

File created: 18-Jul-88 13:37:07 {MCS:MCS:STANFORD}<LANE>REMOTEPSW.;13

changes to: (VARS REMOTEPSWCOMS)
(FNS \REMOTE.PSWOP.SELECTED REMOTE.PROCESS.STATUS.WINDOW REMOTE.PROCESS.BACKTRACE
REMOTE.PSW.REDISPLAY \REMOTE.PROCESS.BACKTRACE \REMOTE.PROCESS.RESTART
\REMOTE.PROCESS.SUSPEND \REMOTE.PROCESS.TTY \REMOTE.PROCESS.WAKE)
(RECORDS PROCESSDATA)

previous date: 9-Nov-87 09:27:45 {MCS:MCS:STANFORD}<LANE>REMOTEPSW.;9

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

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(RPAQQ **REMOTEPSWCOMS**

```
( (FNS REMOTE.PROCESS.STATUS.WINDOW)
  (FNS REMOTE.PROCESS.BACKTRACE REMOTE.PSW.REDISPLAY REMOTE.PROCESS.ERROR \REMOTE.GET.PROCESS.DATA
    \REMOTE.PROCESS.BACKTRACE \REMOTE.PROCESS.KILL \REMOTE.PROCESS.RESTART \REMOTE.PROCESS.SUSPEND
    \REMOTE.PROCESS.TTY \REMOTE.PROCESS.WAKE \REMOTE.PSW.SELECTED \REMOTE.PSWOP.SELECTED)
  (VARS REMOTE.PSW.ITEMS REMOTE.PROCESS.ERRORS REMOTE.PROCESS.BACKTRACE.COMMANDS)
  (GLOBALVARS REMOTE.PSW.ITEMS REMOTE.PROCESS.ERRORS REMOTE.PROCESS.BACKTRACE.COMMANDS)
  (DECLARE%: DONTCOPY (RECORDS PROCESSDATA REMOTE.PSW.MENUS)
    (CONSTANTS (SELECTIONSHADE 520)))
  (FILES COURIERSERVE COURIERDEFS)
  (COURIERPROGRAMS PROCESS)
  (P (COURIER.START.SERVER)))
```

(DEFINEQ

(**REMOTE.PROCESS.STATUS.WINDOW**

```
[LAMBDA (HOST) ; Edited 18-Jul-88 11:15 by cdl
  (LET ((COURIERSTREAM (COURIER.OPEN HOST))
        (WINDOW (CREATEW (CREATEREGION 0 0 100 100)
          HOST NIL T)))
    (WINDOWPROP WINDOW 'COURIERSTREAM COURIERSTREAM)
    (WINDOWPROP WINDOW 'LOCK (CREATE.MONITORLOCK))
    [WINDOWADDPROP WINDOW 'CLOSEFN (FUNCTION (LAMBDA (WINDOW)
      (CLOSEF? (WINDOWPROP WINDOW 'COURIERSTREAM NIL])
      (REMOTE.PSW.REDISPLAY WINDOW)
      (MOVEW WINDOW)
      WINDOW])
    ]
  )
```

(DEFINEQ

(**REMOTE.PROCESS.BACKTRACE**

```
[LAMBDA (PROCESS CMD WINDOW) ; Edited 18-Jul-88 10:11 by cdl
  (DECLARE (GLOBALVARS BACKTRACEFONT PROCBACKTRACEHEIGHT))
  (PROG (PLACE REGION BACKTRACEWINDOW BULK.DATA.STREAM)
    (DECLARE (SPECVARS BACKTRACEWINDOW BULK.DATA.STREAM))
    (if [NOT (WINDOWP (SETQ BACKTRACEWINDOW (CAR (ATTACHEDWINDOWS WINDOW)
      then (SETQ BACKTRACEWINDOW (CREATEW (with REGION (SETQ REGION (WINDOWPROP WINDOW 'REGION))
        (create REGION
          BOTTOM _ (if (LESSP BOTTOM PROCBACKTRACEHEIGHT)
            then (SETQ PLACE 'TOP)
            TOP
            else (SETQ PLACE 'BOTTOM)
              (DIFFERENCE BOTTOM
                PROCBACKTRACEHEIGHT))
          HEIGHT _ PROCBACKTRACEHEIGHT using REGION))
        "Process backtrace" NIL T))
      (ATTACHWINDOW BACKTRACEWINDOW WINDOW PLACE 'JUSTIFY 'LOCALCLOSE)
      (DSPSCROLL 'OFF BACKTRACEWINDOW)
      (DSPFONT BACKTRACEFONT BACKTRACEWINDOW))
      (DSPRESET BACKTRACEWINDOW)
      (SETQ BULK.DATA.STREAM (COURIER.CALL (WINDOWPROP WINDOW 'COURIERSTREAM)
        'PROCESS
        'BACKTRACE PROCESS CMD NIL))
      (RESETLST
        [RESETSAVE NIL `(CLOSEF? ,BULK.DATA.STREAM)
        (COPYBYTES BULK.DATA.STREAM BACKTRACEWINDOW)])
    ]
```

(**REMOTE.PSW.REDISPLAY**

```
[LAMBDA (WINDOW PROCESSDATA) ; Edited 18-Jul-88 10:15 by cdl
  (DECLARE (GLOBALVARS DEFAULTFONT))
  (PROG ((COURIERSTREAM (WINDOWPROP WINDOW 'COURIERSTREAM))
    PMENU OPMENU SELECTED WIDTH)
    [if (NULL PROCESSDATA)
      then (SETQ PROCESSDATA (COURIER.CALL COURIERSTREAM 'PROCESS 'GET.PROCESS.DATA])
```

```

(for ATTACHEDWINDOW in (WINDOWPROP WINDOW 'ATTACHEDWINDOWS) do (DETACHWINDOW ATTACHEDWINDOW)
(CLOSEW ATTACHEDWINDOW))

(with REMOTE.PSW.MENUS (WINDOWPROP WINDOW 'MENU)
  (if COMMANDMENU
    then (SETQ OPMENU COMMANDMENU)
    else (SETQ OPMENU (create MENU
      ITEMS _ REMOTE.PSW.ITEMS
      WHENSELECTEDFN _ (FUNCTION \REMOTE.PSWOP.SELECTED)
      CENTERFLG _ T
      MENUCOLUMNS _ 3)))

  (if PROCESSMENU
    then (DELETEMENU PROCESSMENU NIL WINDOW)))
(SETQ PMENU (create MENU
  ITEMS _ (with PROCESSDATA PROCESSDATA PROCESSES)
  WHENSELECTEDFN _ (FUNCTION \REMOTE.PSW.SELECTED)
  MENUFONT _ DEFAULTFONT
  CENTERFLG _ T))
[SHAPEW WINDOW (create REGION
  WIDTH _ [WIDTHIFWINDOW (SETQ WIDTH (MAX (fetch IMAGEWIDTH of PMENU)
(fetch IMAGEWIDTH of OPMENU)
  HEIGHT _ (HEIGHTIFWINDOW (PLUS (fetch IMAGEHEIGHT of PMENU)
(fetch IMAGEHEIGHT of OPMENU)
4)
T)
  using (WINDOWPROP WINDOW 'REGION]
(if (NULL (with REMOTE.PSW.MENUS (WINDOWPROP WINDOW 'MENUS)
  COMMANDMENU))
  then (ADDMENU OPMENU WINDOW (create POSITION
    XCOORD _ (QUOTIENT (DIFFERENCE WIDTH (fetch IMAGEWIDTH
of OPMENU))
2)
    YCOORD _ 0)))
(ADDMENU PMENU WINDOW (create POSITION
  XCOORD _ (QUOTIENT (DIFFERENCE (with REGION (DSPCLIPPINGREGION NIL WINDOW)
  WIDTH)
(fetch IMAGEWIDTH of PMENU))
2)
  YCOORD _ (PLUS (fetch IMAGEHEIGHT of OPMENU)
4)))
(if (SETQ SELECTED (with PROCESSDATA PROCESSDATA SELECTED))
  then (if (FMEMB SELECTED (with PROCESSDATA PROCESSDATA PROCESSES))
    then (SHADEITEM SELECTED PMENU SELECTIONSHADE)))
(WINDOWPROP WINDOW 'PROCESSDATA PROCESSDATA))

```

(REMOTE.PROCESS.ERROR

[LAMBDA (ERROR)

; Edited 4-Sep-87 07:30 by cdl
(* DECLARATIONS%: (RECORD ERROR
(NIL TYPE)) (RECORD ALST (KEY . VALUE)))

```

(LET ((ALST (ASSOC (with ERROR ERROR TYPE)
  REMOTE.PROCESS.ERRORS)))
  (if ALST
    then (PROMPTPRINT (with ALST ALST VALUE))
    else (PROMPTPRINT (with ERROR ERROR TYPE)
      (with ALST (ASSOC T REMOTE.PROCESS.ERRORS)
        VALUE)))

```

(\REMOTE.GET.PROCESS.DATA

```

[LAMBDA NIL
  (DECLARE (GLOBALVARS \PROCESSES))
  '(RETURN (, (PROCESS.NAME (TTY.PROCESS))
    , (in \PROCESSES collect PROCESS.NAME)))

```

; Edited 26-Aug-87 11:33 by cdl

(\REMOTE.PROCESS.BACKTRACE

[LAMBDA (COURIERSTREAM PROGRAM PROCEDURE PROCESS COMMAND BULK.DATA.STREAM)

; Edited 18-Jul-88 10:35 by cdl

```

(if (SETQ PROCESS (FIND.PROCESS PROCESS))
  then (LET (STKP (PLVLFILEFLG T)
    (FX (fetch (PROCESS PROCFX) of PROCESS)))
    (BACKTRACE (if (ZEROP FX)
      then (* The currently active proc!)
      (FUNCTION \REMOTE.PROCESS.BACKTRACE)
    else (SETQ STKP (\MAKESTACKP NIL FX)))
    NIL NIL (CDR (OR (ASSOC COMMAND REMOTE.PROCESS.BACKTRACE.COMMANDS)
      (ASSOC 'BT REMOTE.PROCESS.BACKTRACE.COMMANDS)))
    BULK.DATA.STREAM)
    (if STKP
      then (RELSTK STKP)))
  ' (RETURN)
else ' (ABORT NO.SUCH.PROCESS))

```

(\REMOTE.PROCESS.KILL

```

[LAMBDA (COURIERSTREAM PROGRAM PROCEDURE PROCESS)
  (if (NOT (SETQ PROCESS (FIND.PROCESS PROCESS)))

```

(* cdl " 3-Dec-85 18:59")

```

    then ' (ABORT NO.SUCH.PROCESS)
  elseif (EQ PROCESS (TTY.PROCESS))
    then ' (ABORT TTY.PROCESS)
  elseif (fetch PROCSYSTEMP of PROCESS)
    then ' (ABORT SYSTEM.PROCESS)
  else (DEL.PROCESS PROCESS)
    ' (RETURN))

```

(\REMOTE.PROCESS.RESTART

```

[LAMBDA (COURIERSTREAM PROGRAM PROCEDURE PROCESS)
  (if (SETQ PROCESS (FIND.PROCESS PROCESS))
    then (RESTART.PROCESS PROCESS)
    ' (RETURN)
  else ' (ABORT NO.SUCH.PROCESS))

```

; Edited 18-Jul-88 10:18 by cdl

(\REMOTE.PROCESS.SUSPEND

```

[LAMBDA (COURIERSTREAM PROGRAM PROCEDURE PROCESS)
  (if (SETQ PROCESS (FIND.PROCESS PROCESS))
    then (if (NEQ PROCESS (THIS.PROCESS))
      then (SUSPEND.PROCESS PROCESS)
      ' (RETURN)
    else ' (ABORT NO.SUCH.PROCESS))

```

; Edited 18-Jul-88 10:19 by cdl

(\REMOTE.PROCESS.TTY

```

[LAMBDA (COURIERSTREAM PROGRAM PROCEDURE PROCESS)
  (if PROCESS
    then (if (SETQ PROCESS (FIND.PROCESS PROCESS))
      then (TTY.PROCESS PROCESS)
      ' (RETURN)
    else ' (ABORT NO.SUCH.PROCESS))
  else ' (RETURN , (if (TTY.PROCESS)
    then (PROCESS.NAME (TTY.PROCESS))

```

; Edited 18-Jul-88 10:23 by cdl

(\REMOTE.PROCESS.WAKE

```

[LAMBDA (COURIERSTREAM PROGRAM PROCEDURE PROCESS STATUS)
  (if (SETQ PROCESS (FIND.PROCESS PROCESS))
    then (WAKE.PROCESS PROCESS STATUS)
    ' (RETURN)
  else ' (ABORT NO.SUCH.PROCESS))

```

; Edited 18-Jul-88 10:20 by cdl

(\REMOTE.PSW.SELECTED

```

[LAMBDA (ITEM MENU BUTTON)
  (with PROCESSDATA (WINDOWPROP (WFROMMENU MENU)
    'PROCESSDATA)
    (if (AND SELECTED (NEQ ITEM SELECTED))
      then (SHADEITEM SELECTED MENU WHITESHAE))
    (SHADEITEM ITEM MENU SELECTIONSHADE)
    (SETQ SELECTED ITEM])

```

(* cdl " 3-Dec-85 20:00")

(\REMOTE.PSWOP.SELECTED

```

[LAMBDA (ITEM MENU BUTTON)
  (DECLARE (GLOBALVARS PROCOP.WAKEMENU WAITINGCURSOR)
    (SPECVARS ITEM))
  (ALLOW.BUTTON.EVENTS)
  (LET
    (VALUE PROCESS ERROR NEWPROCESSDATA COURIERSTREAM (WINDOW (WFROMMENU MENU)))
    (DECLARE (SPECVARS WINDOW))
    (WITH.MONITOR (WINDOWPROP WINDOW 'LOCK)
      (SETQ COURIERSTREAM (WINDOWPROP WINDOW 'COURIERSTREAM))
      [with
        PROCESSDATA
        (WINDOWPROP WINDOW 'PROCESSDATA)
        (if [NOT (EQUAL PROCESSES (fetch (PROCESSDATA PROCESSES) of (SETQ NEWPROCESSDATA (COURIER.CALL
          COURIERSTREAM
          'PROCESS
          'GET.PROCESS.DATA]
          then (if (MEMB SELECTED (fetch (PROCESSDATA PROCESSES) of NEWPROCESSDATA))
            then (replace (PROCESSDATA SELECTED) of NEWPROCESSDATA with SELECTED))
            (REMOTE.PSW.REDISPLAY WINDOW NEWPROCESSDATA))
        (SELECTQ ITEM
          (WHO? (if (SETQ PROCESS (COURIER.CALL COURIERSTREAM 'PROCESS 'GET.TTY.PROCESS))
            then (with REMOTE.PSW.MENUS (WINDOWPROP WINDOW 'MENU)
              (\REMOTE.PSW.SELECTED PROCESS PROCESSMENU))
            else (PROMPTPRINT "No process has the tty!!!"))
          (UPDATE NIL)
          (if SELECTED
            then
              (SELECTQ ITEM
                (KBD_ (if (SETQ ERROR (COURIER.CALL COURIERSTREAM 'PROCESS 'SET.TTY.PROCESS SELECTED
                  'RETURNERRORS))
                  then (REMOTE.PROCESS.ERROR ERROR)))

```

; Edited 18-Jul-88 11:24 by cdl

```

(INFO (PROMPTPRINT "Not yet implemented"))
(KILL (if (SETQ ERROR (COURIER.CALL COURIERSTREAM 'PROCESS 'KILL SELECTED 'RETURNERRORS))
          then (REMOTE.PROCESS.ERROR ERROR)
          else (REMOTE.PSW.REDISPLAY WINDOW)))
(RESTART (if (SETQ ERROR (COURIER.CALL COURIERSTREAM 'PROCESS 'RESTART SELECTED
          'RETURNERRORS))
              then (REMOTE.PROCESS.ERROR ERROR)))
(WAKE (PROG NIL
          (if (SETQ ERROR
                  (COURIER.CALL COURIERSTREAM 'PROCESS 'WAKE SELECTED
                    (SELECTQ [MENU (OR PROCOP.WAKEMENU
                                      (SETQ PROCOP.WAKEMENU
                                        (create MENU
                                          ITEMS _ ' ((NIL 'NULL)
                                                    T Other)
                                          TITLE _ "WakeUp Value"
                                          CENTERFLG _ T]
                                          (NIL (RETURN))
                                          (NULL NIL)
                                          (T T)
                                          (Other (CAR (OR (LISTP (PROCESS.READ "Value to return to
                                                                woken process: "))
                                                                (RETURN))))))
                                      NIL)
                    'RETURNERRORS))
              then (REMOTE.PROCESS.ERROR ERROR))))
(SUSPEND (if (SETQ ERROR (COURIER.CALL COURIERSTREAM 'PROCESS 'SUSPEND SELECTED
          'RETURNERRORS))
              then (REMOTE.PROCESS.ERROR ERROR)))
(if (ASSOC ITEM REMOTE.PROCESS.BACKTRACE.COMMANDS)
    then (RESETFORM (CURSOR WAITINGCURSOR)
                    (REMOTE.PROCESS.BACKTRACE SELECTED ITEM WINDOW])))
)

(RPAQQ REMOTE.PSW.ITEMS (BT WHO? KILL BTV KBD_ RESTART BTV* INFO WAKE BTV! UPDATE SUSPEND))

(RPAQQ REMOTE.PROCESS.ERRORS ((NO.SUCH.PROCESS . "Process not found!")
                              (TTY.PROCESS . "Can't, TTY process!")
                              (SYSTEM.PROCESS . "Can't, SYSTEM process!")
                              (T . " remote process error!")))

(RPAQQ REMOTE.PROCESS.BACKTRACE.COMMANDS ((BT . 0)
                                           (BTV . 1)
                                           (BTV* . 7)
                                           (BTV! . 39)))

(DECLARE%: DOEVAL@COMPILE DONTCOPY

(GLOBALVARS REMOTE.PSW.ITEMS REMOTE.PROCESS.ERRORS REMOTE.PROCESS.BACKTRACE.COMMANDS)
)

(DECLARE%: DONTCOPY

(DECLARE%: EVAL@COMPILE

(RECORD PROCESSDATA (SELECTED PROCESSES))

(RECORD REMOTE.PSW.MENUS (COMMANDMENU PROCESSMENU))
)

(DECLARE%: EVAL@COMPILE

(RPAQQ SELECTIONSHADE 520)

(CONSTANTS (SELECTIONSHADE 520))
)
)

(FILESLoad COURIERSERVE COURIERDEFS)

(COURIERPROGRAM PROCESS (1199 0)
  TYPES
    [[PROCESSDATA (RECORD (SELECTED PROCESS)
                          (PROCESSES (SEQUENCE PROCESS]
      (PROCESS ATOM)
      (STATUS ATOM)
      (COMMAND (ENUMERATION (BT 0)
                            (BTV 1)
                            (BTV* 7)
                            (BTV! 39]
  INHERITS
    (INTERLISP)
  PROCEDURES
    ((GET.PROCESS.DATA 0 NIL RETURNS (PROCESSDATA)
      REPORTS NIL IMPLEMENTEDBY \REMOTE.GET.PROCESS.DATA)
    (BACKTRACE 1 (PROCESS COMMAND BULK.DATA.SINK)

```

```
      RETURNS NIL REPORTS NIL IMPLEMENTEDBY \REMOTE.PROCESS.BACKTRACE)
(KILL 2 (PROCESS)
  RETURNS NIL REPORTS (NO.SUCH.PROCESS TTY.PROCESS SYSTEM.PROCESS)
  IMPLEMENTEDBY \REMOTE.PROCESS.KILL)
(RESTART 3 (PROCESS)
  RETURNS NIL REPORTS (NO.SUCH.PROCESS)
  IMPLEMENTEDBY \REMOTE.PROCESS.RESTART)
(WAKE 4 (PROCESS STATUS)
  RETURNS NIL REPORTS (NO.SUCH.PROCESS)
  IMPLEMENTEDBY \REMOTE.PROCESS.WAKE)
(SUSPEND 5 (PROCESS)
  RETURNS NIL REPORTS (NO.SUCH.PROCESS)
  IMPLEMENTEDBY \REMOTE.PROCESS.SUSPEND)
(GET.TTY.PROCESS 6 NIL RETURNS (PROCESS)
  REPORTS NIL IMPLEMENTEDBY \REMOTE.PROCESS.TTY)
(SET.TTY.PROCESS 7 (PROCESS)
  RETURNS NIL REPORTS (NO.SUCH.PROCESS)
  IMPLEMENTEDBY \REMOTE.PROCESS.TTY))
```

ERRORS

```
( (NO.SUCH.PROCESS 0)
  (TTY.PROCESS 1)
  (SYSTEM.PROCESS 3))
```

(COURIER.START.SERVER)

(PUTPROPS **REMOTEPSW COPYRIGHT** ("Xerox Corporation & Stanford University" 1985 1986 1987 1988))

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