

File created: 20-Jan-2023 22:44:05 {DSK}<home>frank<il>medley>gmedley>library>UNIXPRINT.;4

changes to: (VARS UNIXPRINTCOMS)

previous date: 18-Jan-2023 13:28:36 {DSK}<home>frank<il>medley>gmedley>library>UNIXPRINT.;3

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

::
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(RPAQQ UNIXPRINTCOMS

```
[ (FILES UNIXUTILS)
  (FNS InstallUnixPrinter UnixPrint UnixShellQuote UnixTempFile UnixPrintCommand)
  (INITVARS (UnixPrinterName NIL)
    (UNIXPRINTSWITCHES " -r -s "))
  (P ;; (InstallUnixPrinter) commented out because POSTSCRIPT indirects according to platform
    (PRIN1 "Please feel free to edit UnixPrintCommand." PROMPTWINDOW))
  (PROP FILETYPE UNIXPRINT)
  (DECLARE%: DONTEVAL@COMPILE DOCOPY (FNS UnixPrintCommand))
  (DECLARE%: EVAL@COMPILE DOCOPY (FILES UNIXCOMM))
  (DECLARE%: EVAL@COMPILE DONTCOPY (GLOBALVARS UnixPrinterName))
  (DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVARS (ADDVARS (NLAMA)
    (NLAML)
    (LAMA]))
```

(FILESLOAD UNIXUTILS)

(DEFINEQ

(InstallUnixPrinter

```
[LAMBDA (PrinterTypes) ; Edited 8-Feb-97 11:33 by rmk:
  ;; Set up any printers in PrinterTypes (or just Postscript by default) so that they'll be printed using the unix LPR command.
  (DECLARE (GLOBALVARS PRINTERTYPES))
  (for type inside (OR PrinterTypes '(POSTSCRIPT)) do (for x in PRINTERTYPES when (EQMEMB type (CAR x))
    do (LET ((PRINTERTYPE type))
      (PUTASSOC 'SEND (LIST 'UnixPrint)
        (CDR x]))
```

(UnixPrint

```
[LAMBDA (HOST FILE PRINTOPTIONS) ; Edited 7-Dec-2001 14:55 by rmk:
  ; Edited 20-May-92 14:13 by nilsson
```

;; Given a print FILE, use the Unix "lpr" command to spool it to a printer.

;; The printer is named by HOST or UnixPrinterName, a Global variable.

```
[LET* ((PRINTER (OR HOST UnixPrinterName))
  (COPIES (LISTGET PRINTOPTIONS '%#COPIES))
  (NAME (LISTGET PRINTOPTIONS 'DOCUMENT.NAME))
  (NSIDES (LISTGET PRINTOPTIONS '%#SIDES))
  (TYPE (PRINTERTYPE PRINTER)))
  ;; Removed redundant check (we already know it's a PS printer), JDS 2/19/92:
  ;; (COND ((NULL TYPE) (ERROR (CONCAT "Printertype unknown for " PRINTER))) ((NOT (EQL (U-CASE TYPE) 'POSTSCRIPT))
  ;; (ERROR (CONCAT "Printertype for " PRINTER " is not Postscript"))))
```

```
[COND
  ((OR (NULL NAME)
    (STRPOS "{LPT}" NAME 1 NIL T))
  (SETQ NAME "Medley Output"))
  ((EQ (CHCON1 NAME)
    (CHARCODE {}))
  (SETQ NAME (UNPACKFILENAME.STRING NAME 'NAME))
  (COND
    ((EQ (NCHARS NAME)
      0)
    (SETQ NAME "Medley Output"]
```

;; Don't break if you have trouble with preexisting files, e.g. because of protection.

```
(FOR F IN [CAR (NLSETQ (FILDIR (PACKFILENAME 'HOST 'DSK 'EXTENSION '* 'BODY (UnixTempFile
  'medleyprint. T)
  WHEN (CAR (NLSETQ (IGREATERP (DIFFERENCE (IDATE)
    (GETFILEINFO F 'ICREATIONDATE))
    120)))
  DO (NLSETQ (DELFILE F)))
```

;; The temp file's name will be of the form medleyprint.<idate>, so all such files can be found for deletion on a subsequent call after a certain amount of time (2 minutes) has gone by. If we delete immediately, it may happen before lpr has done its thing.

```
(CL:MULTIPLE-VALUE-BIND (tmpstream tmpname)
  (UnixTempFile 'medleyprint.)
```

```
(COND
  (tmpstream
    ;; First, copy the lisp file to /tmp so lpr can find it.
    [CL:WITH-OPEN-STREAM
      (out tmpstream)
      (CL:WITH-OPEN-STREAM (in (OPENSTREAM FILE 'INPUT))
        (printout PROMPTWINDOW .TABO 0 "Spooling output to Unix printer"
          (COND
            (PRINTER (CONCAT " ' " PRINTER "'"))
            (T ""))
          "...")
        (IF NSIDES
          THEN
            ;; Have to put magic simplex/duplex stuff in the tmp file itself, after the first line, cause there is no
            ;; other way to control some duplex printers.
            (BIND C SAWCR
              DO (SETQ C (BIN in))
                (IF (MEMB C (CHARCODE (CR LF)))
                  THEN (BOU out C)
                      (SETQ SAWCR T)
                  ELSEIF SAWCR
                  THEN ;; First char of 2nd line: nonCR/LF after CR/LF
                       ;; Put out simplex header, then print character in C
                       (PRINTOUT out "%BeginSetup" T)
                       (PRINTOUT out [{" T "%%BeginFeature: *Duplex
                                     Simplex" T "<< /Duplex " (CL:IF (EQ NSIDES 1)
                                       "false"
                                       "true")
                                     " /Tumble false >> setpagedevice" T
                                     "%%EndFeature" T " } stopped cleartomark" T]
                         (PRINTOUT out "%EndSetup" T)
                         (BOU out C)
                         (COPYCHARS in out (GETFILEPTR in)
                          -1)
                         (RETURN)
                       ELSE (BOU out C)))
                ELSE (COPYCHARS in out 0 -1]
          ;; Now make Unix print the /tmp file.
          (ShellCommand (UnixPrintCommand PRINTER COPIES NAME tmpname)
            PROMPTWINDOW)
          (printout PROMPTWINDOW "done" T))
          (T (ERROR "Couldn't create unix temp file")))]
    T])
```

(UnixShellQuote

```
[LAMBDA (STRING)
  (DECLARE (LOCALVARS . T)) ; Edited 19-Apr-89 21:14 by TAL
  (LET* ((X (CHCON STRING))
        (CT X)
        (C FLG))
    [while (LISTP CT) do (SETQ C (CAR CT))
      (COND
        ((OR (<= (CHARCODE a)
                 C
                 (CHARCODE z))
              (<= (CHARCODE A)
                 C
                 (CHARCODE Z))
              (<= (CHARCODE 0)
                 C
                 (CHARCODE 9))
              (FMEMB C (CHARCODE (- /])
                (SETQ CT (CDR CT)))
          (T (SETQ FLG T)
            (RPLNODE CT (CHARCODE \)
              (CONS (COND
                ((FMEMB C (CHARCODE (CR LF)))
                  (CHARCODE SPACE))
                (T C))
                (SETQ CT (CDR CT)
              (COND
                (FLG (CONCATCODES X))
                (T STRING])
```

(UnixTempFile

```
[LAMBDA (Prefix DontOpen) ; Edited 28-Apr-93 13:49 by rmk:
                          ; Edited 12-Jan-89 19:07 by TAL
  (LET* ([host (AND (BOUNDP 'FISTempDir)
                    (UNPACKFILENAME.STRING FISTempDir 'HOST))
        (dir (OR [COND
                  ((OR (STRING-EQUAL host "UNIX")
```

```

                (STRING-EQUAL host "DSK"))
                (UNPACKFILENAME.STRING F1TempDir 'DIRECTORY]
                "tmp"))
    (str (CONCAT (OR Prefix "")
          (IDATE)))
    file unix)
(COND
  ([[for i from 1 to 100 thereis (NOT (INFILEP (SETQ file (CONCAT "{UNIX}"
                                                                    (SETQ unix
                                                                    (CONCAT "/" dir "/" str i)

    (CL:VALUES [COND
      (DontOpen file)
      (T ;; Type TEXT seems to be important for Apple LaserWriters at PARC
        (OPENSTREAM file 'OUTPUT NIL '(TYPE TEXT]
      unix])

```

(UnixPrintCommand

```
[LAMBDA (PRINTER COPIES NAME TMPNAME)
```

```

; Edited 4-May-2018 17:17 by rmk:
; Edited 20-May-92 14:26 by nilsson

```

```

;; This function is called when the user wants to UNIXPRINT a file. It has to return a string that when sent to a shell prints the file tmpname. In the
;; cub version this should look something like "/usr/ucb/lpr tmpname". The arguments to this function are:
;; PRINTER - the name of the printer. Usually something like lw or plw.
;; COPIES - how many copies of this job to be printed.
;; NAME - the name of this job. This gets printed on the banner of your job.
;; TMPNAME - The name of the temporary file that contains the postscript code for this job.
;; Note the clever function UnixShellQuote. It converts any lisp name to a string that is quoted according to /bin/sh syntax
;; UNIXPRINTSWITCHES makes it easy for other sites to change just the lpr switches.
;; Use raw lpr, let system decide where it is located.

```

```

(CONCAT "lpr " (COND
  ((AND PRINTER (NEQ 0 (NCHARS PRINTER)))
   (CONCAT "-P" (UnixShellQuote PRINTER)
            " "))
  (T ""))
(COND
  ((AND (FIXP COPIES)
        (NEQ COPIES 1))
   (CONCAT "-#" COPIES " "))
  (T ""))
  "-J"
  (UnixShellQuote NAME)
  " "
  (OR UNIXPRINTSWITCHES ""
       " " TMPNAME])
)

```

```
(RPAQ? UnixPrinterName NIL)
```

```
(RPAQ? UNIXPRINTSWITCHES " -r -s ")
```

```
;; (InstallUnixPrinter) commented out because POSTSCRIPT indirections according to platform
```

```
(PRIN1 "Please feel free to edit UnixPrintCommand." PROMPTWINDOW)
```

```
(PUTPROPS UNIXPRINT FILETYPE :COMPILE-FILE)
```

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

```
(DEFINEQ
```

(UnixPrintCommand

```
[LAMBDA (PRINTER COPIES NAME TMPNAME)
```

```

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```

```

(CONCAT "lpr " (COND
  ((AND PRINTER (NEQ 0 (NCHARS PRINTER)))
   (CONCAT "-P" (UnixShellQuote PRINTER)
            " "))
  (T ""))

```

```
        (T "")
      (COND
        ((AND (FIXP COPIES)
              (NEQ COPIES 1))
         (CONCAT "-#" COPIES " "))
        (T ""))
      " -J"
      (UnixShellQuote NAME)
      " "
      (OR UNIXPRINTSWITCHES ""
          " " TMPNAME])
)
)

(DECLARE%: EVAL@COMPILE DOCOPY

(FILELOAD UNIXCOMM)
)

(DECLARE%: EVAL@COMPILE DONTCOPY

(DECLARE%: DOEVAL@COMPILE DONTCOPY

(GLOBALVARS UnixPrinterName)
)
)

(DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVERS

(ADDTOVAR NLAMA )

(ADDTOVAR NLAML )

(ADDTOVAR LAMA )
)

(PUTPROPS UNIXPRINT COPYRIGHT ("Venue" 1990 1991 1992 1993 1995 1997 1999 2001 2018 2023))
```

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