

File created: 15-Jul-88 16:34:43 {MCS:MCS:STANFORD}<LANE>READAPPLEFONT.;18

changes to: (VARS READAPPLEFONTCOMS)
(RECORDS APPLEFONTREC)
(FNS READAPPLEFONTREC \READAPPLEFONTFILE READAPPLEFONTFILE)

previous date: 20-May-88 10:56:08 {MCS:MCS:STANFORD}<LANE>READAPPLEFONT.;12

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

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(RPAQQ READAPPLEFONTCOMS

```
((FNS READAPPLEFONTFILE READAPPLEFONTREC)
 (INITVARS (APPLEFONTREC.OFFSET 264)
           READAPPLEFONT.DEBUG)
 (GLOBALVARS APPLEFONTREC.OFFSET READAPPLEFONT.DEBUG)
 (DECLARE%: DONTCOPY (RECORDS APPLEFONTREC))
 (INITRECORDS APPLEFONTREC)
 (FILES READDISPLAYFONT)
 (APPENDVARS (DISPLAYFONTTYPES (APPLE READAPPLEFONTFILE))
             (DISPLAYFONTEXTENSIONS APPLE))))
```

(DEFINEQ

(READAPPLEFONTFILE

```
[LAMBDA (STREAM FAMILY SIZE FACE) ; Edited 15-Jul-88 09:37 by cdl
 (LET ((APPLEFONTREC (READAPPLEFONTREC STREAM))
       (CSINFO (create CHARSETINFO
                       IMAGEWIDTHS _ (\CREATECSINFOELEMENT)
                       YWIDTHS _ (\CREATECSINFOELEMENT)))
       (OFFSETS WIDTHS IMAGEWIDTHS YWIDTHS NUMBCODES BITMAP CHARBITMAP)
       (SETQ OFFSETS (fetch (CHARSETINFO OFFSETS) of CSINFO))
       (SETQ WIDTHS (fetch (CHARSETINFO WIDTHS) of CSINFO))
       (SETQ IMAGEWIDTHS (fetch (CHARSETINFO IMAGEWIDTHS) of CSINFO))
       (SETQ YWIDTHS (fetch (CHARSETINFO YWIDTHS) of CSINFO))
       (with APPLEFONTREC APPLEFONTREC (replace (CHARSETINFO CHARSETASCENT) of CSINFO with ASCENT)
         (replace (CHARSETINFO CHARSETDESCENT) of CSINFO with DESCENT)
         (SETQ BITMAP (BITMAPCREATE (UNFOLD ROWWORDS BITSPERWORD)
                                     FRECTHEIGHT))
         (\BINS STREAM (fetch BITMAPBASE of BITMAP)
                     0
                     (UNFOLD (TIMES ROWWORDS FRECTHEIGHT)
                              BYTESPERWORD))
         (SETQ NUMBCODES (PLUS (DIFFERENCE LASTCHAR FIRSTCHAR)
                               3))
         (bind (YWIDTH _ (PLUS LEADING FRECTHEIGHT)) for I from 0 to (PLUS \MAXTHINCHAR 2)
              do (\FSETOFFSET OFFSETS I 0) ; initialize the offsets and widths
                 (\FSETWIDTH WIDTHS I 0)
                 (\FSETWIDTH IMAGEWIDTHS I 0)
                 (\FSETWIDTH YWIDTHS I YWIDTH))
         (for I from FIRSTCHAR as N to NUMBCODES do (\FSETOFFSET OFFSETS I (BIN16 STREAM)))
         (SETFILEPTR STREAM OWTLOC)
         (SETQ CHARBITMAP (BITMAPCREATE (TIMES FRECTWIDTH NUMBCODES)
                                         FRECTHEIGHT))
         (bind WORD CHAROFFSET OLDOFFSET for CHAR from FIRSTCHAR as N to (SUB1 NUMBCODES) as OFFSET
              from 0 by FRECTWIDTH unless (EQUAL (SETQ WORD (BIN16 STREAM))
                                                  (MASK.1'S 0 16))
              do (\FSETWIDTH WIDTHS CHAR (LOGAND WORD (MASK.1'S 0 8)))
                 (SETQ CHAROFFSET (RSH WORD 8))
                 (SETQ OLDOFFSET (\FGETOFFSET OFFSETS CHAR))
                 (\FSETWIDTH IMAGEWIDTHS CHAR (PLUS CHAROFFSET (DIFFERENCE (\FGETOFFSET OFFSETS (ADD1 CHAR))
                                                                              OLDOFFSET)))
                 (BITBLT BITMAP OLDOFFSET 0 CHARBITMAP (PLUS CHAROFFSET OFFSET)
                        0
                        (\FGETWIDTH IMAGEWIDTHS CHAR))
                 (\FSETOFFSET OFFSETS CHAR OFFSET)))
         (replace (CHARSETINFO CHARSETBITMAP) of CSINFO with CHARBITMAP)
         CSINFO])
```

(READAPPLEFONTREC

```
[LAMBDA (STREAM) ; Edited 15-Jul-88 09:53 by cdl
 (SETFILEPTR STREAM APPLEFONTREC.OFFSET)
 (LET ((APPLEFONTREC (create APPLEFONTREC))
       (with APPLEFONTREC APPLEFONTREC (SETQ FONTTYPE (BIN16 STREAM))
         (SETQ FIRSTCHAR (BIN16 STREAM))
         (SETQ LASTCHAR (BIN16 STREAM))
         (SETQ WIDMAX (BIN16 STREAM))
         (SETQ KERNMAX (BIN16 STREAM))
         (SETQ NDESCENT (BIN16 STREAM))
```

```

    (SETQ FRECTWIDTH (BIN16 STREAM))
    (SETQ FRECTHEIGHT (BIN16 STREAM))
    [SETQ OWTLOC (PLUS (GETFILEPTR STREAM)
                      (TIMES 2 (BIN16 STREAM))
                      (SETQ ASCENT (BIN16 STREAM))
                      (SETQ DESCENT (BIN16 STREAM))
                      (SETQ LEADING (BIN16 STREAM))
                      (SETQ ROWWORDS (BIN16 STREAM)))
    (if READAPPLEFONT.DEBUG
        then (INSPECT APPLEFONTREC))
    APPLEFONTREC]
)
(RPAQ? APPLEFONTREC.OFFSET 264)
(RPAQ? READAPPLEFONT.DEBUG NIL)
(DECLARE%: DOEVAL@COMPILE DONTCOPY
(GLOBALVARS APPLEFONTREC.OFFSET READAPPLEFONT.DEBUG)
)
(DECLARE%: DONTCOPY
(DECLARE%: EVAL@COMPILE
(DATATYPE APPLEFONTREC ((FONTTYPE WORD)
                        (FIRSTCHAR WORD) ; minimum ascii code
                        (LASTCHAR WORD) ; maximum ascii code
                        (WIDMAX WORD) ; maximum width
                        (KERNMAX WORD) ; negative of maximum character kern
                        (NDESCENT WORD) ; negative of descent
                        (FRECTWIDTH WORD) ; width of font rectangle
                        (FRECTHEIGHT WORD) ; height of font rectangle, also height of bitmap
                        (OWTLOC FIXP) ; offset to offset/width table
                        (ASCENT WORD) ; ascent in scan lines (=FBBdy+FBBoy)
                        (DESCENT WORD) ; descent in scan lines (=FBBoy)
                        (LEADING WORD)
                        (ROWWORDS WORD) ; raster width of bitmap
                        ))
)
(/DECLAREDATATYPE 'APPLEFONTREC ' (WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD)
; ---field descriptor list elided by lister---
' 14)
)
(/DECLAREDATATYPE 'APPLEFONTREC ' (WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD WORD)
; ---field descriptor list elided by lister---
' 14)
(FILESLoad READDISPLAYFONT)
(APPENDTOVAR DISPLAYFONTTYPES (APPLE READAPPLEFONTFILE))
(APPENDTOVAR DISPLAYFONTEXTENSIONS APPLE)
(PUTPROPS READAPPLEFONT COPYRIGHT ("Stanford University" 1988))

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FUNCTION INDEX

READAPPLEFONTFILE1 READAPPLEFONTREC1

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RECORD INDEX

APPLEFONTREC2
