

File created: 5-Dec-2020 16:37:08 {DSK}<Users>arunwelch>SKYDRIVE>DOCUMENTS>UNIX>LISP>LDE>ROOM  
S>MEDLEY-35>TOUCHY-BUTTONS.;2

previous date: 17-Aug-90 14:46:54 {DSK}<Users>arunwelch>SKYDRIVE>DOCUMENTS>UNIX>LISP>LDE>ROOMS>MEDLEY-35>TOUCHY-  
BUTTONS.;1

Read Table: XCL

Package: ROOMS

Format: XCCS

; Copyright (c) 1987, 1988, 1990, 2020 by Venue & Xerox Corporation. All rights reserved.

(IL:RPAQQ **IL:TOUCHY-BUTTONSCOMS**

;; Include buttons so you can have dynamic mixin rooms. For example, you can have a "Notecards-Mixin" or "Programming-Mixin" Room  
;; and have buttons to include these in "Pockets" then whenever you need these facilities you can mix them in.

(IL:FUNCTIONS MAKE-INCLUDER INCLUDER-TEXT INCLUDER-ACTION)

;; Toggle buttons for switching between variable settings. This should obviously be generalized to something that allows you to select or  
;; circulate through value settings.

(IL:FUNCTIONS MAKE-TOGGLER MAKE-N-VALUER MAKE-EXSET-TOGGLER MAKE-RANGE-TOGGLER N-VALUER-ACTION  
N-VALUER-TEXT CHECK-EVAL)

(IL:FUNCTIONS MAKE-SWITCH SWITCH-ACTION)

;;

;; (MAKE-ONCE-ONLY (IL:PROMPTPRINT "Hello, World") "Fire..." "Exhausted")

(IL:FUNCTIONS MAKE-ONCE-ONLY ONCE-ONLY-ACTION ONCE-ONLY-TEXT)

(IL:DECLARE\ : IL:DONTCOPY (IL:PROPS (IL:TOUCHY-BUTTONS IL:MAKEFILE-ENVIRONMENT)  
(IL:TOUCHY-BUTTONS IL:FILETYPE))))

;; Include buttons so you can have dynamic mixin rooms. For example, you can have a "Notecards-Mixin" or "Programming-Mixin" Room and have  
;; buttons to include these in "Pockets" then whenever you need these facilities you can mix them in.

(DEFUN **MAKE-INCLUDER** (ROOM-NAME)

(MAKE-BUTTON-WINDOW (MAKE-BUTTON :TEXT-FORM (LIST 'INCLUDER-TEXT ROOM-NAME)  
:ACTION  
' INCLUDER-ACTION :INCLUDER-ROOM-NAME ROOM-NAME)))

(DEFUN **INCLUDER-TEXT** (INCLUDER-ROOM-NAME)

(LET ((INCLUSIONS (ROOM-INCLUSIONS \*CURRENT-ROOM\*)))  
(IF (LISTP INCLUSIONS)  
(IF (MEMBER INCLUDER-ROOM-NAME INCLUSIONS :TEST #'EQUAL)  
(FORMAT NIL "Exclude ~A" INCLUDER-ROOM-NAME)  
(FORMAT NIL "Include ~A" INCLUDER-ROOM-NAME))  
(FORMAT NIL "\*-???-\* ~A" INCLUDER-ROOM-NAME))))

(DEFUN **INCLUDER-ACTION** (DSP BUTTON)

(LET\* ((ROOM \*CURRENT-ROOM\*)  
(INCLUDER-ROOM-NAME (BUTTON-PROP BUTTON :INCLUDER-ROOM-NAME)))  
(UPDATE-PLACEMENTS)  
(IF (MEMBER INCLUDER-ROOM-NAME (ROOM-INCLUSIONS ROOM)  
:TEST  
#'EQUAL)  
(SETF (ROOM-INCLUSIONS ROOM)  
(DELETE INCLUDER-ROOM-NAME (ROOM-INCLUSIONS ROOM)  
:TEST  
#'EQUAL))  
(PUSH INCLUDER-ROOM-NAME (ROOM-INCLUSIONS ROOM)))  
(ROOM-CHANGED ROOM :EDITED)))

;; Toggle buttons for switching between variable settings. This should obviously be generalized to something that allows you to select or circulate  
;; through value settings.

(DEFUN **MAKE-TOGGLER** (VARIABLE-NAME &REST KEYS)

(APPLY #'MAKE-N-VALUER VARIABLE-NAME ' (NIL T)  
KEYS))

(DEFUN **MAKE-N-VALUER** (VARIABLE-NAME N-VALUES &REST KEYS)

(MAKE-BUTTON-WINDOW (APPLY #'MAKE-BUTTON :TEXT-FORM '(N-VALUER-TEXT ', VARIABLE-NAME)  
:ACTION  
' N-VALUER-ACTION :VARIABLE-NAME VARIABLE-NAME :N-VALUES N-VALUES KEYS)))

(DEFUN **MAKE-EXSET-TOGGLER** (VARIABLE-NAME EXPLICIT-SET &REST KEYS)

(APPLY #'MAKE-N-VALUER VARIABLE-NAME EXPLICIT-SET :HELP (FORMAT NIL "Set variable ~S" VARIABLE-NAME)  
KEYS))

(DEFUN **MAKE-RANGE-TOGGLER** (VARIABLE-NAME RANGE-START RANGE-END &REST KEYS)

```
(APPLY #'MAKE-N-VALUER VARIABLE-NAME (DO ((I RANGE-START (1+ I))
      (ACCUMULATOR NIL ACCUMULATOR))
      (> I RANGE-END)
      (NREVERSE ACCUMULATOR))
      (PUSH I ACCUMULATOR))

:HELP
(FORMAT NIL "Set variable ~S" VARIABLE-NAME)
KEYS))
```

```
(DEFUN N-VALUER-ACTION (DSP BUTTON)
  (LET* ((N-VALUES (BUTTON-PROP BUTTON :N-VALUES))
         (VARIABLE-NAME (BUTTON-PROP BUTTON :VARIABLE-NAME)))
    (SETQ N-VALUES (REMOVE (CHECK-EVAL VARIABLE-NAME)
                          N-VALUES))
    (SET VARIABLE-NAME (IF (EQ (LENGTH N-VALUES)
                              1)
                          (CAR N-VALUES)
                          (IL:MENU (IL:CREATE IL:MENU
                                       IL:ITEMS IL:_ N-VALUES))))))
```

```
(DEFUN N-VALUER-TEXT (VARIABLE-NAME)
  (FORMAT NIL "~A is ~a" VARIABLE-NAME (CHECK-EVAL VARIABLE-NAME)))
```

```
(DEFUN CHECK-EVAL (VARIABLE-NAME)
  (IF (BOUNDP VARIABLE-NAME)
      (EVAL VARIABLE-NAME)
      "Unbound"))
```

```
(DEFUN MAKE-SWITCH (DECISION-FN SET-FN TEXT-FORM &REST KEYS)
  (MAKE-BUTTON-WINDOW (APPLY #'MAKE-BUTTON :TEXT-FORM TEXT-FORM :ACTION 'SWITCH-ACTION :DECISION-FN DECISION-FN
                             :SET-FN SET-FN KEYS)))
```

```
(DEFUN SWITCH-ACTION (DSP BUTTON)
  (LET* ((VALUE (FUNCALL (BUTTON-PROP BUTTON :DECISION-FN)
                        BUTTON)))
    (FUNCALL (BUTTON-PROP BUTTON :SET-FN)
             BUTTON VALUE)))
```

```
::
;; (MAKE-ONCE-ONLY (IL:PROMPTPRINT "Hello, World") "Fire..." "Exhausted")
```

```
(DEFUN MAKE-ONCE-ONLY (FORM INITIAL-TEXT FINAL-TEXT)
  (MAKE-BUTTON-WINDOW (MAKE-BUTTON :TEXT INITIAL-TEXT :TEXT-FORM 'ONCE-ONLY-TEXT :ACTION 'ONCE-ONLY-ACTION
                                   :ONCE-ONLY-FORM FORM :INITIAL-TEXT INITIAL-TEXT :FINAL-TEXT FINAL-TEXT)))
```

```
(DEFUN ONCE-ONLY-ACTION (STREAM BUTTON)
  (UNLESS (IL:STREAMPROP (IL:GETSTREAM STREAM)
                        BUTTON)
    ;; store the state of the button on its host, so that the state is reset each time the button is reconstituted.
    (EVAL (BUTTON-PROP BUTTON :ONCE-ONLY-FORM))
    (IL:STREAMPROP (IL:GETSTREAM STREAM)
                   BUTTON T)))
```

```
(DEFUN ONCE-ONLY-TEXT (STREAM BUTTON)
  (WHEN STREAM
    (IF (IL:STREAMPROP (IL:GETSTREAM STREAM)
                      BUTTON)
        (BUTTON-PROP BUTTON :FINAL-TEXT)
        (BUTTON-PROP BUTTON :INITIAL-TEXT))))
```

```
(IL:DECLARE\ : IL:DONTCOPY
```

```
(IL:PUTPROPS IL:TOUCHY-BUTTONS IL:MAKEFILE-ENVIRONMENT (:PACKAGE "ROOMS" :READTABLE "XCL"))
```

```
(IL:PUTPROPS IL:TOUCHY-BUTTONS IL:FILETYPE :COMPILE-FILE)
)
```

```
(IL:PUTPROPS IL:TOUCHY-BUTTONS IL:COPYRIGHT ("Venue & Xerox Corporation" 1987 1988 1990 2020))
```

**FUNCTION INDEX**

CHECK-EVAL . . . . .2	MAKE-EXSET-TOGGLER 1	MAKE-ONCE-ONLY . . . .2	MAKE-TOGGLER . . . . .1	ONCE-ONLY-ACTION ..2
INCLUDER-ACTION ..1	MAKE-INCLUDER . . . . .1	MAKE-RANGE-TOGGLER 1	N-VALUER-ACTION ..2	ONCE-ONLY-TEXT . . . .2
INCLUDER-TEXT . . . . .1	MAKE-N-VALUER . . . . .1	MAKE-SWITCH . . . . .2	N-VALUER-TEXT . . . . .2	SWITCH-ACTION . . . . .2

---

**PROPERTY INDEX**

IL:TOUCHY-BUTTONS .2

---