```
15-Sep-87 11:28:32 {MCS:MCS:STANFORD}<LANE>TCPTIME.;22
 File created:
  changes to:
                (VARS TCPTIMECOMS)
previous date:
                14-Sep-87 08:59:11 {MCS:MCS:STANFORD}<LANE>TCPTIME.:21
 Read Table:
                INTERLISP
    Package:
                INTERLISP
       Format:
                 XCCS
;; Copyright (c) 1986, 1987 by Stanford University. All rights reserved.
(RPAQQ TCPTIMECOMS
            * Common TCP and UDP Time Client and Server Functions)
         (FNS RFC868.SETTIME RFC868.START.SERVER RFC868.STOP.SERVER)
         (INITVARS (RFC868.TIME.PORT 37)
(RFC868.DEFAULT.PROTOCOL 'TCP))
         (ADDVARS (RFC868.ASCII.OSTYPES VMS)) (* Constant adjusts Jan 1, 1901 by one year (in seconds)
            since lisp will not accept Jan 1, 1900)
         [DECLARE%: DONTCOPY (CONSTANTS (RFC868.START.OF.TIME (DIFFERENCE (TIMES 365 24 60 60) (IDATE " 1-Jan-01 00:00:00 GMT"]
         (GLOBALVARS RFC868.TIME.PORT RFC868.DEFAULT.PROTOCOL RFC868.ASCII.OSTYPES RFC868.PROTOCOLS)
         (FNS RFC868.IDATE RFC868.SETNEWTIME)
         (* * TCP Time Client and Server)
         (FNS TCP.SETTIME TCP.TIMESERVER)
         (ADDVARS (RFC868.PROTOCOLS (TCP TCP.SETTIME TCP.TIMESERVER))) (INITVARS TCP.TIME.HOSTS (TCP.TIME.PORT RFC868.TIME.PORT)
                  (TCP.SETTIME.TIMEOUT 10000))
         (GLOBALVARS TCP.TIME.HOSTS TCP.TIME.PORT TCP.SETTIME.TIMEOUT)
         (DECLARE%: DONTCOPY (MACROS READTIME WRITETIME))
         (FILES TCP)
         (* * UDP Time Client and Server)
         (FNS UDP.SETTIME UDP.TIMESERVER)
         (ADDVARS (RFC868.PROTOCOLS (UDP UDP.SETTIME UDP.TIMESERVER)))
         (INITVARS UDP.TIME.HOSTS (UDP.TIME.PORT RFC868.TIME.PORT)
                  (UDP.SETTIME.TIMEOUT 10000))
         (GLOBALVARS UDP.TIME.HOSTS UDP.TIME.PORT UDP.SETTIME.TIMEOUT)
         (DECLARE%: DONTCOPY (MACROS UDP.APPEND.TIME GETBASETIME))
         (FILES TCPUDP)))
           (* * Common TCP and UDP Time Client and Server Functions)
(DEFINEO
(RFC868.SETTIME
                                                                           ; Edited 10-Sep-87 11:03 by cdl
(* DECLARATIONS%: (RECORD SERVICE
(PROTOCOL CLIENT SERVER)))
  [LAMBDA (RETFLG PROTOCOL)
     (LET (SERVICE)
          (if (SETQ SERVICE (ASSOC (OR PROTOCOL RFC868.DEFAULT.PROTOCOL)
                                      RFC868.PROTOCOLS))
               then (with SERVICE SERVICE (APPLY* CLIENT RETFLG])
(RFC868.START.SERVER
                                                                            ; Edited 10-Sep-87 11:03 by cdl
* DECLARATIONS%: (RECORD SERVICE
  [LAMBDA (PROTOCOL ASCIIFLG)
                                                                           (PROTOCOL CLIENT SERVER)))
     (LET (SERVICE)
           (if [AND (SETQ SERVICE (ASSOC (OR PROTOCOL RFC868.DEFAULT.PROTOCOL)
                                           RFC868.PROTOCOLS))
                    (with SERVICE SERVICE (NOT (FIND.PROCESS SERVER]
               then (with SERVICE SERVICE (ADD.PROCESS '(, SERVER , ASCIIFLG)
                                                     'RESTARTABLE T])
(RFC868.STOP.SERVER
                                                                           ; Edited 10-Sep-87 11:03 by cdl
(* DECLARATIONS%: (RECORD SERVICE
(PROTOCOL CLIENT SERVER)))
  [LAMBDA (PROTOCOL)
     (LET (SERVICE PROCESS)
          (if [AND (SETQ SERVICE (ASSOC (OR PROTOCOL RFC868.DEFAULT.PROTOCOL)
                                            RFC868.PROTOCOLS))
                    (with SERVICE SERVICE (SETQ PROCESS (FIND.PROCESS SERVER]
               then (DEL.PROCESS PROCESS])
(RPAO? RFC868.TIME.PORT 37)
(RPAO? RFC868.DEFAULT.PROTOCOL 'TCP)
```

```
(ADDTOVAR RFC868.ASCII.OSTYPES VMS)
           (* * Constant adjusts Jan 1, 1901 by one year (in seconds) since lisp will not accept Jan 1, 1900)
(DECLARE%: DONTCOPY
(DECLARE%: EVAL@COMPILE
(RPAQ RFC868.START.OF.TIME (DIFFERENCE (TIMES 365 24 60 60)
                                     (IDATE " 1-Jan-01 00:00:00 GMT")))
[CONSTANTS (RFC868.START.OF.TIME (DIFFERENCE (TIMES 365 24 60 60)
                                            (IDATE " 1-Jan-01 00:00:00 GMT"]
(DECLARE%: DOEVAL@COMPILE DONTCOPY
(GLOBALVARS RFC868.TIME.PORT RFC868.DEFAULT.PROTOCOL RFC868.ASCII.OSTYPES RFC868.PROTOCOLS)
(DEFINEO
(RFC868.IDATE
                                                                       ; Edited 10-Sep-87 13:38 by cdl
  [LAMBDA NIL
    (PLUS RFC868.START.OF.TIME (IDATE])
(RFC868.SETNEWTIME
  [LAMBDA (TIME RETFLG)
(DECLARE (GLOBALVARS PROMPTWINDOW))
                                                                       ; Edited 10-Sep-87 13:37 by cdl
     (SETQ TIME (DIFFERENCE TIME RFC868.START.OF.TIME))
     (if RETFLG
        then TIME
      else (PRINTOUT PROMPTWINDOW T "[Time reset to " [SETTIME (GDATE TIME '(DATEFORMAT TIME.ZONE]
           T])
)
           (* * TCP Time Client and Server)
(DEFINEO
(TCP.SETTIME
                                                                       ; Edited 10-Sep-87 13:20 by cdl
  [LAMBDA (RETFLG)
     (bind stream time result declare%: (specvars stream host) for host in tcp.time.hosts
       when (AND (SETQ STREAM (RESETVAR \TCP.DEFAULT.USER.TIMEOUT TCP.SETTIME.TIMEOUT (TCP.OPEN HOST
                                                                                                       TCP.TIME.PORT NIL
                                                                                                       'ACTIVE
                                                                                                       'INPUT T)))
                   [SETQ TIME (RESETLST
                                    [RESETSAVE NIL '(CLOSEF? ,STREAM]
                                    (if (AND RFC868.ASCII.OSTYPES (MEMB (GETOSTYPE HOST)
                                                                          RFC868.ASCII.OSTYPES))
                                     then (NLSETQ (READ STREAM))
else (NLSETQ (READTIME STREAM))))]
                   (SETQ RESULT (RFC868.SETNEWTIME (CAR TIME)
                                         RETFLG)))
       do (RETURN RESULT])
(TCP.TIMESERVER
  [LAMBDA (ASCIIFLG) (DECLARE (SPECVARS ASCIIFLG))
                                                                       ; Edited 14-Sep-87 08:58 by cdl
     (bind stream declare%: (SPECVARS STREAM) first
                                                                       (* Allow TCP to clean up old connection if this is a RESTART)
                                                    (BLOCK)
       while T when (SETQ STREAM (TCP.OPEN NIL NIL TCP.TIME.PORT 'PASSIVE 'OUTPUT T))
       do (RESETLST
               [RESETSAVE NIL '(CLOSEF? , STREAM]
                (if ASCIIFLG
                   then (PRINTOUT STREAM (RFC868.IDATE))
                 else (WRITETIME STREAM (RFC868.IDATE))))])
(ADDTOVAR RFC868.PROTOCOLS (TCP TCP.SETTIME TCP.TIMESERVER))
(RPAQ? TCP.TIME.HOSTS NIL)
(RPAQ? TCP.TIME.PORT RFC868.TIME.PORT)
(RPAO? TCP.SETTIME.TIMEOUT 10000)
```

```
{MEDLEY} < lispusers > TCPTIME.; 1
(DECLARE%: DOEVAL@COMPILE DONTCOPY
(GLOBALVARS TCP.TIME.HOSTS TCP.TIME.PORT TCP.SETTIME.TIMEOUT)
(DECLARE%: DONTCOPY
(DECLARE%: EVAL@COMPILE
(PUTPROPS READTIME MACRO ((STREAM)
                              (PLUS (LSH (BIN16 STREAM)
                                          16)
                                    (BIN16 STREAM))))
(PUTPROPS WRITETIME MACRO [(STREAM TIME)
                               (BOUT16 STREAM (RSH TIME 16))
                               (BOUT16 STREAM (LOGAND TIME (MASK.1'S 0 16])
(FILESLOAD TCP)
          (* * UDP Time Client and Server)
(DEFINEO
(UDP.SETTIME
  [LAMBDA (RETFLG) (DECLARE (SPECVARS RETFLG))
                                                                     ; Edited 10-Sep-87 13:20 by cdl
          (DECLARE (SPECVARS SOCKET))
         (RESETLST
              [RESETSAVE NIL '(UDP.CLOSE.SOCKET , (SETQ SOCKET (UDP.OPEN.SOCKET] (bind udp address result for host in udp.time.hosts
                 when (AND (SETQ ADDRESS (DODIP.HOSTP HOST))
                            (SETQ UDP (UDP.EXCHANGE SOCKET (UDP.SETUP (\ALLOCATE.ETHERPACKET)
                                                                     ADDRESS UDP.TIME.PORT 0 SOCKET 'FREE)
                                              UDP.SETTIME.TIMEOUT))
                            (SETQ RESULT (RFC868.SETNEWTIME (with UDP UDP (GETBASETIME UDPCONTENTS 0))
                                                  RETFLG)))
                 do (RETURN RESULT)))])
(UDP.TIMESERVER
  [LAMBDA NIL
                                                                     ; Edited 10-Sep-87 13:04 by cdl
    (LET (SOCKET
         (DECLARE (SPECVARS SOCKET))
         (RESETLST
              [RESETSAVE NIL '(UDP.CLOSE.SOCKET , (SETQ SOCKET (UDP.OPEN.SOCKET UDP.TIME.PORT]
              (bind udp while (Setq udp (udp.get socket t)) do (udp.setup udp (with ip udp ipsourceaddress)
                                                                         (with udp udp udpsourceport)
0 Socket 'free)
                                                                  (UDP.APPEND.TIME UDP (RFC868.IDATE))
                                                                  (UDP.SEND SOCKET UDP)))])
(ADDTOVAR RFC868.PROTOCOLS (UDP UDP.SETTIME UDP.TIMESERVER))
(RPAQ? UDP.TIME.HOSTS NIL)
(RPAQ? UDP.TIME.PORT RFC868.TIME.PORT)
(RPAQ? UDP.SETTIME.TIMEOUT 10000)
(DECLARE%: DOEVAL@COMPILE DONTCOPY
(GLOBALVARS UDP.TIME.HOSTS UDP.TIME.PORT UDP.SETTIME.TIMEOUT)
(DECLARE%: DONTCOPY
(DECLARE%: EVAL@COMPILE
(PUTPROPS UDP.APPEND.TIME MACRO [OPENLAMBDA (UDP TIME)
                                      (UDP.APPEND.WORD UDP
                                                            (RSH TIME 16))
                                      (UDP.APPEND.WORD UDP (LOGAND TIME (MASK.1'S 0 16])
(PUTPROPS GETBASETIME MACRO [ (OFFSET BASE)
                                  (PLUS (LSH (\GETBASE OFFSET BASE)
```

16)

(FILESLOAD TCPUDP)

(\GETBASE OFFSET (ADD1 BASE])

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(PUTPROPS **TCPTIME COPYRIGHT** ("Stanford University" 1986 1987))

{MEDLEY}spusers>TCPTIME.;1 28-Jun-2024 18:34:03 -- Listed on 30-Jun-2024 13:14:58 --

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