

File created: 27-Jan-2024 13:38:15 {DSK}<home>frank<il>medley>gmedley>lispusers>MODERNIZE.;7

changes to: (FNS \MODERNIZED.TEDIT.BUTTONEVENTFN)

previous date: 27-Jan-2024 13:28:36 {DSK}<home>frank<il>medley>gmedley>lispusers>MODERNIZE.;6

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

(RPAQQ **MODERNIZECOMS**

[:: Externals

(COMS (FNS MODERNWINDOW MODERNWINDOW.SETUP UNMODERNWINDOW MODERNWINDOW.UNSETUP
 \MODERNIZED.FREEMENU.BUTTONEVENTFN)
 (INITVARS (MODERN-WINDOW-MARGIN 25)))

;; Internals

[COMS (FNS MODERNWINDOW.BUTTONEVENTFN NEARTOP NEARESTCORNER INCORNER.REGION)

;; Behavior for some known window creators

(FNS MODERN-ADD-EXEC MODERN-SNAPW TOTOPW.MODERNIZE MODERN-MENUBUTTONFN)
 (FNS \MODERNIZED.FREEMENU.BUTTONEVENTFN MODERNIZED.TB.BUTTONEVENTFN)

;; Add some Meta commands

(FNS TEDIT.MODERNIZE \MODERNIZED.TEDIT.BUTTONEVENTFN)

(DECLARE%: DONTEVAL@LOAD DOCOPY (P ;; Tedit

(TEDIT.MODERNIZE)

;; Inspector

(MODERNWINDOW.SETUP '\ITEM.WINDOW.BUTTON.HANDLER)

;; Commonlisp array inspector. If you move the main window, the little attached window doesn't
 ;; move. But if you move the attached window, it all works. Needs a special definition. Shaping
 ;; doesn't work either

(* (MODERNWINDOW.SETUP 'ONEDINSPECT.BUTTONEVENTFN)
 (MODERNWINDOW.SETUP 'ICMLARRAY.TITLECOMMANDFN)

;; File browser

(MODERNWINDOW.SETUP '\FM.BUTTONEVENTFN
 '\MODERNIZED.FREEMENU.BUTTONEVENTFN)

;; SEDIT

(MODERNWINDOW.SETUP 'SEDT::BUTTONEVENTFN)

;; Debugger

(MODERNWINDOW.SETUP 'DBG::DEBUGGER-BUTTON-EVENT)

;; Snap

(MODERNWINDOW.SETUP 'SNAPW 'MODERN-SNAPW)

;; New execs

(MODERNWINDOW.SETUP 'ADD-EXEC 'MODERN-ADD-EXEC)

;; Existing exec of the load

(MODERNWINDOW (PROCESSPROP (TTY.PROCESS)
 'WINDOW))

;; Table browser and filebrowser)

(MODERNWINDOW.SETUP 'TB.BUTTONEVENTFN
 'MODERNIZED.TB.BUTTONEVENTFN)

;; Grapher

(MODERNWINDOW.SETUP 'APPLYTOSELECTEDNODE)

;; Sketch

(MODERNWINDOW.SETUP 'WB.BUTTON.HANDLER)

;; Promptwindow

(MODERNWINDOW PROMPTWINDOW T)

;; Menus: Move only with title clicks

(MODERNWINDOW.SETUP 'MENUBUTTONFN 'MODERN-MENUBUTTONFN)
 (NLAML)
 (LAMA MODERN-ADD-EXEC])

(DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVERS (ADDVARS (NLAMA)

(NLAML)

(LAMA MODERN-ADD-EXEC])

;; Externals

(DEFINEQ

(**MODERNWINDOW**

[LAMBDA (WINDOW ANYWHERE TITLEPROPORTION)

; Edited 7-Oct-2022 21:45 by rmk

; Edited 8-Jul-2021 23:33 by rmk:
; Edited 3-Jul-2021 10:31 by rmk:
; Edited 24-Jun-2021 14:52 by rmk:

;; This can be applied to windows that have been created with an unknown or unmodifiable buttoneventfn. If the window was previously
;; modernized, we restore its original state first, in case it is called here with different parameters

```
(CL:WHEN (AND TITLEPROPORTION (GREATERP TITLEPROPORTION 0.5))
  (ERROR "TITLEPROPORTION cannot be greater than .5"))
(CL:WHEN (WINDOWPROP WINDOW 'PREMODERN-BUTTONEVENTFN)
  (WINDOWPROP WINDOW 'BUTTONEVENTFN (WINDOWPROP WINDOW 'PREMODERN-BUTTONEVENTFN))
  (WINDOWPROP WINDOW 'PREMODERN-BUTTONEVENTFN NIL))
(WINDOWPROP WINDOW 'PREMODERN-BUTTONEVENTFN (WINDOWPROP WINDOW 'BUTTONEVENTFN))
(WINDOWPROP WINDOW 'BUTTONEVENTFN (IF (OR ANYWHERE TITLEPROPORTION)
  THEN `[LAMBDA (WINDOW)
    (MODERNWINDOW.BUTTONEVENTFN WINDOW NIL T
      ',TITLEPROPORTION)]
  ELSE (FUNCTION MODERNWINDOW.BUTTONEVENTFN)))
WINDOW])
```

(MODERNWINDOW.SETUP

[LAMBDA (ORIGFN MODERNWINDOWFN ANYWHERE TITLEPROPORTION) ; Edited 24-Jun-2021 14:53 by rmk:

;; ORIGFN is either a function that creates windows of a given type (e.g. SNAPW or ADD-EXEC) or the known BUTTONEVENTFN of a class of
;; windows.
;; Moves ORIGFN to a new name, prefixed with MODERNORIG-.
;; If MODERNWINDOWFN is given, then that replaces the original definition of ORIGFN, and presumably knows how to call the renamed ORIGFN
;; under the right circumstances. This is typically the case where ORIGFN is a window creator.
;; Otherwise, ORIGFN is taken to be the BUTTONEVENTFN for a class of windows, and its new definition is defaulted to one that maps left-clicks
;; in appropriate areas into modern window operations. If not in appropriate areas, then the renamed ORIGFN is called to give the original button
;; behavior.
;; If ANYWHERE, moving will happen for any click not in one of the shaping corners.
;; The renamed function has arguments in addition to WINDOW: the new name for the original function, if MODERNWINDOWFN is provided, and
;; the value specified here for ANYWHERE.

```
(CL:WHEN (GETD ORIGFN)
  ;; If ORIGFN is defined, then presumably the file containing ORIGFN (e.g. sketch) was loaded before MODERNIZE (if we are being called on  
;; our load), and we can rearrange things. But if ORIGFN is not defined, then there is really nothing to do. The package loader itself should  
;; call MODERNWINDOW.SETUP if we are defined when it is loaded.
```

```
;;
(CL:WHEN (AND TITLEPROPORTION (GREATERP TITLEPROPORTION 0.5))
  (ERROR "TITLEPROPORTION cannot be greater than .5"))
(MODERNWINDOW.UNSETUP ORIGFN)
[LET [RENAMEDORIG (PKGNAME (CL:PACKAGE-NAME (CL:SYMBOL-PACKAGE ORIGFN))
  ;; The renamed version of XCL symbols go into Interlisp, so there is less confusion about accessing it
  (CL:WHEN (STREQUAL PKGNAME "XEROX-COMMON-LISP")
    (SETQ PKGNAME "INTERLISP"))
  (SETQ RENAMEDORIG (CL:INTERN (CONCAT 'MODERN-ORIG- ORIGFN)
    PKGNAME))
  (MOVD? ORIGFN RENAMEDORIG)
  (IF MODERNWINDOWFN
    THEN (MOVD MODERNWINDOWFN ORIGFN)
    ELSE (PUTD ORIGFN `(LAMBDA ,(ARGLIST ORIGFN)
      (MODERNWINDOW.BUTTONEVENTFN ,(CL:IF (LISTP (ARGLIST ORIGFN))
        (CAR (ARGLIST ORIGFN))
        (ARGLIST ORIGFN))
      (FUNCTION ,RENAMEDORIG)
      ,ANYWHERE
      ,TITLEPROPORTION)))]])
```

(UNMODERNWINDOW

[LAMBDA (WINDOW) ; Edited 22-Feb-2021 16:44 by rmk:

```
;; Restores original window behavior
(CL:WHEN (WINDOWPROP WINDOW 'PREMODERN-BUTTONEVENTFN)
  (WINDOWPROP WINDOW 'BUTTONEVENTFN (WINDOWPROP WINDOW 'PREMODERN-BUTTONEVENTFN))
  (WINDOWPROP WINDOW 'PREMODERN-BUTTONEVENTFN NIL))
WINDOW])
```

(MODERNWINDOW.UNSETUP

[LAMBDA (ORIGFN) ; Edited 22-Feb-2021 16:45 by rmk:
; Edited 24-Jun-2020 15:09 by rmk:

```
;; Moves the renamed original function back to its original name
(LET [RENAMEDORIG (PKGNAME (CL:PACKAGE-NAME (CL:SYMBOL-PACKAGE ORIGFN))
  ;; The renamed version of XCL symbols go into Interlisp, so there is less confusion about accessing it
  (CL:WHEN (STREQUAL PKGNAME "XEROX-COMMON-LISP")
    (SETQ PKGNAME "INTERLISP"))
  (SETQ RENAMEDORIG (CL:INTERN (CONCAT 'MODERN-ORIG- ORIGFN)
    PKGNAME))
```



```

(RIGHTBOTTOM (\CURSORPOSITION RIGHT BOTTOM)
              (GETMOUSESTATE)
              (LIST LEFT TOP RIGHT BOTTOM))
(LEFTBOTTOM (\CURSORPOSITION LEFT BOTTOM)
            (GETMOUSESTATE)
            (LIST RIGHT TOP LEFT BOTTOM))
(RIGHTTOP (\CURSORPOSITION RIGHT TOP)
          (GETMOUSESTATE)
          (LIST LEFT BOTTOM RIGHT TOP))
(LEFTTOP (\CURSORPOSITION LEFT TOP)
         (GETMOUSESTATE)
         (LIST RIGHT BOTTOM LEFT TOP))
(SHOULDNT])

(SHAPEW (CENTRALWINDOW WINDOW)
        STARTINGREGION))
T
elseif (AND [NOT (MEMB 'MOVEW (WINDOWPROP WINDOW 'PASSTOMAINCOMS)
                    (OR ANYWHERE (NEARTOP CORNERREGION TOPMARGIN TITLEPROPORTION)))
        then (NEARESTCORNER ATTACHEDREGION)
            (MOVEW (CENTRALWINDOW WINDOW))
            T
elseif [OR ORIGFUNCTION (SETQ ORIGFUNCTION (WINDOWPROP WINDOW 'PREMODERN-BUTTONEVENTFN)
        then (APPLY* ORIGFUNCTION WINDOW))
elseif [OR ORIGFUNCTION (SETQ ORIGFUNCTION (WINDOWPROP WINDOW 'PREMODERN-BUTTONEVENTFN)
        then (APPLY* ORIGFUNCTION WINDOW)]

```

(NEARTOP

```

[LAMBDA (CORNERREGION TOPMARGIN TITLEPROPORTION) ; Edited 13-Oct-2021 21:28 by rmk:
;; True if the MOUSEY is near the top of CORNERREGION. That means in the title bar for titled windows, otherwise a short distance below the top
;; of the window. (Could be in the border?)
;; If TITLEPROPORTION is N, then the click must be within that proportion of the window-width from either edge.
(AND (IGREATERP LASTMOUSEY (IDIFFERENCE (FETCH TOP OF CORNERREGION)
                                         TOPMARGIN))
     (OR (NOT TITLEPROPORTION)
         (LET ((WIDTH (FETCH WIDTH of CORNERREGION))
              (LEFT (FETCH LEFT OF CORNERREGION)))
           (OR (ILESSP LASTMOUSEX (IPLUS LEFT (TIMES WIDTH TITLEPROPORTION)))
               (IGREATERP LASTMOUSEX (IPLUS LEFT (TIMES WIDTH (DIFFERENCE 1 TITLEPROPORTION))))))

```

(NEARESTCORNER

```

[LAMBDA (REGION) ; Edited 29-Oct-2023 10:56 by rmk
                ; Edited 29-Jul-2023 10:32 by rmk
                ; Edited 14-Feb-2021 21:46 by rmk:
;; Moves the cursor to the corner of REGION that is closest to the current LASTMOUSEX and LASTMOUSEY, provided that that corner is
;; on-screen.
(LET ((LEFT (FETCH (REGION LEFT) OF REGION))
      (RIGHT (FETCH (REGION RIGHT) OF REGION))
      (TOP (FETCH (REGION TOP) OF REGION))
      (BOTTOM (FETCH (REGION BOTTOM) OF REGION))
      X Y)
;; If the nearest corner is offscreen, pick the other one.
(SETQ X (if (OR (ILESSP LEFT 0)
               (IGEQ LEFT SCREENWIDTH))
            then ;; LEFT is offscreen
              RIGHT
            elseif (ILESSP (IDIFFERENCE LASTMOUSEX LEFT)
                          (IDIFFERENCE RIGHT LASTMOUSEX))
            then ;; Closer to LEFT
              LEFT
            else RIGHT))
(SETQ Y (if (OR (ILESSP TOP 0)
               (IGEQ TOP SCREENHEIGHT))
            then ;; TOP is offscreen
              BOTTOM
            elseif (ILESSP (IDIFFERENCE LASTMOUSEY BOTTOM)
                          (IDIFFERENCE TOP LASTMOUSEY))
            then ;; Closer to BOTTOM
              BOTTOM
            else TOP))
(\CURSORPOSITION X Y])

```

(INCORNER.REGION

```

[LAMBDA (CORNERREGION TOPMARGIN) ; Edited 13-Oct-2021 15:04 by rmk:
;; CORNERREGION, LASTMOUSEX, LASTMOUSEY in screen coordinates.
;; TOPMARGIN is the height of the titlebar for titled windows, otherwise the margin at the top of the window's content that we regard as the top.

```


(MODERNIZED.TB.BUTTONEVENTFN

[LAMBDA (W STREAM)

; Edited 16-Oct-2021 15:40 by rmk:

;; If a free menu is attached to another window, we don't want the corners of the free menu that abut another window to be hot-spots for moving or reshaping. In fact, if the menu window has a main window, use the main window's region as the cornerregion

```
(LET ((CW (CENTRALWINDOW W))
      CORNERREG TOPMARGIN)
  (CL:WHEN (WINDOWPROP CW 'FILEBROWSER)
    [SETQ CORNERREG (UNIONREGIONS (WINDOWPROP (FB.GETWINDOW CW 'HEADING)
                                                'REGION)
                                  (WINDOWPROP (FB.GETWINDOW CW 'COUNTER)
                                                'REGION)
                                  (WINDOWPROP (FB.GETWINDOW CW 'BROWSER)
                                                'REGION)
                                  [SETQ TOPMARGIN (IPLUS (FETCH (REGION HEIGHT) OF (WINDOWPROP (FB.GETWINDOW CW 'HEADING)
                                                                                          'REGION))
                                                         (FETCH (REGION HEIGHT) OF (WINDOWPROP (FB.GETWINDOW CW 'COUNTER)
                                                                                          'REGION))
                                                         (MODERNWINDOW.BUTTONEVENTFN W (FUNCTION MODERN-ORIG-TB.BUTTONEVENTFN)
                                                         NIL NIL CORNERREG TOPMARGIN])
    ]))
  )
```

;; Add some Meta commands

(DEFINEQ

(TEDIT.MODERNIZE

[LAMBDA NIL

; Edited 14-Jun-2023 16:56 by rmk
; Edited 11-Oct-2021 15:02 by rmk:

```
(MODERNWINDOW.SETUP (FUNCTION \TEDIT.BUTTONEVENTFN)
  (FUNCTION \MODERNIZED.TEDIT.BUTTONEVENTFN])
```

(MODERNIZED.TEDIT.BUTTONEVENTFN

[LAMBDA (W STREAM)

; Edited 29-Jul-2023 10:48 by rmk
; Edited 13-Oct-2021 21:43 by rmk:

;; If a TEDIT window has been split, we have to make sure that movement happens only for clicks at the top of the main window and at the bottom of the bottom-most split window. Clicks near the split lines must be ignored. Essentially, the "region" of the Tedit window is the union of the regions of all of its split-panes.

;; We pass the pane that received the click, because that's what the original \TEDIT.BUTTONEVENTFN needs to see, if we decide not to shape or move.

```
(MODERNWINDOW.BUTTONEVENTFN W (FUNCTION MODERN-ORIG-\TEDIT.BUTTONEVENTFN)
  NIL
  (WINDOWPROP W 'MODERNIZE.TITLEPROPORTION)
  [APPLY (FUNCTION UNIONREGIONS)
    (bind PANE (CENTRALWINDOW W) collect (WINDOWPROP PANE 'REGION)
      repeatwhile (SETQ PANE (WINDOWPROP PANE 'TEDIT-NEXT-PANE-DOWN]
    (WINDOWPROP (CENTRALWINDOW W)
      'TITLE])
  )
```

(DECLARE%: DONTEVAL@LOAD DOCOPY

;; Tedit

(TEDIT.MODERNIZE)

;; Inspector

(MODERNWINDOW.SETUP '\ITEM.WINDOW.BUTTON.HANDLER)

;; Commonlisp array inspector. If you move the main window, the little attached window doesn't move. But if you move the attached window, it all works. Needs a special definition. Shaping doesn't work either

```
(* (MODERNWINDOW.SETUP (QUOTE ONEDINSPECT.BUTTONEVENTFN)))
```

(MODERNWINDOW.SETUP 'ICMLARRAY.TITLECOMMANDFN)

;; File browser

(MODERNWINDOW.SETUP '\FM.BUTTONEVENTFN '\MODERNIZED.FREEMENU.BUTTONEVENTFN)

;; SEDIT

(MODERNWINDOW.SETUP 'SEDT::BUTTONEVENTFN)

;; Debugger

(MODERNWINDOW.SETUP 'DBG::DEBUGGER-BUTTON-EVENT)

```

{MEDLEY}<lispusers>MODERNIZE.;1

;; Snap
(MODERNWINDOW.SETUP 'SNAPW 'MODERN-SNAPW)

;; New execs
(MODERNWINDOW.SETUP 'ADD-EXEC 'MODERN-ADD-EXEC)

;; Existing exec of the load
(MODERNWINDOW (PROCESSPROP (TTY.PROCESS)
                             'WINDOW))

;; Table browser and filebrowser)
(MODERNWINDOW.SETUP 'TB.BUTTONEVENTFN 'MODERNIZED.TB.BUTTONEVENTFN)

;; Grapher
(MODERNWINDOW.SETUP 'APPLYTOSELECTEDNODE)

;; Sketch
(MODERNWINDOW.SETUP 'WB.BUTTON.HANDLER)

;; Promptwindow
(MODERNWINDOW PROMPTWINDOW T)

;; Menus: Move only with title clicks
(MODERNWINDOW.SETUP 'MENUBUTTONFN 'MODERN-MENUBUTTONFN)
)

(DECLARE%: DONTVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVERS
)

(ADDTOVAR NLAMA )

(ADDTOVAR NLAML )

(ADDTOVAR LAMA MODERN-ADD-EXEC)
)

```

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