File created: 19-Apr-2024 10:53:42 **{WMEDLEY}<library>tedit>TEDIT-MENU.;171**

edit by: rmk

changes to: (FNS \TEDIT.MENU.START)

previous date: 10-Apr-2024 23:06:52 {WMEDLEY}<library>tedit>TEDIT-MENU.;170

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

```
(RPAQQ TEDIT-MENUCOMS
       [(DECLARE%: EVAL@COMPILE DONTCOPY (EXPORT (RECORDS MB.3STATE MB.BUTTON MB.INSERT MB.MARGINBAR MB.NWAY
                                                        MB.TEXT MB.TOGGLE)
                                                (RECORDS MBUTTON NWAYBUTTON MARGINBAR TAB)))
        (DECLARE%: EVAL@COMPILE DOCOPY (MACROS TEDIT.DEFERRED-UPDATES))
        (INITRECORDS MBUTTON NWAYBUTTON MARGINBAR)
        [COMS                                                   ; Simple Menu Button support
              (FNS MB.BUTTONEVENTINFN MB.DISPLAY MB.SETIMAGE MB.SELFN MB.SIZEFN MB.WHENOPERATEDFN MB.COPYFN
                   MB.GETFN MB.PUTFN MB.SHOWSELFN MBUTTON.CREATE MBUTTON.CHANGENAME MBUTTON.FIND.BUTTON
                   MBUTTON.FIND.NEXT.BUTTON MBUTTON.FIND.NEXT.FIELD MBUTTON.INIT MBUTTON.NEXT.FIELD.AS.NUMBER
                   MBUTTON.NEXT.FIELD.AS.TEXT MBUTTON.NEXT.FIELD.AS.ATOM MBUTTON.SET.FIELD
                   MBUTTON.SET.NEXT.FIELD MBUTTON.SET.NEXT.BUTTON.STATE TEDITMENU.STREAM)
              (GLOBALVARS MBUTTONIMAGEFNS)
              (DECLARE%: DONTEVAL@LOAD DOCOPY (P (MBUTTON.INIT))
                     (ADDVARS (IMAGEOBJTYPES (TEditMenuButton FILE TEDITMENU GETFN MB.GETFN]
        [COMS ;; Three-state (ON-OFF-NEUTRAL) menu buttons, for, e.g., character properties like BOLD

              (FNS MB.CREATE.THREESTATEBUTTON MB.THREESTATE.DISPLAY MB.THREESTATE.SHOWSELFN
                   MB.THREESTATE.WHENOPERATEDFN MB.THREESTATEBUTTON.FN THREESTATE.INIT)
              (DECLARE%: DONTEVAL@LOAD DOCOPY (P (THREESTATE.INIT]
        [COMS                                                   ; One-of-N Menu button sets
              (FNS MB.CREATE.NWAYBUTTON MB.NB.DISPLAYFN MB.NB.WHENOPERATEDFN MB.NB.SIZEFN MB.NWAYBUTTON.SELFN
                   MB.NWAYMENU.NEWBUTTON NWAYBUTTON.INIT MB.NB.PACKITEMS MB.NWAYBUTTON.ADDITEM)
              (GLOBALVARS NWAYBUTTONIMAGEFNS)
              (DECLARE%: DONTEVAL@LOAD DOCOPY (P (NWAYBUTTON.INIT))
                     (ADDVARS (IMAGEOBJTYPES (NWayButton FILE TEDITMENU GETFN MB.GETFN]
        [COMS ;; Two-state, toggling menu buttons.

              (FNS \TEXTMENU.TOGGLE.CREATE \TEXTMENU.TOGGLE.DISPLAY \TEXTMENU.TOGGLE.SHOWSELFN
                   \TEXTMENU.TOGGLE.WHENOPERATEDFN \TEXTMENU.TOGGLEFN \TEXTMENU.TOGGLE.INIT \TEXTMENU.SET.TOGGLE
                   )
              (GLOBALVARS \TOGGLEIMAGEFNS)
              (DECLARE%: DONTEVAL@LOAD DOCOPY (P (\TEXTMENU.TOGGLE.INIT))
                     (ADDVARS (IMAGEOBJTYPES (ToggleButton FILE TEDITMENU GETFN MB.GETFN]
        [COMS ;; Margin Setting and display

              (FNS DRAWMARGINSCALE MARGINBAR MARGINBAR.CREATE MB.MARGINBAR.SELFN MB.MARGINBAR.SIZEFN
                   MB.MARGINBAR.DISPLAYFN MDESCALE MSCALE MB.MARGINBAR.SHOWTAB MB.MARGINBAR.TABTRACK
                   \TEDIT.TABTYPE.SET MARGINBAR.INIT)
              (BITMAPS \TEDIT.LEFTTAB \TEDIT.CENTERTAB \TEDIT.RIGHTTAB \TEDIT.DECIMALTAB \TEDIT.DOTTED.LEFTTAB
                     \TEDIT.DOTTED.CENTERTAB \TEDIT.DOTTED.RIGHTTAB \TEDIT.DOTTED.DECIMALTAB
                     TEDIT.EXTENDEDRIGHTMARK)
              (GLOBALVARS MARGINBARIMAGEFNS)
              (DECLARE%: DONTEVAL@LOAD DOCOPY (P (MARGINBAR.INIT))
                     (ADDVARS (IMAGEOBJTYPES (MarginRuler FILE TEDITMENU GETFN MB.GETFN]
        (COMS ;; Text menu creation and support

              (FNS \TEDIT.MENU.START \TEDIT.MENU.BUTTONEVENTFN \TEXTMENU.DOC.CREATE)
              (BITMAPS TEXTMENUICON TEXTMENUICONMASK))
        [COMS                                                   ; TEdit-specific support
              (FNS \TEDITMENU.CREATE \TEDIT.EXPANDED.MENU MB.DEFAULTBUTTON.FN \TEDITMENU.RECORD.UNFORMATTED
                   MB.DEFAULTBUTTON.ACTIONFN)
              (FNS \TEDIT.CHARLOOKSMENU.CREATE \TEDIT.EXPANDEDCHARLOOKS.MENU \TEDIT.APPLY.BOLDNESS
                   \TEDIT.APPLY.CHARLOOKS \TEDIT.APPLY.OLINE \TEDIT.APPLY.UNBREAKABLE \TEDIT.SHOW.CHARLOOKS
                   \TEDIT.NEUTRALIZE.CHARLOOKS \TEDIT.FILL.IN.CHARLOOKS.MENU \TEDIT.NEUTRALIZE.CHARLOOKS.MENU
                   \TEDIT.PARSE.CHARLOOKS.MENU \TEDIT.APPLY.SLOPE \TEDIT.APPLY.STRIKEOUT \TEDIT.APPLY.ULINE)
              (FNS \TEDITPARAMENU.CREATE \TEDIT.EXPANDEDPARA.MENU \TEDIT.APPLY.PARALOOKS \TEDIT.SHOW.PARALOOKS
                   \TEDIT.NEUTRALIZE.PARALOOKS.MENU \TEDIT.RECORD.TABLEADERS)
              (FNS \TEDIT.SHOW.PAGEFORMATTING \TEDITPAGEMENU.CREATE \TEDIT.APPLY.PAGEFORMATTING
                   TEDIT.UNPARSE.PAGEFORMAT)
              (COMS                                             ; Initialization Code
                    (GLOBALVARS TEDIT.EXPANDED.MENU TEDIT.EXPANDEDPARA.MENU TEDIT.CHARLOOKS.MENU
                           TEDIT.MENUDIVIDER.SPEC TEDIT.EXPANDEDMENU.SPEC TEDIT.CHARLOOKSMENU.SPEC
                           TEDIT.PARAMENU.SPEC TEDIT.PAGEMENU.SPEC TEDIT.EXPANDED.PAGEMENU)
                    (FNS \TEDIT.MENU.INIT)
                    (DECLARE%: DONTEVAL@LOAD DOCOPY (P (\TEDIT.MENU.INIT)
                                                        (\TEDITMENU.CREATE)
                                                        (\TEDIT.CHARLOOKSMENU.CREATE)
                                                        (\TEDITPARAMENU.CREATE)
                                                        (\TEDITPAGEMENU.CREATE]
        (DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVARS (ADDVARS (NLAMA)
                                                                              (NLAML)
                                                                              (LAMA])
```

```
(DECLARE%: EVAL@COMPILE DONTCOPY

;; FOLLOWING DEFINITIONS EXPORTED

(DECLARE%: EVAL@COMPILE

(TYPERECORD MB.3STATE (;; Describes a 3-state menu button.
                       MBLABEL                                  ; Label for the button on the screen
                       MBFONT                                   ; Font the label text should appear in
                       MBCHANGESTATEFN                          ; Function to call when the button's state changes
                       MBINITSTATE                              ; Button's initial state.

                       )
       MBFONT _ (FONTCREATE 'HELVETICA 8 'BOLD))

(TYPERECORD MB.BUTTON (MBLABEL MBBUTTONEVENTFN MBFONT)
       MBBUTTONEVENTFN _ 'MB.DEFAULTBUTTON.FN MBFONT _ (FONTCREATE 'HELVETICA 8 'BOLD))

(TYPERECORD MB.INSERT (MBINITENTRY))

(TYPERECORD MB.MARGINBAR (ignoredfield))

(TYPERECORD MB.NWAY (MBBUTTONS MBFONT MBCHANGESTATEFN MBINITSTATE MBMAXITEMSPERLINE)
       MBFONT _ (FONTCREATE 'HELVETICA 8 'BOLD))

(TYPERECORD MB.TEXT (MBSTRING MBFONT))

(TYPERECORD MB.TOGGLE (MBTEXT MBFONT MBCHANGESTATEFN MBINITSTATE)
       MBFONT _ (FONTCREATE 'HELVETICA 8 'BOLD))
)

(DECLARE%: EVAL@COMPILE

[RECORD MBUTTON NIL (TYPE? (AND (IMAGEOBJP DATUM)
                                (OR (EQ (IMAGEOBJPROP DATUM 'DISPLAYFN)
                                        'MB.DISPLAY)
                                    (EQ (IMAGEOBJPROP DATUM 'DISPLAYFN)
                                        'MB.THREESTATE.DISPLAY)
                                    (EQ (IMAGEOBJPROP DATUM 'DISPLAYFN)
                                        '\TEXTMENU.TOGGLE.DISPLAY]

[RECORD NWAYBUTTON NIL (TYPE? (AND (IMAGEOBJP DATUM)
                                   (EQ (IMAGEOBJPROP DATUM 'DISPLAYFN)
                                       'MB.NB.DISPLAYFN]

[RECORD MARGINBAR (MARL1 MARLN MARR MARTABS MARUNIT MARTABTYPE)
       (TYPE? (AND (IMAGEOBJP DATUM)
                   (EQ (IMAGEOBJPROP DATUM 'DISPLAYFN)
                       'MB.MARGINBAR.DISPLAYFN]

(RECORD TAB (TABX . TABKIND))
)
)

;; END EXPORTED DEFINITIONS

(DECLARE%: EVAL@COMPILE DOCOPY

(DECLARE%: EVAL@COMPILE

(PUTPROPS TEDIT.DEFERRED-UPDATES MACRO [(TOBJ . BODY)
                                        ;; Used to be a cleaner DEFMACRO, maybe revert when DEFMACROS work better with file
                                        ;; package and compiler.  Can't do OPENLAMBDA because of  . BODY

                                      ;; For TEdit windows, run BODY without updating the edit window for TEXTOBJ. then updates at the
                                      ;; end.  This is useful if you're making a log of changes to a document at one time, where the changes
                                      ;; are in essence atomic, and you don't need to see intermediate results.  It's also a good bit faster
                                      ;; than constant updating.

                                           ;; TEXTOBJ is the TEXTOBJ for the document being modified.

                                           ;; SCRATCHSEL is the TEXTOBJ scratch selection, bound here for BODY use.

                                           (LET* ((TEXTOBJ TOBJ)
                                                  (SCRATCHSEL (GETTOBJ TEXTOBJ SCRATCHSEL))
                                                  (OLD-DON'TUPDATE (GETTOBJ TEXTOBJ TXTDON'TUPDATE)))
                                                 (CL:UNWIND-PROTECT
                                                     (PROGN (SETTOBJ TEXTOBJ TXTDON'TUPDATE T) . BODY)
                                                     (\TEDIT.MARK.LINES.DIRTY TEXTOBJ 1 -1)
                                                     (SETTOBJ TEXTOBJ TXTDON'TUPDATE OLD-DON'TUPDATE)
                                                     (\TEDIT.UPDATE.SCREEN TEXTOBJ))])
)
)

;; Simple Menu Button support
```

```
(DEFINEQ

(MB.BUTTONEVENTINFN
  [LAMBDA (OBJ STREAM SEL RELX RELY SELWINDOW TEXTSTREAM)          ; Edited  9-Apr-2023 18:22 by rmk
                                                                   ; Edited 30-May-91 22:15 by jds

    ;; There was a buttn event inside a menu button.  Turn the button OFF when the mouse moves outside it.

    (LET [(OBJBOX (IMAGEOBJPROP OBJ 'BOUNDBOX]
         (replace (SELECTION SELKIND) of SEL with 'VOLATILE)
         (COND
            ((IMAGEOBJPROP OBJ 'MENUBUTTON.SELECTED)               ; This button is still active from an earlier hit.  Don't let it be
                                                                   ; selected again.
             'DON'T)
            ((AND (IGEQ RELX 0)
                  (IGEQ RELY 0)
                  (ILEQ RELX (fetch XSIZE of OBJBOX))
                  (ILEQ RELY (fetch YSIZE of OBJBOX)))             ; We're really inside the thing.  Return an indication that we're to
                                                                   ; be left alone.
             T)
            (T                                                     ; He's moved outside the button.  Don't permit the selection.
               'DON'T])

(MB.DISPLAY
  [LAMBDA (OBJ STREAM MODE)                                        ; Edited 20-Nov-2023 17:31 by rmk
                                                                   ; Edited 11-Jan-89 16:58 by jds

    ;; Display the innards of a menu button

    (SELECTQ (IMAGESTREAMTYPE STREAM)
        (DISPLAY ;; Going to the display.  Use the cached bitmap version of the button

                 [PROG (BITMAP (OBJBOX (IMAGEOBJPROP OBJ 'BOUNDBOX))
                               (X (DSPXPOSITION NIL STREAM))
                               (Y (DSPYPOSITION NIL STREAM)))
                       [SETQ BITMAP (COND
                                       ((IMAGEOBJPROP OBJ 'BITCACHE))
                                       (T (MB.SETIMAGE OBJ)
                                          (IMAGEOBJPROP OBJ 'BITCACHE]
                       (SETQ Y (IDIFFERENCE Y (fetch YDESC of OBJBOX)))
                       (BITBLT BITMAP 0 0 STREAM X Y)              ; Display the button's image
                       (CL:WHEN (EQ (IMAGEOBJPROP OBJ 'STATE)
                                    'ON)                           ; If the button is ON, mark it so.
                           (BLTSHADE BLACKSHADE STREAM X Y (fetch XSIZE of OBJBOX)
                                  (fetch YSIZE of OBJBOX)
                                  'INVERT))]])
        (PROGN ;; Going to some output image stream.  Use the actual text.

               (DSPFONT (PROG1 (DSPFONT (FONTCOPY (IMAGEOBJPROP OBJ 'MBFONT)
                                               'DEVICE STREAM)
                                      STREAM)                      ; Change to the font for this menu button.
                               (PRIN1 (IMAGEOBJPROP OBJ 'MBTEXT)
                                      STREAM))]])

(MB.SETIMAGE
  [LAMBDA (OBJ)                                                    (* jds "23-Aug-84 13:22")
    (PROG ((MBFONT (IMAGEOBJPROP OBJ 'MBFONT))
           (MBTEXT (IMAGEOBJPROP OBJ 'MBTEXT))
           BOX BITMAP DS)
          (SETQ BOX (create IMAGEBOX
                           XSIZE _ (STRINGWIDTH MBTEXT MBFONT)
                           YSIZE _ (FONTPROP MBFONT 'HEIGHT)
                           YDESC _ (FONTPROP MBFONT 'DESCENT)
                           XKERN _ 0))
          (SETQ BITMAP (BITMAPCREATE (fetch XSIZE of BOX)
                              (fetch YSIZE of BOX)))
          (IMAGEOBJPROP OBJ 'BITCACHE BITMAP)
          (IMAGEOBJPROP OBJ 'BOUNDBOX BOX)
          (SETQ DS (DSPCREATE BITMAP))
          (DSPXOFFSET 0 DS)
          (DSPYOFFSET 0 DS)
          (DSPFONT MBFONT DS)
          (MOVETO 0 (FONTPROP MBFONT 'DESCENT)
                 DS)
          (PRIN1 MBTEXT DS)
          (RETURN OBJ])

(MB.SELFN
  [LAMBDA (OBJ SEL W FN)                                           ; Edited 15-Mar-2024 13:38 by rmk
                                                                   ; Edited 16-Feb-2024 20:48 by rmk
                                                                   ; Edited 24-Jan-2024 10:48 by rmk
                                                                   ; Edited  6-Jun-2023 15:31 by rmk
                                                                   ; Edited 18-Apr-2023 23:58 by rmk
                                                                   ; Edited 21-Oct-2022 18:52 by rmk
                                                                   ; Edited 30-May-91 22:15 by jds

    ;; Calls a menu-button's associated function, then turns off the highlighting of the menu button.
    (LET [(TSEL (\TEDIT.COPYSEL SEL))
          (BUTTONFN (OR FN (IMAGEOBJPROP OBJ 'MBFN]                ; Save the selection that points to the menu button.
         (SETSEL SEL SELKIND 'CHAR)
         (SETSEL SEL ONFLG NIL)                                    ; Call the button's function
         (CL:UNLESS (EQ (AND BUTTONFN (APPLY* BUTTONFN OBJ SEL W))
                        'DON'T)                                    ; If the button fn left the selection alone,
             (\TEDIT.FIXSEL TSEL)                                  ; Turn off the button hilite. Perhaps the function changed
                                                                   ; something that changed the selection?
             (\TEDIT.SHOWSEL TSEL NIL))
         (SETSEL SEL SET NIL])

(MB.SIZEFN
  [LAMBDA (OBJ STREAM CURX RIGHTMARGIN)                            ; Edited 11-Oct-2022 22:51 by rmk
                                                                   ; Edited  4-Oct-2022 11:59 by rmk
                                                                   (* jds "30-Aug-84 11:24")
                                                                   ; Tell the size of a menu button
    (LET ((FONT (IMAGEOBJPROP OBJ 'MBFONT))
          BOX)
         (CL:UNLESS (DISPLAYSTREAMP STREAM)
             (SETQ FONT (FONTCOPY FONT 'DEVICE (IMAGESTREAMTYPE STREAM))))
         (SETQ BOX (create IMAGEBOX
                          XSIZE _ (STRINGWIDTH (IMAGEOBJPROP OBJ 'MBTEXT)
                                          FONT)
                          YSIZE _ (FONTPROP FONT 'HEIGHT)
                          YDESC _ (FONTPROP FONT 'DESCENT)
                          XKERN _ 0))
         (IMAGEOBJPROP OBJ 'BOUNDBOX BOX)
         BOX])

(MB.WHENOPERATEDFN
  [LAMBDA (OBJ W OPERATION SEL)                                    ; Edited 27-Mar-2024 13:49 by rmk
                                                                   (* jds " 7-Feb-84 14:20")
    (SELECTQ OPERATION
         (HIGHLIGHTED (MB.SHOWSELFN OBJ SEL T W))
         (UNHIGHLIGHTED
              (MB.SHOWSELFN OBJ SEL NIL W))
         (SELECTED (MB.SELFN OBJ SEL W))
         (DESELECTED)
         NIL])

(MB.COPYFN
  [LAMBDA (OBJ)                                                    (* jds "23-May-84 11:32")
                                                                   (* Copy a menu button object.)
    (create IMAGEOBJ
           OBJECTDATUM _ (COPY (fetch (IMAGEOBJ OBJECTDATUM) of OBJ))
           IMAGEOBJPLIST _ (COPY (fetch (IMAGEOBJ IMAGEOBJPLIST) of OBJ))
           IMAGEOBJFNS _ (fetch (IMAGEOBJ IMAGEOBJFNS) of OBJ])

(MB.GETFN
  [LAMBDA (OBJ FILE)                                               ; Edited 19-Dec-2023 10:24 by rmk
                                                                   ; Edited 20-Aug-87 16:17 by jds
                                                                   (* READ a menu button from a file.)
    (HELP "HELP FROM JDS--NOT USED?")
    (PROG [(TEXT (IMAGEOBJPROP OBJ 'MBTEXT))
           (MBFN (IMAGEOBJPROP OBJ 'MBFN))
           (FONT (IMAGEOBJPROP OBJ 'MBFONT]
          (\STRINGOUT FILE TEXT)
          (\ATMOUT FILE MBFN)
          (\ATMOUT FILE (FONTPROP FONT 'FAMILY))
          (\WOUT FILE (FONTPROP FONT 'SIZE))
          (for ATTR in (FONTPROP FONT 'FACE) do (\ATMOUT FILE ATTR])

(MB.PUTFN
  [LAMBDA (OBJ FILE)                                               ; Edited 19-Dec-2023 10:23 by rmk
                                                                   ; Edited 20-Aug-87 16:17 by jds

    ;; Write a menu button from a file; suitable for re-reading using the image objects GETFN.

    (PROG [(TEXT (IMAGEOBJPROP OBJ 'MBTEXT))
           (MBFN (IMAGEOBJPROP OBJ 'MBFN))
           (FONT (IMAGEOBJPROP OBJ 'MBFONT]
          (HELP "HELP FROM JDS -- NOT USED?")
          (\STRINGOUT FILE TEXT)                                   ; The button's image
          (\ATMOUT FILE MBFN)                                      ; The FN called when hit
          (\ATMOUT FILE (FONTPROP FONT 'FAMILY))
          (\WOUT FILE (FONTPROP FONT 'SIZE))
          (for ATTR in (FONTPROP FONT 'FACE) do (\ATMOUT FILE ATTR])

(MB.SHOWSELFN
  [LAMBDA (OBJ SEL ON W)                                           ; Edited 27-Mar-2024 13:47 by rmk
                                                                   ; Edited 20-Nov-2023 20:16 by rmk
```

```
                                                             ; Edited 11-Jan-89 16:35 by jds
    (LET [(OBJBOX (IMAGEOBJPROP OBJ 'BOUNDBOX]
         (OR (IMAGEOBJPROP OBJ 'BITCACHE)
             (MB.DISPLAY OBJ))                               ; MAKE SURE THE DISPLAY FORM EXISTS
         (BITBLT (IMAGEOBJPROP OBJ 'BITCACHE)
                0 0 W 0 0 (fetch (IMAGEBOX XSIZE) of OBJBOX)
                (fetch (IMAGEBOX YSIZE) of OBJBOX)
                'INPUT
                'REPLACE)
         (CL:WHEN (OR ON (EQ (IMAGEOBJPROP OBJ 'STATE)
                             'ON))
             (BLTSHADE BLACKSHADE W 0 0 (fetch (IMAGEBOX XSIZE) of OBJBOX)
                    (fetch (IMAGEBOX YSIZE) of OBJBOX)
                    'INVERT))])
```

```
(MBUTTON.CREATE
  [LAMBDA (MBTEXT MBFN MBFONT IMAGEFNS)                      ; Edited 11-Jan-89 16:10 by jds

    ;; Create a MENU BUTTON image object, and fill in its image and function-hook fields

    (LET* ([REAL-FONT (OR MBFONT (FONTCLASSCOMPONENT DEFAULTFONT 'DISPLAY]
           (OBJ (IMAGEOBJCREATE NIL (OR IMAGEFNS MBUTTONIMAGEFNS)))
           (BOX (create IMAGEBOX
                       XSIZE _ (STRINGWIDTH MBTEXT REAL-FONT)
                       YSIZE _ (FONTPROP REAL-FONT 'HEIGHT)
                       YDESC _ (FONTPROP REAL-FONT 'DESCENT)
                       XKERN _ 0))
           BITMAP DS)
          (IMAGEOBJPROP OBJ 'MBFN MBFN)                      ; The function to be called when the button is pushed
          (IMAGEOBJPROP OBJ 'MBTEXT MBTEXT)                  ; The text displayed in the button
          (IMAGEOBJPROP OBJ 'MBFONT REAL-FONT)               ; The font that text appears in
          (MB.SETIMAGE OBJ)                                  ; Set up the image for the button, so we don't create it
                                                             ; repeatedly.
          OBJ])
```

```
(MBUTTON.CHANGENAME
  [LAMBDA (TEXTOBJ OBJ NEWNAME)                              (* jds "23-Aug-84 13:26")

          (* Change the text that appears in a button, and redisplay the button if it's visible)

    (PROG (BOX BITMAP DS)
          (IMAGEOBJPROP OBJ 'MBTEXT NEWNAME)
          (MB.SETIMAGE OBJ)
          (TEDIT.OBJECT.CHANGED TEXTOBJ OBJ])
```

```
(MBUTTON.FIND.BUTTON
  [LAMBDA (LABEL TEXTSTREAM CH#)                             ; Edited 17-Mar-2024 00:27 by rmk
                                                             ; Edited 16-Sep-2022 21:20 by rmk
                                                             ; Edited 22-Aug-2022 15:29 by rmk
                                                             ; Edited 22-Apr-93 15:40 by jds
                                                             ; '27-Sep-84 00:52' gbn

    ;; Returns the piece containing the imageobj with MBTEXT prop LABEL

    (for (PC _ (\TEDIT.CHTOPC (OR CH# 1)
                      (TEXTOBJ TEXTSTREAM)))
       OBJ
       (LABELATOM _ (MKATOM LABEL)) by (NEXTPIECE PC) while PC
       do (CL:WHEN [AND (EQ OBJECT.PTYPE (PTYPE PC))
                        (SETQ OBJ (PCONTENTS PC))
                        (EQ LABELATOM (MKATOM (IMAGEOBJPROP OBJ 'MBTEXT]
              (RETURN PC)])
```

```
(MBUTTON.FIND.NEXT.BUTTON
  [LAMBDA (TEXTOBJ CH#)                                      ; Edited 17-Mar-2024 00:27 by rmk
                                                             ; Edited 21-Oct-2023 08:54 by rmk
                                                             ; Edited  5-Sep-2022 15:39 by rmk
                                                             ; Edited 22-Aug-2022 13:19 by rmk
                                                             ; Edited  6-Aug-2022 17:36 by rmk
                                                             ; Edited 22-Apr-93 16:39 by jds

    ;; Finds the next instance of an OBJECT which looks like a menu button, 3-state button, or menuobj.  If none is found, return NIL

    (for (PC _ (\TEDIT.CHTOPC CH# TEXTOBJ))
       OBJ by (NEXTPIECE PC) while PC when (AND (EQ OBJECT.PTYPE (PTYPE PC))
                                                (SETQ OBJ (PCONTENTS PC))
                                                (OR (type? MBUTTON OBJ)
                                                    (type? MARGINBAR OBJ)
                                                    (type? NWAYBUTTON OBJ)))
       do (RETURN (CONS OBJ (\TEDIT.PCTOCH PC TEXTOBJ])
```

```
(MBUTTON.FIND.NEXT.FIELD
  [LAMBDA (TEXTOBJ CH# DONTFIX)                              ; Edited 17-Mar-2024 00:27 by rmk
                                                             ; Edited 25-Feb-2024 23:17 by rmk
                                                             ; Edited  9-May-2023 12:43 by rmk
```

```
                                                                 ; Edited 20-Mar-2023 17:33 by rmk
                                                                 ; Edited 11-Feb-2023 11:23 by rmk
                                                                 ; Edited  9-Sep-2022 17:04 by rmk
                                                                 ; Edited 22-Aug-2022 13:06 by rmk
                                                                 ; Edited 22-Apr-93 16:53 by jds

    ;; Scan forward from CH# to the next type-in field.  If found, sets SCRATCHSEL to the text inside the field

    (PROG ((SCRATCHSEL (GETTOBJ TEXTOBJ SCRATCHSEL))
           PC START-OF-PIECE LEN)
          (DECLARE (SPECVARS START-OF-PIECE))
          (CL:WHEN (IGREATERP CH# (FGETTOBJ TEXTOBJ TEXTLEN))    ; Can't look past the end of the document
              (RETURN NIL))

     ;; Find the start of the field.  CLSELHERE is set for the prefix {, since the field may be empty

          (for old PC inpieces (\TEDIT.CHTOPC CH# TEXTOBJ T) until (fetch (CHARLOOKS CLSELHERE) of (PLOOKS PC))
             do (add START-OF-PIECE (PLEN PC)))
          (CL:UNLESS PC                                          ; Ran off the text without finding a fill-in field
              (RETURN NIL))
          (add START-OF-PIECE (PLEN PC))                         ; Skip the leading bracket

     ;; Find the length of the fill-in. The closing bracket is protected.

          (SETQ LEN (for P inpieces (NEXTPIECE PC) until (fetch (CHARLOOKS CLPROTECTED) of (PLOOKS P))
                       sum (PLEN P)))
          (\TEDIT.UPDATE.SEL SCRATCHSEL START-OF-PIECE LEN 'LEFT DONTFIX)
          (FSETSEL SCRATCHSEL SELKIND 'CHAR)
          (FSETSEL SCRATCHSEL SET T)
          (RETURN SCRATCHSEL])
```

```
(MBUTTON.INIT
  [LAMBDA NIL                                                    ; Edited 18-Feb-2024 14:15 by rmk
                                                                 (* jds "12-Feb-85 14:32")
    (SETQ MBUTTONIMAGEFNS (IMAGEFNSCREATE (FUNCTION MB.DISPLAY)
                                (FUNCTION MB.SIZEFN)
                                (FUNCTION MB.PUTFN)
                                (FUNCTION MB.GETFN)
                                (FUNCTION MB.COPYFN)
                                (FUNCTION MB.BUTTONEVENTINFN)
                                'NILL
                                'NILL
                                'NILL
                                'NILL
                                'NILL
                                (FUNCTION MB.WHENOPERATEDFN)
                                (FUNCTION NILL)
                                'TEditMenuButton])
```

```
(MBUTTON.NEXT.FIELD.AS.NUMBER
  [LAMBDA (TEXTOBJ CH#)                                          ; Edited 15-Dec-2023 13:59 by rmk
                                                                 ; Edited 30-Jul-2023 08:54 by rmk
                                                                 ; Edited 12-Jun-90 19:00 by mitani
    (MBUTTON.FIND.NEXT.FIELD TEXTOBJ CH# T)
    (LET [(VAL (TEDIT.SEL.AS.STRING (fetch (TEXTOBJ STREAMHINT) of TEXTOBJ)
                      (fetch (TEXTOBJ SCRATCHSEL) of TEXTOBJ]
         (CL:WHEN (IGREATERP (NCHARS VAL)
                         0)
             (SETQ VAL (MKATOM (CL:STRING-TRIM '(#\Space #\Newline)
                                      VAL)))
             (if (NUMBERP VAL)
               else (TEDIT.PROMPTPRINT TEXTOBJ (CONCAT VAL " is not a number, ignored")
                           T T)
                    NIL))])
```

```
(MBUTTON.NEXT.FIELD.AS.TEXT
  [LAMBDA (TEXTOBJ CH#)                                          ; Edited 22-Apr-93 16:14 by jds

    ;; Find the next fill-in field in the menu after CH#, and return its contents as a string.

    (MBUTTON.FIND.NEXT.FIELD TEXTOBJ CH# T)
    (TEDIT.SEL.AS.STRING (fetch (TEXTOBJ STREAMHINT) of TEXTOBJ)
           (fetch (TEXTOBJ SCRATCHSEL) of TEXTOBJ])
```

```
(MBUTTON.NEXT.FIELD.AS.ATOM
  [LAMBDA (TEXTOBJ CH#)                                          ; Edited 25-Feb-2024 17:46 by rmk
                                                                 ; Edited 12-Jun-90 19:00 by mitani

    ;; Find the next fill-in field, and return its contents as an atom.  If the field is empty, return NIL.

    (MBUTTON.FIND.NEXT.FIELD TEXTOBJ CH# T)                      ; Move to the next fill-in field.
    (LET [(STR (TEDIT.SEL.AS.STRING (GETTOBJ TEXTOBJ STREAMHINT)
                      (GETTOBJ TEXTOBJ SCRATCHSEL]
         (CL:UNLESS (ZEROP (NCHARS STR))                         ; The field isn't emtpy, convert to atom
             (MKATOM STR))])
```

```
(MBUTTON.SET.FIELD
  [LAMBDA (TEXTSTREAM FIELD VALUE)                              ; Edited 17-Mar-2024 00:25 by rmk
                                                                ; Edited 15-Mar-2024 13:36 by rmk
                                                                ; Edited 21-Oct-2023 08:55 by rmk
                                                                ; Edited 13-Sep-2022 12:24 by rmk
                                                                ; Edited  6-Aug-2022 17:45 by rmk
                                                                ; Edited 22-Apr-93 10:56 by jds

    ;; Makes the contents of the field with name FIELD be VALUE.

    (LET ((TEXTOBJ (TEXTOBJ TEXTSTREAM))
          OBJ SAVED.SEL FIELD.SEL PC NEW-STRING)
         (SETQ PC (MBUTTON.FIND.BUTTON FIELD TEXTSTREAM))
         (CL:WHEN (SETQ PC (MBUTTON.FIND.BUTTON FIELD TEXTSTREAM))
             (SETQ FIELD.SEL (MBUTTON.FIND.NEXT.FIELD TEXTOBJ (\TEDIT.PCTOCH PC TEXTOBJ)))
                                                                ; select the field following this button.
             (CL:WHEN FIELD.SEL                                 ; there are contents to set for this button
                 (\TEDIT.FIXSEL FIELD.SEL TEXTOBJ)
                 (TEDIT.SETSEL TEXTSTREAM (fetch (SELECTION CH#) of FIELD.SEL)
                        (fetch (SELECTION DCH) of FIELD.SEL)
                        (fetch (SELECTION POINT) of FIELD.SEL)
                        T)
                 (SETQ NEW-STRING (MKSTRING VALUE))
                 [COND
                    ((ZEROP (NCHARS NEW-STRING))                ; Nothing to replace, so just delete it.
                     (TEDIT.DELETE TEXTSTREAM))
                    (T                                          ; there IS new info, so insert it.
                       (TEDIT.INSERT TEXTSTREAM (MKSTRING VALUE])))])

(MBUTTON.SET.NEXT.FIELD
  [LAMBDA (TEXTOBJ CH# NEWVALUE DONTUPDATESCREEN)               ; Edited 15-Mar-2024 13:36 by rmk
                                                                ; Edited 22-May-2023 10:50 by rmk
                                                                ; Edited 20-Mar-2023 12:40 by rmk
                                                                ; Edited 18-Mar-2023 23:18 by rmk
                                                                ; Edited 11-Feb-2023 09:33 by rmk
                                                                ; Edited 30-May-91 22:15 by jds

    ;; SET the text content of the next fill-in field in this document to be NEWVALUE.  Perhaps SHOULDNT if it can't find one?

    (LET (FIELDSEL)
         (CL:WHEN (SETQ FIELDSEL (MBUTTON.FIND.NEXT.FIELD TEXTOBJ CH#))
             (\TEDIT.FIXSEL FIELDSEL TEXTOBJ)                   ; Fix up the SELECTION that describes its contents, so we've
                                                                ; got the right screen coordinates &c
             (CL:UNLESS (ZEROP (fetch (SELECTION DCH) of FIELDSEL))
                    (\TEDIT.DELETE TEXTOBJ FIELDSEL))           ; Delete existing text
             (CL:WHEN NEWVALUE
                 (\TEDIT.INSERT (MKSTRING NEWVALUE)
                        FIELDSEL TEXTOBJ)))])

(MBUTTON.SET.NEXT.BUTTON.STATE
  [LAMBDA (TEXTOBJ STARTINGCH NEWSTATE)                         (* jds "31-Jul-85 22:09")

          (* * Find the next menu button in the document, and set its state to NEWSTATE.
          Return 1 + the CH# of the button, for further searchers)

    (PROG* ((NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ STARTINGCH))
            (BUTTON (CAR NEXTB)))
           (IMAGEOBJPROP BUTTON 'STATE NEWSTATE)
           (RETURN (ADD1 (CDR NEXTB])

(TEDITMENU.STREAM
  [LAMBDA (TEXTSTREAM)                                          ; Edited 10-Apr-2023 09:53 by rmk
                                                                (* jds "13-Aug-84 14:10")

    ;; returns the textstream of the teditmenu attached to this stream if any

    (for W in (ATTACHEDWINDOWS (\TEDIT.MAINW TEXTSTREAM)) when (TEDITMENUP W "TEdit Menu")
       do (RETURN (TEXTSTREAM W])
)

(DECLARE%: DOEVAL@COMPILE DONTCOPY

(GLOBALVARS MBUTTONIMAGEFNS)
)

(DECLARE%: DONTEVAL@LOAD DOCOPY

(MBUTTON.INIT)

(ADDTOVAR IMAGEOBJTYPES (TEditMenuButton FILE TEDITMENU GETFN MB.GETFN))
)

;; Three-state (ON-OFF-NEUTRAL) menu buttons, for, e.g., character properties like BOLD

(DEFINEQ

(MB.CREATE.THREESTATEBUTTON
  [LAMBDA (TEXT FONT STATECHANGEFN INITSTATE)                    (* jds "24-Sep-86 00:49")
    (PROG ((OBJ (IMAGEOBJCREATE NIL THREESTATEIMAGEFNS))
           (BOX (create IMAGEBOX
                       XSIZE _ (STRINGWIDTH TEXT FONT)
                       YSIZE _ (FONTPROP FONT 'HEIGHT)
                       YDESC _ (FONTPROP FONT 'DESCENT)
                       XKERN _ 0))
           DS BITMAP X Y)
          (SETQ X (fetch XSIZE of BOX))
          (SETQ Y (fetch YSIZE of BOX))
          (IMAGEOBJPROP OBJ 'MBTEXT TEXT)
          (IMAGEOBJPROP OBJ 'MBFONT FONT)
          (IMAGEOBJPROP OBJ 'MBFN 'MB.THREESTATEBUTTON.FN)
          (IMAGEOBJPROP OBJ 'STATECHANGEFN STATECHANGEFN)
          (IMAGEOBJPROP OBJ 'STATE (OR INITSTATE 'NEUTRAL))
          (SETQ BITMAP (BITMAPCREATE X Y))
          (IMAGEOBJPROP OBJ 'BITCACHE BITMAP)
          (SETQ DS (DSPCREATE BITMAP))
          (DSPXOFFSET 0 DS)
          (DSPYOFFSET 0 DS)
          (DSPFONT FONT DS)
          (MOVETO 0 (FONTPROP FONT 'DESCENT)
                 DS)
          (PRIN1 (IMAGEOBJPROP OBJ 'MBTEXT)
                 DS)
          (RETURN OBJ])
```

(MB.THREESTATE.DISPLAY

```
  [LAMBDA (OBJ STREAM MODE)                                      ; Edited 20-Nov-2023 14:27 by rmk
                                                                 (* jds "30-Aug-84 13:53")

    ;; Display the innards of a menu button

    (PROG (DS (OBJBOX (IMAGEOBJPROP OBJ 'BOUNDBOX))
              (FONT (IMAGEOBJPROP OBJ 'MBFONT))
              (CURX (DSPXPOSITION NIL STREAM))
              (CURY (DSPYPOSITION NIL STREAM))
              BITMAP X Y)
          (OR OBJBOX (SETQ OBJBOX (MB.SIZEFN OBJ STREAM)))        ; Make sure the size is set.
          (SETQ X (fetch XSIZE of OBJBOX))
          (SETQ Y (fetch YSIZE of OBJBOX))
          (COND
             ((SETQ BITMAP (IMAGEOBJPROP OBJ 'BITCACHE))          ; The image bitmap exists already.  Use it.

              )
             (T                                                  ; Need to create an image for this object.
                (SETQ BITMAP (BITMAPCREATE X Y))
                (IMAGEOBJPROP OBJ 'BITCACHE BITMAP)
                (SETQ DS (DSPCREATE BITMAP))
                (DSPXOFFSET 0 DS)
                (DSPYOFFSET 0 DS)
                (DSPFONT FONT DS)
                (MOVETO 0 (FONTPROP FONT 'DESCENT)
                       DS)
                (PRIN1 (IMAGEOBJPROP OBJ 'MBTEXT)
                       DS)))
          (BITBLT BITMAP 0 0 STREAM CURX (IDIFFERENCE CURY (fetch YDESC of OBJBOX))
                 X Y 'INPUT 'PAINT)
          (SELECTQ (IMAGEOBJPROP OBJ 'STATE)
               (ON                                               ; The button is ON.  Display it as white text on black background
                   (BLTSHADE BLACKSHADE STREAM CURX (IDIFFERENCE CURY (fetch YDESC of OBJBOX))
                          X Y 'INVERT))
               (OFF                                              ; The button is OFF.  Mark it with a diagonal line thru it.
                    (DRAWLINE CURX (IDIFFERENCE CURY (fetch YDESC of OBJBOX))
                           (SUB1 (IPLUS CURX X))
                           (SUB1 (IPLUS (IDIFFERENCE CURY (fetch YDESC of OBJBOX))
                                        Y))
                           1
                           'PAINT STREAM))
               (NEUTRAL                                          ; The button is neutral.  Just display it regular.
                        )
              NIL])
```

(MB.THREESTATE.SHOWSELFN

```
  [LAMBDA (OBJ SEL ON DS)                                        ; Edited 20-Nov-2023 14:31 by rmk
                                                                 ; Edited 30-May-91 22:16 by jds
    (LET [(IMAGEBOX (OR (IMAGEOBJPROP OBJ 'BOUNDBOX)
                        (IMAGEBOX OBJ DS]
         (COND
            (ON (SELECTQ (IMAGEOBJPROP OBJ 'STATE)
                     (ON                                         ; Switch from ON to NEUTRAL
                         (BLTSHADE BLACKSHADE DS 0 0 (fetch XSIZE of IMAGEBOX)
                                (fetch YSIZE of IMAGEBOX)
                                'INVERT))
                     (OFF                                        ; Switch from OFF to ON
                          (BITBLT (IMAGEOBJPROP OBJ 'BITCACHE)
                                 0 0 DS 0 0 (fetch XSIZE of IMAGEBOX)
                                 (fetch YSIZE of IMAGEBOX)
                                 'INPUT
                                 'REPLACE)
                          (BLTSHADE BLACKSHADE DS 0 0 (fetch XSIZE of IMAGEBOX)
                                 (fetch YSIZE of IMAGEBOX)
                                 'INVERT))
                     (NEUTRAL                                                    ; Switch from NEUTRAL to OFF
                              (DRAWLINE 0 0 (SUB1 (fetch XSIZE of IMAGEBOX))
                                     (SUB1 (fetch YSIZE of IMAGEBOX))
                                     1
                                     'PAINT DS))
                     NIL))
            ((GETSEL SEL SET)
             (SELECTQ (IMAGEOBJPROP OBJ 'STATE)
                  (ON                                                            ; Switch from NEUTRAL to ON
                      (BLTSHADE BLACKSHADE DS 0 0 (fetch XSIZE of IMAGEBOX)
                             (fetch YSIZE of IMAGEBOX)
                             'INVERT))
                  (OFF                                                           ; Switch from ON to OFF
                       (BLTSHADE BLACKSHADE DS 0 0 (fetch XSIZE of IMAGEBOX)
                              (fetch YSIZE of IMAGEBOX)
                              'INVERT)
                       (DRAWLINE 0 0 (SUB1 (fetch XSIZE of IMAGEBOX))
                              (SUB1 (fetch YSIZE of IMAGEBOX))
                              1
                              'PAINT DS))
                  (NEUTRAL                                                       ; Switch from OFF to NEUTRAL
                           (BITBLT (IMAGEOBJPROP OBJ 'BITCACHE)
                                  0 0 DS 0 0 (fetch XSIZE of IMAGEBOX)
                                  (fetch YSIZE of IMAGEBOX)
                                  'INPUT
                                  'REPLACE))
                 NIL])

(MB.THREESTATE.WHENOPERATEDFN
  [LAMBDA (OBJ DS OPERATION SEL)                                                 ; Edited  9-Feb-2024 10:52 by rmk
                                                                                 ; Edited 28-Jan-2024 23:33 by rmk
                                                                                 ; Edited 30-May-91 22:16 by jds
                                                                                 ; Handle operations on a three-state button
    (SELECTQ OPERATION
         (HIGHLIGHTED                                                            ; It is being hilighted
                      (MB.THREESTATE.SHOWSELFN OBJ SEL T DS))
         (UNHIGHLIGHTED                                                          ; And being de-hilighted
             (MB.THREESTATE.SHOWSELFN OBJ SEL NIL DS))
         (SELECTED                                                               ; It's being selected
                   (MB.THREESTATEBUTTON.FN OBJ SEL DS)                           ; Run the state-changing function
                   (SETSEL SEL SET NIL)                                          ; And mar the selection turned off, so others can use it without
                                                                                 ; trashing us
                   (SETSEL SEL ONFLG NIL))
         (DESELECTED)
        NIL])

(MB.THREESTATEBUTTON.FN
  [LAMBDA (OBJ SEL W)                                                            ; Edited 25-Feb-2024 23:40 by rmk
                                                                                 ; Edited 21-Oct-2022 18:45 by rmk
                                                                                 ; Edited 30-May-91 22:16 by jds
                                                                                 ; MBFN for TEdit default menu item buttons.
    (LET ((TEXTOBJ (fetch (SELECTION SELTEXTOBJ) of SEL))
          (STATECHANGEFN (IMAGEOBJPROP OBJ 'STATECHANGEFN))
          NEWSTATE)
         (SETQ NEWSTATE (SELECTQ (IMAGEOBJPROP OBJ 'STATE)
                             (OFF 'ON)
                             (ON 'NEUTRAL)
                             (NEUTRAL 'OFF)
                             'ON))
         (CL:WHEN STATECHANGEFN                                                  ; apply any user supplied state change fn
             (APPLY* STATECHANGEFN OBJ NEWSTATE (TEXTSTREAM TEXTOBJ)))
         (IMAGEOBJPROP OBJ 'STATE NEWSTATE)
         (FSETSEL SEL ONFLG NIL)
         (TTY.PROCESS (WINDOWPROP (WINDOWPROP W 'MAINWINDOW)
                             'PROCESS])

(THREESTATE.INIT
  [LAMBDA NIL                                                                    (* jds " 9-Feb-86 15:17")
                                                                                 (* Initialize the IMAGEFNS for 3-state menu button IMAGEOBJs)
    (SETQ THREESTATEIMAGEFNS (IMAGEFNSCREATE (FUNCTION MB.THREESTATE.DISPLAY)
                                    (FUNCTION MB.SIZEFN)
                                    (FUNCTION MB.PUTFN)
                                    (FUNCTION MB.GETFN)
                                    (FUNCTION MB.COPYFN)
                                    (FUNCTION MB.BUTTONEVENTINFN)
                                    'NILL
                                    'NILL
                                    'NILL
                                    'NILL
                                    'NILL
                                    (FUNCTION MB.THREESTATE.WHENOPERATEDFN)
                                    'NILL
                                    '3StateMenuButton])

)

(DECLARE%: DONTEVAL@LOAD DOCOPY

(THREESTATE.INIT)
)


;; One-of-N Menu button sets

(DEFINEQ

(MB.CREATE.NWAYBUTTON
  [LAMBDA (BUTTONS FONT CHANGESTATEFN INITSTATE MAXITEMS/LINE)   (* gbn "24-Sep-84 15:31")
    (PROG ((OBJECT (IMAGEOBJCREATE NIL NWAYBUTTONIMAGEFNS))
           HEIGHT IMAGES IMAGE DS DESCENT SPACING SIDEEFFECTFNS WIDTHS TWIDTHS)
          (SETQ FONT (OR FONT (FONTCREATE 'HELVETICA 10)))
          (SETQ HEIGHT (FONTPROP FONT 'HEIGHT))
          (SETQ DESCENT (FONTPROP FONT 'DESCENT))
          (SETQ WIDTHS (for BUTTON in BUTTONS collect (STRINGWIDTH (COND
                                                                    ((NLISTP BUTTON)
                                                                     BUTTON)
                                                                    (T (CAR BUTTON)))
                                                          FONT)))
          (SETQ IMAGES (for WIDTH in WIDTHS as BUTTON in BUTTONS collect (BITMAPCREATE WIDTH HEIGHT)))
          (SETQ SPACING (STRINGWIDTH "   " FONT))
          [SETQ SIDEEFFECTFNS (for BUTTON in BUTTONS collect (AND (LISTP BUTTON)
                                                                (CADR BUTTON]
          (SETQ DS (DSPCREATE))
          (DSPXOFFSET 0 DS)
          (DSPYOFFSET 0 DS)
          (DSPFONT FONT DS)
          (DSPRIGHTMARGIN 32000 DS)
          (for IMAGE in IMAGES as BUTTON in BUTTONS do (DSPDESTINATION IMAGE DS)
                                                      (MOVETO 0 DESCENT DS)
                                                      (PRIN1 (COND
                                                                ((NLISTP BUTTON)
                                                                 BUTTON)
                                                                (T (CAR BUTTON)))
                                                            DS))
          (IMAGEOBJPROP OBJECT 'MINWIDTH (for WIDTH in WIDTHS largest WIDTH))
                                                                 (* We always need at least one button's width)
          (IMAGEOBJPROP OBJECT 'MINHEIGHT (IPLUS HEIGHT 2))      (* And at least one button's height)
          [IMAGEOBJPROP OBJECT 'MAXWIDTH (COND
                                          [MAXITEMS/LINE (SETQ TWIDTHS (SORT (COPY WIDTHS)))
                                                 (IPLUS (CAR TWIDTHS)
                                                        (for WIDTH in (CDR TWIDTHS) as I from 1
                                                           to (SUB1 MAXITEMS/LINE)
                                                           sum (IPLUS WIDTH SPACING]
                                          (T (IPLUS (CAR WIDTHS)
                                                    (for WIDTH in (CDR WIDTHS) sum (IPLUS WIDTH SPACING]
                                                                 (* At most, we're as wide as the N widest buttons put together)
          (IMAGEOBJPROP OBJECT 'MAXHEIGHT (ITIMES (IPLUS HEIGHT 2)
                                                  (LENGTH BUTTONS)))
          (IMAGEOBJPROP OBJECT 'ITEMSPACE SPACING)
          (IMAGEOBJPROP OBJECT 'BUTTONS BUTTONS)
          (IMAGEOBJPROP OBJECT 'BUTTONIMAGES IMAGES)
          (IMAGEOBJPROP OBJECT 'BUTTONHEIGHT (IPLUS HEIGHT 2))
          (IMAGEOBJPROP OBJECT 'BUTTONWIDTHS WIDTHS)
          (IMAGEOBJPROP OBJECT 'NBUTTONS (LENGTH BUTTONS))
          (IMAGEOBJPROP OBJECT 'STATE INITSTATE)
          (IMAGEOBJPROP OBJECT 'SELECTEDBUTTON NIL)
          (IMAGEOBJPROP OBJECT 'SIDEEFFECTFNS SIDEEFFECTFNS)
          (IMAGEOBJPROP OBJECT 'DESCENT DESCENT)
          (IMAGEOBJPROP OBJECT 'MBFONT FONT)
          (IMAGEOBJPROP OBJECT 'MAXITEMS/LINE MAXITEMS/LINE)
          (RETURN OBJECT])

(MB.NB.DISPLAYFN
  [LAMBDA (OBJ STREAM MODE)                                      (* jds "28-Aug-84 15:07")
                                                                 (* Display the innards of a menu button)
    (PROG (BITMAP DS (OBJBOX (IMAGEOBJPROP OBJ 'BOUNDBOX))
                 (X (DSPXPOSITION NIL STREAM))
                 (Y (DSPYPOSITION NIL STREAM))
                 (BUTTONX (IMAGEOBJPROP OBJ 'BUTTONX))
                 (BUTTONY (IMAGEOBJPROP OBJ 'BUTTONY))
                 (BUTTONLIST (IMAGEOBJPROP OBJ 'BUTTONS))
                 (BUTTONIMAGES (IMAGEOBJPROP OBJ 'BUTTONIMAGES))
                 STATE)
          [COND
```

```
             ((SETQ BITMAP (IMAGEOBJPROP OBJ 'IMAGECACHE))       (* The button image exists already)
              )
             (T                                                  (* Have to make one.)
                (SETQ BITMAP (BITMAPCREATE (fetch XSIZE of OBJBOX)
                                     (fetch YSIZE of OBJBOX)))
                (IMAGEOBJPROP OBJ 'IMAGECACHE BITMAP)
                (SETQ DS (DSPCREATE BITMAP))
                (DSPXOFFSET 0 DS)
                (DSPYOFFSET 0 DS)
                (DSPFONT (IMAGEOBJPROP OBJ 'MBFONT)
                       DS)
                (for X in BUTTONX as Y in BUTTONY as IMAGE in BUTTONIMAGES
                   do                                            (* Display the images)
                      (BITBLT IMAGE 0 0 DS X Y NIL NIL 'INPUT 'REPLACE]
          [BITBLT BITMAP 0 0 STREAM X (SETQ Y (IDIFFERENCE Y (fetch YDESC of OBJBOX]
                                                                 (* Display the button's image)
          (COND
             ((SETQ STATE (IMAGEOBJPROP OBJ 'STATE))             (* There's a selected button.)
              (for BXVAL in BUTTONX as BYVAL in BUTTONY as IMAGE in BUTTONIMAGES as BUTTON in BUTTONLIST
                 when (EQ STATE BUTTON) do (BITBLT IMAGE 0 0 STREAM (IPLUS X BXVAL)
                                                    (IPLUS Y BYVAL)
                                                    NIL NIL 'INVERT 'REPLACE])
```

(MB.NB.WHENOPERATEDFN

```
  [LAMBDA (OBJ DS OPERATION SEL)                                 ; Edited  9-Apr-2023 15:57 by rmk
                                                                 ; Edited 13-Sep-2022 12:09 by rmk
                                                                 ; Edited 30-May-91 22:16 by jds
    (SELECTQ OPERATION
         (HIGHLIGHTED                                            (* (MB.SHOWSELFN OBJ SEL T DS))
                      NIL)
         (UNHIGHLIGHTED                                          (* (MB.SHOWSELFN OBJ SEL NIL DS))
             NIL)
         (SELECTED ;; There may be a side-effect to occur upon selection.
                   (for BUTTON (STATE _ (IMAGEOBJPROP OBJ 'STATE)) in (IMAGEOBJPROP OBJ 'BUTTONS) as SIDEFN
                      in (IMAGEOBJPROP OBJ 'SIDEEFFECTFNS) when (AND (EQ STATE BUTTON)
                                                                      SIDEFN)
                      do (MB.SELFN OBJ SEL DS SIDEFN))
                   (replace (SELECTION SET) of SEL with NIL))
         (DESELECTED)
        NIL])
```

(MB.NB.SIZEFN

```
  [LAMBDA (OBJ STREAM CURX RIGHTMARGIN)                          (* jds " 6-Sep-84 14:19")
                                                                 (* Tell the size of an n-way menu)
    (PROG ((OLDBOX (IMAGEOBJPROP OBJ 'BOUNDBOX))
           BOX
           (MAXITEMS/LINE (IMAGEOBJPROP OBJ 'MAXITEMS/LINE))
           (MAXWIDTH (IMAGEOBJPROP OBJ 'MAXWIDTH))
           (MINWIDTH (IMAGEOBJPROP OBJ 'MINWIDTH))
           (MAXHEIGHT (IMAGEOBJPROP OBJ 'MAXHEIGHT))
           (MINHEIGHT (IMAGEOBJPROP OBJ 'MINHEIGHT))
           (LINEHEIGHT (IMAGEOBJPROP OBJ 'LINEHEIGHT))
           (BUTTONHEIGHT (IMAGEOBJPROP OBJ 'BUTTONHEIGHT))
           (BUTTONWIDTHS (IMAGEOBJPROP OBJ 'BUTTONWIDTHS))
           (SPACING (IMAGEOBJPROP OBJ 'ITEMSPACE))
           (SLACK (IDIFFERENCE RIGHTMARGIN CURX))
           BUTTONX BUTTONY BUTTONINFO WIDTH HEIGHT)
          [COND
             ((AND (IGEQ SLACK MAXWIDTH)
                   (NOT MAXITEMS/LINE))                          (* There's space for all the items on one line.
                                                                 Use it)
              (SETQ WIDTH MAXWIDTH)
              (SETQ HEIGHT MINHEIGHT)
              [SETQ BUTTONX (bind (CURX _ 0) for ITEM in BUTTONWIDTHS collect (PROG1 CURX
                                                                                  (add CURX SPACING)
                                                                                  (add CURX ITEM))]
              (SETQ BUTTONY (for ITEM in BUTTONWIDTHS collect 0)))
             [(ILEQ SLACK MINWIDTH)                              (* Have to stack it vertically.)
              (SETQ WIDTH MINWIDTH)
              (SETQ HEIGHT MAXHEIGHT)
              (SETQ BUTTONX (for ITEM in BUTTONWIDTHS collect 0))
              (SETQ BUTTONY (bind (CURY _ (ITIMES BUTTONHEIGHT (LENGTH BUTTONWIDTHS))) for ITEM in BUTTONWIDTHS
                               collect (add CURY (IMINUS BUTTONHEIGHT]
             (T (SETQ BUTTONINFO (MB.NB.PACKITEMS SLACK BUTTONWIDTHS SPACING MAXITEMS/LINE))
                [SETQ BUTTONX (for LINE in BUTTONINFO join (COPY (CDR LINE]
                [SETQ BUTTONY (bind (CURY _ (ITIMES BUTTONHEIGHT (LENGTH BUTTONINFO))) for LINE in BUTTONINFO
                                 join (PROGN (SETQ CURY (IDIFFERENCE CURY BUTTONHEIGHT))
                                             (for X in (CDR LINE) collect CURY]
                [SETQ WIDTH (CAR (for LINE in BUTTONINFO largest (CAR LINE]
                (SETQ HEIGHT (ITIMES BUTTONHEIGHT (LENGTH BUTTONINFO]
          (COND
             ((AND OLDBOX (IEQP WIDTH (fetch XSIZE of OLDBOX))
                   (IEQP HEIGHT (fetch YSIZE of OLDBOX)))        (* If nothing changed, don't bother reformatting.)
              (RETURN OLDBOX))
             (T                                                  (* Otherwise invalidate the image cache)
                (IMAGEOBJPROP OBJ 'IMAGECACHE NIL)))
          (SETQ BOX (create IMAGEBOX
                           XSIZE _ WIDTH
                           YSIZE _ HEIGHT
                           YDESC _ (IMAGEOBJPROP OBJ 'DESCENT)
                           XKERN _ 0))
          (IMAGEOBJPROP OBJ 'BOUNDBOX BOX)
          (IMAGEOBJPROP OBJ 'BUTTONX BUTTONX)
          (IMAGEOBJPROP OBJ 'BUTTONY BUTTONY)
          (RETURN BOX])
```

```
(MB.NWAYBUTTON.SELFN
  [LAMBDA (OBJ W SEL MOUSEX MOUSEY)                              ; Edited 25-Feb-2024 23:43 by rmk
                                                                 ; Edited 21-Oct-2022 18:46 by rmk
                                                                 ; Edited 30-May-91 22:16 by jds
                                                                 ; Selecting an NWAY button.
    (LET ((TEXTOBJ (GETSEL SEL SELTEXTOBJ))
          (OBJBOX (IMAGEOBJPROP OBJ 'BOUNDBOX))
          (OLDSTATE (IMAGEOBJPROP OBJ 'STATE))
          (BUTTONLIST (IMAGEOBJPROP OBJ 'BUTTONS))
          (BUTTONX (IMAGEOBJPROP OBJ 'BUTTONX))
          (BUTTONIMAGES (IMAGEOBJPROP OBJ 'BUTTONIMAGES))
          (BUTTONY (IMAGEOBJPROP OBJ 'BUTTONY))
          (BUTTONWIDTHS (IMAGEOBJPROP OBJ 'BUTTONWIDTHS))
          (BUTTONLIST (IMAGEOBJPROP OBJ 'BUTTONLIST))
          (BUTTONHEIGHT (IMAGEOBJPROP OBJ 'BUTTONHEIGHT))
          CH STATE)
         [for BUTTON in BUTTONLIST as X in BUTTONX as Y in BUTTONY as WIDTH in BUTTONWIDTHS as IMAGE in BUTTONIMAGES
            do (COND
                  ((INSIDE? (create REGION
                                    LEFT _ X
                                    BOTTOM _ Y
                                    WIDTH _ WIDTH
                                    HEIGHT _ BUTTONHEIGHT)
                          MOUSEX MOUSEY)                         ; The mouse is pointing here.  Select this.
                   (SETQ STATE BUTTON)
                   (BITBLT IMAGE 0 0 W X Y NIL NIL 'INVERT 'REPLACE))
                  ((EQ OLDSTATE BUTTON)                          ; This was the old selection (and it's different, too).  Unselect it
                   (BITBLT IMAGE 0 0 W X Y NIL NIL 'INPUT 'REPLACE]
         (IMAGEOBJPROP OBJ 'STATE STATE)
         (TTY.PROCESS (WINDOWPROP (WINDOWPROP W 'MAINWINDOW)
                             'PROCESS))
         T])
```

```
(MB.NWAYMENU.NEWBUTTON
  [LAMBDA (TEXTOBJ CH# OLDBUTTON NEWBUTTON)                      (* jds " 8-Feb-84 19:41")

          (* Given a hook on an existing button, and an insertion point, insert a new button)

    (PROG ((ARBITRATOR (IMAGEOBJPROP OLDBUTTON 'ARBITRATOR))
           BUTTON)
          (IMAGEOBJPROP BUTTON 'ARBITRATOR ARBITRATOR)
          (TEDIT.INSERT.OBJECT BUTTON TEXTOBJ CH#)
          (TEDIT.INSERT TEXTOBJ "  " (ADD1 CH#))
          (TEDIT.LOOKS TEXTOBJ '(PROTECTED ON)
                 (ADD1 CH#)
                 2)
          (RETURN BUTTON])
```

```
(NWAYBUTTON.INIT
  [LAMBDA (BUTTONS FONT INITSTATE)                               (* jds " 9-Feb-86 15:17")
    (SETQ NWAYBUTTONIMAGEFNS (IMAGEFNSCREATE (FUNCTION MB.NB.DISPLAYFN)
                                    (FUNCTION MB.NB.SIZEFN)
                                    (FUNCTION MB.PUTFN)
                                    (FUNCTION MB.GETFN)
                                    (FUNCTION MB.COPYFN)
                                    (FUNCTION MB.NWAYBUTTON.SELFN)
                                    'NILL
                                    'NILL
                                    'NILL
                                    'NILL
                                    'NILL
                                    (FUNCTION MB.NB.WHENOPERATEDFN)
                                    'NILL
                                    'NWayButton])
```

```
(MB.NB.PACKITEMS
  [LAMBDA (WIDTH ITEMWIDTHS SPACING MAXITEMS/LINE)               (* jds "24-Oct-84 17:42")

          (* * Pack items into lines WIDTH wide. Item widths are in ITEMWIDTHS, and each pair of items on a line is separated by
          SPACING. Returns a list of lists, one per line packed, of the relative X starts of the items)
```

```
    (PROG ((CURX 0)
           (LINES NIL)
           (CURLINE NIL)
           (CURLINEITEMS 0)
           ITEM)
          (while ITEMWIDTHS do (SETQ ITEM (pop ITEMWIDTHS))
                               (COND
                                  ((OR [ILESSP WIDTH (IPLUS CURX ITEM (COND
                                                                        (CURLINE SPACING)
                                                                        (T 0]
                                       (AND MAXITEMS/LINE (IGEQ CURLINEITEMS MAXITEMS/LINE)))
                                                                 (* Time for a new line)
                                   (SETQ LINES (NCONC1 LINES (CONS CURX CURLINE)))
                                                                 (* Add to our list of lines so far)
                                   (SETQ CURLINE NIL)            (* Empty the line accumulator)
                                   (SETQ CURLINEITEMS 0)         (* reset the line item count)
                                   (SETQ CURX 0)))
                               (AND CURLINE (add CURX SPACING))
                               (SETQ CURLINE (NCONC1 CURLINE CURX))
                               (add CURX ITEM)
                               (add CURLINEITEMS 1))
          [AND CURLINE (SETQ LINES (NCONC1 LINES (CONS CURX CURLINE]
                                                                 (* Capture the last partial line, if there is one.)
          (RETURN LINES])
```

```
(MB.NWAYBUTTON.ADDITEM
  [LAMBDA (OBJECT NEWBUTTON)                                     (* jds "11-Jul-85 12:44")
                                                                 (* Given an existing n-way choice menu button, add another
                                                                 choice to the list)
    (PROG ([BUTTONS (CONS NEWBUTTON (IMAGEOBJPROP OBJECT 'BUTTONS]
           HEIGHT IMAGES IMAGE DS DESCENT SPACING SIDEEFFECTFNS WIDTHS FONT)
          (SETQ FONT (IMAGEOBJPROP OBJECT 'MBFONT))
          (SETQ HEIGHT (FONTPROP FONT 'HEIGHT))
          (SETQ DESCENT (FONTPROP FONT 'DESCENT))
          (SETQ WIDTHS (for BUTTON in BUTTONS collect (STRINGWIDTH (COND
                                                                      ((NLISTP BUTTON)
                                                                       BUTTON)
                                                                      (T (CAR BUTTON)))
                                                            FONT)))
          (SETQ IMAGES (for WIDTH in WIDTHS as BUTTON in BUTTONS collect (BITMAPCREATE WIDTH HEIGHT)))
          (SETQ SPACING (STRINGWIDTH "   " FONT))
          [SETQ SIDEEFFECTFNS (for BUTTON in BUTTONS collect (AND (LISTP BUTTON)
                                                                 (CADR BUTTON]
          (SETQ DS (DSPCREATE))
          (DSPXOFFSET 0 DS)
          (DSPYOFFSET 0 DS)
          (DSPFONT FONT DS)
          (DSPRIGHTMARGIN 32000 DS)
          (for IMAGE in IMAGES as BUTTON in BUTTONS do (DSPDESTINATION IMAGE DS)
                                                       (MOVETO 0 DESCENT DS)
                                                       (PRIN1 (COND
                                                                 ((NLISTP BUTTON)
                                                                  BUTTON)
                                                                 (T (CAR BUTTON)))
                                                              DS))
          (IMAGEOBJPROP OBJECT 'MINWIDTH (for WIDTH in WIDTHS largest WIDTH))
          (IMAGEOBJPROP OBJECT 'MINHEIGHT (IPLUS HEIGHT 2))
          [IMAGEOBJPROP OBJECT 'MAXWIDTH (IPLUS (CAR WIDTHS)
                                                (for WIDTH in (CDR WIDTHS) sum (IPLUS WIDTH SPACING]
          (IMAGEOBJPROP OBJECT 'MAXHEIGHT (ITIMES (IPLUS HEIGHT 2)
                                                 (LENGTH BUTTONS)))
          (IMAGEOBJPROP OBJECT 'ITEMSPACE SPACING)
          (IMAGEOBJPROP OBJECT 'BUTTONS BUTTONS)
          (IMAGEOBJPROP OBJECT 'BUTTONIMAGES IMAGES)
          (IMAGEOBJPROP OBJECT 'BUTTONHEIGHT (IPLUS HEIGHT 2))
          (IMAGEOBJPROP OBJECT 'BUTTONWIDTHS WIDTHS)
          (IMAGEOBJPROP OBJECT 'NBUTTONS (LENGTH BUTTONS))
          (IMAGEOBJPROP OBJECT 'SELECTEDBUTTON NIL)
          (IMAGEOBJPROP OBJECT 'SIDEEFFECTFNS SIDEEFFECTFNS)
          (IMAGEOBJPROP OBJECT 'DESCENT DESCENT)
          (RETURN OBJECT])
)
```

```
(DECLARE%: DOEVAL@COMPILE DONTCOPY

(GLOBALVARS NWAYBUTTONIMAGEFNS)
)

(DECLARE%: DONTEVAL@LOAD DOCOPY

(NWAYBUTTON.INIT)

(ADDTOVAR IMAGEOBJTYPES (NWayButton FILE TEDITMENU GETFN MB.GETFN))
)
```

;; Two-state, toggling menu buttons.

```
(DEFINEQ

(\TEXTMENU.TOGGLE.CREATE
  [LAMBDA (TEXT FONT STATECHANGEFN INITSTATE)                  (* gbn "24-Sep-84 14:45")
                                                               (* Creates a TOGGLE menu button, that can turn off and on
                                                               alternately.)

    (PROG ((OBJ (IMAGEOBJCREATE NIL \TOGGLEIMAGEFNS))
           (BOX (create IMAGEBOX
                       XSIZE _ (STRINGWIDTH TEXT FONT)
                       YSIZE _ (FONTPROP FONT 'HEIGHT)
                       YDESC _ (FONTPROP FONT 'DESCENT)
                       XKERN _ 0))
          DS BITMAP X Y)
          (SETQ X (fetch XSIZE of BOX))
          (SETQ Y (fetch YSIZE of BOX))
          (IMAGEOBJPROP OBJ 'MBTEXT TEXT)
          (IMAGEOBJPROP OBJ 'MBFONT FONT)
          (IMAGEOBJPROP OBJ 'MBFN '\TEXTMENU.TOGGLEFN)
          (IMAGEOBJPROP OBJ 'STATECHANGEFN STATECHANGEFN)

          (* a function to be called on finalization of selection of this button to provide for user side-effects)

          (IMAGEOBJPROP OBJ 'STATE (OR INITSTATE 'OFF))
          (SETQ BITMAP (BITMAPCREATE X Y))
          (IMAGEOBJPROP OBJ 'BITCACHE BITMAP)
          (SETQ DS (DSPCREATE BITMAP))
          (DSPXOFFSET 0 DS)
          (DSPYOFFSET 0 DS)
          (DSPFONT FONT DS)
          (MOVETO 0 (FONTPROP FONT 'DESCENT)
                 DS)
          (PRIN1 (IMAGEOBJPROP OBJ 'MBTEXT)
                 DS)
          (RETURN OBJ])

(\TEXTMENU.TOGGLE.DISPLAY
  [LAMBDA (OBJ STREAM MODE)                                    ; Edited 20-Nov-2023 14:35 by rmk
                                                               (* gbn "27-Sep-84 01:23")
                                                               ; '27-Sep-84 01:11' gbn

    ;; Display the innards of a menu toggle

    (PROG (DS (OBJBOX (IMAGEOBJPROP OBJ 'BOUNDBOX))
              (FONT (IMAGEOBJPROP OBJ 'MBFONT))
              (CURX (DSPXPOSITION NIL STREAM))
              (CURY (DSPYPOSITION NIL STREAM))
              BITMAP X Y)
          (CL:UNLESS OBJBOX
              (SETQ OBJBOX (MB.SIZEFN OBJ STREAM)))            ; Make sure the size is set.
          (SETQ X (fetch XSIZE of OBJBOX))
          (SETQ Y (fetch YSIZE of OBJBOX))
          (COND
             ([type? BITMAP (SETQ BITMAP (IMAGEOBJPROP OBJ 'BITCACHE]
                                                               ; The image bitmap exists already.  Use it.

              )
             (T                                                ; Need to create an image for this object.
                (SETQ BITMAP (BITMAPCREATE X Y))
                (IMAGEOBJPROP OBJ 'BITCACHE BITMAP)
                (SETQ DS (DSPCREATE BITMAP))
                (DSPXOFFSET 0 DS)
                (DSPYOFFSET 0 DS)
                (DSPFONT FONT DS)
                (MOVETO 0 (FONTPROP FONT 'DESCENT)
                       DS)
                (PRIN1 (IMAGEOBJPROP OBJ 'MBTEXT)
                       DS)))
          (BITBLT BITMAP 0 0 STREAM CURX (IDIFFERENCE CURY (fetch YDESC of OBJBOX))
                 X Y 'INPUT 'PAINT)
          (SELECTQ (IMAGEOBJPROP OBJ 'STATE)
              (ON                                              ; The button is ON.  Display it as white text on black background
                  (BLTSHADE BLACKSHADE STREAM CURX (IDIFFERENCE CURY (fetch YDESC of OBJBOX))
                         X Y 'INVERT))
              (OFF                                             ; The button is OFF.  Just display it regular.
                   )
              (ERROR "Invalid state in toggle button " OBJ])

(\TEXTMENU.TOGGLE.SHOWSELFN
  [LAMBDA (OBJ SEL ON DS)                                      ; Edited 20-Nov-2023 14:46 by rmk
                                                               ; Edited 30-May-91 22:16 by jds

    (CL:WHEN (AND (OR ON (GETSEL SEL SET))
                  (IMAGEOBJPROP OBJ 'STATE))
        (LET [(IMAGEBOX (OR (IMAGEOBJPROP OBJ 'BOUNDBOX)
                            (IMAGEBOX OBJ DS]
             (BLTSHADE BLACKSHADE DS 0 0 (fetch XSIZE of IMAGEBOX)
                    (fetch YSIZE of IMAGEBOX)
                    'INVERT))))])
```

(\TEXTMENU.TOGGLE.WHENOPERATEDFN

```
  [LAMBDA (OBJ DS OPERATION SEL)                                ; Edited  9-Feb-2024 10:52 by rmk
                                                                ; Edited 28-Jan-2024 23:32 by rmk
                                                                ; Edited 30-May-91 22:16 by jds
                                                                ; Handle operations on a three-state button
    (SELECTQ OPERATION
        (HIGHLIGHTED                                            ; It is being hilighted
                    (\TEXTMENU.TOGGLE.SHOWSELFN OBJ SEL T DS))
        (UNHIGHLIGHTED                                          ; And being de-hilighted
             (\TEXTMENU.TOGGLE.SHOWSELFN OBJ SEL NIL DS))
        (SELECTED                                               ; It's being selected
                  (\TEXTMENU.TOGGLEFN OBJ SEL DS)               ; Run the state-changing function
                  (SETSEL SEL SET NIL)                          ; And mar the selection turned off, so others can use it without
                                                                ; trashing us
                  (SETSEL SEL ONFLG NIL))
        (DESELECTED)
        NIL])
```

(\TEXTMENU.TOGGLEFN

```
  [LAMBDA (OBJ SEL W)                                           ; Edited 21-Oct-2022 18:46 by rmk
                                                                ; Edited 30-May-91 22:16 by jds
                                                                (* MBFN for TOGGLE buttons--cycle back and forthe betwen
                                                                states.)
    (PROG ((TEXTOBJ (fetch (SELECTION SELTEXTOBJ) of SEL))
           (STATECHANGEFN (IMAGEOBJPROP OBJ 'STATECHANGEFN))
           OFILE CH NEWSTATE)
          (SETQ NEWSTATE (SELECTQ (IMAGEOBJPROP OBJ 'STATE)
                                  (OFF 'ON)
                                  (ON 'OFF)
                                  'ON))
          (COND
             (STATECHANGEFN                                     (* apply the user supplied state change fn if he supplied one)
                    (APPLY* STATECHANGEFN OBJ NEWSTATE (TEXTSTREAM TEXTOBJ)
                           SEL)))
          (IMAGEOBJPROP OBJ 'STATE NEWSTATE)
          (replace (SELECTION ONFLG) of SEL with NIL])
```

(\TEXTMENU.TOGGLE.INIT

```
  [LAMBDA NIL                                                   (* jds " 9-Feb-86 15:18")
    (SETQ \TOGGLEIMAGEFNS (IMAGEFNSCREATE (FUNCTION \TEXTMENU.TOGGLE.DISPLAY)
                                 (FUNCTION MB.SIZEFN)
                                 (FUNCTION MB.PUTFN)
                                 (FUNCTION MB.GETFN)
                                 (FUNCTION MB.COPYFN)
                                 (FUNCTION MB.BUTTONEVENTINFN)
                                 'NILL
                                 'NILL
                                 'NILL
                                 'NILL
                                 'NILL
                                 (FUNCTION \TEXTMENU.TOGGLE.WHENOPERATEDFN)
                                 'NILL
                                 'ToggleButton])
```

(\TEXTMENU.SET.TOGGLE

```
  [LAMBDA (TEXT VALUE TEXTSTREAM)                               ; Edited 22-Nov-2023 14:48 by rmk
                                                                ; Edited 22-Aug-2022 15:29 by rmk
                                                                ; Edited  6-Aug-2022 18:18 by rmk
                                                                ; Edited 12-Jun-90 19:02 by mitani
```

;;; finds the button with MBTEXT field TEXT in TEXTSTREAM and sets its state to VALUE

```
    (LET ((PC (MBUTTON.FIND.BUTTON TEXT TEXTSTREAM))
          OBJ)
         (CL:UNLESS PC (ERROR TEXT " was not found as a button."))
         (CL:WHEN (EQ OBJECT.PTYPE (PTYPE PC))
             (SETQ OBJ (PCONTENTS PC))
             (IMAGEOBJPROP OBJ 'STATE VALUE)
             (IMAGEOBJPROP OBJ 'BITCACHE 'JUNK)
             (for PANE inpanes (TEXTOBJ TEXTSTREAM) do (\TEDIT.REPAINTFN PANE))
             VALUE)])
)

(DECLARE%: DOEVAL@COMPILE DONTCOPY

(GLOBALVARS \TOGGLEIMAGEFNS)
)
```

```
(DECLARE%: DONTEVAL@LOAD DOCOPY

(\TEXTMENU.TOGGLE.INIT)

(ADDTOVAR IMAGEOBJTYPES (ToggleButton FILE TEDITMENU GETFN MB.GETFN))
)


;; Margin Setting and display

(DEFINEQ

(DRAWMARGINSCALE
  [LAMBDA (W UNIT)                                              ; Edited 20-Nov-2023 14:49 by rmk
                                                                ; Edited 12-Jun-90 18:59 by mitani

    ;;  Draw the margin-bar scale -- the markings across the bottom of the margin bar that show you the margin values.  Draws the scale in window W,
    ;; according to UNIT = 1 for points, or 12 for picas.

    (PROG ((WREG (DSPCLIPPINGREGION NIL W))
           (OLDOP (DSPOPERATION ’REPLACE W)))
          (DSPFILL (create REGION
                          LEFT _ 0
                          BOTTOM _ 0
                          WIDTH _ (fetch (REGION WIDTH) of WREG)
                          HEIGHT _ 24)
                 WHITESHADE
                 ’REPLACE W)                                    ; CLEAR IT OUT FIRST.
          (SELECTQ UNIT
              (1                                                ; Straight Points
                 [for X from 4 by 3 to (fetch (REGION WIDTH) of WREG)
                    do ;; Put a tick every 3 points, with a number every inch.

                       (COND
                          ((ZEROP (IREMAINDER (IDIFFERENCE X 4)
                                         72))
                           (BLTSHADE BLACKSHADE W X 8 1 16 ’REPLACE)
                           (MOVETO (IDIFFERENCE X (LRSH (STRINGWIDTH (IDIFFERENCE X 4))
                                                        1))
                                  10 W)
                           (PRIN1 (IDIFFERENCE X 4)
                                  W))
                          (T (BLTSHADE BLACKSHADE W X 20 1 4 ’REPLACE])
              (12                                               ; Picas
                  (for X from 4 by 12 to (fetch (REGION WIDTH) of WREG) as NOMX from 0
                     do ;; Put a tick every half-pica, with a number every inch.

                        [COND
                           ((ZEROP (IREMAINDER NOMX 6))
                            (BLTSHADE BLACKSHADE W X 8 1 16 ’REPLACE)
                            (MOVETO (IDIFFERENCE X (LRSH (STRINGWIDTH NOMX)
                                                         1))
                                   10 W)
                            (PRIN1 NOMX W))
                           (T (BLTSHADE BLACKSHADE W X 20 1 4 ’REPLACE]
                        (BLTSHADE BLACKSHADE W (IPLUS X 6)
                               22 1 2 ’REPLACE)))
              NIL)
          (BLTSHADE BLACKSHADE W 4 23 (fetch (REGION WIDTH) of WREG)
                 1
                 ’REPLACE)
          (MOVETO 0 0 W)
          (RELDRAWTO (IDIFFERENCE (fetch (REGION WIDTH) of WREG)
                           2)
                 0 1 ’PAINT W)
          (RELDRAWTO 0 (IDIFFERENCE (fetch (REGION HEIGHT) of WREG)
                             2)
                 1
                 ’PAINT W)
          (RELDRAWTO (IMINUS (IDIFFERENCE (fetch (REGION WIDTH) of WREG)
                                   2))
                 0 1 ’PAINT W)
          (RELDRAWTO 0 (IMINUS (IDIFFERENCE (fetch (REGION HEIGHT) of WREG)
                                     2))
                 1
                 ’PAINT W)
          (DSPOPERATION OLDOP W])

(MARGINBAR
  [LAMBDA (W L1 LN R TABS UNIT UPDATE RIGHTLIM)                 ; Edited 20-Nov-2023 20:34 by rmk
                                                                ; Edited  2-Oct-2022 00:01 by rmk
                                                                ; Edited  9-Sep-2022 22:38 by rmk
                                                                ; Edited 12-Jun-90 18:59 by mitani
                                                                ; Given a set of margins and a unit, show the margin bar properly
    (PROG ((OLDOP (DSPOPERATION ’ERASE W))
           (SCALEDL1 (MSCALE L1 UNIT))
           (SCALEDLN (MSCALE LN UNIT))
           (SCALEDR (MSCALE R UNIT))
```

```
 (FLOATINGRIGHT NIL)
 (EXTENDEDRIGHT NIL)
 UNSETL1 UNSETLN)
(CL:UNLESS UPDATE (DRAWMARGINSCALE W UNIT))
(DSPFONT (FONTCREATE ’TERMINAL 10)
       W)
(SETQ L1 (MKSTRING (ABS L1)))
(SETQ LN (MKSTRING (ABS LN)))
(SETQ R (MKSTRING (ABS R)))
[COND
   [(ILESSP SCALEDR 4)                                 ; Unset right margin.  Show specially, but at its usual place.
    (SETQ FLOATINGRIGHT T)
    (SETQ SCALEDR (IPLUS 4 (IDIFFERENCE 4 SCALEDR]
   ((ILEQ SCALEDR 4)                                   ; Floating right margin => marked specially
    (SETQ FLOATINGRIGHT T)
    (SETQ SCALEDR RIGHTLIM))
   ((IGREATERP SCALEDR RIGHTLIM)                       ; Not floating, so just limit it to the rightmost that can be seen.
    (SETQ EXTENDEDRIGHT T)
    (SETQ SCALEDR (IDIFFERENCE RIGHTLIM 8]
(CL:WHEN (ILESSP SCALEDL1 4)                           ; Unset right FIRST LEFT margin.  Show specially, but at its
                                                       ; usual place.
    (SETQ UNSETL1 T)
    (SETQ SCALEDL1 (IPLUS 4 (IDIFFERENCE 4 SCALEDL1))))
(CL:WHEN (ILESSP SCALEDLN 4)                           ; Unset LEFT margin.  Show specially, but at its usual place.
    (SETQ UNSETLN T)
    (SETQ SCALEDLN (IPLUS 4 (IDIFFERENCE 4 SCALEDLN))))
(BLTSHADE WHITESHADE W 1 26 (IDIFFERENCE (fetch (REGION WIDTH) of (DSPCLIPPINGREGION NIL W))
                                   3)
       32
       ’REPLACE)
(BLTSHADE BLACKSHADE W SCALEDL1 42 (IDIFFERENCE SCALEDR SCALEDL1)
       16
       ’REPLACE)
(BLTSHADE BLACKSHADE W SCALEDLN 26 (IDIFFERENCE SCALEDR SCALEDLN)
       16
       ’REPLACE)
(COND
   (UNSETL1                                            ; 1st left margin isn’t set, tho it has a value.  Mark it neutral
          (BLTSHADE EDITGRAY W SCALEDL1 42 (IPLUS (STRINGWIDTH L1 W)
                                                  2)
                 16
                 ’REPLACE)
          (DSPOPERATION ’PAINT W)
          (MOVETO (IPLUS SCALEDL1 2)
                 44 W)
          (PRIN1 L1 W)
          (DSPOPERATION ’ERASE W))
   (T (MOVETO (IPLUS SCALEDL1 2)
             44 W)
      (PRIN1 L1 W)))
(COND
   (UNSETLN                                            ; left margin isn’t set, tho it has a value.  Mark it neutral
          (BLTSHADE EDITGRAY W SCALEDLN 26 (IPLUS (STRINGWIDTH LN W)
                                                  2)
                 16
                 ’REPLACE)
          (DSPOPERATION ’PAINT W)
          (MOVETO (IPLUS SCALEDLN 2)
                 28 W)
          (PRIN1 LN W)
          (DSPOPERATION ’ERASE W))
   (T (MOVETO (IPLUS SCALEDLN 2)
             28 W)
      (PRIN1 LN W)))
[COND
   (FLOATINGRIGHT                                      ; Floating right margin is marked by a light gray marker
          (BLTSHADE EDITGRAY W (IDIFFERENCE SCALEDR (IPLUS (STRINGWIDTH R W)
                                                           2))
                 26
                 (IPLUS (STRINGWIDTH R W)
                        2)
                 32
                 ’REPLACE)
          (DSPOPERATION ’PAINT W))
   (EXTENDEDRIGHT                                      ; A non-visible right margin is marked by two wavy lines
                                                       ; indicating a break
          (BITBLT TEDIT.EXTENDEDRIGHTMARK 0 0 W SCALEDR 26 8 32 ’INPUT ’REPLACE]
(MOVETO (IDIFFERENCE SCALEDR (IPLUS (STRINGWIDTH R W)
                                    2))
       36 W)
(PRIN1 R W)
(DSPOPERATION OLDOP W)
(COND
   ((EQ TABS ’NEUTRAL)                                 ; All tabs have been neutralized.  Just lay down a grey pattern
                                                       ; over them.
    (DSPFILL (create REGION
                    LEFT _ 2
```

```
                              BOTTOM _ 1
                              HEIGHT _ 8
                              WIDTH _ (IDIFFERENCE (fetch (REGION WIDTH) of (DSPCLIPPINGREGION NIL W))
                                             4))
                     EDITGRAY
                     'REPLACE W))
             (T (DSPFILL (create REGION
                                LEFT _ 2
                                BOTTOM _ 1
                                HEIGHT _ 8
                                WIDTH _ (IDIFFERENCE (fetch (REGION WIDTH) of (DSPCLIPPINGREGION NIL W))
                                               4))
                       WHITESHADE
                       'REPLACE W)
                (for TAB in TABS do                              ; Run thru the tabs, putting them down in place.
                                   (MB.MARGINBAR.SHOWTAB W TAB UNIT 'PAINT])

(MARGINBAR.CREATE
  [LAMBDA (MARL1 MARLN MARR MARTABS MARUNIT MARTABTYPE)          ; Edited 12-Jun-90 18:59 by mitani
                                                                 (* Create an instance of the margin-setting ruler for TEdit's use.)
    (PROG ((BOX (create IMAGEBOX
                       XSIZE _ 1008
                       YSIZE _ 62
                       YDESC _ 0
                       XKERN _ 4))
           OBJ OBJDATUM BITMAP DS)
          (SETQ OBJ
           (IMAGEOBJCREATE (SETQ OBJDATUM
                                (create MARGINBAR
                                       MARL1 _ MARL1
                                       MARLN _ MARLN
                                       MARR _ MARR
                                       MARTABS _ MARTABS
                                       MARUNIT _ MARUNIT
                                       MARTABTYPE _ MARTABTYPE))
                  MARGINBARIMAGEFNS))

          (* Create an IMAGEOBJ, containing an instance of the record to hold margin and tab info)

          (SETQ BITMAP (BITMAPCREATE (fetch XSIZE of BOX)
                              (fetch YSIZE of BOX)))             (* A cache for the ruler's screen image)
          (IMAGEOBJPROP OBJ 'BITCACHE BITMAP)
          (SETQ DS (DSPCREATE BITMAP))                           (* And a displaystream for modifying that image)
          (IMAGEOBJPROP OBJ 'DSPCACHE DS)
          (DSPXOFFSET 0 DS)
          (DSPYOFFSET 0 DS)
          (DSPCLIPPINGREGION (create REGION
                                    LEFT _ 0
                                    BOTTOM _ 0
                                    WIDTH _ (fetch XSIZE of BOX)
                                    HEIGHT _ (fetch YSIZE of BOX))
                 DS)
          (MARGINBAR DS (fetch (MARGINBAR MARL1) of OBJDATUM)
                 (fetch (MARGINBAR MARLN) of OBJDATUM)
                 (fetch (MARGINBAR MARR) of OBJDATUM)
                 (fetch (MARGINBAR MARTABS) of OBJDATUM)
                 (fetch (MARGINBAR MARUNIT) of OBJDATUM)
                 NIL
                 (fetch (REGION WIDTH) of (DSPCLIPPINGREGION NIL DS)))

          (* Fill in the cache with the original value This does the time-consuming part of drawing the ticks on the ruler and such,
          which would make drawing it on the fly unbearable.)

          (IMAGEOBJPROP OBJ 'NEEDSUPDATE T)

          (* And tell the display function that it needs to be updated when first displayed.
          Which is the faster part.)

          (RETURN OBJ])

(MB.MARGINBAR.SELFN
  [LAMBDA (OBJ SELWINDOW SEL RELX RELY STREAM ORIGX ORIGY)       ; Edited 26-Feb-2024 11:44 by rmk
                                                                 ; Edited 12-Jun-90 18:59 by mitani
                                                                 ; Let the user adjust margins and tabs using the mouse.
    [LET [(OBJDATUM (IMAGEOBJPROP OBJ 'OBJECTDATUM))
          (IMAGEBOX (OR (IMAGEOBJPROP OBJ 'BOUNDBOX)
                        (IMAGEBOX OBJ STREAM 'DISPLAY]
         (LET ((L1 (fetch MARL1 of OBJDATUM))
               (LN (fetch MARLN of OBJDATUM))
               (R (fetch MARR of OBJDATUM))
               (TABS (fetch MARTABS of OBJDATUM))
               [SCALEDTABS (COND
                              ((LISTP (fetch MARTABS of OBJDATUM))
                                                                 ; Only scale the tabs if there are any, and they're not neutralized.
                               (for TAB in (fetch MARTABS of OBJDATUM) collect (MSCALE (fetch TABX of TAB)
                                                                    (fetch MARUNIT of OBJDATUM]
 (UNIT (fetch MARUNIT of OBJDATUM))
 (CLIP (create REGION
             LEFT _ 0
             BOTTOM _ 0
             WIDTH _ (fetch XSIZE of IMAGEBOX)
             HEIGHT _ (fetch YSIZE of IMAGEBOX)))
 (RIGHTLIM (IDIFFERENCE (fetch (REGION WIDTH) of (DSPCLIPPINGREGION NIL SELWINDOW))
                  4))
 TAB TABX OL1 OLN OR)
(SETQ OL1 L1)
(SETQ OLN LN)
(SETQ OR R)
[COND
   [(INSIDE? (create REGION
                    LEFT _ (IDIFFERENCE (MSCALE (ABS L1)
                                               UNIT)
                                  2)
                    BOTTOM _ 42
                    WIDTH _ 16
                    HEIGHT _ 16)
           RELX RELY)                              ; Move the 1st-line left margin.
    (while (AND (MOUSESTATE (OR LEFT MIDDLE RIGHT))
               (INSIDE? CLIP (LASTMOUSEX STREAM)
                      (LASTMOUSEY STREAM)))
       do (SETQ L1 (MAX 0 (MDESCALE (LASTMOUSEX STREAM)
                                 UNIT)))
          [COND
             ((\TEDIT.MOUSESTATE RIGHT)            ; Right mouse button UNsets the margin.
              (SETQ L1 (MINUS L1]
          (COND
             ((NOT (EQUAL OL1 L1))
              (MARGINBAR STREAM L1 LN R TABS UNIT T RIGHTLIM)
              (SETQ OL1 L1]
   [(INSIDE? (create REGION
                    LEFT _ (IDIFFERENCE (MSCALE (ABS LN)
                                               UNIT)
                                  2)
                    BOTTOM _ 26
                    WIDTH _ 16
                    HEIGHT _ 16)
           RELX RELY)                              ; Move the skirt's left margin
    (while (AND (MOUSESTATE (OR LEFT MIDDLE RIGHT))
               (INSIDE? CLIP (LASTMOUSEX STREAM)
                      (LASTMOUSEY STREAM)))
       do (SETQ LN (MAX 0 (MDESCALE (LASTMOUSEX STREAM)
                                 UNIT)))
          [COND
             ((\TEDIT.MOUSESTATE RIGHT)            ; Right mouse button UNsets the margin.
              (SETQ LN (MINUS LN]
          (COND
             ((NOT (EQUAL OLN LN))
              (MARGINBAR STREAM L1 LN R TABS UNIT T RIGHTLIM)
              (SETQ OLN LN]
   [(OR (INSIDE? (create REGION
                        LEFT _ (IDIFFERENCE (IMIN (MSCALE (ABS R)
                                                         UNIT)
                                                  (fetch XSIZE of IMAGEBOX)
                                                  (fetch (REGION WIDTH) of (DSPCLIPPINGREGION NIL
                                                                              SELWINDOW)))
                                      16)
                        BOTTOM _ 26
                        WIDTH _ 16
                        HEIGHT _ 32)
               RELX RELY)
        (AND (ZEROP (IABS (FIXR R)))
             (INSIDE? (create REGION
                             LEFT _ (IDIFFERENCE (IMIN (fetch XSIZE of IMAGEBOX)
                                                       (fetch (REGION WIDTH)
                                                          of (DSPCLIPPINGREGION NIL SELWINDOW)))
                                           16)
                             BOTTOM _ 26
                             WIDTH _ 16
                             HEIGHT _ 32)
                    RELX RELY)))                   ; Move the right margin
    (while (AND (MOUSESTATE (OR LEFT MIDDLE RIGHT))
               (INSIDE? CLIP (LASTMOUSEX STREAM)
                      (LASTMOUSEY STREAM)))
       do (SETQ R (MAX 0 (MDESCALE (LASTMOUSEX STREAM)
                                UNIT)))
          [COND
             ((\TEDIT.MOUSESTATE RIGHT)            ; Right mouse button UNsets the margin.
              (SETQ R (MINUS R]
          (COND
             ((NOT (EQUAL OR R))
              (MARGINBAR STREAM L1 LN R TABS UNIT T RIGHTLIM)
              (SETQ OR R]
                 ((INSIDE? (create REGION
                                  LEFT _ 0
                                  BOTTOM _ 0
                                  WIDTH _ (fetch (REGION WIDTH) of CLIP)
                                  HEIGHT _ 16)
                         RELX RELY)                              ; We're in the tab ruler region
                  (COND
                     ((MOUSESTATE LEFT)                          ; MOVE a tab
                      [SETQ TAB (for TABX in SCALEDTABS as TAB in TABS smallest (ABS (IDIFFERENCE TABX (LASTMOUSEX
                                                                                                     STREAM]
                      (AND TAB (MB.MARGINBAR.TABTRACK STREAM OBJDATUM TAB)))
                     [(MOUSESTATE MIDDLE)                        ; ADD/CHANGE a tab
                      (COND
                         ((EQ (fetch MARTABS of OBJDATUM)
                              'NEUTRAL)                          ; The tabs used to be NEUTRAL.  Clear the tab region, and start
                                                                 ; afresh.
                          (replace MARTABS of OBJDATUM with NIL) ; So we don't come this way again.
                          (DSPFILL (create REGION
                                          LEFT _ 2
                                          BOTTOM _ 1
                                          HEIGHT _ 8
                                          WIDTH _ (IDIFFERENCE (fetch (REGION WIDTH) of (DSPCLIPPINGREGION NIL
                                                                                                SELWINDOW))
                                                         4))
                                 WHITESHADE
                                 'REPLACE SELWINDOW)             ; Make the tab region look non-neutral, too, so that tabs look OK
                                                                 ; on it.

                          ))
                      (COND
                         ((AND [SETQ TAB (for TABX in SCALEDTABS as TAB in TABS
                                            smallest (ABS (IDIFFERENCE TABX (LASTMOUSEX STREAM]
                               (SETQ TABX (MSCALE (CAR TAB)
                                                  UNIT))
                               (IGEQ (LASTMOUSEX STREAM)
                                     (IDIFFERENCE TABX 2))
                               (ILEQ (LASTMOUSEX STREAM)
                                     (IPLUS TABX 2)))
                          (MB.MARGINBAR.SHOWTAB STREAM TAB UNIT 'ERASE)
                          (replace TABKIND of TAB with (OR (fetch MARTABTYPE of OBJDATUM)
                                                           'LEFT))
                          (MB.MARGINBAR.SHOWTAB STREAM TAB UNIT 'PAINT)
                          (MB.MARGINBAR.TABTRACK STREAM OBJDATUM TAB))
                         ([OR (NOT TAB)
                              (NOT (EQP (fetch TABX of TAB)
                                        (MDESCALE (LASTMOUSEX STREAM)
                                               UNIT]             ; Really create a new tab
                          [SETQ TAB (create TAB
                                           TABX _ (MDESCALE (LASTMOUSEX STREAM)
                                                         UNIT)
                                           TABKIND _ (OR (fetch MARTABTYPE of OBJDATUM)
                                                         'LEFT]
                          (SETQ TABS (CONS TAB TABS))
                          (MB.MARGINBAR.SHOWTAB STREAM TAB UNIT 'PAINT)
                          (MB.MARGINBAR.TABTRACK STREAM OBJDATUM TAB]
                     ((MOUSESTATE RIGHT)                         ; DELETE a tab.
                      (COND
                         ((AND [SETQ TAB (for TABX in SCALEDTABS as TAB in TABS
                                            smallest (ABS (IDIFFERENCE TABX (LASTMOUSEX STREAM]
                               (SETQ TABX (MSCALE (CAR TAB)
                                                  UNIT))
                               (IGEQ (LASTMOUSEX STREAM)
                                     (IDIFFERENCE TABX 2))
                               (ILEQ (LASTMOUSEX STREAM)
                                     (IPLUS TABX 2)))
                          (MB.MARGINBAR.SHOWTAB STREAM TAB UNIT 'ERASE)
                          (SETQ TABS (LDIFFERENCE TABS (LIST TAB]
              (replace MARL1 of OBJDATUM with L1)
              (replace MARLN of OBJDATUM with LN)
              (replace MARR of OBJDATUM with R)
              (replace MARTABS of OBJDATUM with TABS)
              (TTY.PROCESS (WINDOWPROP (WINDOWPROP (WFROMDS SELWINDOW)
                                                  'MAINWINDOW)
                                  'PROCESS]
    T])

(MB.MARGINBAR.SIZEFN
  [LAMBDA (OBJ)                                                  (* jds " 5-Sep-84 14:10")
    (PROG ((BOX (create IMAGEBOX
                       XSIZE _ 1008
                       YSIZE _ 62
                       YDESC _ 0
                       XKERN _ 4)))
          (IMAGEOBJPROP OBJ 'BOUNDBOX BOX)
          (RETURN BOX])
```

```
(MB.MARGINBAR.DISPLAYFN
  [LAMBDA (OBJ STREAM MODE)                                        ; Edited  9-Sep-2022 22:37 by rmk
                                                                   ; Edited 12-Jun-90 18:59 by mitani
                                                                   ; Display the innards of a menu button

    (PROG ((IMAGEBOX (OR (IMAGEOBJPROP OBJ 'BOUNDBOX)
                         (IMAGEBOX OBJ STREAM MODE)))
           (OBJDATUM (IMAGEOBJPROP OBJ 'OBJECTDATUM))
           BITMAP
           (DS (DSPCREATE))
           WASON)
          (COND
             [[SETQ WASON (SETQ BITMAP (IMAGEOBJPROP OBJ 'BITCACHE]

              ;; The marginbar existed already as an image.  Don't bother re-creating it, and remember that we're allowed to MODIFY the old image
              ;; instead of creating a new one.

              (SETQ DS (IMAGEOBJPROP OBJ 'DSPCACHE]
             (T                                                    ; Have to create an image for the margin bar
                (SETQ BITMAP (BITMAPCREATE (fetch XSIZE of IMAGEBOX)
                                    (fetch YSIZE of IMAGEBOX)))    ; Create a cache bitmap
                (IMAGEOBJPROP OBJ 'BITCACHE BITMAP)
                (SETQ DS (DSPCREATE BITMAP))
                (IMAGEOBJPROP OBJ 'DSPCACHE DS)
                (DSPXOFFSET 0 DS)
                (DSPYOFFSET 0 DS)
                (DSPCLIPPINGREGION (create REGION
                                          LEFT _ 0
                                          BOTTOM _ 0
                                          WIDTH _ (fetch XSIZE of IMAGEBOX)
                                          HEIGHT _ (fetch YSIZE of IMAGEBOX))
                       DS)))
          (MARGINBAR DS (fetch (MARGINBAR MARL1) of OBJDATUM)
                 (fetch (MARGINBAR MARLN) of OBJDATUM)
                 (fetch (MARGINBAR MARR) of OBJDATUM)
                 (fetch (MARGINBAR MARTABS) of OBJDATUM)
                 (fetch (MARGINBAR MARUNIT) of OBJDATUM)
                 (OR WASON (IMAGEOBJPROP OBJ 'NEEDSUPDATE NIL))
                 (fetch (REGION WIDTH) of (DSPCLIPPINGREGION NIL STREAM)))
                                                                   ; Update the image, if it needs it
          (BITBLT BITMAP 0 0 STREAM (IDIFFERENCE (DSPXPOSITION NIL STREAM)
                                           4)
                 (IDIFFERENCE (DSPYPOSITION NIL STREAM)
                        (fetch YDESC of IMAGEBOX])

(MDESCALE
  [LAMBDA (VAL UNIT)                                               (* jds " 4-NOV-83 17:29")
                                                                   (* Convert a value from screen offset units to marginbar units)
    (COND
       ((IEQP UNIT 12)
        (QUOTIENT (IQUOTIENT (LLSH (IDIFFERENCE VAL 4)
                                   1)
                         UNIT)
               2.0))
       (T (QUOTIENT (DIFFERENCE VAL 4)
                 UNIT])

(MSCALE
  [LAMBDA (VAL UNIT)                                               (* jds " 4-NOV-83 17:31")
                                                                   (* Convert from marginbar units to a screen X offset)
    (IPLUS 4 (FIXR (TIMES VAL (OR UNIT 1])

(MB.MARGINBAR.SHOWTAB
  [LAMBDA (W TAB UNIT MODE)                                        (* jds "22-Mar-85 17:36")
                                                                   (* Paint/erase/otherwise display the sign for a TAB in window
                                                                   WINDOW, using units UNIT)
    (PROG ((TABX (MSCALE (fetch TABX of TAB)
                        UNIT)))
          (SELECTQ (fetch TABKIND of TAB)
              (LEFT                                                (* Flush-left tab.)
                    (BITBLT \TEDIT.LEFTTAB 0 0 W (IDIFFERENCE TABX 2)
                           1 NIL NIL 'INPUT MODE))
              (CENTERED                                            (* Centered Tab)
                        (BITBLT \TEDIT.CENTERTAB 0 0 W (IDIFFERENCE TABX 5)
                               1 NIL NIL 'INPUT MODE))
              (RIGHT                                               (* Flush-right Tab)
                     (BITBLT \TEDIT.RIGHTTAB 0 0 W (IDIFFERENCE TABX 7)
                            1 NIL NIL 'INPUT MODE))
              (DECIMAL                                             (* Decimal aligned tab)
                       (BITBLT \TEDIT.DECIMALTAB 0 0 W (IDIFFERENCE TABX 7)
                              1 NIL NIL 'INPUT MODE))
              (DOTTEDLEFT                                          (* Decimal aligned tab)
                          (BITBLT \TEDIT.DOTTED.LEFTTAB 0 0 W (IDIFFERENCE TABX 7)
                                 1 NIL NIL 'INPUT MODE))
              (DOTTEDCENTERED                                      (* Decimal aligned tab)
                   (BITBLT \TEDIT.DOTTED.CENTERTAB 0 0 W (IDIFFERENCE TABX 7)
                          1 NIL NIL 'INPUT MODE))
              (DOTTEDRIGHT                                       (* Decimal aligned tab)
                          (BITBLT \TEDIT.DOTTED.RIGHTTAB 0 0 W (IDIFFERENCE TABX 7)
                                 1 NIL NIL 'INPUT MODE))
              (DOTTEDDECIMAL                                     (* Decimal aligned tab)
                   (BITBLT \TEDIT.DOTTED.DECIMALTAB 0 0 W (IDIFFERENCE TABX 7)
                          1 NIL NIL 'INPUT MODE))
              NIL])
```

(MB.MARGINBAR.TABTRACK

```
  [LAMBDA (STREAM OBJ TAB)                                       ; Edited 20-Nov-2023 10:51 by rmk
                                                                 (* jds " 8-Feb-84 20:38")

    ;; Given that the mouse is down over a tab, track the tab as the mouse moves.

    (bind X (UNIT _ (fetch MARUNIT of OBJ))
         (CLIP _ (DSPCLIPPINGREGION NIL STREAM))
         (OLDX _ (MSCALE (fetch TABX of TAB)
                        (fetch MARUNIT of OBJ)))
       while (AND (MOUSESTATE (OR LEFT MIDDLE RIGHT))
                 (INSIDE? CLIP (LASTMOUSEX STREAM)
                        (LASTMOUSEY STREAM)))
       unless (IEQP OLDX (SETQ X (LASTMOUSEX STREAM))) do (MB.MARGINBAR.SHOWTAB STREAM TAB UNIT 'ERASE)
                                                          (replace TABX of TAB with (MDESCALE X UNIT))
                                                          (MB.MARGINBAR.SHOWTAB STREAM TAB UNIT 'PAINT)
                                                          (SETQ OLDX X])
```

(\TEDIT.TABTYPE.SET

```
  [LAMBDA (OBJ SEL W)                                            ; Edited 17-Mar-2024 00:27 by rmk
                                                                 ; Edited 21-Oct-2022 18:46 by rmk
                                                                 ; Edited  3-Oct-2022 22:16 by rmk
                                                                 ; Edited  9-Sep-2022 15:47 by rmk
                                                                 ; Edited  6-Aug-2022 17:16 by rmk
                                                                 ; Edited 24-Apr-95 12:03 by sybalsky:mv:envos

    ;; Change the kind of TAB that will be set in the succeeding marginbar.

    (LET ((TEXTOBJ (fetch (SELECTION SELTEXTOBJ) of SEL))
          (STATE (IMAGEOBJPROP OBJ 'STATE))
          DOTTEDBUTTON)                                          ; Find out roughly what kind of TAB this is to be.
         (SETQ STATE (U-CASE (CL:IF (LISTP STATE)
                                    (CAR STATE)
                                    STATE)))                     ; Make sure it's upper case, and an atom.
         [SETQ DOTTEDBUTTON (CAR (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SEL]
                                                                 ; Find out if this is to be a tab with a dotted leader.
         (CL:WHEN (EQ (IMAGEOBJPROP DOTTEDBUTTON 'STATE)
                      'ON)                                       ; Yes.  Make this a DOTTEDxxx tab.
             (SETQ STATE (PACK* 'DOTTED STATE)))
         (for (PC _ (\TEDIT.CHTOPC (ADD1 (fetch (SELECTION CH#) of SEL))
                           TEXTOBJ))
            by (NEXTPIECE PC) while PC when (type? MARGINBAR (PCONTENTS PC))
            do (replace MARTABTYPE of (IMAGEOBJPROP (PCONTENTS PC)
                                             'OBJECTDATUM)
                      with STATE)
               (RETURN])
```

(MARGINBAR.INIT

```
  [LAMBDA NIL                                                    (* jds " 9-Feb-86 15:18")
    (SETQ MARGINBARIMAGEFNS (IMAGEFNSCREATE (FUNCTION MB.MARGINBAR.DISPLAYFN)
                                   (FUNCTION MB.MARGINBAR.SIZEFN)
                                   (FUNCTION MB.MARGINBAR.PUTFN)
                                   (FUNCTION MB.MARGINBAR.GETFN)
                                   (FUNCTION MB.COPYFN)
                                   (FUNCTION MB.MARGINBAR.SELFN)
                                   'NILL
                                   'NILL
                                   'NILL
                                   'NILL
                                   'NILL
                                   'NILL
                                   'NILL
                                   'NILL
                                   'MarginRuler])
)

(RPAQQ \TEDIT.LEFTTAB )

(RPAQQ \TEDIT.CENTERTAB )

(RPAQQ \TEDIT.RIGHTTAB )

(RPAQQ \TEDIT.DECIMALTAB )
```

```
(RPAQQ \TEDIT.DOTTED.LEFTTAB )

(RPAQQ \TEDIT.DOTTED.CENTERTAB )

(RPAQQ \TEDIT.DOTTED.RIGHTTAB )

(RPAQQ \TEDIT.DOTTED.DECIMALTAB )

(RPAQQ TEDIT.EXTENDEDRIGHTMARK )

(DECLARE%: DOEVAL@COMPILE DONTCOPY

(GLOBALVARS MARGINBARIMAGEFNS)
)

(DECLARE%: DONTEVAL@LOAD DOCOPY

(MARGINBAR.INIT)

(ADDTOVAR IMAGEOBJTYPES (MarginRuler FILE TEDITMENU GETFN MB.GETFN))
)
```

;; Text menu creation and support

```
(DEFINEQ

(\TEDIT.MENU.START
  [LAMBDA (MENUSTREAM MAINWINDOW TITLE HEIGHT TYPE)                  ; Edited 19-Apr-2024 10:53 by rmk
                                                                     ; Edited 10-Apr-2024 23:04 by rmk
                                                                     ; Edited 27-Feb-2024 08:12 by rmk
                                                                     ; Edited  3-Nov-2023 22:23 by rmk
                                                                     ; Edited 31-Oct-2023 08:59 by rmk
                                                                     ; Edited 10-Apr-2023 09:46 by rmk
                                                                     ; Edited 26-Oct-2021 08:43 by rmk:
                                                                     ; Edited  4-Jun-93 11:59 by sybalsky:mv:envos

    ;; Create a TEdit-based menu for a given main window. Creates a Tedit process and window for the menu, attaches it to MAINWINDOW and cause
    ;; it to share the main windows prompt (so messages will come out in the right place).

    ;; RMK: Add MAX/MINSIZE so menus don't grow vertically when the main window is reshaped.  Not sure why HEIGHT is passed in or defaults to
    ;; 133, but either way, the original window height should persist

    ;; RMK: Added TYPE argument to be used in renaming the menu's process

    ;;

    ;; Pretext:  menu windows can't have menu windows.

    ;; Typically this is called from a menu under the main window running in the mouse process.  When we're done, we want to return to the main
    ;; window's editing process, not to the process we are called in.

    (CL:UNLESS [AND MAINWINDOW (OR (TEDITMENUP MAINWINDOW)
                                   (for WW in (ATTACHEDWINDOWS MAINWINDOW)
                                      thereis (STREQUAL (OR TITLE "TEdit Menu")
                                                     (WINDOWPROP WW 'TEDITMENU]
        (LET ((WREG (CL:IF MAINWINDOW
                        (WINDOWPROP MAINWINDOW 'REGION)
                        (GETREGION)))
              (MENUTEXTOBJ (fetch (TEXTSTREAM TEXTOBJ) of MENUSTREAM))
              MENUW)
             (SETQ MENUW (CREATEW (SETQ WREG (COND
                                                (MAINWINDOW (create REGION
                                                                   LEFT _ (fetch (REGION LEFT) of WREG)
                                                                   BOTTOM _ (fetch (REGION TOP) of WREG)
                                                                   WIDTH _ (fetch (REGION WIDTH) of WREG)
                                                                   HEIGHT _ (OR HEIGHT 133)))
                                                (T WREG)))
                                (OR TITLE "TEdit Menu")))
             (WINDOWADDPROP MENUW 'CLOSEFN (FUNCTION FREEATTACHEDWINDOW))
             (WINDOWPROP MENUW 'TEDITMENU (OR TITLE "TEdit Menu"))
                                                                     ; Mark this as a TEDIT MENU window
             (ATTACHWINDOW MENUW MAINWINDOW 'TOP 'JUSTIFY 'LOCALCLOSE)
             [SETQ HEIGHT (FETCH (REGION HEIGHT) OF (WINDOWPROP MENUW 'REGION]
             (WINDOWPROP MENUW 'MAXSIZE (CONS 64000 HEIGHT))
             (WINDOWPROP MENUW 'MINSIZE (CONS 0 HEIGHT))
             (SETTOBJ MENUTEXTOBJ MENUFLG T)

             ;; The mainwindow's PROMPTWINDOW is also the menus prompt window

             (CL:WHEN MAINWINDOW
                 (WINDOWPROP MENUW 'PROMPTWINDOW (WINDOWPROP MAINWINDOW 'PROMPTWINDOW)))
             [TEDIT MENUSTREAM MENUW NIL `(TITLEMENUFN DON'T PROMPTWINDOW ,(GETTOBJ (TEXTOBJ MAINWINDOW)
                                                                                       PROMPTWINDOW]
             (PROCESSPROP (WINDOWPROP MENUW 'PROCESS)
                    'NAME
                    (PACK* "TEdit-" (CL:IF TYPE
                                          (L-CASE TYPE T)
```

```
                                         "Menu")))
             (CL:WHEN MAINWINDOW                                  ; Give the tty back to the main window
                  (TTY.PROCESS (WINDOWPROP MAINWINDOW 'PROCESS)))
             ;; No caret now, let the buttonevent fn bring it up
             (\TEDIT.UPCARET (CAR (GETTOBJ MENUTEXTOBJ CARET))
                    -10 -10)
             (TEXTPROP MENUTEXTOBJ 'NOTSPLITTABLE T)
             (WINDOWPROP MENUW 'BUTTONEVENTFN (FUNCTION \TEDIT.MENU.BUTTONEVENTFN))
             (SETSEL (GETTOBJ MENUTEXTOBJ SEL)
                    SET NIL)                                      ; Have to click to get the selection going
             MENUW))])
```

```
(\TEDIT.MENU.BUTTONEVENTFN
  [LAMBDA (MENUW)                                                 ; Edited 25-Sep-2023 12:53 by rmk
    ;; Entry for menus that allows for any special menu actions. In particular, turns on the caret blinking if it wasn't on before.
    (replace (TEDITCARET TCFORCEUP) of (CAR (MKLIST (GETTOBJ (TEXTOBJ MENUW)
                                                          CARET)))
       with NIL)
    (\TEDIT.BUTTONEVENTFN MENUW])
```

```
(\TEXTMENU.DOC.CREATE
  [LAMBDA (MENUDESC MENUPROPS)                                    ; Edited 19-Sep-2023 14:36 by rmk
                                                                  ; Edited 16-Sep-2023 13:03 by rmk
                                                                  ; Edited 13-Aug-2022 23:11 by rmk
                                                                  ; Edited 31-Jan-2022 22:48 by rmk
                                                                  ; Edited 12-Jun-90 19:00 by mitani
    ;; Create the TEXTSTREAM for a menu, given a description.  That stream is passed to \TEDIT.MENU.START to get the menu up on screen
    (LET ([MENUTSTREAM (OPENTEXTSTREAM NIL NIL NIL NIL (OR MENUPROPS '(FONT (MODERN 10]
          CH#1)
         (bind (CH# _ 1)
               OBJ for DESC in MENUDESC do (SELECTQ (CAR DESC)
                                               (*
                                                  ;; This is a comment within a menu description -- Ignore it.
                                                  )
                                               (MB.BUTTON         ; A menu button -- hitting it calls a function
                                                          (TEDIT.INSERT.OBJECT (MBUTTON.CREATE
                                                                                (MKATOM (fetch (MB.BUTTON MBLABEL)
                                                                                           of DESC))
                                                                                (fetch (MB.BUTTON MBBUTTONEVENTFN)
                                                                                   of DESC)
                                                                                (fetch (MB.BUTTON MBFONT)
                                                                                   of DESC))
                                                                 MENUTSTREAM CH#)
                                                          (TEDIT.LOOKS MENUTSTREAM '(PROTECTED OFF)
                                                                 CH# 1)
                                                          (add CH# 1))
                                               (MB.3STATE         ; 3-state button;  hitting it changes state among ON, OFF, and
                                                                  ; NEUTRAL.
                                                          (TEDIT.INSERT.OBJECT (MB.CREATE.THREESTATEBUTTON
                                                                                (MKATOM (fetch (MB.3STATE MBLABEL)
                                                                                           of DESC))
                                                                                (fetch (MB.3STATE MBFONT)
                                                                                   of DESC)
                                                                                (fetch (MB.3STATE MBCHANGESTATEFN)
                                                                                   of DESC)
                                                                                (fetch (MB.3STATE MBINITSTATE)
                                                                                   of DESC))
                                                                 MENUTSTREAM CH#)
                                                          (TEDIT.LOOKS MENUTSTREAM '(PROTECTED OFF)
                                                                 CH# 1)
                                                          (add CH# 1))
                                               (MB.TOGGLE         ; TOGGLE button;  hitting it switches between ON and OFF.
                                                          (TEDIT.INSERT.OBJECT (\TEXTMENU.TOGGLE.CREATE
                                                                                (MKATOM (fetch (MB.TOGGLE MBTEXT)
                                                                                           of DESC))
                                                                                (fetch (MB.TOGGLE MBFONT)
                                                                                   of DESC)
                                                                                (fetch (MB.TOGGLE MBCHANGESTATEFN)
                                                                                   of DESC)
                                                                                (fetch (MB.TOGGLE MBINITSTATE)
                                                                                   of DESC))
                                                                 MENUTSTREAM CH#)
                                                          (TEDIT.LOOKS MENUTSTREAM '(PROTECTED OFF)
                                                                 CH# 1)
                                                          (add CH# 1))
                                               (MB.NWAY           ; N-way buttons;  choosing one turns the others off.
                                                        (SETQ OBJ (MB.CREATE.NWAYBUTTON (fetch (MB.NWAY
                                                                                                      MBBUTTONS)
                                                                                             of DESC)
                                                                         (fetch (MB.NWAY MBFONT) of DESC)
                                                                         (fetch (MB.NWAY MBCHANGESTATEFN)
                                                                            of DESC)
                                                                         (fetch (MB.NWAY MBINITSTATE) of DESC)
```

```
                                                                        (fetch (MB.NWAY MBMAXITEMSPERLINE)
                                                                           of DESC)))
                                                       (TEDIT.INSERT.OBJECT OBJ MENUSTREAM CH#)
                                                       (TEDIT.LOOKS MENUSTREAM '(PROTECTED OFF)
                                                              CH# 1)
                                                       (add CH# 1))
                                              (MENU               ; Real menu, except the selection sticks
                                                    (TEDIT.INSERT.OBJECT (MB.CREATE.FULLMENU (CADR DESC))
                                                           MENUSTREAM CH#)
                                                    (TEDIT.LOOKS MENUSTREAM '(PROTECTED OFF)
                                                           CH# 1)
                                                    (add CH# 1))
                                              (MB.MARGINBAR       ; Margin ruler for TEdit formatting
                                                            (TEDIT.INSERT.OBJECT (MARGINBAR.CREATE -0.5 -0.5
                                                                                            -39.5 NIL 12)
                                                                   MENUSTREAM CH#)
                                                            (TEDIT.LOOKS MENUSTREAM '(PROTECTED OFF)
                                                                   CH# 1)
                                                            (add CH# 1))
                                              (MB.TEXT            ; Arbitrary text, which will be protected from the user.
                                                       (TEDIT.INSERT MENUSTREAM (fetch (MB.TEXT MBSTRING)
                                                                                    of DESC)
                                                              CH#)
                                                       (CL:WHEN (fetch (MB.TEXT MBFONT) of DESC)
                                                           (TEDIT.LOOKS MENUSTREAM (LIST 'MBFONT
                                                                                       (fetch (MB.TEXT MBFONT)
                                                                                          of DESC))
                                                                  CH#
                                                                  (NCHARS (fetch (MB.TEXT MBSTRING) of DESC))))
                                                       (TEDIT.LOOKS MENUSTREAM '(PROTECTED ON)
                                                              CH#
                                                              (NCHARS (fetch (MB.TEXT MBSTRING) of DESC)))
                                                       (add CH# (NCHARS (fetch (MB.TEXT MBSTRING) of DESC))))
                                              (MB.INSERT          ; An insertion point, with optional text to put there
                                                         (TEDIT.INSERT MENUSTREAM "  {}" CH#)
                                                         (TEDIT.LOOKS MENUSTREAM '(PROTECTED ON)
                                                                CH# 4)
                                                         (TEDIT.LOOKS (fetch (TEXTSTREAM TEXTOBJ) of MENUSTREAM)
                                                                '(PROTECTED ON SELECTPOINT ON)
                                                                (IPLUS CH# 2)
                                                                1)
                                                         (OR CH#1 (SETQ CH#1 (IPLUS CH# 3)))
                                                         [COND
                                                            ((fetch (MB.INSERT MBINITENTRY) of DESC)
                                                                 ; There is an initial entry to be made.  Make it
                                                             [COND
                                                                ((IMAGEOBJP (fetch (MB.INSERT MBINITENTRY)
                                                                               of DESC))
                                                                 ; It is an imageobj.
                                                                 (TEDIT.INSERT.OBJECT (fetch (MB.INSERT
                                                                                                  MBINITENTRY)
                                                                                         of DESC)
                                                                        MENUSTREAM
                                                                        (IPLUS CH# 3)))
                                                                (T
                                                                 ; It's regular text.
                                                                   (TEDIT.INSERT MENUSTREAM
                                                                          (MKSTRING (fetch (MB.INSERT MBINITENTRY
                                                                                                )
                                                                                       of DESC))
                                                                          (IPLUS CH# 3]
                                                             [TEDIT.LOOKS MENUSTREAM
                                                                    '(PROTECTED OFF SELECTPOINT OFF)
                                                                    (IPLUS CH# 3)
                                                                    (NCHARS (MKSTRING (fetch (MB.INSERT
                                                                                                  MBINITENTRY)
                                                                                         of DESC]
                                                             (add CH# (NCHARS (fetch (MB.INSERT MBINITENTRY)
                                                                                 of DESC]
                                                         (add CH# 4))
                                              (\ILLEGAL.ARG DESC)))
         (SETTOBJ (fetch (TEXTSTREAM TEXTOBJ) of MENUSTREAM)
                MENUFLG T)                                        ; Remember that this is a menu
         (CL:WHEN CH#1                                            ; We actually inserted some text, so it makes sense to put up a
                                                                  ; selection at
             (PUTTEXTPROP (fetch (TEXTSTREAM TEXTOBJ) of MENUSTREAM)
                   'SEL CH#1))
         MENUSTREAM])
)

(RPAQQ TEXTMENUICON )

(RPAQQ TEXTMENUICONMASK
                                  )

;; TEdit-specific support

(DEFINEQ

(\TEDITMENU.CREATE
  [LAMBDA NIL                                                   (* gbn "27-Sep-84 01:04")
                                                                (* Creates the TEdit Expanded Menu)
    (SETQ TEDIT.EXPANDED.MENU (\TEXTMENU.DOC.CREATE TEDIT.EXPANDEDMENU.SPEC])

(\TEDIT.EXPANDED.MENU
  [LAMBDA (STREAM)                                              ; Edited 27-Feb-2024 08:11 by rmk
                                                                ; Edited 22-Sep-2023 20:00 by rmk
                                                                ; Edited 19-Sep-2023 08:51 by rmk
                                                                ; Edited 20-Aug-87 16:51 by jds
                                                                ; '27-Sep-84 01:04' gbn
    (LET (CHARMENUTEXTSTREAM (TEXTOBJ (TEXTOBJ STREAM)))
         (\TEDIT.MENU.START (SETQ CHARMENUTEXTSTREAM (COPYTEXTSTREAM TEDIT.EXPANDED.MENU T))
                (\TEDIT.PRIMARYW TEXTOBJ)
                "TEdit Menu"
                (HEIGHTIFWINDOW 60 T)
                'EXPANDED)
         (COND
            ((OR (GETTEXTPROP TEXTOBJ 'CLEARGET)
                (GETTEXTPROP TEXTOBJ 'CLEARPUT))                ; initialise the button
             (\TEXTMENU.SET.TOGGLE "Unformatted" 'ON CHARMENUTEXTSTREAM])

(MB.DEFAULTBUTTON.FN
  [LAMBDA (OBJ SEL W)                                           ; Edited 20-Mar-2024 11:03 by rmk
                                                                ; Edited  9-Mar-2024 11:43 by rmk
                                                                ; Edited 22-Feb-2024 23:26 by rmk
                                                                ; Edited  7-Feb-2024 23:07 by rmk
                                                                ; Edited 29-Jan-2024 17:22 by rmk
                                                                ; Edited 21-Oct-2022 18:46 by rmk
                                                                ; Edited 30-Mar-94 15:46 by jds
                                                                ; MBFN for TEdit default menu item buttons.
    (PROG* ((TEXTOBJ (TEXTOBJ! (fetch (TEXTWINDOW WTEXTOBJ) of W)))
            [MAINTEXTOBJ (TEXTOBJ! (fetch (TEXTWINDOW WTEXTOBJ) of (WINDOWPROP W 'MAINWINDOW]
            (MAINSEL (FGETTOBJ MAINTEXTOBJ SEL))
            PROC)
           [COND
              ((EQ (FGETTOBJ MAINTEXTOBJ EDITOPACTIVE)
                   T)
               (TEDIT.PROMPTPRINT MAINTEXTOBJ "Edit operation in progress; please wait." T)
               (RETURN))
              ((FGETTOBJ MAINTEXTOBJ EDITOPACTIVE)
               (TEDIT.PROMPTPRINT MAINTEXTOBJ (CONCAT (FGETTOBJ MAINTEXTOBJ EDITOPACTIVE)
                                                    " operation in progress; please wait.")
                      T)
               (CL:UNLESS (EQ (FGETTOBJ MAINTEXTOBJ EDITOPACTIVE)
                              (IMAGEOBJPROP OBJ 'MBTEXT))
                      (RETURN]
           [COND
              ((AND (SETQ PROC (WINDOWPROP (WINDOWPROP W 'MAINWINDOW)
                                      'PROCESS))
                    (PROCESSP PROC))                            ; THE MAIN window has a live process behind it;  go evaluate
                                                                ; the button fn there.
               (PROCESS.EVAL PROC (LIST (FUNCTION MB.DEFAULTBUTTON.ACTIONFN)
                                        OBJ SEL W TEXTOBJ MAINTEXTOBJ MAINSEL)))
              ((AND (SETQ PROC (WINDOWPROP W 'PROCESS))
                    (PROCESSP PROC))                            ; This window has a live process behind it;  go evaluate the
                                                                ; button fn there.
               (PROCESS.EVAL PROC (LIST (FUNCTION MB.DEFAULTBUTTON.ACTIONFN)
                                        OBJ SEL W TEXTOBJ MAINTEXTOBJ MAINSEL)))
              (T (ADD.PROCESS (LIST (FUNCTION MB.DEFAULTBUTTON.ACTIONFN)
                                    OBJ SEL W TEXTOBJ MAINTEXTOBJ MAINSEL]
           (CL:WHEN (FGETTOBJ TEXTOBJ EDITFINISHEDFLG)
               (GIVE.TTY.PROCESS W)
               (DISMISS 20))
           (CL:WHEN (OR (FGETTOBJ TEXTOBJ EDITFINISHEDFLG)
                        (EQ (WINDOWPROP W 'PROCESS)
                            (TTY.PROCESS)))                     ; If the TEDIT MENU still has the tty, give it back to the real
                                                                ; TEdit.
               (GIVE.TTY.PROCESS (WINDOWPROP W 'MAINWINDOW)))

     ;; Tell the menu button handler not to turn off this button--it's still active and will turn itself off.

           (RETURN 'DON'T])

(\TEDITMENU.RECORD.UNFORMATTED
  [LAMBDA (BUTTON NEWSTATE TEXTSTREAM)                          ; Edited 22-Sep-2023 20:06 by rmk
                                                                (* jds " 7-Feb-85 09:44")
    (PUTTEXTPROP (TEXTOBJ TEXTSTREAM)
           'UNFORMATTEDPUT/GET
           (EQ NEWSTATE 'ON])

(MB.DEFAULTBUTTON.ACTIONFN
  [LAMBDA (OBJ SEL W TEXTOBJ MAINTEXTOBJ MAINSEL)                 ; Edited 15-Mar-2024 13:53 by rmk
                                                                  ; Edited  9-Mar-2024 11:33 by rmk
                                                                  ; Edited 27-Feb-2024 07:54 by rmk
                                                                  ; Edited 14-Dec-2023 21:03 by rmk
                                                                  ; Edited 22-Sep-2023 20:09 by rmk
                                                                  ; Edited 20-Sep-2023 23:14 by rmk
                                                                  ; Edited  9-May-2023 17:47 by rmk
                                                                  ; Edited  6-May-2023 23:11 by rmk
                                                                  ; Edited 18-Apr-2023 23:58 by rmk
                                                                  ; Edited 30-Mar-94 16:04 by jds
                                                                  ; MBFN for TEdit default menu item buttons.
    (PROG (OFILE CH %#COPIES PRINTHOST PRINTOPTIONS %#SIDES MSG)
          [ERSETQ (RESETLST
                      [RESETSAVE (\TEDIT.MARKACTIVE MAINTEXTOBJ)
                             '(AND (\TEDIT.MARKINACTIVE OLDVALUE]
                      [RESETSAVE (\TEDIT.MARKACTIVE TEXTOBJ)
                             '(AND (\TEDIT.MARKINACTIVE OLDVALUE]
                      [RESETSAVE (PROG1 OBJ
                                        (IMAGEOBJPROP OBJ 'MENUBUTTON.SELECTED T))
                             '(AND (IMAGEOBJPROP OLDVALUE 'MENUBUTTON.SELECTED NIL]
                      (SETTOBJ MAINTEXTOBJ EDITOPACTIVE (OR (IMAGEOBJPROP OBJ 'MBTEXT)
                                                             T))  ; So we can tell the guy WHAT op is active.
                      (SELECTQ (IMAGEOBJPROP OBJ 'MBTEXT)
                           (Put [SETQ OFILE (\TEDIT.MAKEFILENAME (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ
                                                                         (GETSEL SEL CH#]
                                [COND
                                   (OFILE                         ; Only try this if he really typed a file name
                                          (TEDIT.PUT MAINTEXTOBJ OFILE NIL (GETTEXTPROP TEXTOBJ
                                                                                   'UNFORMATTEDPUT/GET])
                           (Get [SETQ OFILE (\TEDIT.MAKEFILENAME (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ
                                                                         (GETSEL SEL CH#]
                                [COND
                                   (OFILE                         ; Only try this if he really typed a file name
                                          (TEDIT.GET MAINTEXTOBJ OFILE (GETTEXTPROP TEXTOBJ 'UNFORMATTEDPUT/GET]
)
                           (Include [SETQ OFILE (\TEDIT.MAKEFILENAME (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ
                                                                             (GETSEL SEL CH#]
                                    (COND
                                       (OFILE (TEDIT.INCLUDE MAINTEXTOBJ OFILE))))
                           (Find (SETQ OFILE (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ (GETSEL SEL CH#)))
                                 [COND
                                    ((ZEROP (NCHARS OFILE))       ; NOTHING--HE HIT DEL.
                                     NIL)
                                    (OFILE                        ; There's something to do.  Go do it.
                                           (TEDIT.PROMPTPRINT MAINTEXTOBJ "Searching..." T)
                                           [SETQ CH (CAR (ERSETQ (TEDIT.FIND MAINTEXTOBJ OFILE NIL NIL T]
                                           (COND
                                              (CH                 ; We found the target text.
                                                  (TEDIT.PROMPTPRINT MAINTEXTOBJ "Done.")
                                                  (\TEDIT.SHOWSEL MAINSEL NIL)
                                                  (SETSEL MAINSEL CH# (CAR CH))
                                                                  ; Set up SELECTION to be the found text
                                                  (SETSEL MAINSEL CHLIM (ADD1 (CADR CH)))
                                                  [SETSEL MAINSEL DCH (ADD1 (IDIFFERENCE (CADR CH)
                                                                                    (CAR CH]
                                                  (SETSEL MAINSEL POINT 'RIGHT)
                                                  (FSETTOBJ MAINTEXTOBJ CARETLOOKS (\TEDIT.GET.INSERT.CHARLOOKS
                                                                                     MAINTEXTOBJ MAINSEL))
                                                                  ; Set the caret looks to match those of the new selection
                                                  (\TEDIT.RESET.EXTEND.PENDING.DELETE MAINSEL MAINTEXTOBJ)
                                                                  ; And never pending a deletion.
                                                  (\TEDIT.FIXSEL MAINSEL MAINTEXTOBJ)
                                                  (TEDIT.NORMALIZECARET MAINTEXTOBJ MAINSEL)
                                                  (\TEDIT.SHOWSEL MAINSEL T))
                                              (T (TEDIT.PROMPTPRINT MAINTEXTOBJ "(Not found)"])
                           (Substitute [PROG* ((SAVECH# (GETSEL SEL CH#))
                                               (REPLACEMENT (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ (GETSEL SEL CH#)
                                                                   ))
                                               (PATTERN (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ
                                                                (GETSEL (fetch (TEXTOBJ SCRATCHSEL) of TEXTOBJ)
                                                                       CHLIM)))
                                               CONFIRM? KEEPLOOKS? LOC)
                                              (SETQ LOC (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ
                                                                (GETSEL (fetch (TEXTOBJ SCRATCHSEL) of TEXTOBJ)
                                                                       CHLIM)))
                                              [SETQ CONFIRM? (EQ 'ON (IMAGEOBJPROP (CAR LOC)
                                                                             'STATE]
                                              [SETQ LOC (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (CDR LOC]
                                              [SETQ KEEPLOOKS? (EQ 'ON (IMAGEOBJPROP (CAR LOC)
                                                                               'STATE]
                                              (COND
                                                 ((ZEROP (NCHARS PATTERN))
                                                                 ; NOTHING--HE HIT DEL.
                                                  NIL)
                                                 (PATTERN        ; There's something to do.  Go do it.
                                                       (CL:WHEN KEEPLOOKS?
                                                           (MBUTTON.FIND.NEXT.FIELD TEXTOBJ SAVECH# T)

                                                           ;; Get the replacement out of the menu to copy into the main text.

                                                           (SETQ REPLACEMENT (\TEDIT.SELPIECES
                                                                                  (fetch (TEXTOBJ SCRATCHSEL)
                                                                                     of TEXTOBJ))))
                                                       (RESETLST
                                                           (RESETSAVE (CURSOR WAITINGCURSOR))
                                                           (TEDIT.SUBSTITUTE MAINTEXTOBJ PATTERN REPLACEMENT
                                                                  CONFIRM?))])
                           (Quit                                 ; He wants to QUIT the edit.
                                 (COND
                                    ((\TEDIT.QUIT (\TEDIT.PRIMARYW MAINTEXTOBJ)
                                            T)
                                     (replace (TEXTOBJ EDITFINISHEDFLG) of TEXTOBJ with T))))
                           (Page% Layout                         ; Page layout menu
                                         (\TEDIT.MENU.START (COPYTEXTSTREAM TEDIT.EXPANDED.PAGEMENU T)
                                                (\TEDIT.PRIMARYW MAINTEXTOBJ)
                                                "Page Layout Menu"
                                                (HEIGHTIFWINDOW 135 5)
                                                'PAGE))
                           (Para% Looks                          ; Page layout menu
                                        (\TEDIT.EXPANDEDPARA.MENU MAINTEXTOBJ))
                           (Char% Looks                          ; Page layout menu
                                        (\TEDIT.EXPANDEDCHARLOOKS.MENU MAINTEXTOBJ))
                           (All                                  ; Select the entire document.
                                (COND
                                   ((NOT (ZEROP (TEXTLEN MAINTEXTOBJ)))
                                    (\TEDIT.SHOWSEL MAINSEL NIL)
                                    (\TEDIT.RESET.EXTEND.PENDING.DELETE MAINSEL MAINTEXTOBJ)
                                    (SETSEL MAINSEL CH# 1)
                                    (SETSEL MAINSEL CHLIM (ADD1 (TEXTLEN MAINTEXTOBJ)))
                                    (SETSEL MAINSEL DCH (TEXTLEN MAINTEXTOBJ))
                                    (SETSEL MAINSEL POINT 'LEFT)
                                    (SETSEL MAINSEL SET T)
                                    (\TEDIT.FIXSEL MAINSEL MAINTEXTOBJ)
                                    (\TEDIT.SHOWSEL MAINSEL T))))
                           (Hardcopy [SETQ PRINTHOST (\TEDIT.MAKEFILENAME (MBUTTON.NEXT.FIELD.AS.TEXT
                                                                           TEXTOBJ
                                                                           (GETSEL SEL CH#]
                                     (COND
                                        ((NOT PRINTHOST)         ; If he didn't specify a particular host, defer to his defaults.
                                         (TEDIT.PROMPTPRINT MAINTEXTOBJ "Using default print server.")))
                                     (SETQ %#COPIES (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ
                                                           (GETSEL (fetch (TEXTOBJ SCRATCHSEL) of TEXTOBJ)
                                                                  CH#)))
                                                                 ; Grab the field that specifies number of copies.
                                     [COND
                                        (%#COPIES (SETQ PRINTOPTIONS (LIST '%#COPIES %#COPIES]
                                     (SETQ %#SIDES (SELECTQ (IMAGEOBJPROP
                                                             (CAR (MBUTTON.FIND.NEXT.BUTTON
                                                                   TEXTOBJ
                                                                   (GETSEL (fetch (TEXTOBJ SCRATCHSEL)
                                                                                  of TEXTOBJ)
                                                                          CHLIM)))
                                                             'STATE)
                                                       (One% Side 1)
                                                       (Duplex 2)
                                                       NIL))
                                     [COND
                                        (%#SIDES (push PRINTOPTIONS %#SIDES)
                                               (push PRINTOPTIONS '%#SIDES]
                                     [SETQ MSG (\TEDIT.MAKEFILENAME (MBUTTON.NEXT.FIELD.AS.TEXT
                                                                     TEXTOBJ
                                                                     (GETSEL (fetch (TEXTOBJ SCRATCHSEL)
                                                                                    of TEXTOBJ)
                                                                            CH#]
                                     [COND
                                        (MSG (push PRINTOPTIONS MSG)
                                             (push PRINTOPTIONS 'MESSAGE]
                                     (TEDIT.HARDCOPY MAINTEXTOBJ NIL NIL NIL PRINTHOST PRINTOPTIONS))
                           (ERROR)))]
          (SETSEL SEL SET T)                                     ; Now turn the menu button highlighting off.
          (SETSEL SEL ONFLG T)
          (\TEDIT.SHOWSEL SEL NIL)                               ; And forget that anything is selected.
          (SETSEL SEL SET NIL])

)

(DEFINEQ

(\TEDIT.CHARLOOKSMENU.CREATE
   [LAMBDA NIL                                                     ; Edited 20-Aug-87 16:50 by jds
                                                                 ; Creates the TEdit Expanded Menu
   (SETQ TEDIT.CHARLOOKS.MENU (\TEXTMENU.DOC.CREATE (APPEND (LIST (create MB.BUTTON
                                                                           MBLABEL _ 'APPLY
                                                                           MBBUTTONEVENTFN _
                                                                           '\TEDIT.APPLY.CHARLOOKS)
                                                                     (create MB.TEXT
                                                                           MBSTRING _ "    ")
                                                                     (create MB.BUTTON
                                                                           MBLABEL _ 'SHOW
                                                                           MBBUTTONEVENTFN _
                                                                           '\TEDIT.SHOW.CHARLOOKS)
                                                                     (create MB.TEXT
                                                                           MBSTRING _ "    ")
                                                                     (create MB.BUTTON
                                                                           MBLABEL _ 'NEUTRAL
                                                                           MBBUTTONEVENTFN _
                                                                           '\TEDIT.NEUTRALIZE.CHARLOOKS)
                                                                     (create MB.TEXT
                                                                           MBSTRING _ "
                                                                           "))
                                                              TEDIT.CHARLOOKSMENU.SPEC])
```

```
(\TEDIT.EXPANDEDCHARLOOKS.MENU
  [LAMBDA (STREAM)                                                ; Edited 27-Feb-2024 07:56 by rmk
                                                                  ; Edited 20-Sep-2023 23:13 by rmk
                                                                  ; Edited 10-Oct-2022 00:23 by rmk
                                                                  ; Edited 20-Aug-87 16:49 by jds

    ;; Open a character-looks menu.

    (\TEDIT.MENU.START (COPYTEXTSTREAM TEDIT.CHARLOOKS.MENU T)
           (\TEDIT.PRIMARYW STREAM)
           "Character Looks Menu"
           (HEIGHTIFWINDOW 75 T)
           'CHARLOOKS])
```

```
(\TEDIT.APPLY.BOLDNESS
  [LAMBDA (BUTTON NEWLOOKS)                                       (* jds "30-Aug-84 13:55")
    (SELECTQ (IMAGEOBJPROP BUTTON 'STATE)
         (ON (CONS 'WEIGHT (CONS 'BOLD NEWLOOKS)))
         (OFF (CONS 'WEIGHT (CONS 'MEDIUM NEWLOOKS)))
         NEWLOOKS])
```

```
(\TEDIT.APPLY.CHARLOOKS
  [LAMBDA (OBJ SEL W)                                             ; Edited 27-Mar-2024 15:12 by rmk
                                                                  ; Edited 15-Mar-2024 13:34 by rmk
                                                                  ; Edited 16-Feb-2024 21:21 by rmk
                                                                  ; Edited 18-Apr-2023 23:55 by rmk
                                                                  ; Edited 21-Oct-2022 18:47 by rmk
                                                                  ; Edited 30-May-91 22:17 by jds

    ;; MBFN for TEdit default menu item buttons.

    (LET ((TEXTOBJ (GETSEL SEL SELTEXTOBJ))
          [MAINTEXTOBJ (fetch (TEXTSTREAM TEXTOBJ) of (fetch (TEXTWINDOW WTEXTSTREAM) of (WINDOWPROP W 'MAINWINDOW]
          (CH# (ADD1 (FGETSEL SEL CH#)))
          NEWLOOKS)
         (\TEDIT.SHOWSEL SEL NIL)                                 ; Turn off the APPLY button.
         [SETQ CH# (ADD1 (CDR (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#]
                                                                  ; Skip over the SHOW button
         [SETQ CH# (ADD1 (CDR (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#]
                                                                  ; And over the NEUTRAL button.
         (SETQ NEWLOOKS (\TEDIT.PARSE.CHARLOOKS.MENU TEXTOBJ CH#))
                                                                  ; Now Parse the menu, to give us a looks spec.
         (TEDIT.LOOKS MAINTEXTOBJ NEWLOOKS)                       ; Make the change in looks
                                                                  ; Leave him typing in the real document
         (TTY.PROCESS (WINDOWPROP (WINDOWPROP W 'MAINWINDOW)
                             'PROCESS])
```

```
(\TEDIT.APPLY.OLINE
  [LAMBDA (BUTTON NEWLOOKS)                                       (* jds "30-Aug-84 13:56")
    (SELECTQ (IMAGEOBJPROP BUTTON 'STATE)
         (ON (CONS 'OVERLINE (CONS 'ON NEWLOOKS)))
         (OFF (CONS 'OVERLINE (CONS 'OFF NEWLOOKS)))
         NEWLOOKS])
```

```
(\TEDIT.APPLY.UNBREAKABLE
  [LAMBDA (BUTTON NEWLOOKS)                                       ; Edited 24-Jul-2023 17:10 by rmk
                                                                  (* jds "30-Aug-84 13:56")
    (SELECTQ (IMAGEOBJPROP BUTTON 'STATE)
         (ON (CONS 'UNBREAKABLE (CONS 'ON NEWLOOKS)))
         (OFF (CONS 'UNBREAKABLE (CONS 'OFF NEWLOOKS)))
         NEWLOOKS])
```

```
(\TEDIT.SHOW.CHARLOOKS
  [LAMBDA (OBJ SEL MENUSTREAM)                                          ; Edited 27-Mar-2024 15:11 by rmk
                                                                        ; Edited 20-Mar-2024 11:03 by rmk
                                                                        ; Edited 17-Mar-2024 00:27 by rmk
                                                                        ; Edited 15-Mar-2024 13:34 by rmk
                                                                        ; Edited 25-Feb-2024 23:27 by rmk
                                                                        ; Edited 20-Jul-2023 17:00 by rmk
                                                                        ; Edited  3-May-2023 10:40 by rmk
                                                                        ; Edited 22-Aug-2022 13:17 by rmk
                                                                        ; Edited 30-May-91 22:17 by jds

    ;; OBJ is unused, presumably to have a standard interface with other menu functions that are updating an image object.

    ;; MENUSTREAM is the displaystream of the charlooks menu window.

    ;; Set the CHARLOOKS menu from the looks of the currently selected character.

    (LET* ((TEXTOBJ (TEXTOBJ! (GETSEL SEL SELTEXTOBJ)))
           [MAINTEXTOBJ (fetch (TEXTSTREAM TEXTOBJ) of (fetch (TEXTWINDOW WTEXTSTREAM) of (WINDOWPROP MENUSTREAM
                                                                                                    'MAINWINDOW]
           (MAINCH# (GETSEL (GETTOBJ MAINTEXTOBJ SEL)
                            CH#))
           (CH# (ADD1 (GETSEL SEL CH#)))
           PC NEWLOOKS)
          (CL:WHEN (ILEQ MAINCH# (TEXTLEN MAINTEXTOBJ))
              [SETQ CH# (ADD1 (CDR (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#]
                                                                        ; Skip over the NEUTRAL button.
              (\TEDIT.SHOWSEL SEL NIL)
              (SETSEL SEL SET NIL)
              (SETQ PC (\TEDIT.CHTOPC MAINCH# MAINTEXTOBJ))             ; The PIECE containing the text to describe
              (SETQ NEWLOOKS (PLOOKS PC))                               ; Get the looks for those characters.
                                                                        ; Fill in the menu blanks with that info
              (TEDIT.DEFERRED-UPDATES TEXTOBJ (\TEDIT.FILL.IN.CHARLOOKS.MENU TEXTOBJ CH# NEWLOOKS))
              (TTY.PROCESS (WINDOWPROP (\TEDIT.PRIMARYW MAINTEXTOBJ)
                                   'PROCESS)))])
```

```
(\TEDIT.NEUTRALIZE.CHARLOOKS
  [LAMBDA (OBJ SEL W)                                                   ; Edited 15-Mar-2024 14:23 by rmk
                                                                        ; Edited 25-Feb-2024 23:30 by rmk
                                                                        ; Edited 19-Dec-2023 13:40 by rmk
                                                                        ; Edited 18-Apr-2023 23:55 by rmk
                                                                        ; Edited 21-Oct-2022 18:50 by rmk
                                                                        ; Edited 30-May-91 22:18 by jds

    ;; Handle the NEUTRAL button on a character looks menu.  Sets all the menu settings neutral.

    (LET [(TEXTOBJ (GETSEL SEL SELTEXTOBJ))
          (CH# (ADD1 (FGETSEL SEL CH#]
         (\TEDIT.SHOWSEL SEL NIL)
         (FSETSEL SEL SET NIL)
         (\TEDIT.NEUTRALIZE.CHARLOOKS.MENU TEXTOBJ CH#)                 ; Fill in the menu blanks with that info and update the menu's
                                                                        ; screen image
         (\TEDIT.UPDATE.SCREEN TEXTOBJ)
         (TTY.PROCESS (WINDOWPROP (WINDOWPROP W 'MAINWINDOW)
                             'PROCESS])
```

```
(\TEDIT.FILL.IN.CHARLOOKS.MENU
  [LAMBDA (TEXTOBJ CH# NEWLOOKS)                                        ; Edited 20-Mar-2024 11:03 by rmk
                                                                        ; Edited 15-Mar-2024 13:34 by rmk
                                                                        ; Edited 13-Nov-2023 09:55 by rmk
                                                                        ; Edited 24-Jul-2023 21:09 by rmk
                                                                        ; Edited 18-Apr-2023 23:55 by rmk
                                                                        ; Edited 30-May-91 22:28 by jds

    ;; Given a TEXTOBJ describing a charlooks menu, the CH# of the start of the charlooks menu, and a set of looks, fill in the menu fields.

    (TEXTOBJ! TEXTOBJ)
    (LET (PC OFILE CH NEXTB BUTTON TEXT OFFSET (SCRATCHSEL (FGETTOBJ TEXTOBJ SCRATCHSEL)))
         (SETQ NEWLOOKS (\TEDIT.PARSE.CHARLOOKS.LIST NEWLOOKS NIL TEXTOBJ))

         ;; Make sure the charlooks are in the proper internal format, so this fn can be called from every reasonable place.

         [for PROP in (LIST (fetch (CHARLOOKS CLBOLD) of NEWLOOKS)
                            (fetch (CHARLOOKS CLITAL) of NEWLOOKS)
                            (fetch (CHARLOOKS CLULINE) of NEWLOOKS)
                            (fetch (CHARLOOKS CLSTRIKE) of NEWLOOKS)
                            (fetch (CHARLOOKS CLOLINE) of NEWLOOKS)
                            (fetch (CHARLOOKS CLUNBREAKABLE) of NEWLOOKS))
            do (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
               [COND
                  (PROP                                                 ; Must set the property
                        (IMAGEOBJPROP (CAR NEXTB)
                               'STATE
                               'ON))
                  (T                                                    ; Must reset it.
                     (IMAGEOBJPROP (CAR NEXTB)
                            'STATE
                            'OFF]
               (SETQ CH# (ADD1 (CDR NEXTB]
         (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))      ; Get to the start of the text.
         (SETQ BUTTON (CAR NEXTB))
         [for ITEM in (IMAGEOBJPROP BUTTON 'BUTTONS)
            do                                                     ; Loop thru the font FAMILY name button list, looking for one that
                                                                   ; matches this text's looks
               (COND
                  ((STRING-EQUAL [COND
                                    ((AND (type? FONTCLASS (fetch (CHARLOOKS CLFONT) of NEWLOOKS))
                                          (NEQ (fetch FONTCLASSNAME of (fetch (CHARLOOKS CLFONT) of NEWLOOKS))
                                               'DEFAULTFONT))
                                     (CONCAT (fetch FONTCLASSNAME of (fetch (CHARLOOKS CLFONT) of NEWLOOKS))
                                            '-class))
                                    ((FONTP (fetch (CHARLOOKS CLFONT) of NEWLOOKS))
                                     (FONTPROP (fetch (CHARLOOKS CLFONT) of NEWLOOKS)
                                            'FAMILY]
                          ITEM)
                   (IMAGEOBJPROP BUTTON 'STATE ITEM)
                   (RETURN)))
            finally                                                ; This font wasn't found in the list.  Add it.
                  [MB.NWAYBUTTON.ADDITEM BUTTON (COND
                                                     ((type? FONTCLASS (fetch (CHARLOOKS CLFONT) of NEWLOOKS))
                                                      (PACK* (fetch FONTCLASSNAME of (fetch (CHARLOOKS CLFONT)
                                                                                                  of NEWLOOKS))
                                                             '-class))
                                                     ((FONTP (fetch (CHARLOOKS CLFONT) of NEWLOOKS))
                                                      (FONTPROP (fetch (CHARLOOKS CLFONT) of NEWLOOKS)
                                                             'FAMILY]
                                                                   ; Add this family to the list of items
                  (IMAGEOBJPROP BUTTON 'STATE (U-CASE (FONTPROP (fetch (CHARLOOKS CLFONT) of NEWLOOKS)
                                                             'FAMILY]
                                                                   ; Now find which text button was 'on'
         (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (CDR NEXTB))
                NIL)                                               ; Clean out the 'other font' field
         (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                (fetch (CHARLOOKS CLSIZE) of NEWLOOKS))            ; Set the value in the SIZE field
         [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#]
                                                                   ; Move forward to the SUPERSCRIPT/SUBSCRIPT button
         (SETQ BUTTON (CAR NEXTB))
         (SETQ OFFSET (fetch (CHARLOOKS CLOFFSET) of NEWLOOKS))    ; Remember the offset value for later
         [COND
            ((OR (NOT (fetch (CHARLOOKS CLOFFSET) of NEWLOOKS))
                 (ZEROP (fetch (CHARLOOKS CLOFFSET) of NEWLOOKS)))
                                                                   ; There is no subscript or superscript.  Mark the text NORMAL.
             (IMAGEOBJPROP BUTTON 'STATE 'Normal)
             (SETQ OFFSET NIL)                                     ; Mark there as being no offset value

             )
            ((ILESSP OFFSET 0)                                     ; SUBSCRIPTING
             (IMAGEOBJPROP BUTTON 'STATE 'Subscript))
            ((IGREATERP OFFSET 0)                                  ; SUBSCRIPTING
             (IMAGEOBJPROP BUTTON 'STATE 'Superscript]
         (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (CDR NEXTB))
                (AND OFFSET (IABS OFFSET)))                        ; Now move up to the offset distance fill-in field.
         (\TEDIT.SHOWSEL SCRATCHSEL NIL)
         (SETSEL SCRATCHSEL SET NIL)
         (\TEDIT.MARK.LINES.DIRTY TEXTOBJ CH# (ADD1 (GETSEL SCRATCHSEL CH#])

(\TEDIT.NEUTRALIZE.CHARLOOKS.MENU
  [LAMBDA (TEXTOBJ CH#)                                            ; Edited 19-Dec-2023 13:40 by rmk
                                                                   ; Edited 20-Jul-2023 17:00 by rmk
                                                                   ; Edited 13-Sep-2022 12:06 by rmk
                                                                   ; Edited 30-May-91 22:18 by jds

    ;; Set all the fields in the CHARLOOKS menu specified by TEXTOBJ to neutral values, starting at CH#.

    (LET (NEXTB BUTTON)
         (TEDIT.DEFERRED-UPDATES TEXTOBJ

                ;; PROP makes sure we mark the right number of property buttons

                [for PROP in '(BOLD ITAL ULINE STRIKE OLINE UNBREAKABLE) do (SETQ NEXTB (
                                                                                       MBUTTON.FIND.NEXT.BUTTON
                                                                                        TEXTOBJ CH#))
                                                                           (IMAGEOBJPROP (CAR NEXTB)
                                                                                  'STATE
                                                                                  'NEUTRAL)
                                                                           (SETQ CH# (ADD1 (CDR NEXTB]
                (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
                                                                   ; Get to the start of the text.
                (SETQ BUTTON (CAR NEXTB))
                (IMAGEOBJPROP BUTTON 'STATE NIL)                   ; Now find which text button was 'on'
                (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (CDR NEXTB))
                       NIL)                                        ; Clean out the 'other font' field
                (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                       NIL)                                        ; Set the value in the SIZE field
                [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#]
                                                                   ; Move forward to the SUPERSCRIPT/SUBSCRIPT button
                (SETQ BUTTON (CAR NEXTB))                        ; Remember the offset value for later
                (IMAGEOBJPROP BUTTON 'STATE NIL)                 ; Now move up to the offset distance fill-in field.
                (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (CDR NEXTB))
                       NIL])

(\TEDIT.PARSE.CHARLOOKS.MENU
  [LAMBDA (TEXTOBJ CH#)                                          ; Edited 10-Apr-2024 10:18 by rmk
                                                                 ; Edited 25-Feb-2024 22:26 by rmk
                                                                 ; Edited 24-Jul-2023 17:10 by rmk
                                                                 ; Edited 30-May-91 22:18 by jds

    ;; MBFN for TEdit default menu item buttons.  For a new font, this should not change the menu if the font doesn't exist...but it does.

    (LET ((SCRATCHSEL (GETTOBJ TEXTOBJ SCRATCHSEL))
          NEWLOOKS SIZE SUPER SUB NEXTB BUTTON TEXT UTEXT OFFSET FONTCLASS)
         [for BUTTON in '(BOLD ITALIC UNDERLINE STRIKEOUT OVERSCORE UNBREAKABLE)
            do                                                   ; Set the independent character properties
               (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
               (SELECTQ BUTTON
                    (BOLD (SETQ NEWLOOKS (\TEDIT.APPLY.BOLDNESS (CAR NEXTB)
                                                NEWLOOKS)))
                    (ITALIC (SETQ NEWLOOKS (\TEDIT.APPLY.SLOPE (CAR NEXTB)
                                                  NEWLOOKS)))
                    (UNDERLINE (SETQ NEWLOOKS (\TEDIT.APPLY.ULINE (CAR NEXTB)
                                                     NEWLOOKS)))
                    (STRIKEOUT (SETQ NEWLOOKS (\TEDIT.APPLY.STRIKEOUT (CAR NEXTB)
                                                     NEWLOOKS)))
                    (OVERSCORE (SETQ NEWLOOKS (\TEDIT.APPLY.OLINE (CAR NEXTB)
                                                     NEWLOOKS)))
                    (UNBREAKABLE (SETQ NEWLOOKS (\TEDIT.APPLY.UNBREAKABLE (CAR NEXTB)
                                                       NEWLOOKS)))
                   NIL)
               (SETQ CH# (ADD1 (CDR NEXTB]
         (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))

         ;; We're now at the start of the fonts.

         (SETQ BUTTON (CAR NEXTB))
         (CL:WHEN BUTTON                                         ; This has all the current fonts, plus Other
             [SELECTQ (IMAGEOBJPROP BUTTON 'STATE)
                  (Other                                         ; Have to get and add in a new font.
                         [SETQ TEXT (MBUTTON.NEXT.FIELD.AS.ATOM TEXTOBJ (ADD1 (CDR NEXTB]
                         (SETQ UTEXT (U-CASE TEXT))
                         (if (NOT TEXT)
                             then (TEDIT.PROMPTPRINT TEXTOBJ "'Other' font not specified, font-family not
                                        changed" T)
                           elseif [FMEMB UTEXT (U-CASE (IMAGEOBJPROP BUTTON 'BUTTONS]
                             then ;; Family already in the list, select it

                                  [IMAGEOBJPROP BUTTON 'STATE (find NAME in (IMAGEOBJPROP BUTTON 'BUTTONS)
                                                                 suchthat (EQ UTEXT (U-CASE NAME]
                                  (TEDIT.DELETE TEXTOBJ SCRATCHSEL)
                                                                 ; Delete the new font's name from the fill-in field.
                                  (TEDIT.OBJECT.CHANGED TEXTOBJ BUTTON)
                                  (if [AND (BOUNDP UTEXT)
                                           (type? FONTCLASS (SETQ FONTCLASS (GETATOMVAL UTEXT]
                                      then                       ; Fontclasses are global
                                           (push NEWLOOKS 'FONT FONTCLASS)
                                    else (push NEWLOOKS 'FAMILY UTEXT))
                           elseif (OR [AND (BOUNDP UTEXT)
                                           (type? FONTCLASS (SETQ FONTCLASS (GETATOMVAL UTEXT]
                                      (FONTSAVAILABLE UTEXT '* '* 0 'DISPLAY T))
                             then ;; A family or fontclass that exists but is not on the list, add it, select it, and update the menu

                                  (MB.NWAYBUTTON.ADDITEM BUTTON TEXT)
                                  (IMAGEOBJPROP BUTTON 'STATE TEXT)
                                  (TEDIT.DELETE TEXTOBJ SCRATCHSEL)
                                                                 ; Delete the new font's name from the fill-in field.
                                  (TEDIT.OBJECT.CHANGED TEXTOBJ BUTTON)
                                  (push NEWLOOKS 'FONT (OR FONTCLASS UTEXT))
                           else ;; Tell him that the font doesn't exist, but don't update the menu

                                (TEDIT.PROMPTPRINT TEXTOBJ (CONCAT "Can't find Other font " TEXT ", font-family
                                                                 not changed")
                                      T)))
                  (PROGN (MBUTTON.FIND.NEXT.FIELD TEXTOBJ CH#)   ; Not OTHER, skip over other-font fill-in

                         ;; Old funky code, font class indicated by e.g. DEFAULTFONT-class ??  Grab the name and evaluate it.

                         (if [type? FONTCLASS (SETQ FONTCLASS
                                                    (GETATOMVAL (CL:IF (STRPOS '-class (IMAGEOBJPROP BUTTON
                                                                                          'STATE))
                                                                    [SUBATOM (IMAGEOBJPROP BUTTON 'STATE)
                                                                           1
                                                                           (SUB1 (STRPOS '-class (IMAGEOBJPROP
                                                                                                  BUTTON
                                                                                                  'STATE]
                                                                    (IMAGEOBJPROP BUTTON 'STATE))]
                             then (push NEWLOOKS 'FONT FONTCLASS)
```

```
                                  else (push NEWLOOKS 'FAMILY (IMAGEOBJPROP BUTTON 'STATE])
          ;; Now interpret other buttons and fields
          [SETQ SIZE (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
                                                                  ; Read the contents of the SIZE menu field
          (CL:WHEN SIZE                                           ; He specified one.  Set it.
              (push NEWLOOKS 'SIZE SIZE))
          [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
                                                                  ; Get a handle on the SUPERSCRIPT/SUBSCRIPT button
          (SETQ BUTTON (CAR NEXTB))
          (SETQ SUPER (IMAGEOBJPROP BUTTON 'STATE))               ; Decide which kind it is
          [SETQ OFFSET (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (CDR NEXTB]
                                                                  ; And get the offset distance, in points.
          (SELECTQ SUPER
              (Superscript                                        ; Offset the characters by either the given distance or 2 pts.
                           (push NEWLOOKS 'SUPERSCRIPT (OR OFFSET 2)))
              (Subscript                                          ;  Offset the characters by either the given distance or 2 pts.
                         (push NEWLOOKS 'SUBSCRIPT (OR OFFSET 2)))
              (Normal                                             ; NORMAL => Turn off all super and subscripting
                      (push NEWLOOKS 'SUPERSCRIPT 0))
              NIL)
          NEWLOOKS])

(\TEDIT.APPLY.SLOPE
  [LAMBDA (BUTTON NEWLOOKS)                                       (* jds "30-Aug-84 13:56")
    (SELECTQ (IMAGEOBJPROP BUTTON 'STATE)
         (ON (CONS 'SLOPE (CONS 'ITALIC NEWLOOKS)))
         (OFF (CONS 'SLOPE (CONS 'REGULAR NEWLOOKS)))
         NEWLOOKS])

(\TEDIT.APPLY.STRIKEOUT
  [LAMBDA (BUTTON NEWLOOKS)                                       (* jds "30-Aug-84 13:56")
    (SELECTQ (IMAGEOBJPROP BUTTON 'STATE)
         (ON (CONS 'STRIKEOUT (CONS 'ON NEWLOOKS)))
         (OFF (CONS 'STRIKEOUT (CONS 'OFF NEWLOOKS)))
         NEWLOOKS])

(\TEDIT.APPLY.ULINE
  [LAMBDA (BUTTON NEWLOOKS)                                       (* jds "30-Aug-84 13:56")
    (SELECTQ (IMAGEOBJPROP BUTTON 'STATE)
         (ON (CONS 'UNDERLINE (CONS 'ON NEWLOOKS)))
         (OFF (CONS 'UNDERLINE (CONS 'OFF NEWLOOKS)))
         NEWLOOKS])
)

(DEFINEQ

(\TEDITPARAMENU.CREATE
  [LAMBDA NIL                                                     (* jds " 2-Aug-84 15:32")
                                                                  (* Creates the TEdit Expanded Paragraph Menu)
    (SETQ TEDIT.EXPANDEDPARA.MENU (\TEXTMENU.DOC.CREATE TEDIT.PARAMENU.SPEC])

(\TEDIT.EXPANDEDPARA.MENU
  [LAMBDA (STREAM)                                                ; Edited 27-Feb-2024 07:53 by rmk
                                                                  ; Edited 19-Sep-2023 08:51 by rmk
                                                                  ; Edited 20-Aug-87 16:51 by jds
    (\TEDIT.MENU.START (COPYTEXTSTREAM TEDIT.EXPANDEDPARA.MENU T)
           (\TEDIT.PRIMARYW (TEXTOBJ STREAM))
           "Paragraph-Looks Menu"
           (HEIGHTIFWINDOW 141 T)
           'PARALOOKS])

(\TEDIT.APPLY.PARALOOKS
  [LAMBDA (OBJ SEL W)                                             ; Edited 20-Mar-2024 11:04 by rmk
                                                                  ; Edited 15-Mar-2024 13:34 by rmk
                                                                  ; Edited  9-Mar-2024 11:54 by rmk
                                                                  ; Edited  1-Mar-2024 20:33 by rmk
                                                                  ; Edited 26-Feb-2024 11:41 by rmk
                                                                  ; Edited 17-Dec-2023 17:04 by rmk
                                                                  ; Edited 18-Apr-2023 23:55 by rmk
                                                                  ; Edited  7-Apr-2023 18:57 by rmk
                                                                  ; Edited  3-Mar-2023 23:30 by rmk
                                                                  ; Edited 10-Feb-2023 16:51 by rmk
                                                                  ; Edited 21-Oct-2022 18:51 by rmk
                                                                  ; Edited  6-Oct-2022 16:44 by rmk
                                                                  ; Edited  1-Oct-2022 16:34 by rmk
                                                                  ; Edited 22-Apr-93 16:45 by jds

    ;; Handler for the Paragraph Menu's APPLY button.  Collects the specs from the paragraph menu and calls TEDIT.PARALOOKS to effect the
    ;; change.

    (LET ((TEXTOBJ (TEXTOBJ! (fetch (TEXTWINDOW WTEXTOBJ) of W)))
          [MAINTEXTOBJ (TEXTOBJ! (fetch (TEXTWINDOW WTEXTOBJ) of (WINDOWPROP W 'MAINWINDOW]
          (CH# (ADD1 (FGETSEL SEL CH#)))
          SCRATCHSEL QUAD OFILE CH NEWLOOKS SIZE SUPER SUB LINELEAD PARALEAD DEFTAB BUTTON MARUNIT NEXTB
          BUTTONDATA L1 LN R PARATYPE SPECIALX SPECIALY)
         [SETQ CH# (ADD1 (CDR (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#]
                                                                ; Skip the SHOW button
         [SETQ CH# (ADD1 (CDR (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#]
                                                                ; and the NEUTRAL button.
         (SETQ SCRATCHSEL (fetch (TEXTOBJ SCRATCHSEL) of TEXTOBJ))
         (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))    ; Get the JUSTIFICATION button: Left/Right/Centered/Justified
         (SETQ BUTTON (CAR NEXTB))
         (CL:WHEN (AND (SETQ QUAD (IMAGEOBJPROP BUTTON 'STATE))
                       (NEQ QUAD 'OFF))                         ; A justification was specified
             (push NEWLOOKS 'QUAD (U-CASE (MKATOM QUAD))))
         [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (CDR NEXTB]
                                                                ; Go to the 'Page Heading' button
         (SETQ BUTTON (CAR NEXTB))
         [COND
            [(EQ (IMAGEOBJPROP BUTTON 'STATE)
                 'ON)                                           ; A page heading of a particular subtype
             (push NEWLOOKS 'TYPE 'PAGEHEADING 'SUBTYPE (MKATOM (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ
                                                                       (ADD1 (CDR NEXTB]
            [(EQ (IMAGEOBJPROP BUTTON 'STATE)
                 'OFF)                                          ; This paragraph IS NOT a page heading.
             (push NEWLOOKS 'TYPE NIL 'SUBTYPE NIL)
             (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ (ADD1 (CDR NEXTB]
            (T                                                  ; No change specified.
               (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ (ADD1 (CDR NEXTB]
         (CL:WHEN (SETQ LINELEAD (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (FGETSEL SCRATCHSEL CH#)))
                                                                ; Get any line leading
             (push NEWLOOKS 'LINELEADING LINELEAD))
         (CL:WHEN [SETQ PARALEAD (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (FGETSEL SCRATCHSEL CH#]
                                                                ; Get any paragraph leading
             (push NEWLOOKS 'PARALEADING PARALEAD))
         (CL:WHEN [SETQ SPECIALX (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (FGETSEL SCRATCHSEL CH#]
                                                                ; Get any special X position for the paragraph
             (push NEWLOOKS 'SPECIALX (FIXR (TIMES 12 SPECIALX))))
         (CL:WHEN [SETQ SPECIALY (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (FGETSEL SCRATCHSEL CH#]
                                                                ; Get special Y positioning for the paragraph
             (push NEWLOOKS 'SPECIALY (FIXR (TIMES 12 SPECIALY))))
         (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (FGETSEL SCRATCHSEL CH#)))
         (SETQ BUTTON (CAR NEXTB))
         (COND
            ((EQ (IMAGEOBJPROP BUTTON 'STATE)
                 'ON)                                           ; This paragraph starts on a new page (or col or box, as
                                                                ; apprpopriate)
             (push NEWLOOKS 'NEWPAGEBEFORE T))
            ((EQ (IMAGEOBJPROP BUTTON 'STATE)
                 'OFF)                                          ; This paragraph IS NOT a page heading.
             (push NEWLOOKS 'NEWPAGEBEFORE NIL)))
         [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (CDR NEXTB]
         (SETQ BUTTON (CAR NEXTB))
         (COND
            ((EQ (IMAGEOBJPROP BUTTON 'STATE)
                 'ON)                                           ; The next paragraph starts on a new page....
             (push NEWLOOKS 'NEWPAGEAFTER T))
            ((EQ (IMAGEOBJPROP BUTTON 'STATE)
                 'OFF)                                          ; The next paragraph DOESN'T START on a new page....
             (push NEWLOOKS 'NEWPAGEAFTER NIL)))
         [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (CDR NEXTB]
         (SETQ BUTTON (CAR NEXTB))
         (SELECTQ (IMAGEOBJPROP BUTTON 'STATE)
              (ON (push NEWLOOKS 'HARDCOPY T))
              (OFF (push NEWLOOKS 'HARDCOPY NIL))
              NIL)

;;; THE VARIOUS KINDS OF KEEP PROPERTIES (ONLY HEADING-KEEP FOR NOW THO)

         [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (CDR NEXTB]
         (SETQ BUTTON (CAR NEXTB))
         (SELECTQ (IMAGEOBJPROP BUTTON 'STATE)
              (ON (push NEWLOOKS 'HEADINGKEEP 'ON))
              (OFF (push NEWLOOKS 'HEADINGKEEP 'OFF))
              NIL)

         ;; Default tab width

         (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (FGETSEL SCRATCHSEL CH#)))
         (SETQ BUTTON (CAR NEXTB))
         (SETQ DEFTAB (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (CDR NEXTB)))

         ;; If the MARBAR is next, we don't need the loop.  If it isn't next, the original code would have looped forever.

         ;; This keeps the loop, but allows for the  search to advance, in case in the future some other item is stuck in. But if it doesn't find a
         ;; MARGINBAR, the following code will crash.

         [bind (CHNO _ (FGETSEL SCRATCHSEL CH#)) while NEXTB until (type? MARGINBAR BUTTON)
            do (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CHNO))
               (SETQ BUTTON (CAR NEXTB))
               (SETQ CHNO (ADD1 (CDR NEXTB]
         (CL:UNLESS (type? MARGINBAR BUTTON)
                (SHOULDNT "MARGINBAR NOT FOUND"))
         (SETQ BUTTONDATA (IMAGEOBJPROP BUTTON 'OBJECTDATUM))
         (SETQ MARUNIT (fetch MARUNIT of BUTTONDATA))
         (SETQ L1 (FIXR (TIMES (fetch MARL1 of BUTTONDATA)
                               MARUNIT)))
         (CL:WHEN (IGEQ L1 0)                                    ; The 1stleftmargin is set, and non-neutral.
             (push NEWLOOKS '1STLEFTMARGIN L1))
         (SETQ LN (FIXR (TIMES (fetch MARLN of BUTTONDATA)
                               MARUNIT)))
         (CL:WHEN (IGEQ LN 0)                                    ; The LEFTMARGIN is set, and non-neutral.
             (push NEWLOOKS 'LEFTMARGIN LN))
         (SETQ R (FIXR (TIMES (fetch MARR of BUTTONDATA)
                              MARUNIT)))
         (CL:WHEN (IGEQ R 0)                                     ; The RIGHTMARGIN is set, and non-neutral.
             (push NEWLOOKS 'RIGHTMARGIN R))
         (CL:UNLESS (MEMB (fetch MARTABS of BUTTONDATA)
                          '(NIL NEUTRAL))                        ; If the tab settings are neutral, don't change anything.
             [push NEWLOOKS 'TABS (CONS DEFTAB (SORT (for TAB in (fetch MARTABS of BUTTONDATA)
                                                        collect (CONS (FIXR (TIMES (CAR TAB)
                                                                                   MARUNIT))
                                                                      (CDR TAB)))
                                                     (FUNCTION (LAMBDA (A B)
                                                                 (ILEQ (CAR A)
                                                                       (CAR B])
         (TEDIT.PARALOOKS MAINTEXTOBJ NEWLOOKS (GETSEL (FGETTOBJ MAINTEXTOBJ SEL)
                                                      CH#)
                (GETSEL (FGETTOBJ MAINTEXTOBJ SEL)
                       DCH))
         (\TEDIT.SHOWSEL SEL NIL)
         (TTY.PROCESS (WINDOWPROP (WINDOWPROP W 'MAINWINDOW)
                             'PROCESS])

(\TEDIT.SHOW.PARALOOKS
  [LAMBDA (OBJ SEL W)                                            ; Edited 27-Mar-2024 13:52 by rmk
                                                                 ; Edited 15-Mar-2024 13:34 by rmk
                                                                 ; Edited 25-Feb-2024 23:33 by rmk
                                                                 ; Edited 20-Jul-2023 17:00 by rmk
                                                                 ; Edited  6-Jun-2023 15:10 by rmk
                                                                 ; Edited 18-Apr-2023 23:59 by rmk
                                                                 ; Edited  9-Mar-2023 14:43 by rmk
                                                                 ; Edited 11-Feb-2023 11:31 by rmk
                                                                 ; Edited 21-Oct-2022 18:51 by rmk
                                                                 ; Edited 22-Aug-2022 13:13 by rmk
                                                                 ; Edited  6-Jul-92 09:42 by jds

    ;; Fill in the PARAGRAPH LOOKS menu from the para looks for a selected character.  This function knows the order of items in the paragraph
    ;; menu.

    ;; This only makese sense if you know that CH# in SCRATCHSEL gets updated  down below MBUTTON.SET.NEXT.FIELD

    (LET ((TEXTOBJ (GETSEL SEL SELTEXTOBJ))
          (CH# (ADD1 (GETSEL SEL CH#)))
          BUTTON NEXTB BUTTONDATA PARALOOKS MARUNIT)
         (CL:WHEN [SETQ PARALOOKS (TEDIT.GET.PARALOOKS (fetch (TEXTWINDOW WTEXTSTREAM) of (WINDOWPROP
                                                                                          W
                                                                                          'MAINWINDOW]
             (\TEDIT.SHOWSEL SEL NIL)
             (SETSEL SEL SET NIL)
             [TEDIT.DEFERRED-UPDATES TEXTOBJ                     ; Skip NEUTRAL, grab justifiers (QUAD)
                    [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (CDR (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ
                                                                                    CH#]
                    (SETQ BUTTON (CAR NEXTB))
                    (for ITEM in (IMAGEOBJPROP BUTTON 'BUTTONS) when (EQ (LISTGET PARALOOKS 'QUAD)
                                                                        (U-CASE (CL:IF (LISTP ITEM)
                                                                                    (CAR ITEM)
                                                                                    ITEM)))
                       do (IMAGEOBJPROP BUTTON 'STATE ITEM)      ; Turn this button on.
                          (RETURN))                              ; Now find which text button was 'on'
                    [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (CDR NEXTB]
                                                                 ; Find the 'Page Heading' button
                    (SETQ BUTTON (CAR NEXTB))
                    (COND
                       [(EQ (LISTGET PARALOOKS 'TYPE)
                            'PAGEHEADING)                        ; This IS a page heading.  Turn the button ON and set the
                                                                 ; heading type field
                        (IMAGEOBJPROP BUTTON 'STATE 'ON)
                        (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                               (LISTGET PARALOOKS 'SUBTYPE]
                       (T (IMAGEOBJPROP BUTTON 'STATE 'OFF)      ; Not a page heading, no type
                          (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                                 NIL)))
                    (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                           (LISTGET PARALOOKS 'LINELEADING))
                    (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                           (LISTGET PARALOOKS 'PARALEADING))     ; Update the PARA LEADING field
                    [MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                           (LET ((VAL (/ (FIXR (IQUOTIENT (OR (LISTGET PARALOOKS 'SPECIALX)
                                                              0)
                                                      3))
                                         4)))
                                (COND
                                   ((FIXP VAL)
                                    VAL)
                                   (T (FLOAT VAL]
                    [MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                           (LET ((VAL (/ (FIXR (IQUOTIENT (OR (LISTGET PARALOOKS 'SPECIALY)
                                                              0)
                                                      3))
                                         4)))
                                (COND
                                   ((FIXP VAL)
                                    VAL)
                                   (T (FLOAT VAL]
                    [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#]
                    (SETQ BUTTON (CAR NEXTB))
                    (IMAGEOBJPROP BUTTON 'STATE (LISTGET PARALOOKS 'NEWPAGEBEFORE))
                    [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (CDR NEXTB]
                    (SETQ BUTTON (CAR NEXTB))
                    (IMAGEOBJPROP BUTTON 'STATE (LISTGET PARALOOKS 'NEWPAGEAFTER))

                    ;; HARDCOPY-DISPLAY MODE

                    [SETQ NEXTB (MBUTTON.SET.NEXT.BUTTON.STATE TEXTOBJ (ADD1 (CDR NEXTB))
                                       (LISTGET PARALOOKS 'HARDCOPY]

                    ;; HEADING KEEP

                    [SETQ NEXTB (MBUTTON.SET.NEXT.BUTTON.STATE TEXTOBJ NEXTB (LISTGET PARALOOKS 'HEADINGKEEP]

                    ;; DEFAULT TAB WIDTH

                    [MBUTTON.SET.NEXT.FIELD TEXTOBJ NEXTB (CAR (LISTGET PARALOOKS 'TABS]
                    (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (GETSEL SCRATCHSEL CH#)))
                    (SETQ BUTTON (CAR NEXTB))
                    (until (type? MARGINBAR BUTTON) do [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ
                                                                         (ADD1 (CDR NEXTB]
                                                      (SETQ BUTTON (CAR NEXTB)))
                    (SETQ BUTTONDATA (IMAGEOBJPROP BUTTON 'OBJECTDATUM))
                    (replace MARL1 of BUTTONDATA with (FQUOTIENT (LISTGET PARALOOKS '1STLEFTMARGIN)
                                                                 (fetch MARUNIT of BUTTONDATA)))
                    (replace MARLN of BUTTONDATA with (FQUOTIENT (LISTGET PARALOOKS 'LEFTMARGIN)
                                                                 (fetch MARUNIT of BUTTONDATA)))
                    (replace MARR of BUTTONDATA with (FQUOTIENT (LISTGET PARALOOKS 'RIGHTMARGIN)
                                                                (fetch MARUNIT of BUTTONDATA)))
                    (replace MARTABS of BUTTONDATA with (for TAB in (CDR (LISTGET PARALOOKS 'TABS))
                                                         collect (CONS (FQUOTIENT (CAR TAB)
                                                                                  (fetch MARUNIT of BUTTONDATA))
                                                                       (CDR TAB]
             (TTY.PROCESS (WINDOWPROP (WINDOWPROP W 'MAINWINDOW)
                                 'PROCESS))))])

(\TEDIT.NEUTRALIZE.PARALOOKS.MENU
  [LAMBDA (OBJ SEL W)                                            ; Edited 25-Feb-2024 23:35 by rmk
                                                                 ; Edited 20-Jul-2023 17:00 by rmk
                                                                 ; Edited 21-Oct-2022 18:51 by rmk
                                                                 ; Edited 30-May-91 22:18 by jds

    ;; Set all the fields of a PARAGRAPH LOOKS menu to neutral settings.

    (LET ((TEXTOBJ (GETSEL SEL SELTEXTOBJ))
          (CH# (ADD1 (GETSEL SEL CH#)))
          BUTTON NEXTB BUTTONDATA)                               ; Get to the start of the text.
         (TEDIT.DEFERRED-UPDATES TEXTOBJ (SETQ NEXTB (MBUTTON.SET.NEXT.BUTTON.STATE TEXTOBJ CH# 'NIL))
                                                                 ; Neutralize the justification N-Way button
                (SETQ NEXTB (MBUTTON.SET.NEXT.BUTTON.STATE TEXTOBJ NEXTB 'NEUTRAL))
                                                                 ; Find the 'Page Heading' button
                (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                       NIL)
                (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                       NIL)                                      ; Update the LINE LEADING field
                (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                       NIL)                                      ; Update the PARA LEADING field
                (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                       NIL)
                (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                       NIL)
                (SETQ NEXTB (MBUTTON.SET.NEXT.BUTTON.STATE TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                                   'NEUTRAL))                    ; New page before
                (SETQ NEXTB (MBUTTON.SET.NEXT.BUTTON.STATE TEXTOBJ NEXTB 'NEUTRAL))
                                                                 ; New page after
                (SETQ NEXTB (MBUTTON.SET.NEXT.BUTTON.STATE TEXTOBJ NEXTB 'NEUTRAL))
                                                                 ; Hardcopy formatting mode
                (MBUTTON.SET.NEXT.FIELD TEXTOBJ NEXTB NIL)       ; Update the DEFAULT TAB SPACING field
                (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (GETSEL SCRATCHSEL CH#)))
                (SETQ BUTTON (CAR NEXTB))
                (while (NOT (type? MARGINBAR BUTTON)) do [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON
                                                                     TEXTOBJ
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                                                                            (ADD1 (CDR NEXTB]
                                                                (SETQ BUTTON (CAR NEXTB)))
                (SETQ BUTTONDATA (IMAGEOBJPROP BUTTON 'OBJECTDATUM))
                                                                        ; (IMAGEOBJPROP BUTTON (QUOTE IMAGECACHE) NIL)
                                                                        ; Tell it to reformat itself.
                [replace MARL1 of BUTTONDATA with (COND
                                                         ((ILESSP (fetch MARL1 of BUTTONDATA)
                                                                 0)
                                                          (fetch MARL1 of BUTTONDATA))
                                                         (T (IMIN -0.5 (IMINUS (fetch MARL1 of BUTTONDATA]
                [replace MARLN of BUTTONDATA with (COND
                                                         ((ILESSP (fetch MARLN of BUTTONDATA)
                                                                 0)
                                                          (fetch MARLN of BUTTONDATA))
                                                         (T (IMIN -0.5 (IMINUS (fetch MARLN of BUTTONDATA]
                [replace MARR of BUTTONDATA with (COND
                                                        ((ILESSP (fetch MARR of BUTTONDATA)
                                                                0)
                                                         (fetch MARR of BUTTONDATA))
                                                        ((ZEROP (fetch MARR of BUTTONDATA))
                                                         (IMINUS (IQUOTIENT (IDIFFERENCE (GETTOBJ TEXTOBJ WRIGHT)
                                                                                        20)
                                                                        12)))
                                                        (T (IMIN -0.5 (IMINUS (fetch MARR of BUTTONDATA]
                (replace MARTABS of BUTTONDATA with 'NEUTRAL))
         (TTY.PROCESS (WINDOWPROP (WINDOWPROP W 'MAINWINDOW)
                                 'PROCESS])
```

(\TEDIT.RECORD.TABLEADERS

```
  [LAMBDA (BUTTON NEWSTATE TEXTSTREAM SEL)                              ; Edited 30-May-91 22:18 by jds

            (* Toggle the dotted-leader state of the margin bar tab-setter. This is called when the user hits the "dotted leader" toggle
            button in the menu)

    (PROG* [(FLG (COND
                    ((EQ NEWSTATE 'ON)
                     T)
                    (T NIL)))
            (TEXTOBJ (TEXTOBJ TEXTSTREAM))
            (MARGINBAR (CAR (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SEL]
           (replace MARTABTYPE of (IMAGEOBJPROP MARGINBAR 'OBJECTDATUM)
              with (SELECTQ (OR (fetch MARTABTYPE of (IMAGEOBJPROP MARGINBAR 'OBJECTDATUM))
                                'LEFT)
                       (LEFT 'DOTTEDLEFT)
                       (DOTTEDLEFT 'LEFT)
                       (CENTERED 'DOTTEDCENTERED)
                       (DOTTEDCENTERED
                            'CENTERED)
                       (RIGHT 'DOTTEDRIGHT)
                       (DOTTEDRIGHT 'RIGHT)
                       (DECIMAL 'DOTTEDDECIMAL)
                       (DOTTEDDECIMAL
                            'DECIMAL)
                       (SHOULDNT])
)

(DEFINEQ
```

(\TEDIT.SHOW.PAGEFORMATTING

```
  [LAMBDA (OBJ SEL W)                                                   ; Edited 27-Mar-2024 15:15 by rmk
                                                                        ; Edited 15-Mar-2024 13:34 by rmk
                                                                        ; Edited 18-Jan-2024 08:33 by rmk
                                                                        ; Edited 12-Nov-2023 23:40 by rmk
                                                                        ; Edited  6-Nov-2023 22:33 by rmk
                                                                        ; Edited 20-Jul-2023 17:00 by rmk
                                                                        ; Edited 18-Apr-2023 23:59 by rmk
                                                                        ; Edited 21-Oct-2022 18:51 by rmk
                                                                        ; Edited 13-Sep-2022 12:07 by rmk
                                                                        ; Edited  4-Feb-92 16:38 by jds

;;; Take a document's page formatting, and display it in the menu.

    (LET* ((TEXTOBJ (GETSEL SEL SELTEXTOBJ))
           [MAINTEXTOBJ (fetch (TEXTSTREAM TEXTOBJ) of (fetch (TEXTWINDOW WTEXTSTREAM) of (WINDOWPROP W
                                                                                              'MAINWINDOW]
           (CH# (ADD1 (GETSEL SEL CH#)))
           FOLIOINFO NEWLOOKS NEXTB BUTTON PAGEID OPAGEFRAMES FIRST REST PFONT HEADING HEADINGS PAGEPROPS
           STARTINGPAGE# PAPERSIZE)

          ;; Start by turning off the selection--and leaving it off afterward.

          (\TEDIT.SHOWSEL SEL NIL)
          (SETSEL SEL SET NIL)

          ;; What kind of page are we looking at the specs for?

          (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
```

```
(SETQ BUTTON (CAR NEXTB))
(SETQ PAGEID (SELECTQ (IMAGEOBJPROP (CAR NEXTB)
                             'STATE)
                  (|First(&Default)|
                      'FIRST)
                  (Other% Left 'LEFT)
                  (Other% Right 'RIGHT)
                  (PROGN (TEDIT.PROMPTPRINT MAINTEXTOBJ "First specify which kind of page you want to
                                see." T)
                        NIL)))
;; Now mark the menu for NO SCREEN UPDATES during the button-setting process.
(CL:WHEN PAGEID
    [TEDIT.DEFERRED-UPDATES TEXTOBJ
           ;; Now replace the button values, fill-in fields, etc.
           (SETQ OPAGEFRAMES (OR (fetch (TEXTOBJ TXTPAGEFRAMES) of MAINTEXTOBJ)
                                 TEDIT.PAGE.FRAMES))
           ;;  LISTP is already just a list of first-recto-verso frames
           (CL:UNLESS (LISTP OPAGEFRAMES)           ; Probably a parsed-up version of the thing.  Fix it to a list.
               (COND
                  [(EQ (fetch (PAGEREGION REGIONFILLMETHOD) of OPAGEFRAMES)
                       'SEQUENCE)
                   (SETQ FIRST (CAR (fetch (PAGEREGION REGIONSUBBOXES) of OPAGEFRAMES)))
                   (SETQ REST (CADR (fetch (PAGEREGION REGIONSUBBOXES) of OPAGEFRAMES)))
                   (COND
                      [(EQ (fetch (PAGEREGION REGIONFILLMETHOD) of REST)
                           'ALTERNATE)
                       (SETQ OPAGEFRAMES (CONS FIRST (fetch (PAGEREGION REGIONSUBBOXES) of REST]
                      (T (SETQ OPAGEFRAMES NIL]
                  (T (SETQ OPAGEFRAMES NIL))))
           (CL:UNLESS OPAGEFRAMES                   ; If the formatting isn't in our simplified 3-way format, punt out of
                                                    ; this.
               (TEDIT.PROMPTPRINT MAINTEXTOBJ "Format too complex to edit." T)
               (SETQ PAGEID NIL))
           (SELECTQ PAGEID
                (FIRST (SETQ NEWLOOKS (CAR OPAGEFRAMES)))
                (LEFT (SETQ NEWLOOKS (CADR OPAGEFRAMES))
                      (SETQ PAPERSIZE (LISTGET [CAR (FLAST (TEDIT.UNPARSE.PAGEFORMAT (CAR OPAGEFRAMES
                                                                                             )
                                                                       'PICAS]
                                             'PAPERSIZE)))
                (RIGHT (SETQ NEWLOOKS (CADDR OPAGEFRAMES))
                       (SETQ PAPERSIZE (LISTGET [CAR (FLAST (TEDIT.UNPARSE.PAGEFORMAT (CAR
                                                                                             OPAGEFRAMES
                                                                                              )
                                                                        'PICAS]
                                              'PAPERSIZE)))
               NIL)
           (COND
              (PAGEID (SETQ NEWLOOKS (TEDIT.UNPARSE.PAGEFORMAT NEWLOOKS 'PICAS))
                     (SETQ PAGEPROPS (CAR (FLAST NEWLOOKS)))
                     [COND
                        ((EQ PAGEID 'FIRST)
                         (SETQ PAPERSIZE (LISTGET PAGEPROPS 'PAPERSIZE]
                     (SETQ CH# (ADD1 (CDR NEXTB)))       ; Move past the kind-of-page button
                     (SETQ STARTINGPAGE# (LISTGET PAGEPROPS 'STARTINGPAGE#))
                                                    ; Grab a potential starting page number.
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ CH# STARTINGPAGE#)
                     (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
                     (SETQ CH# (ADD1 (CDR NEXTB)))
                     (IMAGEOBJPROP (CAR NEXTB)
                            'STATE
                            (OR PAPERSIZE 'Letter))
                     (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
                     (SETQ CH# (ADD1 (CDR NEXTB)))
                     [IMAGEOBJPROP (CAR NEXTB)
                            'STATE
                            (COND
                               ((LISTGET PAGEPROPS 'LANDSCAPE?)
                                'ON)
                               (T 'OFF]             ; Tell whether the page is to be landscape or not.
                     (SETQ FOLIOINFO (LISTGET PAGEPROPS 'FOLIOINFO))
                                                    ; Page number fomratting info
                     (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
                     (SETQ CH# (ADD1 (CDR NEXTB)))
                     [IMAGEOBJPROP (CAR NEXTB)
                            'STATE
                            (COND
                               ((pop NEWLOOKS)
                                'Yes)
                               (T 'No]
                     (SETQ BUTTON (CAR NEXTB))
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (CDR NEXTB))
                            (pop NEWLOOKS))         ; Page # X location
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                            (pop NEWLOOKS))              ; Page # Y location
                     (SETQ PFONT (pop NEWLOOKS))         ; Skip the font info for now.
                     [SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#]
                     (SETQ CH# (ADD1 (CDR NEXTB)))
                     (SETQ BUTTON (CAR NEXTB))
                     (IMAGEOBJPROP BUTTON 'STATE (SELECTQ (pop FOLIOINFO)
                                                        (ARABIC 123)
                                                        (LOWERROMAN 'xiv)
                                                        (UPPERROMAN 'XIV)
                                                        123))
                                                      ; The format for the page number
                     (SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
                     (SETQ CH# (ADD1 (CDR NEXTB)))
                     (SETQ BUTTON (CAR NEXTB))           ; How to align the page number
                     (IMAGEOBJPROP BUTTON 'STATE (SELECTQ (pop NEWLOOKS)
                                                        (LEFT 'Left)
                                                        (RIGHT 'Right)
                                                        (CENTERED 'Centered)
                                                        'Centered))
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ CH# (pop FOLIOINFO))
                                                      ; The text to surround the page number
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                            (pop FOLIOINFO))
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                            (pop NEWLOOKS))              ; Left Margin
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                            (pop NEWLOOKS))              ; Right Margin
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                            (pop NEWLOOKS))              ; Top margin
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                            (pop NEWLOOKS))              ; Bottom Margin
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                            (pop NEWLOOKS))              ; # of columns
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                            (pop NEWLOOKS))              ; Column width
                     (MBUTTON.SET.NEXT.FIELD TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                            (pop NEWLOOKS))              ; Intercolumn spacing
                     (SETQ HEADINGS (pop NEWLOOKS))
                     (for HEADING# from 1 to 8 do ;; Insert info about up to 8 headings (the # of spots in the menu)
                                                   (SETQ HEADING (pop HEADINGS))
                                                   (MBUTTON.SET.NEXT.FIELD TEXTOBJ
                                                          (ADD1 (GETSEL SCRATCHSEL CH#))
                                                          (pop HEADING))
                                                   (MBUTTON.SET.NEXT.FIELD TEXTOBJ
                                                          (ADD1 (GETSEL SCRATCHSEL CH#))
                                                          (pop HEADING))
                                                   (MBUTTON.SET.NEXT.FIELD TEXTOBJ
                                                          (ADD1 (GETSEL SCRATCHSEL CH#))
                                                          (pop HEADING)))
                     (CL:WHEN HEADINGS

                         ;; There were headings left over, so warn user.

                         (TEDIT.PROMPTPRINT TEXTOBJ (CONCAT "Note: The menu shows only 8 of "
                                                           (IPLUS 8 (LENGTH HEADINGS))
                                                           " headings")
                                T T))                    ; The font for the page numbers to appear in.
                     (\TEDIT.FILL.IN.CHARLOOKS.MENU TEXTOBJ (ADD1 (GETSEL SCRATCHSEL CH#))
                            (OR PFONT (GETTEXTPROP TEXTOBJ 'FOLIO.LOOKS])])
```

```
(\TEDITPAGEMENU.CREATE
  [LAMBDA NIL                                                         (* gbn " 8-Oct-84 18:25")
                                                                      (* Creates the TEdit Expanded Menu)
    (SETQ TEDIT.EXPANDED.PAGEMENU (\TEXTMENU.DOC.CREATE (APPEND TEDIT.PAGEMENU.SPEC TEDIT.MENUDIVIDER.SPEC
                                                                      [LIST (create MB.TEXT
                                                                                   MBSTRING _ "Character Looks for
                                                                                   Page Numbers:   "
                                                                                   MBFONT _ (FONTCREATE 'HELVETICA 10
                                                                                                    'BOLD]
                                                                     TEDIT.CHARLOOKSMENU.SPEC])
```

```
(\TEDIT.APPLY.PAGEFORMATTING
  [LAMBDA (OBJ SEL W)                                                 ; Edited 27-Mar-2024 15:20 by rmk
                                                                      ; Edited 21-Dec-2023 12:31 by rmk
                                                                      ; Edited  8-Aug-2023 00:02 by rmk
                                                                      ; Edited 21-Oct-2022 18:51 by rmk
                                                                      ; Edited  4-Jun-93 12:04 by sybalsky:mv:envos

;;; Change the page formatting for this document

    (PROG ((TEXTOBJ (fetch (SELECTION SELTEXTOBJ) of SEL))
           [MAINTEXTOBJ (fetch (TEXTSTREAM TEXTOBJ) of (fetch (TEXTWINDOW WTEXTSTREAM) of (WINDOWPROP W
                                                                                                     'MAINWINDOW]
           (CH# (ADD1 (fetch (SELECTION CH#) of SEL)))
           SCRATCHSEL NEXTB BUTTON OPAGEFRAMES PAGEID PX PY LEFT BOTTOM TOP RIGHT ALIGNMENT PAGENOS COLS
```

```
 COLWIDTH INTERCOL PFONT NPAGEFORMAT HEADINGTYPE HEADINGX HEADINGY HEADINGS HEADINGINVALID
  STARTINGPAGE# FOLIOFORMAT FOLIOPRETEXT FOLIOPOSTTEXT PAGEOPTIONS NFPAGEFORMAT PAPERSIZE LANDSCAPE?)
(SETQ SCRATCHSEL (fetch (TEXTOBJ SCRATCHSEL) of TEXTOBJ))
[SETQ CH# (ADD1 (CDR (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#]
                                                      ; Skip the SHOW button.
(SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
(SETQ CH# (ADD1 (CDR NEXTB)))
(SELECTQ (IMAGEOBJPROP (CAR NEXTB)
                'STATE)
    (|First(&Default)|
         (SETQ PAGEID 'FIRST))
    (Other% Left (SETQ PAGEID 'LEFT))
    (Other% Right (SETQ PAGEID 'RIGHT))
    (PROGN (TEDIT.PROMPTPRINT MAINTEXTOBJ "Set KIND OF PAGE before APPLYing." T)
           (RETURN)))                                 ; Find which page, for later.
(SETQ STARTINGPAGE# (AND (EQ PAGEID 'FIRST)
                         (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ CH#)))
(SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
(SETQ CH# (ADD1 (CDR NEXTB)))
(SETQ PAPERSIZE (OR (IMAGEOBJPROP (CAR NEXTB)
                           'STATE)
                    'Letter))                         ; Get the size of paper this is to be formatted for
(SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
(SETQ CH# (ADD1 (CDR NEXTB)))
(SETQ LANDSCAPE? (EQ (IMAGEOBJPROP (CAR NEXTB)
                            'STATE)
                     'ON))                            ; Decide if this kind of page is to be printed landscape....
(SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ CH#))
(SETQ CH# (ADD1 (CDR NEXTB)))
(SELECTQ (IMAGEOBJPROP (CAR NEXTB)
                'STATE)
    (No (SETQ PAGENOS NIL))
    (Yes (SETQ PAGENOS T))
    NIL)                                              ; Find about page numbers
(SETQ PX (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ CH#))
[SETQ PY (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
[COND
   (PAGENOS                                           ; If he wants page numbers, make sure he said WHERE to put
                                                      ; them.
          (COND
             ((AND PX PY))
             (T (TEDIT.PROMPTPRINT MAINTEXTOBJ "Please set the X and Y location for page numbers
                       before APPLYing." T)
                (TEDIT.PROMPTFLASH MAINTEXTOBJ)
                (RETURN]
[SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
                                                      ; Get to the numbering-format button
(SETQ BUTTON (CAR NEXTB))
(SETQ FOLIOFORMAT (SELECTQ (IMAGEOBJPROP BUTTON 'STATE)
                      (123                            ; arabic numbers
                           'ARABIC)
                      (xiv                            ; lower-case roman numerals
                           'LOWERROMAN)
                      (XIV                            ; Upper-case roman numerals
                           'UPPERROMAN)
                      'ARABIC))
[SETQ NEXTB (MBUTTON.FIND.NEXT.BUTTON TEXTOBJ (ADD1 (CDR NEXTB]
                                                      ; Get to the number alignment button
(SETQ BUTTON (CAR NEXTB))
[SETQ ALIGNMENT (U-CASE (IMAGEOBJPROP BUTTON 'STATE]  ; PX PY PFONT ALIGNMENT
                                                      ; Margins: LEFT, RIGHT, TOP, BOTTOM
(SETQ CH# (ADD1 (CDR NEXTB)))
(SETQ FOLIOPRETEXT (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ CH#))
[SETQ FOLIOPOSTTEXT (MBUTTON.NEXT.FIELD.AS.TEXT TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]

;;; Now get the margins on the paper

[SETQ LEFT (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
[SETQ RIGHT (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
[SETQ TOP (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
[SETQ BOTTOM (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
(CL:UNLESS [SETQ COLS (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL
                                                                         ]
    (TEDIT.PROMPTPRINT MAINTEXTOBJ "Please specify how many columns there should be." T)
    (TEDIT.PROMPTFLASH MAINTEXTOBJ))
[SETQ COLWIDTH (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
[SETQ INTERCOL (MBUTTON.NEXT.FIELD.AS.NUMBER TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
                                                      ; Col count, width, spacing
(SETQ HEADINGS (for HEADING# from 1 to 8 when (PROG1 [SETQ HEADINGTYPE
                                                      (MBUTTON.NEXT.FIELD.AS.ATOM
                                                       TEXTOBJ
                                                       (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]
                                                 [SETQ HEADINGX (MBUTTON.NEXT.FIELD.AS.NUMBER
                                                                 TEXTOBJ
                                                                 (ADD1 (fetch (SELECTION CH#)
                                                                              of SCRATCHSEL]
                                                 [SETQ HEADINGY (MBUTTON.NEXT.FIELD.AS.NUMBER
                                                                           TEXTOBJ
                                                                           (ADD1 (fetch (SELECTION CH#)
                                                                                    of SCRATCHSEL])
                            collect (CL:UNLESS (AND HEADINGX HEADINGY)
                                       (TEDIT.PROMPTPRINT MAINTEXTOBJ (CONCAT "You need to say WHERE "
                                                                              HEADINGTYPE " headings go.")
                                             T)
                                       (TEDIT.PROMPTFLASH MAINTEXTOBJ)
                                       (SETQ HEADINGINVALID T))
                                   (LIST HEADINGTYPE HEADINGX HEADINGY)))
          (CL:WHEN HEADINGINVALID                                  ; Headings invalid.
              (RETURN))
          [SETQ PFONT (\TEDIT.PARSE.CHARLOOKS.MENU TEXTOBJ (ADD1 (fetch (SELECTION CH#) of SCRATCHSEL]

;;; Glom all the oddball options (starting page, folio format &c) together

          (SETQ PAGEOPTIONS (AND STARTINGPAGE# (LIST 'STARTINGPAGE# STARTINGPAGE#)))
          (push PAGEOPTIONS 'FOLIOINFO (LIST FOLIOFORMAT FOLIOPRETEXT FOLIOPOSTTEXT))
          (COND
             (LANDSCAPE?                                           ; The pages are to be printed landscape.  Remember that fact.
                    (push PAGEOPTIONS LANDSCAPE? T)))
          (SETQ NPAGEFORMAT (TEDIT.SINGLE.PAGEFORMAT PAGENOS PX PY PFONT (AND (NEQ ALIGNMENT 'OFF)
                                                                              ALIGNMENT)
                                   LEFT RIGHT TOP BOTTOM COLS COLWIDTH INTERCOL HEADINGS 'PICAS PAGEOPTIONS
                                   PAPERSIZE))
          (SETQ OPAGEFRAMES (fetch (TEXTOBJ TXTPAGEFRAMES) of MAINTEXTOBJ))
          (CL:UNLESS (LISTP OPAGEFRAMES)
              [COND
                 ((EQ PAGEID 'FIRST)                               ; Setting the first page sets them all
                  (SETQ PAGEOPTIONS (COPY PAGEOPTIONS))
                  (LISTPUT PAGEOPTIONS 'STARTINGPAGE# NIL)         ; Starting page nubmer makes no sense on other than first
                                                                   ; pages.
                  (SETQ NFPAGEFORMAT (TEDIT.SINGLE.PAGEFORMAT PAGENOS PX PY PFONT (AND (NEQ ALIGNMENT
                                                                                            'OFF)
                                                                                       ALIGNMENT)
                                            LEFT RIGHT TOP BOTTOM COLS COLWIDTH INTERCOL HEADINGS 'PICAS
                                            PAGEOPTIONS PAPERSIZE))
                  (SETQ OPAGEFRAMES (LIST NPAGEFORMAT NFPAGEFORMAT NFPAGEFORMAT)))
                 (T                                                ; Otherwise, start from the default page layout
                    (SETQ OPAGEFRAMES (COPY TEDIT.PAGE.FRAMES])
          (SELECTQ PAGEID
               (FIRST (RPLACA OPAGEFRAMES NPAGEFORMAT))
               (LEFT (RPLACA (CDR OPAGEFRAMES)
                             NPAGEFORMAT))
               (RIGHT (RPLACA (CDDR OPAGEFRAMES)
                                 NPAGEFORMAT))
              NIL)
          (TEDIT.PAGEFORMAT MAINTEXTOBJ OPAGEFRAMES)
          (TTY.PROCESS (WINDOWPROP (WINDOWPROP W 'MAINWINDOW)
                              'PROCESS])

(TEDIT.UNPARSE.PAGEFORMAT
  [LAMBDA (PAGEREGION UNITS)                                       ; Edited 12-Jun-90 18:59 by mitani

;;; Take a page layout and unparse it into a PList of specs.

    (LET* ((PAPER (fetch (PAGEREGION REGIONSPEC) of PAGEREGION))
           (PAPERWIDTH (fetch (REGION WIDTH) of PAPER))
           (PAPERHEIGHT (fetch (REGION HEIGHT) of PAPER))
           (REGIONS (fetch (PAGEREGION REGIONSUBBOXES) of PAGEREGION))
           PX PY PFONT PQUAD PINFO LEFT RIGHT TOP BOTTOM (COLS 0)
           COLWIDTH
           (INTERCOL 0)
           SPECS PAGENOS (OLDRIGHT NIL)
           SCALEFACTOR HEADINGS)
          [for REGION in REGIONS do ;; Run thru the regions on the page, calculating information about the page as a whole.
                                   (COND
                                      ((EQ (fetch (PAGEREGION REGIONFILLMETHOD) of REGION)
                                           'FOLIO)                 ; A page-number ("Folio") region
                                       (SETQ PAGENOS T)
                                       (SETQ PX (fetch (REGION LEFT) of (fetch REGIONSPEC of REGION)))
                                       (SETQ PY (fetch (REGION BOTTOM) of (fetch REGIONSPEC of REGION)))
                                       (SETQ SPECS (fetch REGIONLOCALINFO of REGION))
                                       (SETQ PFONT (LISTGET SPECS 'CHARLOOKS))
                                       [SETQ PQUAD (CADR (LISTGET SPECS 'PARALOOKS]
                                       (SELECTQ PQUAD
                                            (LEFT)
                                            (RIGHT (SETQ PX (IPLUS PX 288)))
                                            (CENTERED (SETQ PX (IPLUS PX 144)))
                                           NIL))
                                      [(EQ (fetch (PAGEREGION REGIONFILLMETHOD) of REGION)
                                           'HEADING)               ; A page-heading region
                                       (SETQ HEADINGS (NCONC1 HEADINGS (LIST (LISTGET (fetch REGIONLOCALINFO
                                                                                         of REGION)
                                                                                    'HEADINGTYPE)
```

```
                                                                             (fetch (REGION LEFT)
                                                                                of (fetch REGIONSPEC of REGION))
                                                                             (fetch (REGION BOTTOM)
                                                                                of (fetch REGIONSPEC of REGION]
                                      (T                         ; A regular-text region.
                                         (add COLS 1)            ; Count columns
                                         (SETQ COLWIDTH (fetch (REGION WIDTH) of (fetch REGIONSPEC of REGION)))
                                         [SETQ RIGHT (IDIFFERENCE PAPERWIDTH (ADD1 (fetch (REGION RIGHT)
                                                                                      of (fetch REGIONSPEC
                                                                                           of REGION]
                                         (COND
                                            ((EQ OLDRIGHT T))
                                            (OLDRIGHT (SETQ INTERCOL (IDIFFERENCE (fetch (REGION LEFT)
                                                                                     of (fetch REGIONSPEC
                                                                                          of REGION))
                                                                                OLDRIGHT))
                                                   (SETQ OLDRIGHT T))
                                            (T (SETQ OLDRIGHT (fetch (REGION RIGHT) of (fetch REGIONSPEC
                                                                                        of REGION)))
                                               (SETQ LEFT (fetch (REGION LEFT) of (fetch REGIONSPEC of REGION)))
                                               [SETQ TOP (IDIFFERENCE PAPERHEIGHT (fetch (REGION PTOP)
                                                                                     of (fetch REGIONSPEC
                                                                                          of REGION]
                                               (SETQ BOTTOM (fetch (REGION BOTTOM) of (fetch REGIONSPEC
                                                                                         of REGION]
          (SELECTQ UNITS
               ((POINTS NIL)                                     (* If units are in printers points, the default, do no scaling)
                   )
               (PICAS                                            (* The units are in picas--12pts per.
                                                                 Scale all values.)
                      (SETQ SCALEFACTOR 0.12))
               (INCHES                                           (* The units are in inches, at 72.27pts per.
                                                                 Set the scale factor)
                       (SETQ SCALEFACTOR 0.7227))
               (CM                                               (* Units are in CM, at 72.27/2.54pts per.)
                   (SETQ SCALEFACTOR (CONSTANT (FQUOTIENT 0.7227 2.54))))
               (\ILLEGAL.ARG UNITS))
          [COND
             (SCALEFACTOR                                        (* We need to do the scaling.)
                    (AND PX (SETQ PX (FQUOTIENT (FIXR (FQUOTIENT PX SCALEFACTOR))
                                                100)))
                    (AND PY (SETQ PY (FQUOTIENT (FIXR (FQUOTIENT PY SCALEFACTOR))
                                                100)))
                    (AND LEFT (SETQ LEFT (FQUOTIENT (FIXR (FQUOTIENT LEFT SCALEFACTOR))
                                                    100)))
                    (AND RIGHT (SETQ RIGHT (FQUOTIENT (FIXR (FQUOTIENT RIGHT SCALEFACTOR))
                                                      100)))
                    (AND TOP (SETQ TOP (FQUOTIENT (FIXR (FQUOTIENT TOP SCALEFACTOR))
                                                  100)))
                    (AND BOTTOM (SETQ BOTTOM (FQUOTIENT (FIXR (FQUOTIENT BOTTOM SCALEFACTOR))
                                                        100)))
                    (AND COLWIDTH (SETQ COLWIDTH (FQUOTIENT (FIXR (FQUOTIENT COLWIDTH SCALEFACTOR))
                                                            100)))
                    (AND INTERCOL (SETQ INTERCOL (FQUOTIENT (FIXR (FQUOTIENT INTERCOL SCALEFACTOR))
                                                            100)))
                    (SETQ HEADINGS (for HDG in HEADINGS collect (LIST (CAR HDG)
                                                                   (FQUOTIENT (FIXR (FQUOTIENT (CADR HDG)
                                                                                           SCALEFACTOR))
                                                                          100)
                                                                   (FQUOTIENT (FIXR (FQUOTIENT (CADDR HDG)
                                                                                           SCALEFACTOR))
                                                                          100]
          (LIST PAGENOS PX PY PFONT PQUAD LEFT RIGHT TOP BOTTOM COLS COLWIDTH INTERCOL HEADINGS
                (fetch (PAGEREGION REGIONLOCALINFO) of PAGEREGION])
)

;; Initialization Code

(DECLARE%: DOEVAL@COMPILE DONTCOPY

(GLOBALVARS TEDIT.EXPANDED.MENU TEDIT.EXPANDEDPARA.MENU TEDIT.CHARLOOKS.MENU TEDIT.MENUDIVIDER.SPEC
       TEDIT.EXPANDEDMENU.SPEC TEDIT.CHARLOOKSMENU.SPEC TEDIT.PARAMENU.SPEC TEDIT.PAGEMENU.SPEC
       TEDIT.EXPANDED.PAGEMENU)
)

(DEFINEQ

(\TEDIT.MENU.INIT
  [LAMBDA NIL                                                    ; Edited 12-Nov-2023 19:32 by rmk
                                                                 ; Edited 24-Jul-2023 17:04 by rmk
                                                                 ; Edited  6-Mar-2023 22:02 by rmk
                                                                 ; Edited 10-Oct-2022 00:20 by rmk
                                                                 ; Edited 29-Apr-2021 22:44 by rmk:
                                                                 ; Edited 30-Mar-94 15:53 by jds

;;; Initialize the descriptions for all TEdit menus
```

;;; Divides between the main page layout menu and page-# font submenu

```
    (SETQ TEDIT.MENUDIVIDER.SPEC (LIST (create MB.TEXT
                                               MBSTRING _ "

                                               ")))
```

;;; The principal expanded menu

```
    (SETQ TEDIT.EXPANDEDMENU.SPEC (LIST (create MB.BUTTON
                                                MBLABEL _ "Quit")
                                        (create MB.TEXT
                                                MBSTRING _ "     ")
                                        (create MB.BUTTON
                                                MBLABEL _ "Page Layout")
                                        (create MB.TEXT
                                                MBSTRING _ "     ")
                                        (create MB.BUTTON
                                                MBLABEL _ "Char Looks")
                                        (create MB.TEXT
                                                MBSTRING _ "     ")
                                        (create MB.BUTTON
                                                MBLABEL _ "Para Looks")
                                        (create MB.TEXT
                                                MBSTRING _ "     ")
                                        (create MB.BUTTON
                                                MBLABEL _ "All")
                                        (create MB.TEXT
                                                MBSTRING _ "     ")
                                        (create MB.TOGGLE
                                                MBTEXT _ "Unformatted"
                                                MBCHANGESTATEFN _ (FUNCTION \TEDITMENU.RECORD.UNFORMATTED))
                                        (create MB.TEXT
                                                MBSTRING _ "
                                                ")
                                        (create MB.BUTTON
                                                MBLABEL _ "Get")
                                        (create MB.INSERT)
                                        (create MB.TEXT
                                                MBSTRING _ "     ")
                                        (create MB.BUTTON
                                                MBLABEL _ "Put")
                                        (create MB.INSERT)
                                        (create MB.TEXT
                                                MBSTRING _ "     ")
                                        (create MB.BUTTON
                                                MBLABEL _ "Include")
                                        (create MB.INSERT)
                                        (create MB.TEXT
                                                MBSTRING _ "
                                                ")
                                        (create MB.BUTTON
                                                MBLABEL _ "Find")
                                        (create MB.INSERT)
                                        (create MB.TEXT
                                                MBSTRING _ "     ")
                                        (create MB.BUTTON
                                                MBLABEL _ "Substitute")
                                        (create MB.INSERT)
                                        (create MB.TEXT
                                                MBSTRING _ "  for")
                                        (create MB.INSERT)
                                        (create MB.TEXT
                                                MBSTRING _ "   ")
                                        (create MB.TOGGLE
                                                MBTEXT _ "Confirm")
                                        (create MB.TEXT
                                                MBSTRING _ "     ")
                                        (create MB.TOGGLE
                                                MBTEXT _ "Use New Looks")
                                        (create MB.TEXT
                                                MBSTRING _ "
                                                ")
                                        (create MB.BUTTON
                                                MBLABEL _ "Hardcopy")
                                        (create MB.TEXT
                                                MBSTRING _ "  server:")
                                        (create MB.INSERT)
                                        (create MB.TEXT
                                                MBSTRING _ "  copies:")
                                        (create MB.INSERT)
                                        (create MB.TEXT
                                                MBSTRING _ "
                                                ")
                                        (create MB.TEXT
                                                MBSTRING _ "Print ")
                                        (create MB.NWAY
                                                MBBUTTONS _ '(One% Side Duplex)
                                                MBMAXITEMSPERLINE _ 5)
                                        (create MB.TEXT
                                                MBSTRING _ "   Message/Phone#:")
                                        (create MB.INSERT)))
```

;;; The character-looks (font, etc.) menu

```
    (SETQ TEDIT.CHARLOOKSMENU.SPEC (LIST (create MB.TEXT
                                                 MBSTRING _ "Props:   "
                                                 MBFONT _ (FONTCREATE 'HELVETICA 8))
                                         (create MB.3STATE
                                                 MBLABEL _ 'Bold)
                                         (create MB.TEXT
                                                 MBSTRING _ "   ")
                                         (create MB.3STATE
                                                 MBLABEL _ 'Italic)
                                         (create MB.TEXT
                                                 MBSTRING _ "   ")
                                         (create MB.3STATE
                                                 MBLABEL _ 'Underline)
                                         (create MB.TEXT
                                                 MBSTRING _ "   ")
                                         (create MB.3STATE
                                                 MBLABEL _ 'StrikeThru)
                                         (create MB.TEXT
                                                 MBSTRING _ "   ")
                                         (create MB.3STATE
                                                 MBLABEL _ 'Overbar)
                                         (create MB.TEXT
                                                 MBSTRING _ "   ")
                                         (create MB.3STATE
                                                 MBLABEL _ 'Unbreakable)
                                         (create MB.TEXT
                                                 MBSTRING _ "
                                                 ")
                                         (create MB.NWAY
                                                 MBBUTTONS _ '(TimesRoman Helvetica Modern Classic Terminal Other
                                                                     )
                                                 MBMAXITEMSPERLINE _ 5)
                                         (create MB.TEXT
                                                 MBSTRING _ "other font:")
                                         (create MB.INSERT)
                                         (create MB.TEXT
                                                 MBSTRING _ "
                                                 ")
                                         (create MB.TEXT
                                                 MBSTRING _ "Size: "
                                                 MBFONT _ (FONTCREATE 'HELVETICA 8))
                                         (create MB.INSERT)
                                         (create MB.TEXT
                                                 MBSTRING _ "   ")
                                         (create MB.NWAY
                                                 MBBUTTONS _ '(Normal Superscript Subscript))
                                         (create MB.TEXT
                                                 MBSTRING _ "  distance: "
                                                 MBFONT _ (FONTCREATE 'HELVETICA 8))
                                         (create MB.INSERT)))
```

;;; The paragraph-formatting menu (margins, etc.)

```
    (SETQ TEDIT.PARAMENU.SPEC (LIST (create MB.BUTTON
                                            MBLABEL _ 'APPLY
                                            MBBUTTONEVENTFN _ (FUNCTION \TEDIT.APPLY.PARALOOKS))
                                    (create MB.TEXT
                                            MBSTRING _ "   ")
                                    (create MB.BUTTON
                                            MBLABEL _ 'SHOW
                                            MBBUTTONEVENTFN _ (FUNCTION \TEDIT.SHOW.PARALOOKS))
                                    (create MB.TEXT
                                            MBSTRING _ "   ")
                                    (create MB.BUTTON
                                            MBLABEL _ 'NEUTRAL
                                            MBBUTTONEVENTFN _ (FUNCTION \TEDIT.NEUTRALIZE.PARALOOKS.MENU))
                                    (create MB.TEXT
                                            MBSTRING _ "
                                            ")
                                    (create MB.NWAY
                                            MBBUTTONS _ '(Left Right Centered Justified))
                                    (create MB.TEXT
                                            MBSTRING _ " ")
                                    (create MB.3STATE
                                            MBLABEL _ "Page Heading")
                                    (create MB.TEXT
                                            MBSTRING _ "  type:")
                                    (create MB.INSERT)
                                    (create MB.TEXT
                                            MBSTRING _ "
                                            Line leading:"
                                            MBFONT _ (FONTCREATE 'HELVETICA 8))
                                    (create MB.INSERT)
                                    (create MB.TEXT
                                            MBSTRING _ "pts   Para Leading:"
                                            MBFONT _ (FONTCREATE 'HELVETICA 8))
                                    (create MB.INSERT)
                                    (create MB.TEXT
                                            MBSTRING _ "pts   Special Locn:  X"
                                            MBFONT _ (FONTCREATE 'HELVETICA 8))
                                    (create MB.INSERT)
                                    (create MB.TEXT
                                            MBSTRING _ "picas,  Y"
                                            MBFONT _ (FONTCREATE 'HELVETICA 8))
                                    (create MB.INSERT)
                                    (create MB.TEXT
                                            MBSTRING _ "picas
                                            New Page:  "
                                            MBFONT _ (FONTCREATE 'HELVETICA 8))
                                    (create MB.3STATE
                                            MBLABEL _ "Before")
                                    (create MB.TEXT
                                            MBSTRING _ "  ")
                                    (create MB.3STATE
                                            MBLABEL _ "After")
                                    (create MB.TEXT
                                            MBSTRING _ " Display mode:  "
                                            MBFONT _ (FONTCREATE 'HELVETICA 8))
                                    (create MB.3STATE
                                            MBLABEL _ "Hardcopy")
                                    (create MB.TEXT
                                            MBSTRING _ " Keep:  "
                                            MBFONT _ (FONTCREATE 'HELVETICA 8))
                                    (create MB.3STATE
                                            MBLABEL _ "Heading")
                                    (create MB.TEXT
                                            MBSTRING _ "
                                            Tab Type:  "
                                            MBFONT _ (FONTCREATE 'HELVETICA 8))
                                    [create MB.NWAY
                                            MBBUTTONS _ '((Left \TEDIT.TABTYPE.SET)
                                                          (Right \TEDIT.TABTYPE.SET)
                                                          (Centered \TEDIT.TABTYPE.SET)
                                                          (Decimal \TEDIT.TABTYPE.SET]
                                    (create MB.TEXT
                                            MBSTRING _ "  ")
                                    (create MB.TOGGLE
                                            MBTEXT _ "Dotted Leader"
                                            MBCHANGESTATEFN _ (FUNCTION \TEDIT.RECORD.TABLEADERS))
                                    (create MB.TEXT
                                            MBSTRING _ " Default Tab Size:"
                                            MBFONT _ (FONTCREATE 'HELVETICA 8))
                                    (create MB.INSERT)
                                    (create MB.TEXT
                                            MBSTRING _ "pts")
                                    (create MB.TEXT
                                            MBSTRING _ "
                                            ")
                                    (create MB.MARGINBAR)
                                    (create MB.TEXT
                                            MBSTRING _ "
                                            ")))

;;; Page-layout menu for columns, page headings, page numbers, etc.

    (SETQ TEDIT.PAGEMENU.SPEC (APPEND (LIST (create MB.BUTTON
                                                    MBLABEL _ 'APPLY
                                                    MBBUTTONEVENTFN _ (FUNCTION \TEDIT.APPLY.PAGEFORMATTING))
                                            (create MB.TEXT
                                                    MBSTRING _ "   "
                                                    MBFONT _ (FONTCREATE 'HELVETICA 8 'BOLD))
                                            (create MB.BUTTON
                                                    MBLABEL _ 'SHOW
                                                    MBBUTTONEVENTFN _ (FUNCTION \TEDIT.SHOW.PAGEFORMATTING))
                                            (create MB.TEXT
                                                    MBSTRING _ "
                                                    ")
                                            (create MB.TEXT
                                                    MBSTRING _ "For page:  ")
                                            (create MB.NWAY
                                                    MBBUTTONS _ '(|First(&Default)| Other% Left Other% Right))
                                            (create MB.TEXT
                                                    MBSTRING _ "
                                                      Starting Page #:  ")
                                            (create MB.INSERT
              MBINITENTRY _ 1)
       (create MB.TEXT
              MBSTRING _ " Paper Size:  ")
       (create MB.NWAY
              MBBUTTONS _ '(Letter Legal A4)
              MBINITSTATE _ 'Letter)
       (create MB.TEXT
              MBSTRING _ "  ")
       (create MB.TOGGLE
              MBTEXT _ "Landscape")
       (create MB.TEXT
              MBSTRING _ "

              ")
       (create MB.TEXT
              MBSTRING _ "Page numbers:  ")
       (create MB.TEXT
              MBSTRING _ "  "
              MBFONT _ (FONTCREATE 'HELVETICA 8 'BOLD))
       (create MB.NWAY
              MBBUTTONS _ '(No Yes)
              MBINITSTATE _ 'Yes)
       (create MB.TEXT
              MBSTRING _ "  ")
       (create MB.TEXT
              MBSTRING _ "X: ")
       (create MB.INSERT
              MBINITENTRY _ 25.5)
       (create MB.TEXT
              MBSTRING _ "  ")
       (create MB.TEXT
              MBSTRING _ "Y: ")
       (create MB.INSERT
              MBINITENTRY _ 3)
       (create MB.TEXT
              MBSTRING _ "    Format:  ")
       (create MB.NWAY
              MBBUTTONS _ '(123 xiv XIV)
              MBINITSTATE _ '123)
       (create MB.TEXT
              MBSTRING _ "

                           ")
       (create MB.TEXT
              MBSTRING _ "Alignment: ")
       (create MB.NWAY
              MBBUTTONS _ '(Left Centered Right)
              MBINITSTATE _ 'Centered)
       (create MB.TEXT
              MBSTRING _ "
              ")
       (create MB.TEXT
              MBSTRING _ "         Text before number:  ")
       (create MB.INSERT
              MBINITENTRY _ "")
       (create MB.TEXT
              MBSTRING _ "   Text after number:  ")
       (create MB.INSERT
              MBINITENTRY _ "")
       (create MB.TEXT
              MBSTRING _ "
              "))
(LIST (create MB.TEXT
             MBSTRING _ "Margins:   Left")
      (create MB.INSERT
             MBINITENTRY _ 6)
      (create MB.TEXT
             MBSTRING _ "  Right")
      (create MB.INSERT
             MBINITENTRY _ 6)
      (create MB.TEXT
             MBSTRING _ "   Top")
      (create MB.INSERT
             MBINITENTRY _ 6)
      (create MB.TEXT
             MBSTRING _ "   Bottom")
      (create MB.INSERT
             MBINITENTRY _ 6)
      (create MB.TEXT
             MBSTRING _ "
             ")
      (create MB.TEXT
             MBSTRING _ "Columns: ")
      (create MB.INSERT
             MBINITENTRY _ 1)
      (create MB.TEXT
             MBSTRING _ "  Col Width: ")
```

```
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Space between cols: ")
(create MB.INSERT
        MBINITENTRY _ 1)
(create MB.TEXT
        MBSTRING _ "
        ")
(create MB.TEXT
        MBSTRING _ "Page Headings:"
        MBFONT _ (FONTCREATE 'HELVETICA 10 'BOLD))
(create MB.TEXT
        MBSTRING _ "
                Heading Type:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  X:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Y:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Heading Type:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  X:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Y:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "
                Heading Type:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  X:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Y:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Heading Type:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  X:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Y:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "
                Heading Type:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  X:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Y:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Heading Type:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  X:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Y:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "
                Heading Type:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  X:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Y:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Heading Type:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  X:")
(create MB.INSERT)
(create MB.TEXT
        MBSTRING _ "  Y:")
(create MB.INSERT])
```

```
)

(DECLARE%: DONTEVAL@LOAD DOCOPY

(\TEDIT.MENU.INIT)

(\TEDITMENU.CREATE)

(\TEDIT.CHARLOOKSMENU.CREATE)

(\TEDITPARAMENU.CREATE)

(\TEDITPAGEMENU.CREATE)
)

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

(ADDTOVAR NLAMA )

(ADDTOVAR NLAML )

(ADDTOVAR LAMA )
)
```

{MEDLEY}<library>tedit>TEDIT-MENU.;1   28-Jun-2024 18:34:03
-- Listed on 30-Jun-2024 13:22:55 --

FUNCTION INDEX

VARIABLE INDEX

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