

File created: 25-Oct-2021 15:12:33 {DSK}<home>larry>medley>sources>MAIKOETHER.;2

changes to: (FNS \\DISPLAYLINE)
(VARS MAIKOETHERCOMS)

previous date: 25-Mar-2021 09:50:57 {DSK}<home>larry>medley>sources>MAIKOETHER.;1

Read Table: XCL

Package: INTERLISP

Format: XCCS

; Copyright (c) 1988-1991, 2021 by Venue & Xerox Corporation.

(RPAQQ MAIKOETHERCOMS

```
((FNS \\10MB.RESTART.ETHER \\10MB.STARTDRIVER \\10MB.TURNOFFETHER \\10MB.TURNONETHER \\10MSENDPACKET
  \\10MBWATCHER \\MAIKO.10MSENDPACKET \\MAIKO.10MBWATCHER \\MAIKO.ETHERRESUME \\MAIKO.ETHERSUSPEND
  \\MAIKO.INPUT.INTERRUPT \\NS.SETTIME \\PUP.SETTIME \\MAIKO.10MBSTARTDRIVER \\MAIKO.10MBTURNONETHER
  \\MAIKO.10MB.RESTART.ETHER \\MAIKO.CHECKSUM)
(INITVARS (\\MAIKO.INPUT.PACKET)
  (|\\ETHERtopMonitor| (CREATE.MONITORLOCK "ETHERtopMonitor")))
(DECLARE\\: EVAL@COMPILE DONTCOPY (FILES (LOADCOMP
  10MBDRIVER)
  (GLOBALVARS \\MAIKO.INPUT.PACKET |\\ETHERtopMonitor|)
  ;; The NDB for Maiko's 10MB connection; used by \\MAIKO.ETHER-INTERRUPT:
  (GLOBALVARS \\MAIKO.10MB.NDB)
  (GLOBALVARS \\MAIKO.IO-INTERRUPT-FLAGS \\MAIKO.IO-INTERRUPT-VECTOR))
(ADDVARS (\\MAIKO.MOVDS (\\MAIKO.10MBSTARTDRIVER \\10MB.STARTDRIVER)
  (\\MAIKO.10MBWATCHER \\10MBWATCHER)
  (\\MAIKO.10MSENDPACKET \\10MSENDPACKET)
  (\\MAIKO.ETHERSUSPEND \\10MB.TURNOFFETHER)
  (\\MAIKO.10MBTURNONETHER \\10MB.TURNONETHER)
  (\\MAIKO.ETHERRESUME \\10MB.RESTART.ETHER)
  (\\MAIKO.CHECKSUM \\CHECKSUM)))
(COMS ; MAIKO handler for new interrupt-driven incoming ethernet
; communication, rather than polling for it.
(FNS \\MAIKO.ETHER-INTERRUPT))
(COMS ; MAIKO Log & Console message handling. Interrupt-driven
; message printing, instead of polled printing.
(FNS \\MAIKO.CONSOLE-LOG-PRINT))
(COMS ;; Asynchronous I/O handling
(FNS \\MAIKO.IO-INTERRUPT)
(VARS \\EPT.3TO10 (\\MAIKO.IO-INTERRUPT-FLAGS (\\CREATECELL \\FIXP)
  (\\MAIKO.IO-INTERRUPT-VECTOR NIL))))
```

(DEFINEQ

(\\10MB.RESTART.ETHER

```
(LAMBDA NIL
  (SUBRCALL ETHER-RESUME)))
```

; Edited 11-May-88 16:09 by MASINTER

(\\10MB.STARTDRIVER

```
(LAMBDA (NDB RESTARTFLG MYNSNUMBER) ; Edited 5-Apr-89 15:03 by snow
  (DECLARE (GLOBALVARS \\MAIKO.INPUT.PACKET \\10MB.EXPECTED.RECEIVE.INTERVAL \\10MB.INPUT.TIMEOUT))
  (SUBRCALL ETHER-SUSPEND)
  (OR (\\INIT.ETHER.BUFFER.POOL)
    (ERROR "Unable to create buffer pool"))
  (|replace| NDBTQ |of| NDB |with| (|create| SYSQUEUE))
  (SETQ \\10MB.RAWPACKETQ (|create| SYSQUEUE))
  (SETQ \\10MB.INPUT.TIMEOUT (TIMES \\RCLKSECOND \\10MB.EXPECTED.RECEIVE.INTERVAL))
  (\\10MB.TURNONETHER NDB NIL NIL (OR MYNSNUMBER T)
    0 0)
  (PROG ((CSB (|fetch| NDBCSB |of| NDB))
    (OR \\MAIKO.INPUT.PACKET (SETQ \\MAIKO.INPUT.PACKET (\\ALLOCATE.ETHERPACKET)))
    (|replace| DLFIRSTICB |of| (|fetch| NDBCSB |of| NDB) |with| \\ES.PENDING)
    (SUBRCALL ETHER-GET \\10MBPACKETLENGTH (|fetch| 10MBPACKETBASE |of| \\MAIKO.INPUT.PACKET))
    (|replace| NDBWATCHER |of| NDB |with| (ADD.PROCESS (LIST '\\10MBWATCHER (KWOTE NDB))
      'RESTARTABLE
      'SYSTEM
      'AFTEREXIT
      'DELETE)))
  (RETURN NDB)))
```

(\\10MB.TURNOFFETHER

```
(LAMBDA NIL
  (SUBRCALL ETHER-SUSPEND)))
```

; Edited 11-May-88 16:11 by MASINTER

(\\10MB.TURNONETHER

```
(LAMBDA (NDB SMASHSTATE NEWSTATE NSHOSTNUMBER ININTERRUPT OUTINTERRUPT)
```

; Edited 11-May-88 16:08 by MASINTER

;;; Reset and activate ether associated with NDB. If SMASHSTATE is given, it is a CSB-length block into which state is saved for later restoration by

;;; passing as the NEWSTATE arg. If NEWSTATE is NIL, then the remaining non-NIL args give parameters for this activation: the host number for
;;; microcode to watch for, T meaning my own number; and interrupt masks for when a packet arrives or finishes transmitting

;; For Daybreak, SMASHSTATE and NEWSTATE must be NIL

```
(PROG ((CSB (|fetch| NDBCSB |of| NDB)))
(\\MAIKO.ETHERSUSPEND)
(OR CSB (|replace| NDBCSB |of| NDB |with| (SETQ CSB (LOCF (|fetch| DLEETHERNET |of| \\IOPAGE))))))
(|replace| DLFIRSTOCB |of| CSB |with| 0)
(|replace| DLFIRSTICB |of| CSB |with| 0)
(AND NSHOSTNUMBER (COND
  ((EQ NSHOSTNUMBER T)
   (\\BLT (LOCF (|fetch| DLLOCALHOST0 |of| CSB))
    (LOCF (|fetch| (IFPAGE |NSHost0|) |of| |\\InterfacePage|))
    \\#WDS.NSHOSTNUMBER))
  (T (\\STORENSHOSTNUMBER (LOCF (|fetch| DLLOCALHOST0 |of| CSB))
    NSHOSTNUMBER))))
(AND OUTINTERRUPT (|replace| DLOUTPUTMASK |of| CSB |with| OUTINTERRUPT))
(AND ININTERRUPT (|replace| DLINPUTMASK |of| CSB |with| ININTERRUPT))
(|replace| DLMISSDPACKETS |of| CSB |with| 0)
(|replace| DLLASTICB |of| CSB |with| 0)
(|replace| DLLASTOCB |of| CSB |with| 0)
(SUBRCALL ETHER-RESET)
(SUBRCALL ETHER-RESUME)
(RETURN NDB)))
```

(\\10MSENDPACKET

; Edited 11-May-88 16:10 by MASINTER

```
(LAMBDA (NDB PACKET)
  (PROG NIL
    (COND
      (\\RAWTRACING (\\MAYBEPRINTPACKET PACKET 'RAWPUT)))
    (COND
      ((OR (|fetch| 10MBMULTICASTP |of| PACKET)
        (EQNSADDRESS.HOST \\MY.NSADDRESS (|fetch| 10MBDESTHOSTBASE |of| PACKET)))
        ; We would hear this packet if our hardware let us, so fake
        ; receipt
        (PROG ((COPYPACKET (\\ALLOCATE.ETHERPACKET))
          (\\BLT (LOCF (|fetch| 10MBLENGTH |of| COPYPACKET))
            (LOCF (|fetch| 10MBLENGTH |of| PACKET))
            (ADD1 (|fetch| 10MBLENGTH |of| PACKET))) ; Copy all data that would have been transmitted
          (|replace| EPNETWORK |of| COPYPACKET |with| NDB)
          (|replace| EPTYPE |of| COPYPACKET |with| (|for| PAIR |in| \\10MBTYPE.TRANSLATIONS
            |bind| (TYPE _ (|fetch| 10MBTYPE |of| PACKET))
            |when| (EQ TYPE (CAR PAIR))
            |do|
            ;; TYPE is the raw type of the etherpacket. These do not always correspond one-to-one with the
            ;; EPTYPE constants we use (in particular, for pups), so translate if necessary.
            (RETURN (CDR PAIR))
            |finally| (RETURN TYPE))))
          (COND
            (\\RAWTRACING (\\MAYBEPRINTPACKET COPYPACKET 'RAWGET)))
            (\\HANDLE.RAW.PACKET COPYPACKET))))
        (UNINTERRUPTABLY
          (SUBRCALL ETHER-SEND (IMAX (|fetch| 10MBLENGTH |of| PACKET)
            \\10MB.MINPACKETLENGTH)
            (|fetch| 10MBPACKETBASE |of| PACKET))
          (|replace| EPNETWORK |of| PACKET |with| NIL)
          (\\REQUEUE.ETHERPACKET PACKET))
          (RETURN T))))))
```

(\\10MBWATCHER

; Edited 16-May-88 22:24 by MASINTER

;; merge message and packet reading

```
(PROG ((CNTR 0)
  MESSAGE-BUFFER MESSAGE-LENGTH PACKET)
  LP (IF (SUBRCALL MESSAGE-READP)
    THEN (PROMPTPRINT (IF (SETQ MESSAGE-LENGTH (SUBRCALL MESSAGE-READ (OR MESSAGE-BUFFER
      (SETQ MESSAGE-BUFFER
        (ALLOCSTRING 1024)))
      1024))
      THEN (SUBSTRING MESSAGE-BUFFER 1 MESSAGE-LENGTH)
      ELSE "?? system message: polling failed")))
    (UNINTERRUPTABLY
      (SUBRCALL ETHER-CHECK)
      (SETQ PACKET (\\MAIKO.INPUT.INTERRUPT NDB)))
    (COND
      (PACKET (\\HANDLE.RAW.PACKET PACKET)
        (COND
          ((ILESSP (|add| CNTR 1)
            \\MAXWATCHERGETS)
            (GO LP))))))
  (BLOCK)
  (SETQ CNTR 0)
  (GO LP)))
```

(\\MAIKO.10MSENDPACKET

; Edited 31-Oct-89 14:10 by bvm

```
(LAMBDA (NDB PACKET)
  (PROG NIL
    (COND
      (\\RAWTRACING (\\MAYBEPRINTPACKET PACKET 'RAWPUT)))
    (COND
      ((OR (|fetch| 10MBMULTICASTP |of| PACKET)
          (EQNSADDRESS.HOST \\MY.NSADDRESS (|fetch| 10MBDESTNSADDRESSBASE |of| PACKET)))
        ; We would hear this packet if our hardware let us, so fake
        ; receipt

        (PROG ((COPYPACKET (\\ALLOCATE.ETHERPACKET)))
          (\\BLT (LOCF (|fetch| 10MBLENGTH |of| COPYPACKET))
              (LOCF (|fetch| 10MBLENGTH |of| PACKET))
              (ADD1 (|fetch| 10MBLENGTH |of| PACKET))) ; Copy all data that would have been transmitted
          (|replace| EPNETWORK |of| COPYPACKET |with| NDB)
          (|replace| EPTYPE |of| COPYPACKET |with| (|for| PAIR |in| \\10MBTYPE.TRANSLATIONS
                                                    |bind| (TYPE _ (|fetch| 10MBTYPE |of| PACKET))
                                                    |when| (EQ TYPE (CAR PAIR))
                                                    |do|

                                                    ;; TYPE is the raw type of the etherpacket. These do not always correspond one-to-one with the
                                                    ;; EPTYPE constants we use (in particular, for pups), so translate if necessary.

                                                    (RETURN (CDR PAIR))
                                                    |finally| (RETURN TYPE))))

          (COND
            (\\RAWTRACING (\\MAYBEPRINTPACKET COPYPACKET 'RAWGET)))
            (\\HANDLE.RAW.PACKET COPYPACKET)))
      (UNINTERRUPTABLY
        (SUBRCALL ETHER-SEND (IMAX (|fetch| 10MBLENGTH |of| PACKET)
                                  \\10MB.MINPACKETLENGTH)
          (|fetch| 10MBPACKETBASE |of| PACKET))
          (|replace| EPNETWORK |of| PACKET |with| NIL)
          (\\REQUEST.ETHERPACKET PACKET))
        (RETURN T))))
```

(\\MAIKO.10MBWATCHER

; Edited 16-May-88 22:24 by MASINTER

```
(LAMBDA (NDB)
  ;; merge message and packet reading

  (PROG ((CNTR 0)
    MESSAGE-BUFFER MESSAGE-LENGTH PACKET)
    LP (IF (SUBRCALL MESSAGE-READP)
      THEN (PROMPTPRINT (IF (SETQ MESSAGE-LENGTH (SUBRCALL MESSAGE-READ (OR MESSAGE-BUFFER
                                                                              (SETQ MESSAGE-BUFFER
                                                                                (ALLOCSTRING 1024)))
                                                                              1024))
                            THEN (SUBSTRING MESSAGE-BUFFER 1 MESSAGE-LENGTH)
                            ELSE "?? system message: polling failed")))
      (UNINTERRUPTABLY
        (SUBRCALL ETHER-CHECK)
        (SETQ PACKET (\\MAIKO.INPUT.INTERRUPT NDB)))
      (COND
        (PACKET (\\HANDLE.RAW.PACKET PACKET)
          (COND
            ((ILESSP (|add| CNTR 1)
              \\MAXWATCHERGETS)
              (GO LP))))
          (BLOCK)
          (SETQ CNTR 0)
          (GO LP))))
```

(\\MAIKO.ETHERRESUME

; Edited 11-May-88 16:09 by MASINTER

```
(LAMBDA NIL
  (SUBRCALL ETHER-RESUME)))
```

(\\MAIKO.ETHERSUSPEND

; Edited 11-May-88 16:11 by MASINTER

```
(LAMBDA NIL
  (SUBRCALL ETHER-SUSPEND)))
```

(\\MAIKO.INPUT.INTERRUPT

; Edited 11-May-88 16:05 by MASINTER

```
(LAMBDA (NDB)
  ;; This routine gets called when 10MB input signals an interrupt. See if the \\MAIKO.INPUT.PACKET has indeed been processed, and if so, take
  ;; care of it

  (PROG (LENGTH (PACKET \\MAIKO.INPUT.PACKET))
    (COND
      ((NEQ (SETQ LENGTH (|fetch| DLFIRSTICB |of| (|fetch| NDBCSB |of| NDB)))
          \\ES.PENDING)
        (|replace| 10MBLENGTH |of| PACKET |with| LENGTH)
        (\\RCLK (LOCF (|fetch| EPTIMESTAMP |of| PACKET)))
        (|replace| EPNETWORK |of| PACKET |with| NDB))
```

```

(|replace| EPTYPE |of| PACKET |with| (|for| PAIR |in| \\10MBTYPE.TRANSLATIONS
|bind| (TYPE _ (|fetch| 10MBTYPE |of| PACKET))
|when| (EQ TYPE (CAR PAIR)) |do| (RETURN (CDR PAIR))
|finally| (RETURN TYPE)))
(COND
  (\\RAWTRACING (\\MAYBEPRINTPACKET PACKET 'RAWGET)))
(RETURN (PROG1 PACKET
  (SETQ \\MAIKO.INPUT.PACKET (\\ALLOCATE.ETHERPACKET))
  (|replace| DLFIRSTICB |of| (|fetch| NDBCSB |of| NDB) |with| \\ES.PENDING)
  (SUBRCALL ETHER-GET \\10MBPACKETLENGTH (|fetch| 10MBPACKETBASE |of| \\MAIKO.INPUT.PACKET))
)))
(T (RETURN NIL))))))

```

(\\NS.SETTIME

```

(LAMBDA (RETFLG) ; Edited 13-May-88 15:22 by MASINTER
  (CL:UNLESS (AND RETFLG (NOT (STRINGP RETFLG)))
    (SETQ |\\TimeZoneComp| (SUBRCALL GETUNIXTIME 8 NIL)))
  (\\PROCESS.RESET.TIMERS)
  (DAYTIME)))

```

(\\PUP.SETTIME

```

(LAMBDA (RETFLG) ; Edited 13-May-88 15:22 by MASINTER
  (CL:UNLESS (AND RETFLG (NOT (STRINGP RETFLG)))
    (SETQ |\\TimeZoneComp| (SUBRCALL GETUNIXTIME 8 NIL)))
  (\\PROCESS.RESET.TIMERS)
  (DAYTIME)))

```

(\\MAIKO.10MBSTARTDRIVER

```

(LAMBDA (NDB RESTARTFLG MYNSNUMBER) ; Edited 4-May-91 15:50 by jds
  ;; Start the "driver" for the 10MB ethernet on Sun Medley. In particular, turn on the C ethernet code, queue up the first input packet, and start the
  ;; \\10MBWATCHER process.
  (SUBRCALL ETHER-SUSPEND)
  (OR (\\INIT.ETHER.BUFFER.POOL)
    (ERROR "Unable to create buffer pool"))
  (|replace| NDBTQ |of| NDB |with| (|create| SYSQUEUE))
  (SETQ \\10MB.RAWPACKETQ (|create| SYSQUEUE))
  (SETQ \\10MB.INPUT.TIMEOUT (TIMES \\RCLKSECOND \\10MB.EXPECTED.RECEIVE.INTERVAL))
  (SETQ \\MAIKO.10MB.NDB NDB)
  (\\10MB.TURNONETHER NDB NIL NIL (OR MYNSNUMBER T)
    0 0)
  (PROG ((CSB (|fetch| NDBCSB |of| NDB))
    (OR \\MAIKO.INPUT.PACKET (SETQ \\MAIKO.INPUT.PACKET (\\ALLOCATE.ETHERPACKET)))
    (|replace| DLFIRSTICB |of| (|fetch| NDBCSB |of| NDB) |with| \\ES.PENDING)
    (AND (SUBRCALL ETHER-GET \\10MBPACKETLENGTH (|fetch| 10MBPACKETBASE |of| \\MAIKO.INPUT.PACKET))
      (\\MAIKO.ETHER-INTERRUPT)))
    ;; Commented out the 10MBWATCHER adder, so this process never gets created.
    ;; (replace NDBWATCHER of NDB with (ADD.PROCESS (LIST \\10MBWATCHER (KWOTE NDB)) 'RESTARTABLE 'SYSTEM 'AFTEREXIT
    ;; 'DELETE))
    (RETURN NDB)))

```

(\\MAIKO.10MBTURNONETHER

```

(LAMBDA (NDB SMASHSTATE NEWSTATE NSHOSTNUMBER ININTERRUPT OUTINTERRUPT) ; Edited 11-May-88 16:08 by MASINTER

```

;;; Reset and activate ether associated with NDB. If SMASHSTATE is given, it is a CSB-length block into which state is saved for later restoration by
 ;; passing as the NEWSTATE arg. If NEWSTATE is NIL, then the remaining non-NIL args give parameters for this activation: the host number for
 ;; microcode to watch for, T meaning my own number; and interrupt masks for when a packet arrives or finishes transmitting

;; For Daybreak, SMASHSTATE and NEWSTATE must be NIL

```

(PROG ((CSB (|fetch| NDBCSB |of| NDB))
  (\\MAIKO.ETHERSUSPEND)
  (OR CSB (|replace| NDBCSB |of| NDB |with| (SETQ CSB (LOCF (|fetch| DLETHERNET |of| \\IOPAGE))))
  (|replace| DLFIRSTOCB |of| CSB |with| 0)
  (|replace| DLFIRSTICB |of| CSB |with| 0)
  (AND NSHOSTNUMBER (COND
    ((EQ NSHOSTNUMBER T)
      (\\BLT (LOCF (|fetch| DLLOCALHOST0 |of| CSB))
        (LOCF (|fetch| (IFPAGE |NSHost0|) |of| |\\InterfacePage|))
        \\#WDS.NSHOSTNUMBER))
    (T (\\STORENSHOSTNUMBER (LOCF (|fetch| DLLOCALHOST0 |of| CSB))
      NSHOSTNUMBER))))
  (AND OUTINTERRUPT (|replace| DLOUTPUTMASK |of| CSB |with| OUTINTERRUPT))
  (AND ININTERRUPT (|replace| DLINPUTMASK |of| CSB |with| ININTERRUPT))
  (|replace| DLMISSEDPACKETS |of| CSB |with| 0)
  (|replace| DLLASTICB |of| CSB |with| 0)
  (|replace| DLLASTOCB |of| CSB |with| 0)
  (SUBRCALL ETHER-RESET)
  (SUBRCALL ETHER-RESUME)
  (RETURN NDB)))

```

(\MAIKO.10MB.RESTART.ETHER
(LAMBDA (NDB)

; Edited 11-May-88 16:08 by MASINTER

;; Kick the Ethernet receiver task to restart the Ethernet receiver task. This function gets called when the 10MBDRIVER thinks the Ethernet has been
;; accidentally disabled

(SUBRCALL ETHER-RESUME))

(\MAIKO.CHECKSUM

(LAMBDA (BASE NWORDS INITSUM)
(SUBRCALL CHECK-SUM BASE NWORDS INITSUM))

; Edited 20-May-88 11:48 by MASINTER

)

(RPAQ? \MAIKO.INPUT.PACKET)

(RPAQ? |\ETHERtopMonitor| (CREATE.MONITORLOCK "ETHERTopMonitor"))

(DECLARE\ : EVAL@COMPILE DONTCOPY

(FILESLOAD (LOADCOMP)
10MBDRIVER)

(DECLARE\ : DOEVAL@COMPILE DONTCOPY

(GLOBALVARS \MAIKO.INPUT.PACKET |\ETHERtopMonitor|
)

(DECLARE\ : DOEVAL@COMPILE DONTCOPY

(GLOBALVARS \MAIKO.10MB.NDB
)

(DECLARE\ : DOEVAL@COMPILE DONTCOPY

(GLOBALVARS \MAIKO.IO-INTERRUPT-FLAGS \MAIKO.IO-INTERRUPT-VECTOR)
)
)

(ADDOVAR \MAIKO.MOVDS (\MAIKO.10MBSTARTDRIVER \10MB.STARTDRIVER)
(\MAIKO.10MBWATCHER \10MBWATCHER)
(\MAIKO.10MBSENDPACKET \10MBSENDPACKET)
(\MAIKO.ETHERSUSPEND \10MB.TURNOFFETHER)
(\MAIKO.10MBTURNONETHER \10MB.TURNONETHER)
(\MAIKO.ETHERRESUME \10MB.RESTART.ETHER)
(\MAIKO.CHECKSUM \CHECKSUM))

;; MAIKO handler for new interrupt-driven incoming ethernet communication, rather than polling for it.

(DEFINEQ

(\MAIKO.ETHER-INTERRUPT

(LAMBDA NIL

; Edited 4-May-91 13:46 by jds

;; This routine gets called when 10MB input signals an interrupt. See if the \MAIKO.INPUT.PACKET has indeed been processed, and if so, take
;; care of it

(PROG ((NDB \MAIKO.10MB.NDB)
LENGTH)

;; First, turn off the interrupt flag:

(REPLACE (INTERRUPTSTATE ETHERINTERRUPT) OF \INTERRUPTSTATE WITH NIL)

;; Now handle it:

(UNINTERRUPTABLY
(WITH.MONITOR |\ETHERtopMonitor|
(PROG ((PACKET \MAIKO.INPUT.PACKET))

;; We come back here if there's more than one packet ready to be read, so we process as many as possible in one swell foop.

READ-MORE-LOOP

(COND

((NEQ (SETQ LENGTH (|fetch| DLFIRSTICB |of| (|fetch| NDBCSB |of| NDB)))
\ES.PENDING)

(|replace| 10MBLENGTH |of| PACKET |with| LENGTH)
(\RCLK (LOCF (|fetch| EPTIMESTAMP |of| PACKET)))
(|replace| EPNETWORK |of| PACKET |with| NDB)

(|replace| EPTYPE |of| PACKET |with| (|for| PAIR |in| \10MBTYPE.TRANSLATIONS
|bind| (TYPE _ (|fetch| 10MBTYPE |of| PACKET))
|when| (EQ TYPE (CAR PAIR))
|do| (RETURN (CDR PAIR)) |finally| (RETURN TYPE)))

(COND

(\RAWTRACING (\MAYBEPRINTPACKET PACKET 'RAWGET))
(\HANDLE.RAW.PACKET PACKET)

(SETQ \MAIKO.INPUT.PACKET (\ALLOCATE.ETHERPACKET))
(|replace| DLFIRSTICB |of| (|fetch| NDBCSB |of| NDB) |with| \ES.PENDING)

(COND

((SUBRCALL ETHER-GET \10MBPACKETLENGTH (|fetch| 10MBPACKETBASE |of|

\\MAIKO.INPUT.PACKET

))

:: Returned T, so there's another packet waiting already. Process it.

(SETQ PACKET \\MAIKO.INPUT.PACKET)
(GO READ-MORE-LOOP)))))))))

)

:: MAIKO Log & Console message handling. Interrupt-driven message printing, instead of polled printing.

(DEFINEQ

(\\MAIKO.CONSOLE-LOG-PRINT

(LAMBDA NIL

; Edited 18-Dec-89 12:16 by jds

:: Read any pending Console or Log messages, and print them in the prompt window.

:: Called from INTERRUPTED when the Maiko emulator sets the LogMsgPending flag in \\INTERRUPTSTATE.

(PROG (MESSAGE-BUFFER MESSAGE-LENGTH)
(|replace| (INTERRUPTSTATE LOGMSGSPENDING) |of| \\INTERRUPTSTATE |with| NIL)
(|while| (SUBRCALL MESSAGE-READP) |do| (FRESHLINE PROMPTWINDOW)
(PRIN1 (|if| (SETQ MESSAGE-LENGTH (SUBRCALL MESSAGE-READ
(OR MESSAGE-BUFFER
(SETQ MESSAGE-BUFFER
(ALLOCSTRING 1024)))
1024))
|then| (SUBSTRING MESSAGE-BUFFER 1 MESSAGE-LENGTH)
|else| "?? system message: polling failed")
PROMPTWINDOW))))))

)

:: Asynchronous I/O handling

(DEFINEQ

(\\MAIKO.IO-INTERRUPT

(LAMBDA NIL

; Edited 18-Dec-89 13:09 by jds

:: Handle I/O pending on an asynchronous file descriptor.

:: Called from INTERRUPTED when the Maiko emulator sets theIOINTERRUPT flag in \\INTERRUPTSTATE.

(PROG NIL
(|replace| (INTERRUPTSTATE IOINTERRUPT) |of| \\INTERRUPTSTATE |with| NIL)
(FOR INFO IN \\MAIKO.IO-INTERRUPT-VECTOR WHEN (NOT (ZEROP (LOGAND (CAR INFO)
\\MAIKO.IO-INTERRUPT-FLAGS)))
DO (CL:FUNCALL (CADR INFO))))))

)

(RPAQQ \\EPT.3TO10 513)

(RPAQ \\MAIKO.IO-INTERRUPT-FLAGS (\\CREATECELL \\FIXP))

(RPAQQ \\MAIKO.IO-INTERRUPT-VECTOR NIL)

(PUTPROPS MAIKOETHER COPYRIGHT ("Venue & Xerox Corporation" 1988 1989 1990 1991 2021))

FUNCTION INDEX

\\10MB.RESTART.ETHER	1	\\MAIKO.10MSENDPACKET	3	\\MAIKO.ETHERRESUME	3
\\10MB.STARTDRIVER	1	\\MAIKO.10MBSTARTDRIVER	4	\\MAIKO.ETHERSUSPEND	3
\\10MB.TURNOFFETHER	1	\\MAIKO.10MBTURNONETHER	4	\\MAIKO.INPUT.INTERRUPT	3
\\10MB.TURNONETHER	1	\\MAIKO.10MBWATCHER	3	\\MAIKO.IO-INTERRUPT	6
\\10MSENDPACKET	2	\\MAIKO.CHECKSUM	5	\\NS.SETTIME	4
\\10MBWATCHER	2	\\MAIKO.CONSOLE-LOG-PRINT	6	\\PUP.SETTIME	4
\\MAIKO.10MB.RESTART.ETHER	5	\\MAIKO.ETHER-INTERRUPT	5		

VARIABLE INDEX

\\EPT.3TO10	6	\\MAIKO.INPUT.PACKET	5	\\MAIKO.IO-INTERRUPT-VECTOR	6
\\ETHERtopMonitor 	5	\\MAIKO.IO-INTERRUPT-FLAGS	6	\\MAIKO.MOVDs	5
