDOWS
    do (SETQ WHO NIL)
        (SETQ HOW (for TAIL on (FM.GETSTATE W) by (CDDR TAIL) when (SELECTQ (CAR TAIL)
          ((READ WRITE ADD REMOVE OWNER)
           (CADR TAIL))
           (NAME (SETQ WHO (CADR TAIL))
            NIL)
           NIL)
          collect (CAR TAIL)))
        (if (NOT (AND HOW WHO (> (NCHARS WHO)
          0)))
          then ; No protection, remove this guy
            (push DEADWINDOWS W)
          elseif [AND (NEQ VERIFYFLG T)
            (STREQUAL WHO (CAR (SETQ OLDWHO (WINDOWPROP W 'KNOWN-VALUE))
            then ;; This name hasn't been changed since we put it up, so use the parse that's there. We're assuming that not having to
            ;; validate old protection names makes up for occasionally reinstalling a bogus name that just happened to be there.
            (push PROT (LIST (CADR OLDWHO)
              HOW))
          else (SETQ NSWHO (PARSE.NSNAME WHO))
            (if [NOT (STREQUAL WHO (SETQ WHO (NSNAME.TO.STRING (OR [SETQ FULLNAME
              (if (SELECTQ VERIFYFLG
                ((NIL :NO)
                 T)
                (STRPOS "*" WHO))
              then
                ; for now, accept any pattern
                NSWHO
              else
                ; get canonical name
                (SETQ VERIFIEDNAME (
                  CH.LOOKUP.OBJECT
                  NSWHO]
                NSWHO)
              T]
            then ; Show our parse or canonical name
              (FM.CHANGELABEL (FM.GETITEM 'NAME NIL W)
                WHO W))
            (if FULLNAME
              then ; good name
                (SETQ NSWHO FULLNAME)
                (if VERIFIEDNAME
                  then ; Remember this parse
                    (WINDOWPROP W 'KNOWN-VALUE (LIST WHO VERIFIEDNAME HOW)))
                else (NSPROT.PROMPT WINDOW "~A not a registered name." WHO)
                  (RETURN NIL))
              (push PROT (LIST NSWHO HOW)))
            finally [if DEADWINDOWS
              then ; Remove the windows showing no entry
                (LET ((LASTDEAD (CAR DEADWINDOWS))
                  LOWERWINDOWS)
                  ; First detach everything up to the last dead one.
                  (for OLDW in PROTWINDOWS do (DETACHWINDOW OLDW)

```

```

                (if (MEMB OLDW DEADWINDOWS)
                    then (CLOSEW OLDW)
                    else (push LOWERWINDOWS OLDW))
        repeatuntil (EQ OLDW LASTDEAD)) ; Now reattach the good ones
    (for OLDW in LOWERWINDOWS do (ATTACHWINDOW OLDW WINDOW 'BOTTOM))
    ; Add the dead ones to scratch heap
    [WINDOWPROP WINDOW 'SCRATCHMENUS (APPEND DEADWINDOWS (WINDOWPROP WINDOW
                                                                    'SCRATCHMENUS)]
    (WINDOWPROP WINDOW 'PROTMENUS (CL:SET-DIFFERENCE PROTWINDOWS DEADWINDOWS])
    (RETURN (LIST PROT])

```

(NSPROT.STRIP.HOST

[LAMBDA (FILENAME)

; Edited 20-Aug-87 14:17 by bvm:

;; Strips the host field off the front of FILENAME and returns a dotted pair (host . restOfName).

```

    (PROG (I)
      (RETURN (AND (SETQ I (STRPOS (SELCHARQ (CHCON1 FILENAME)
                                              ({ " " })
                                              ("[" " "] ")
                                              ("[" " " "] ")
                                              (RETURN NIL))
                  FILENAME 2))
              (CONS (SUBSTRING FILENAME 2 (SUB1 I))
                    (SUBSTRING FILENAME (ADD1 I))

```

(NSPROT.EXPAND.FULLNAME

[LAMBDA (WINDOW DEV FILENAME)

; Edited 27-Aug-87 15:19 by bvm:

;; Looks up FILENAME on DEV, returning the full name (sans host). WINDOW is the window in which FILENAME is the DIR item--we will change it
;; if appropriate. Returns NIL on file not found.

```

    (LET ((FULLNAME (\NSFILING.GETFILE DEV FILENAME 'NONE 'OLD 'HANDLE (FUNCTION \NSFILING.FULLNAME)
                                         T))
          STRIPPED-NAME)
      (if (NULL FULLNAME)
          then (NSPROT.PROMPT WINDOW "~A not found." (if (NSPROT.DIRECTORY.SYNTAXP FILENAME)
                                                           then "Directory"
                                                           elseif (STRPOS ">" FILENAME)
                                                           then
                                                               ; Looks like a file
                                                               "File"
                                                           else ; Could be either if they were sloppy
                                                               "Directory/file"))
          NIL
          else (SETQ STRIPPED-NAME (CDR (NSPROT.STRIP.HOST FULLNAME)))
              (if (NOT (STREQUAL STRIPPED-NAME FILENAME))
                  then (FM.CHANGELABEL (FM.GETITEM 'DIR NIL WINDOW)
                                         STRIPPED-NAME WINDOW)
                  (if (NOT (NSPROT.DIRECTORY.SYNTAXP FULLNAME))
                      then
                          ; Force Principal protection, since non-directories don't have a
                          ; default access list.
                          (NSPROT.RESTORE.TYPE WINDOW)
                      FULLNAME]))

```

)

;; Handle protection submenus

(DEFINEQ

(NSPROT.GET.SUBMENU

[LAMBDA (MAINWINDOW)

; Edited 26-Aug-87 18:03 by bvm:

```

    (LET ((SUBW (WINDOWPROP MAINWINDOW 'SCRATCHMENUS))
          HEIGHT)
      (if SUBW
          then

```

; Return a cached window to avoid overhead of creating a whole
; new freemenu. Don't forget to clear the old one out!

```

        (PROG1 (NSPROT.CHANGE.STATE (CAR SUBW)
                                     NIL)

```

```

            (WINDOWPROP MAINWINDOW 'SCRATCHMENUS (CDR SUBW)))
        else (SETQ SUBW (FREEMENU `((PROPS FONT , (NSPROT.GET.FONT)
                                         COLUMNSPACE 5)
                                     ((LABEL "Read" ID READ TYPE TOGGLE SELECTEDFN NSPROT.HANDLE.SUBTYPE
                                         MESSAGE "Read: User may read (if a file) or enumerate (if a
                                         directory)")
                                     (LABEL "Wrt" ID WRITE TYPE TOGGLE SELECTEDFN NSPROT.HANDLE.SUBTYPE
                                         MESSAGE "Write: User may write/change/delete the file.")
                                     (LABEL "Add" ID ADD TYPE TOGGLE SELECTEDFN NSPROT.HANDLE.SUBTYPE MESSAGE
                                         "Add: User can create files in the directory.")
                                     (LABEL "Del" ID REMOVE TYPE TOGGLE SELECTEDFN NSPROT.HANDLE.SUBTYPE
                                         MESSAGE "Delete: User can remove files from the directory.")
                                     (LABEL "Own" ID OWNER TYPE TOGGLE SELECTEDFN NSPROT.HANDLE.SUBTYPE
                                         MESSAGE "Owner: User can change the protection.")
                                     (LABEL "All" ID ALL TYPE TOGGLE SELECTEDFN NSPROT.HANDLE.ALL MESSAGE
                                         NSPROT.MESSAGE.ALL)
                                     (LABEL " to:" ID TO TYPE EDITSTART MESSAGE "Fill in name (user or group)

```

```

                                or pattern (*:Domain)." FONT , (NSPROT.GET.FONT T)
                                LINKS
                                (EDIT NAME))
                                (LABEL , (CONCAT
                                TYPE EDIT ID NAME)))
                                NIL NIL 3))
(WINDOWPROP SUBW 'FM.DONTRESHAPE T) ; Don't want any extra space added between columns when the
; window gets wider--add it all on the right.
[WINDOWPROP SUBW 'MINSIZE (CONS 0 (SETQ HEIGHT (fetch (REGION HEIGHT) of (WINDOWPROP SUBW
'REGION]
(WINDOWPROP SUBW 'MAXSIZE (CONS MAX.SMALLP HEIGHT))
(WINDOWPROP SUBW 'FM.PROMPTWINDOW (GETPROMPTWINDOW MAINWINDOW))
SUBW])

```

(NSPROT.ADD.SUBMENU

[LAMBDA (MENUW MAINWINDOW)

; Edited 20-Aug-87 10:13 by bvm:

```

;; Appends MENUW to MAINWINDOW's set of protection value entries
(ATTACHWINDOW MENUW MAINWINDOW 'BOTTOM)
(WINDOWPROP MAINWINDOW 'PROTMENUS (CONS MENUW (WINDOWPROP MAINWINDOW 'PROTMENUS]))

```

(NSPROT.REMOVE.SUBMENUS

[LAMBDA (WINDOW)

; Edited 24-Aug-87 12:34 by bvm:

```

;; Removes all the submenus (protection entries) from WINDOW, adding them to the scratch list for the window.
(LET ((OLDWINDOWS (WINDOWPROP WINDOW 'PROTMENUS NIL)))
  (for W in OLDWINDOWS do (DETACHWINDOW W)
    (CLOSEW W))
  (WINDOWPROP WINDOW 'SCRATCHMENUS (APPEND OLDWINDOWS (WINDOWPROP WINDOW 'SCRATCHMENUS)))

```

(NSPROT.CHANGE.STATE

[LAMBDA (WINDOW NEWSTATE)

; Edited 19-Aug-87 16:15 by bvm:

```

;; Change all the protection buttons to the specified state
(for ID in ' (READ WRITE ADD REMOVE OWNER ALL) do (FM.CHANGESTATE (FM.GETITEM ID NIL WINDOW)
  NEWSTATE WINDOW))
WINDOW])

```

(NSPROT.HANDLE.ALL

[LAMBDA (ITEM WINDOW BUTTONS)

; Edited 19-Aug-87 16:16 by bvm:

```

;; Called when ALL is selected--turn all protection bits to the specified state
(NSPROT.CHANGE.STATE WINDOW (FM.ITEMPROP ITEM 'STATE))

```

(NSPROT.MESSAGE.ALL

[LAMBDA (ITEM WINDOW BUTTONS)

; Edited 20-Aug-87 14:15 by bvm:

```

;; Called when ALL is held--return appropriate help message
(if (FM.ITEMPROP ITEM 'STATE)
  then "Deny user all access rights"
  else "Grant user all 5 access rights"])

```

(NSPROT.HANDLE.SUBTYPE

[LAMBDA (ITEM WINDOW BUTTONS)

; Edited 19-Aug-87 14:46 by bvm:

```

(LET ((OTHER (FM.GETITEM 'ALL NIL WINDOW)))
  (if (FM.ITEMPROP OTHER 'STATE)
    then
      (FM.CHANGESTATE OTHER NIL WINDOW))
  (SELECTQ (FM.ITEMPROP ITEM 'ID)
    ((WRITE ADD)
      (if [AND (FM.ITEMPROP ITEM 'STATE)
        (NOT (FM.ITEMPROP (SETQ OTHER (FM.GETITEM 'READ NIL WINDOW))
          'STATE]
        then (FM.CHANGESTATE OTHER T WINDOW)))
    NIL])

```

; If the ALL button was on, turn it off

; these accesses really need READ as well

(NSPROT.SHOW.PROT.VALUE

[LAMBDA (ENTRY MAINWINDOW)

; Edited 24-Aug-87 16:16 by bvm:

```

(DESTRUCTURING-BIND (NAME TYPES)
  ENTRY
  (LET ((SUBW (NSPROT.GET.SUBMENU MAINWINDOW))
    (STRINGNAME (NSNAME.TO.STRING NAME T))
    ITEM)
    (for P in TYPES do (FM.CHANGESTATE (OR (SETQ ITEM (FM.GETITEM P NIL SUBW))
      (HELP "Bad protection value" P))
      T SUBW)
      (if (EQ P 'ALL)
        then (NSPROT.HANDLE.ALL ITEM SUBW)))
    (FM.CHANGELABEL (FM.GETITEM 'NAME NIL SUBW)
      STRINGNAME SUBW)

```



```
(WINDOWPROP SUBW 'KNOWN-VALUE (CONS STRINGNAME ENTRY))
; Save the parse of this value so we can avoid worrying about it
; later.
```

```
(NSPROT.ADD.SUBMENU SUBW MAINWINDOW)
SUBW])
```

```
)
```

```
:: utilities
```

```
(DEFINEQ
```

```
(NSPROT.DIRECTORY.SYNTAXP
```

```
[LAMBDA (FILENAME)
```

```
; Edited 27-Aug-87 14:53 by bvm:
; True if FILENAME looks like a directory
```

```
(EQ (NTHCHARCODE FILENAME -1)
(Charcode ">"))
```

```
(NSPROT.TOP.LEVELP
```

```
[LAMBDA (FILESPEC)
```

```
; Edited 20-Nov-87 12:26 by bvm:
```

```
(LET (I)
(NOT (AND (SETQ I (STRPOS ">" FILESPEC))
(NEQ I (NCHARS FILESPEC))
```

```
(NSPROT.GET.FONT
```

```
[LAMBDA (BOLDP)
```

```
; Edited 1-Sep-87 17:23 by bvm:
```

```
(if BOLDP
then [OR NSPROT.BOLD.FONT (SETQ NSPROT.BOLD.FONT (FONTCOPY (NSPROT.GET.FONT)
'WEIGHT
'BOLD]
```

```
elseif NSPROT.PLAIN.FONT
```

```
elseif (> (FONTHEIGHT (SETQ NSPROT.PLAIN.FONT (FONTCREATE 'MODERN 10)))
12)
```

```
then ; Yes, this is the one I had in mind (10 pt coerced to 12)
```

```
NSPROT.PLAIN.FONT
```

```
else ; The "real" 12 pt display font is about the right size.
```

```
(SETQ NSPROT.PLAIN.FONT (FONTCREATE 'MODERN 12]))
```

```
(NSPROT.PROMPT
```

```
[LAMBDA WINDOW&ARGS
```

```
; Edited 2-Aug-89 17:10 by bvm
```

```
(LET* [(*PRINT-CASE* :UPCASE)
(MAINW (ARG WINDOW&ARGS 1))
(WINDOW (GETPROMPTWINDOW MAINW))
(ARGS (for J from (if (EQ (ARG WINDOW&ARGS 2)
T)
```

```
then ; First arg of T means clear window first.
```

```
(NSPROT.CLEAR.PROMPT MAINW WINDOW)
```

```
3
```

```
else 2)
```

```
to WINDOW&ARGS collect (ARG WINDOW&ARGS J]
```

```
(RESETFORM (TTYDISPLAYSTREAM WINDOW)
```

```
; Unfortunately, have to make it the tty to get pagefullfn action.
```

```
(CL:APPLY (FUNCTION CL:FORMAT)
```

```
WINDOW ARGS))
```

```
NIL])
```

```
(NSPROT.CLEAR.PROMPT
```

```
[LAMBDA (MAINW PW)
```

```
; Edited 2-Aug-89 17:14 by bvm
```

```
:: Clear's FOLDER's prompt window, and shrinks it back to a single line if it has grown
```

```
(LET ((PROP (WINDOWPROP MAINW 'PROMPTWINDOW))
(IDEALHEIGHT (OR (WINDOWPROP MAINW 'PROMPTLINES)
1))
```

```
HEIGHT)
```

```
:: PROP = (promptwindow . #lines)
```

```
(if (AND PROP (> (CDR PROP)
IDEALHEIGHT))
```

```
then ; Window has grown, so shape it back down
```

```
[SETQ HEIGHT (HEIGHTIFWINDOW (TIMES IDEALHEIGHT (FONTPROP PW 'HEIGHT)
```

```
(WINDOWPROP PW 'MINSIZE (CONS 0 HEIGHT)) ; have to adjust the fixed size of the window before shaping,
```

```
; since SHAPEW obeys the minimum.
```

```
(WINDOWPROP PW 'MAXSIZE (CONS 64000 HEIGHT))
```

```
(SHAPEW PW (create REGION using (WINDOWPROP PW 'REGION)
```

```
HEIGHT - HEIGHT))
```

```
(RPLACD PROP IDEALHEIGHT) ; Clear it last to get coordinates right.
```

```
)
```

```
(CLEARW PW])
```

```
(NSPROT.LIMITCHARS
```

```
[LAMBDA (ITEM WINDOW CHAR)
```

```
; Edited 21-Apr-2021 11:55 by rmk:
```

```
:: RMK: Got rid of literal %<CR> in favor of CHARCODE CR, for switch to default LF EOL convention. But compiled file may end up with LF
```

```
(SELECTC CHAR
  ((LIST (CHARACTER (CHARCODE CR))
        ' '))
  (FM.SKIPNEXT WINDOW)
  NIL)
T])
```

(NSPROT.PAGEFULLFN


```
[LAMBDA (PW) ; Edited 2-Aug-89 16:19 by bvm
;; PAGEFULLFN for prompt window--makes the window a line bigger and allows output to proceed
(SETQ \CURRENTDISPLAYLINE (PROG1 \#DISPLAYLINES
                                (GETPROMPTWINDOW (MAINWINDOW PW)
                                (+ 1 \#DISPLAYLINES)) ; \Currentdisplayline is the line we're on when window fills, origin
                                ; zero
                                )))
))
```

(NSPROT.ICONFN

```
[LAMBDA (WINDOW OLDICON) ; Edited 1-Sep-87 10:29 by bvm:
(LET [(HOST (FM.ITEMPROP (FM.GETITEM 'HOST NIL WINDOW)
                          'LABEL)
      (SETQ HOST (if (AND HOST (NEQ (NCHARS HOST)
                                    0)
                      (SETQ HOST (PARSE.NSNAME HOST))))
      then (fetch NSOBJECT of HOST)
      else "")]) ; show host's main name
(if OLDICON
    then (ICONW.TITLE OLDICON HOST)
    OLDICON
    else (TITLEDICONW NSPROT.ICON HOST (NSPROT.GET.FONT]))
)
```

```
(RPAQ? NSPROT.PLAIN.FONT NIL)
```

```
(RPAQ? NSPROT.BOLD.FONT NIL)
```

```
(RPAQ? NSPROT.ICON (

NIL (4 22 51 14)))
```

```
(DECLARE%: DOEVAL@COMPILE DONTCOPY
```

```
(GLOBALVARS NSPROT.PLAIN.FONT NSPROT.BOLD.FONT \NSFILING.ATTRIBUTES NSPROT.ICON \DEFAULTTTYDISPLAYSTREAM)
)
```

```
(DECLARE%: DOEVAL@COMPILE DONTCOPY
```

```
(LOCALVARS . T)
)
```

```
(DECLARE%: DONTVAL@LOAD DOCOPY
```

```
(AND (EQ MAKESYSNAME :LYRIC)
      (FILESLOAD (SYSLOAD)
                  NSRANDOM))
)
```

```
(DEFINEQ
```

(ADD.NSPROTECTION

```
[LAMBDA (LST) ; Edited 2-Sep-87 11:53 by bvm:
;; Add an entry for the NSPROTECTION tool to the background menu
(for X in (if LST
              then (CDR LST) ; Mumbling thru sub items
              else (SETQ LST BackgroundMenuCommands))
  bind (COM _ '("NS Protection" ' (NSPROTECTION)
                "Start up the NS File protection tool.))
  do [if (STRING-EQUAL (CAR X)
                       "NS Protection")
      then (RETURN (RPLACD X (CDR COM)))
      elseif (AND (STRING-EQUAL (CAR X)
                                "System")
                 (CADDR X))
      then (RETURN (ADD.NSPROTECTION (CADDR X)
                                     finally (NCONC1 LST COM))
      (SETQ BackgroundMenu NIL) ; also, load fonts
      (NSPROT.GET.FONT T)
      (COND ((CCODEP 'ADD.NSPROTECTION) ; self destruct
```

```
{MEDLEY}<lispusers>NSPROTECTION.;1  (ADD.NSPROTECTION cont.)
```

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```
    (AND (PUTD 'ADD.NSPROTECTION])
```

```
)
```

```
(DECLARE%: DONTEVAL@LOAD DOCOPY
```

```
(ADD.NSPROTECTION)
```

```
)
```

```
(DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILEVAR
```

```
(ADDTOWAR NLAMA )
```

```
(ADDTOWAR NLAML )
```

```
(ADDTOWAR LAMA )
```

```
)
```

```
(PUTPROPS NSPROTECTION COPYRIGHT ("Xerox Corporation" 1987 1989 2021))
```

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