

File created: 5-Dec-2020 16:24:55 {DSK}<Users>arunwelch>SKYDRIVE>DOCUMENTS>UNIX>LISP>LDE>ROOM
S>MEDLEY-35>ROOMS-D.;2

previous date: 17-Aug-90 12:43:06 {DSK}<Users>arunwelch>SKYDRIVE>DOCUMENTS>UNIX>LISP>LDE>ROOMS>MEDLEY-35>ROOMS-D
. ; 1

Read Table: XCL

Package: ROOMS

Format: XCCS

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(IL:RPAQQ **IL:ROOMS-DCOMS**

;; Rooms' interface to Interlisp-D window system

(FILE-ENVIRONMENTS IL:ROOMS-D)
(IL:P (EXPORT '(*WHO-LINE-ENTRY*)))
(IL:TYPES BITMAP FONT TEXTURE)

; windows

(IL:FUNCTIONS MOVE-WINDOW SHAPE-WINDOW OPEN-WINDOW CLOSE-WINDOW)
(IL:FUNCTIONS WINDOW-REGION MAIN-WINDOW WINDOW-TITLE WINDOW-VISIBLE-P)

; regions

(IL:STRUCTURES REGION)

(IL:FUNCTIONS MAKE-POSITION POSITION-X POSITION-Y GET-POSITION)

; positions

(IL:FUNCTIONS SHRINK-WINDOW EXPAND-WINDOW ICON? SHRUNKEN? ICON-POSITION WINDOW-POSITION WINDOW-ICON

; icons

DELETE-WINDOW-ICON)

; user interface

(IL:FUNCTIONS MENU PROMPT-USER CONFIRM NOTIFY-USER GET-MESSAGE-STREAM SELECT-WINDOW SELECT-BAGGAGE
EXTERNALIZE-FONT)

(IL:FUNCTIONS

; keyboard interpretation

;; these have gotten out of control. it might be worth converting these to one function which returns a keyword naming the
;; selected operation. EDITCALLERS, anyone?

COPY-KEY-DOWN-P HELP-KEY-DOWN-P DELETE-KEY-DOWN-P EDIT-KEY-DOWN-P MOVE-KEY-DOWN-P
EXPAND-KEY-DOWN-P)

(IL:COMS

;; add a lafite form for bug reports

(IL:FUNCTIONS MAKE-ROOMS-SUPPORT-FORM)
(IL:VARIABLES IL:ROOMSSUPPORT)

(IL:ADDVARS (IL:LAFITESPECIALFORMS ("Rooms Report" (IL:FUNCTION MAKE-ROOMS-SUPPORT-FORM)
"A form to report a Rooms bug or suggestion")))

(IL:P (SETQ IL:LAFITEFORMSMENU NIL))

;; provide a who line entry

(IL:VARIABLES *WHO-LINE-ENTRY*)

(IL:P (WHEN (BOUNDP 'IL:*WHO-LINE-ENTRY-REGISTRY*)

(PUSHNEW *WHO-LINE-ENTRY* IL:*WHO-LINE-ENTRY-REGISTRY* :TEST 'EQUAL :KEY
'CAR))))

(IL:GLOBALVARS IL:PROMPTWINDOW IL:CROSSHAIRS IL:WINDOWBACKGROUNDSHADE IL:WHOLESCREEN

IL:LAFITESPECIALFORMS IL:LAFITEFORMSMENU IL:DEFAULTICONFN IL:*WHO-LINE-ENTRY-REGISTRY*))

;; Rooms' interface to Interlisp-D window system

(DEFINE-FILE-ENVIRONMENT **IL:ROOMS-D** :COMPILER :COMPILE-FILE
:PACKAGE "ROOMS"
:READTABLE "XCL")

(EXPORT '(*WHO-LINE-ENTRY*))

(DEFTYPE **BITMAP** ()
'(SATISFIES IL:BITMAP))

(DEFTYPE **FONT** ()
'(SATISFIES IL:FONT))

(DEFTYPE **TEXTURE** ()
'(SATISFIES IL:TEXTURE))

;; windows

(DEFUN **MOVE-WINDOW** (WINDOW POS &OPTIONAL (CURRENT-REGION (**WINDOW-REGION** WINDOW)))

(UNLESS (IL:EQMEMB 'IL:DON\T (IL:WINDOWPROP WINDOW 'IL:MOVEFN))

(LET ((CURRENT-MAIN-WINDOW-REGION (IL:WINDOWPROP WINDOW 'IL:REGION)))

;; have to compensate for (possible) windows attached at left or bottom. IL:SHAPEW does this for us, but not IL:MOVEW...

(IL:MOVEW WINDOW (+ (**POSITION-X** POS)

(- (REGION-LEFT CURRENT-MAIN-WINDOW-REGION)

```

      (REGION-LEFT CURRENT-REGION))
    (+ (POSITION-Y POS)
      (- (REGION-BOTTOM CURRENT-MAIN-WINDOW-REGION)
        (REGION-BOTTOM CURRENT-REGION))))))

```

```

(DEFUN SHAPE-WINDOW (WINDOW DESIRED-REGION &KEY (CURRENT-REGION (WINDOW-REGION WINDOW)
NO-SHAPE)

```

;; open up IL:SHAPEW a bit

```

(MULTIPLE-VALUE-BIND (VALUE CONDITION)
  (IGNORE-ERRORS (IF (OR
    ;; if we don't really need to reshape
    (AND (= (REGION-WIDTH DESIRED-REGION)
            (REGION-WIDTH CURRENT-REGION))
          (= (REGION-HEIGHT DESIRED-REGION)
            (REGION-HEIGHT CURRENT-REGION)))
    ;; or we're not supposed to reshape
    (IL:\\USERFNISSDON\\'T (IL:WINDOWPROP WINDOW 'IL:RESHAPEFN)
NO-SHAPE)
    ;; then just move
    (MOVE-WINDOW WINDOW (MAKE-POSITION (REGION-LEFT DESIRED-REGION)
            (REGION-BOTTOM DESIRED-REGION))
            CURRENT-REGION)
    ;; otherwise do the reshape
    (FUNCALL (OR (IL:WINDOWPROP WINDOW 'IL:DOSHAPEFN)
                'IL:SHAPEW1)
            WINDOW
            (COPY-REGION DESIRED-REGION))))
  (WHEN CONDITION (NOTIFY-USER "Error reshaping ~A: ~A" WINDOW CONDITION)
VALUE))

```

```

(DEFMACRO OPEN-WINDOW (WINDOW)
  `(IL:OPENW ,WINDOW))

```

```

(DEFMACRO CLOSE-WINDOW (WINDOW)
  `(IL:CLOSEW ,WINDOW))

```

```

(DEFMACRO WINDOW-REGION (WINDOW)
  `(IL:WINDOWREGION ,WINDOW))

```

```

(DEFMACRO MAIN-WINDOW (WINDOW)
  `(LET ((WINDOW ,WINDOW))
    (OR (IL:WINDOWPROP WINDOW 'IL:ICONFOR)
        (IL:MAINWINDOW WINDOW T))))

```

```

(DEFMACRO WINDOW-TITLE (WINDOW)
  `(IL:WINDOWPROP ,WINDOW 'IL:TITLE))

```

```

(DEFUN WINDOW-VISIBLE-P (WINDOW)
  (AND (IL:OPENWP WINDOW)
    (IL:REGIONSINTERSECTP (WINDOW-REGION WINDOW)
      IL:WHOLESCREEN)))

```

;; regions

```

(DEFSTRUCT (REGION (:TYPE LIST))

```

;;; overlay onto an Interlisp-D region, so we don't have to use il:fetch cruft.

```

LEFT
BOTTOM
WIDTH
HEIGHT)

```

```

(DEFMACRO MAKE-POSITION (X Y)
  `(CONS ,X ,Y))

```

```

(DEFMACRO POSITION-X (POS)
  `(CAR ,POS))

```

```

(DEFMACRO POSITION-Y (POS)
  `(CDR ,POS))

```

```
(DEFUN GET-POSITION (MESSAGE &REST MESSAGE-ARGS)
  (APPLY #'NOTIFY-USER MESSAGE MESSAGE-ARGS)
  (IL:GETPOSITION))
```

```
(DEFMACRO SHRINK-WINDOW (WINDOW POS)
  `(IL:SHRINKW ,WINDOW NIL ,POS))
```

```
(DEFUN EXPAND-WINDOW (WINDOW)
  `(IL:EXPANDW (WINDOW-ICON ,WINDOW)))
```

```
(DEFMACRO ICON? (WINDOW)
  `(IL:WINDOWPROP ,WINDOW 'IL:ICONFOR))
```

```
(DEFUN SHRUNKEN? (WINDOW)
  (IL:EQMEMB (IL:FUNCTION IL:CLOSEICONWINDOW)
    (IL:WINDOWPROP WINDOW 'IL:OPENFN)))
```

```
(DEFUN ICON-POSITION (WINDOW)
  (LET ((ICON-WINDOW (WINDOW-ICON WINDOW)))
    (WHEN ICON-WINDOW (WINDOW-POSITION ICON-WINDOW))))
```

```
(DEFUN WINDOW-POSITION (WINDOW)
  (LET ((REGION (WINDOW-REGION WINDOW)))
    (MAKE-POSITION (REGION-LEFT REGION)
      (REGION-BOTTOM REGION))))
```

```
(DEFMACRO WINDOW-ICON (WINDOW)
  `(IL:WINDOWPROP ,WINDOW 'IL:ICONWINDOW))
```

```
(DEFUN DELETE-WINDOW-ICON (WINDOW)
```

;; delete the icon for WINDOW, if any. We know WINDOW is expanded.

```
(IL:WINDOWPROP WINDOW 'IL:ICONWINDOW NIL)
(IL:WINDOWPROP WINDOW 'IL:ICONPOSITION NIL))
```

;; user interface

```
(DEFUN MENU (ITEMS &OPTIONAL TITLE MESSAGE &REST MESSAGE-ARGS)
  (WHEN MESSAGE
    (APPLY #'NOTIFY-USER MESSAGE MESSAGE-ARGS))
  (IL:MENU (IL:CREATE IL:MENU
    IL:ITEMS IL:_ ITEMS
    IL:TITLE IL:_ TITLE
    IL:CENTERFLG IL:_ T)))
```

```
(DEFUN PROMPT-USER (PROMPT &OPTIONAL MESSAGE &REST MESSAGE-ARGS)
```

;; prompt the user for a string. input should end when CR is typed.

```
(WHEN MESSAGE
  (APPLY #'NOTIFY-USER MESSAGE MESSAGE-ARGS))
(IL:RESETFORM (IL:TTYDISPLAYSTREAM (GET-MESSAGE-STREAM))
  (IL:PROMPTFORWARD PROMPT NIL NIL NIL NIL 'IL:TTY (IL:CHARCODE (IL:EOL)))))
```

```
(DEFUN CONFIRM (&OPTIONAL MESSAGE &REST MESSAGE-ARGS)
```

;; make sure prompt-window is un-hidden

```
(LET ((STREAM (GET-MESSAGE-STREAM)))
```

;; use IL:MOUSECONFIRM

```
(PROG2 (TERPRI STREAM)
  (IL:MOUSECONFIRM (WHEN MESSAGE
    (APPLY #'FORMAT NIL MESSAGE MESSAGE-ARGS))
    NIL STREAM T)
  (TERPRI STREAM)))
```

```
(DEFUN NOTIFY-USER (FORMAT-STRING &REST ARGS)
```

```
(LET ((STREAM (GET-MESSAGE-STREAM)))
  (TERPRI STREAM)
  (APPLY #'FORMAT STREAM FORMAT-STRING ARGS)
  (TERPRI STREAM)))
```

(DEFUN **GET-MESSAGE-STREAM** ())

;;; return an output stream for user messages

(WHEN (%WINDOW-HIDDEN? IL:PROMPTWINDOW)
 (UN-HIDE-WINDOW IL:PROMPTWINDOW))
(IL:GETSTREAM IL:PROMPTWINDOW))

(DEFUN **SELECT-WINDOW** (&OPTIONAL MESSAGE &REST MESSAGE-ARGS))

;;; get the user to select a window on the screen

(WHEN MESSAGE
 (APPLY #'NOTIFY-USER MESSAGE MESSAGE-ARGS))
(IL:RESETFORM
 (IL:CURSOR IL:CROSSHAIRS)
 (LET
 (WINDOW)
 (LOOP
 (WHEN (IL:MOUSESTATE (OR IL:LEFT IL:MIDDLE))
 (RETURN (LET ((WINDOW (IL:WHICHW)))
 (WHEN WINDOW
 (UNWIND-PROTECT
 (PROGN (IL:INVERTW WINDOW)
 (LOOP (WHEN (NOT (IL:MOUSESTATE (OR IL:LEFT IL:MIDDLE)))
 (RETURN (LET ((NEW-WINDOW (IL:WHICHW)))
 (WHEN (AND NEW-WINDOW (EQ (MAIN-WINDOW NEW-WINDOW)
 (MAIN-WINDOW WINDOW))))
 (MAIN-WINDOW WINDOW))))))))))))))))))
 (IL:INVERTW WINDOW))))))

(DEFUN **SELECT-BAGGAGE** ())

;;; returns a list of selected placements.

;;; we presume UPDATE-PLACEMENTS has just been called & won't be called again by GO-TO-ROOM.

(LET (WINDOW PLACEMENT ROOM BAGGAGE)
 (LOOP (LET ((OP (COND
 ((MOVE-KEY-DOWN-P)
 :MOVE)
 ((COPY-KEY-DOWN-P)
 :COPY)
 (T (RETURN))))))
 (SETQ WINDOW (**SELECT-WINDOW** "Select placement to ~A" OP))
 (UNLESS WINDOW (RETURN))
 (MULTIPLE-VALUE-SETQ (PLACEMENT ROOM)
 (FIND-PLACEMENT WINDOW))
 (WHEN PLACEMENT
 (CASE OP
 (:MOVE (DELETE-PLACEMENT PLACEMENT ROOM))
 (:COPY (SETQ PLACEMENT (COPY-PLACEMENT-INTERNAL PLACEMENT))))
 (PUSHNEW PLACEMENT BAGGAGE :KEY #'PLACEMENT-WINDOW :TEST 'EQ))))
 BAGGAGE))

(DEFUN **EXTERNALIZE-FONT** (FONT)

(LIST (IL:FONTPROP FONT 'IL:FAMILY)
 (IL:FONTPROP FONT 'IL:SIZE)
 (IL:FONTPROP FONT 'IL:FACE)))

(DEFMACRO **COPY-KEY-DOWN-P** ())

\(OR (IL:KEYDOWNP 'IL:COPY)
 (AND (IL:SHIFTDOWNP 'IL:SHIFT)
 (NOT (OR (IL:SHIFTDOWNP 'IL:CTRL)
 (IL:SHIFTDOWNP 'IL:META))))))

(DEFMACRO **HELP-KEY-DOWN-P** ())

\(OR (IL:KEYDOWNP 'HELP)
 (IL:KEYDOWNP 'IL:DBK-HELP))

(DEFMACRO **DELETE-KEY-DOWN-P** ())

\(OR (IL:KEYDOWNP 'IL:DELETE)
 (AND (IL:SHIFTDOWNP 'IL:CTRL)
 (IL:SHIFTDOWNP 'IL:META)
 (NOT (IL:SHIFTDOWNP 'IL:SHIFT))))

(DEFMACRO **EDIT-KEY-DOWN-P** ())

\(AND (IL:SHIFTDOWNP 'IL:CTRL)
 (NOT (OR (IL:SHIFTDOWNP 'IL:SHIFT)
 (IL:SHIFTDOWNP 'IL:META))))

```
(DEFMACRO MOVE-KEY-DOWN-P ()
  `(OR (IL:KEYDOWNP 'IL:MOVE)
        (AND (IL:SHIFTDOWNP 'IL:CTRL)
              (IL:SHIFTDOWNP 'IL:SHIFT)
              (NOT (IL:SHIFTDOWNP 'IL:META))))))
```

```
(DEFMACRO EXPAND-KEY-DOWN-P ()
  `(OR (IL:KEYDOWNP 'IL:EXPAND)
        (IL:KEYDOWNP 'IL:ESCAPE)))
```

:: add a lafite form for bug reports

```
(DEFUN MAKE-ROOMS-SUPPORT-FORM ()
  (IL:MAKEXXXSUPPORTFORM "Rooms" IL:ROOMSSUPPORT *ROOMS-SYSTEM-DATE*))
```

```
(DEFGLOBALVAR IL:ROOMSSUPPORT "RoomsSupport^.PA")
```

```
(IL:ADDOVAR IL:LAFITESPECIALFORMS ("Rooms Report" (IL:FUNCTION MAKE-ROOMS-SUPPORT-FORM)
  "A form to report a Rooms bug or suggestion"))
```

```
(SETQ IL:LAFITEFORMSMENU NIL)
```

:: provide a who line entry

```
(DEFPARAMETER *WHO-LINE-ENTRY*
  `("Room:" (AND *CURRENT-ROOM* (ROOM-NAME *CURRENT-ROOM*))
    10
    ,#' (LAMBDA NIL (INTERACTIVE-GO-TO-ROOM :ALLOW-NEW? T))))
```

```
(WHEN (BOUNDP 'IL:*WHO-LINE-ENTRY-REGISTRY*)
  (PUSHNEW *WHO-LINE-ENTRY* IL:*WHO-LINE-ENTRY-REGISTRY* :TEST 'EQUAL :KEY 'CAR))
```

```
(IL:DECLARE\ : IL:DOEVAL@COMPILE IL:DONTCOPY
```

```
(IL:GLOBALVARS IL:PROMPTWINDOW IL:CROSSHAIRS IL:WINDOWBACKGROUNDSHADE IL:WHOLESCREEN IL:LAFITESPECIALFORMS
  IL:LAFITEFORMSMENU IL:DEFAULTICONFN IL:*WHO-LINE-ENTRY-REGISTRY*)
)
```

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

FUNCTION INDEX

CONFIRM	3	GET-POSITION	3	NOTIFY-USER	3	SHRUNKEN?	3
DELETE-WINDOW-ICON	3	ICON-POSITION	3	PROMPT-USER	3	WINDOW-POSITION	3
EXPAND-WINDOW	3	MAKE-ROOMS-SUPPORT-FORM .5		SELECT-BAGGAGE	4	WINDOW-VISIBLE-P	2
EXTERNALIZE-FONT	4	MENU	3	SELECT-WINDOW	4		
GET-MESSAGE-STREAM	4	MOVE-WINDOW	1	SHAPE-WINDOW	2		

MACRO INDEX

CLOSE-WINDOW	2	EXPAND-KEY-DOWN-P .5		MAKE-POSITION	2	POSITION-Y	2	WINDOW-TITLE	2
COPY-KEY-DOWN-P ...4		HELP-KEY-DOWN-P ...4		MOVE-KEY-DOWN-P ...5		SHRINK-WINDOW	3		
DELETE-KEY-DOWN-P .4		ICON?	3	OPEN-WINDOW	2	WINDOW-ICON	3		
EDIT-KEY-DOWN-P ...4		MAIN-WINDOW	2	POSITION-X	2	WINDOW-REGION	2		

VARIABLE INDEX

WHO-LINE-ENTRY	5	IL:LAFITESPECIALFORMS	5	IL:ROOMSSUPPORT	5
------------------------	---	-----------------------------	---	-----------------------	---

TYPE INDEX

BITMAP	1	FONT	1	TEXTURE	1
--------------	---	------------	---	---------------	---

STRUCTURE INDEX

REGION	2
--------------	---

FILE-ENVIRONMENT INDEX

IL:ROOMS-D	1
------------------	---
