```
;;
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(RPAQQ HOSTUPCOMS
       ((FNS HOSTUP?)
        (INITVARS (HOSTUP.TIMEOUT 15000)
               (HOSTUP.RETRYCNT 5))
        (GLOBALVARS HOSTUP.TIMEOUT HOSTUP.RETRYCNT)
        (DECLARE%: DONTEVAL@LOAD DONTCOPY EVAL@COMPILE
               (FILES SYSEDIT [FROM VALUEOF (for D in LISPUSERSDIRECTORIES until
                                                (INFILEP (PACKFILENAME 'NAME 'LLNSDECLS 'BODY
                                                               (SETQ $$VAL (PACKFILENAME 'HOST
                                                                                  (FILENAMEFIELD D
                                                                                         'HOST)
                                                                                  'DIRECTORY
                                                                                  (CONCAT "LISP>" MAKESYSNAME
                                                                                         ">SOURCES"]
                      LLNSDECLS
                      (LOADCOMP)
                      LLNS))))

(DEFINEQ
```

(HOSTUP?

```
  [LAMBDA (name)                                                        ; Edited 19-Oct-89 16:51 by koomen

    ;; Adapted from FILECACHE function \FCACHE.HOSTUP?

    ;; Uses the globalvar HOSTUP.TIMEOUT (default: 15,000 msecs) to limit total wait time, and the globalvar HOSTUP.RETRYCNT (default: 5 times)
    ;; to limit the number of retries                              (* smL " 3-Sep-86 16:04")

;;; Try to determine if the host if able to respond

    (LET* [(DEV (\GETDEVICEFROMNAME name T NIL))
           (retryCount (MAX 1 (FIX HOSTUP.RETRYCNT)))
           (initialInterval (FIX (QUOTIENT (MAX 1000 HOSTUP.TIMEOUT)
                                        (SUB1 (LSH 1 retryCount]
         (SELECTQ (if DEV
                      then ;; use real DEV to determine the DEV type

                           (SELECTQ (fetch OPENFILE of DEV)
                               ((\LEAF.OPENFILE \FTP.OPENFILE)
                                   'LEAF)
                               (\NSFILING.OPENFILE
                                   'NSFILING)
                               (fetch DEVICENAME of DEV))
                      else ;; the FDEV doesn't exist, and we can't create one for it, so it must be down

                           'NOFDEV)
             (LEAF ;; We think its a LEAF server, so try PUP.ECHOUSER

                   (RESETLST
                       (PROG ((i 1)
                              (interval initialInterval)
                              (PORT (BESTPUPADDRESS name PROMPTWINDOW))
                              (SOC (OPENPUPSOCKET))
                              echo OPUP IPUP ECHOPUPLENGTH)
                             (RESETSAVE NIL (LIST 'CLOSEPUPSOCKET SOC))
                             (OR PORT (RETURN NIL))
                          TryAgain
                             (if (IGREATERP i retryCount)
                                 then (RETURN NIL))
                             (SETQ OPUP (ALLOCATE.PUP))
                             (SETUPPUP OPUP PORT \PUPSOCKET.ECHO \PT.ECHOME NIL SOC T)
                             (PUTPUPWORD OPUP 0 1)
                             (add (fetch PUPLENGTH of OPUP)
                                  BYTESPERWORD)
                             (SETQ ECHOPUPLENGTH (fetch PUPLENGTH of OPUP))
                             (SENDPUP SOC OPUP)
                             [COND
                                 ((SETQ IPUP (GETPUP SOC interval))
                                  (COND
                                      ((PROG1 (AND (EQ (fetch PUPTYPE of IPUP)
                                                       \PT.IAMECHO)
                                                   (EQ (fetch PUPIDHI of IPUP)
```

```
                                                          (fetch PUPIDHI of OPUP))
                                                 (EQ (fetch PUPIDLO of IPUP)
                                                     (fetch PUPIDLO of OPUP))
                                                 (EQ (fetch PUPLENGTH of IPUP)
                                                     ECHOPUPLENGTH)
                                                 (IEQP (GETPUPWORD IPUP 0)
                                                       1))
                                            (RELEASE.PUP IPUP))
                                        (RETURN T]
                           (SETQ i (ADD1 i))
                           (SETQ interval (ITIMES interval 2))
                           (GO TryAgain))))
               (NSFILING                                              ; We think its an NSFILING server, so try NS.ECHOUSER
                       (RESETLST
                           (PROG ((i 1)
                                  (interval initialInterval)
                                  (ECHOADDRESS (OR (COERCE-TO-NSADDRESS name \NS.WKS.Echo)
                                                   (\ILLEGAL.ARG name)))
                                  NSOC OXIP ECHOXIPLENGTH IXIP)
                                 (OR ECHOADDRESS (RETURN NIL))
                                 [RESETSAVE NIL (LIST 'CLOSENSOCKET (SETQ NSOC (OPENNSOCKET]
                                 (if (IGREATERP i retryCount)
                                     then (RETURN NIL))
                                 (SETQ OXIP (\FILLINXIP \XIPT.ECHO NSOC ECHOADDRESS))
                                 (XIPAPPEND.WORD OXIP \XECHO.OP.REQUEST)
                                 (XIPAPPEND.WORD OXIP 1)
                                 (SETQ ECHOXIPLENGTH (fetch XIPLENGTH of OXIP))
                            TryAgain
                                 (if (IGREATERP i retryCount)
                                     then (RETURN NIL))
                                 (SENDXIP NSOC OXIP)
                                 [COND
                                    ((SETQ IXIP (GETXIP NSOC interval))
                                     (COND
                                         ((PROG1 (AND (EQ (fetch XIPTYPE of IXIP)
                                                          \XIPT.ECHO)
                                                      (EQ (fetch XIPLENGTH of IXIP)
                                                          ECHOXIPLENGTH)
                                                      (EQ (\GETBASE (fetch XIPCONTENTS of IXIP)
                                                                    0)
                                                          \XECHO.OP.REPLY))
                                                 (RELEASE.XIP IXIP))
                                          (RETURN T]
                                 (SETQ i (ADD1 i))
                                 (SETQ interval (LLSH interval 1))
                                 (GO TryAgain))))
               (FLOPPY  ;; the FLOPPY disk

                        ;; Should be (FLOPPY.CAN.READP) but this triggers a bug in the Floppy handler

                        T)
               (TCP  ;; A TCP device.  Punt on them

                     T)
               (NOFDEV  ;; we can't create an FDEV for the device, so it can't be up

                        NIL)
               T])
)

(RPAQ? HOSTUP.TIMEOUT 15000)

(RPAQ? HOSTUP.RETRYCNT 5)

(DECLARE%: DOEVAL@COMPILE DONTCOPY

(GLOBALVARS HOSTUP.TIMEOUT HOSTUP.RETRYCNT)
)

(DECLARE%: DONTEVAL@LOAD DONTCOPY EVAL@COMPILE

(FILESLOAD SYSEDIT [FROM VALUEOF (for D in LISPUSERSDIRECTORIES
                                     until (INFILEP (PACKFILENAME 'NAME 'LLNSDECLS 'BODY
                                                                  (SETQ $$VAL (PACKFILENAME 'HOST (FILENAMEFIELD
                                                                                                      D
                                                                                                      'HOST)
                                                                                            'DIRECTORY
                                                                                            (CONCAT "LISP>" MAKESYSNAME
                                                                                                    ">SOURCES"]
        LLNSDECLS
        (LOADCOMP)
        LLNS)
)

(PUTPROPS HOSTUP COPYRIGHT ("Johannes A. G. M. Koomen" 1988 1989))
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