File created: 5-Dec-2020 16:35:40 **{DSK}<Users>arunwelch>SKYDRIVE>DOCUMENTS>UNIX>LISP>LDE>ROOMS>MEDLEY-35>ROOMS-BACKGROUNDS.;2**

previous date: 17-Aug-90 12:29:44 {DSK}<Users>arunwelch>SKYDRIVE>DOCUMENTS>UNIX>LISP>LDE>ROOMS>MEDLEY-35>ROOMS-BACKGROUNDS.;1

Read Table: XCL

Package: ROOMS

Format: XCCS

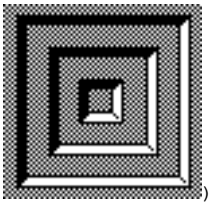

```
(IL:RPAQQ IL:ROOMS-BACKGROUNDSCOMS
          (;; code for painting background
           (FILE-ENVIRONMENTS IL:ROOMS-BACKGROUNDS)
           (IL:P (EXPORT '(MAKE-BACKGROUND BACKGROUND-INTERNAL-FORM *DEFAULT-BACKGROUND-TEXT-FONT*
                           RENAISSANCE-BITMAP SQUARES-BITMAP TILE-BITMAP INTERNALIZE-ALL-BACKGROUNDS))
                 (REQUIRE "ROOMS"))
           (IL:STRUCTURES BACKGROUND)
           (IL:FUNCTIONS MAKE-BACKGROUND INTERNALIZE-BACKGROUND INTERNALIZE-BACKGROUND-TEXT
                  INTERNALIZE-ALL-BACKGROUNDS)
           (EVAL-WHEN (LOAD)
                  (IL:P (PUSHNEW 'INTERNALIZE-ALL-BACKGROUNDS *SCREEN-CHANGED-FUNCTIONS*)))
           (IL:VARIABLES *DEFAULT-BACKGROUND* *DEFAULT-BACKGROUND-TEXT-FONT*)
           (IL:FUNCTIONS PAINT-BACKGROUND FIND-BACKGROUNDS DRAW&FILL-BOX-WITHIN)
           (IL:VARIABLES *SCREEN-BITMAP*)
           (IL:VARIABLES RENAISSANCE-BITMAP SQUARES-BITMAP TILE-BITMAP)
           (IL:GLOBALVARS IL:WINDOWBACKGROUNDSHADE IL:WHOLESCREEN)))
```

;; code for painting background

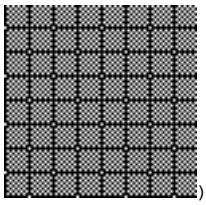
```
(DEFINE-FILE-ENVIRONMENT IL:ROOMS-BACKGROUNDS :COMPILER :COMPILE-FILE
   :PACKAGE "ROOMS"
   :READTABLE "XCL")

(EXPORT '(MAKE-BACKGROUND BACKGROUND-INTERNAL-FORM *DEFAULT-BACKGROUND-TEXT-FONT* RENAISSANCE-BITMAP
               SQUARES-BITMAP TILE-BITMAP INTERNALIZE-ALL-BACKGROUNDS))

(REQUIRE "ROOMS")

(DEFSTRUCT (BACKGROUND (:CONSTRUCTOR MAKE-BACKGROUND-INTERNAL))
   (EXTERNAL-FORM NIL :TYPE LIST :READ-ONLY T)
   ;; what the user sees
   (INTERNAL-FORM NIL :TYPE LIST)
   ;; what PAINT-BACKGROUND operates on

   )

(DEFUN MAKE-BACKGROUND (EXTERNAL-FORM)
   (MAKE-BACKGROUND-INTERNAL :EXTERNAL-FORM EXTERNAL-FORM :INTERNAL-FORM (INTERNALIZE-BACKGROUND EXTERNAL-FORM
                                                                            )))

(DEFUN INTERNALIZE-BACKGROUND (BACKGROUND)
   ;; internalize BACKGROUND
   (MAPCAR #'(LAMBDA (PROP-LIST)
                  (CASE (CAR PROP-LIST)
                      (:WHOLE-SCREEN
                         (CHECK-TYPE (SECOND PROP-LIST)
                                (OR BITMAP TEXTURE))
                         (CHECK-TYPE (GETF PROP-LIST :BORDER)
                                (OR NULL INTEGER))
                         (CHECK-TYPE (GETF PROP-LIST :BORDER-SHADE)
                                (OR NULL TEXTURE))
                         `(:WHOLE-SCREEN ,(SECOND PROP-LIST)
                                 ,@(WHEN (GETF PROP-LIST :BORDER)
                                         `(:BORDER ,(GETF PROP-LIST :BORDER)))
                                 ,@(WHEN (GETF PROP-LIST :BORDER-SHADE)
                                         `(:BORDER-SHADE ,(GETF PROP-LIST :BORDER-SHADE)))))
                      (:REGION
                         (CHECK-TYPE (GETF PROP-LIST :SHADE)
                                (OR NULL BITMAP TEXTURE))
                         (CHECK-TYPE (GETF PROP-LIST :BORDER)
                                (OR NULL INTEGER))
                         (CHECK-TYPE (GETF PROP-LIST :BORDER-SHADE)
                                (OR NULL TEXTURE))
                         `(:REGION ,(INTERNALIZE-REGION (SECOND PROP-LIST))
                                 ,@(WHEN (GETF PROP-LIST :SHADE)
                                         `(:SHADE ,(GETF PROP-LIST :SHADE)))
```

```
                                    ,@(WHEN (GETF PROP-LIST :BORDER)
                                            `(:BORDER ,(GETF PROP-LIST :BORDER)))
                                    ,@(WHEN (GETF PROP-LIST :BORDER-SHADE)
                                            `(:BORDER-SHADE ,(GETF PROP-LIST :BORDER-SHADE)))))
                             (:TEXT (LIST :TEXT (LET ((*DEFAULT-TEXT-FONT* *DEFAULT-BACKGROUND-TEXT-FONT*))
                                                  (INTERNALIZE-BACKGROUND-TEXT PROP-LIST))))))
          (EVAL-WALK BACKGROUND)))

(DEFUN INTERNALIZE-BACKGROUND-TEXT (PROP-LIST)
   (MAKE-TEXT :STRING (GETF PROP-LIST :TEXT)
          :POSITION
          (INTERNALIZE-POSITION (OR (GETF PROP-LIST :POSITION)
                                    (MAKE-POSITION 0 0)))
          :ALIGNMENT
          (OR (GETF PROP-LIST :ALIGNMENT)
              :LEFT-BOTTOM)
          :FONT
          (LET ((FONT (GETF PROP-LIST :FONT)))
               (IF FONT
                   (IL:FONTCREATE FONT)
                   *DEFAULT-TEXT-FONT*))
          :SHADOWS
          (GETF PROP-LIST :SHADOWS T)))

(DEFUN INTERNALIZE-ALL-BACKGROUNDS ()
   ;; do all the named rooms
   (DO-ROOMS (ROOM)
          (LET ((BACKGROUND (ROOM-BACKGROUND ROOM)))
               (SETF (BACKGROUND-INTERNAL-FORM BACKGROUND)
                     (INTERNALIZE-BACKGROUND (BACKGROUND-EXTERNAL-FORM BACKGROUND)))))
   ;; do the Overview too (yes, this is ugly)
   (LET ((BACKGROUND (ROOM-BACKGROUND *OVERVIEW-ROOM*)))
        (SETF (BACKGROUND-INTERNAL-FORM BACKGROUND)
              (INTERNALIZE-BACKGROUND (BACKGROUND-EXTERNAL-FORM BACKGROUND))))
   NIL)

(EVAL-WHEN (LOAD)

(PUSHNEW 'INTERNALIZE-ALL-BACKGROUNDS *SCREEN-CHANGED-FUNCTIONS*)
)

(DEFGLOBALPARAMETER *DEFAULT-BACKGROUND* (MAKE-BACKGROUND `((:WHOLE-SCREEN ,IL:WINDOWBACKGROUNDSHADE))
                                                          ))

(DEFPARAMETER *DEFAULT-BACKGROUND-TEXT-FONT* (IL:FONTCREATE 'IL:TIMESROMAND 36))

(DEFUN PAINT-BACKGROUND (ROOM DSP &KEY (SCALE *ONE-TO-ONE*)
                                       NO-TEXT CLIPPING-REGION)
   (DOLIST (BACKGROUND (FIND-BACKGROUNDS ROOM))
       (DOLIST (SPEC (BACKGROUND-INTERNAL-FORM BACKGROUND))
           (CASE (FIRST SPEC)
               (:WHOLE-SCREEN (DRAW&FILL-BOX-WITHIN (SCALE-REGION IL:WHOLESCREEN SCALE)
                                    DSP :SHADE (SECOND SPEC)
                                    :BORDER-WIDTH
                                    (SCALE-WIDTH (GETF SPEC :BORDER 0)
                                                 SCALE)
                                    :BORDER-SHADE
                                    (GETF SPEC :BORDER-SHADE IL:BLACKSHADE)
                                    :CLIPPING-REGION CLIPPING-REGION))
               (:REGION (DRAW&FILL-BOX-WITHIN (SCALE-REGION (GETF SPEC :REGION)
                                                            SCALE)
                                DSP :SHADE (GETF SPEC :SHADE)
                                :BORDER-WIDTH
                                (SCALE-WIDTH (GETF SPEC :BORDER 0)
                                       SCALE)
                                :BORDER-SHADE
                                (GETF SPEC :BORDER-SHADE IL:BLACKSHADE)
                                :CLIPPING-REGION CLIPPING-REGION))
               (:TEXT (UNLESS NO-TEXT
                          (DISPLAY-TEXT (SECOND SPEC)
                                 DSP :SCALE SCALE)))))))

(DEFUN FIND-BACKGROUNDS (ROOM)

;;; returns the list of backgrounds which apply to ROOM

   (LET (BACKGROUNDS FOUND-WHOLE-SCREEN?)
        (DO-INCLUSIONS (ROOM ROOM)
               (LET ((BACKGROUND (ROOM-BACKGROUND ROOM)))
```

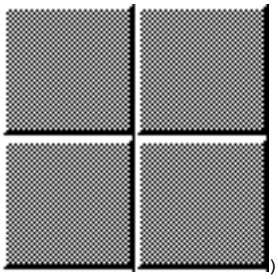
```
                    (PUSH BACKGROUND BACKGROUNDS)
                    ;; stop when we see one which paints the whole background
                    (WHEN (ASSOC :WHOLE-SCREEN BACKGROUND :TEST 'EQ)
                        (SETQ FOUND-WHOLE-SCREEN? T)
                        (RETURN-FROM DO-INCLUSIONS))))
        (UNLESS FOUND-WHOLE-SCREEN? (PUSH *DEFAULT-BACKGROUND* BACKGROUNDS))
        BACKGROUNDS))

(DEFUN DRAW&FILL-BOX-WITHIN (REGION DSP &KEY (SHADE IL:WHITESHADE)
                                    (BORDER-WIDTH 0)
                                    CLIPPING-REGION
                                    (BORDER-SHADE IL:BLACKSHADE))
   (LET ((LEFT (REGION-LEFT REGION))
         (BOTTOM (REGION-BOTTOM REGION))
         (WIDTH (REGION-WIDTH REGION))
         (HEIGHT (REGION-HEIGHT REGION)))
        (IF (OR (NULL BORDER-WIDTH)
                (ZEROP BORDER-WIDTH))
            (PAINT-REGION DSP REGION SHADE CLIPPING-REGION)
            (LET ((TOP (+ BOTTOM HEIGHT))
                  (RIGHT (+ LEFT WIDTH))
                  (INSIDE-LEFT (+ LEFT BORDER-WIDTH))
                  (INSIDE-WIDTH (- WIDTH BORDER-WIDTH)))
                 (PAINT-REGION DSP (MAKE-REGION :LEFT INSIDE-LEFT :BOTTOM (+ BOTTOM BORDER-WIDTH)
                                                :WIDTH INSIDE-WIDTH :HEIGHT (- HEIGHT BORDER-WIDTH))
                       SHADE CLIPPING-REGION)
                 ;; up left
                 (IL:BLTSHADE BORDER-SHADE DSP LEFT BOTTOM BORDER-WIDTH HEIGHT BORDER-WIDTH NIL CLIPPING-REGION)
                 ;; across top
                 (IL:BLTSHADE BORDER-SHADE DSP INSIDE-LEFT (- TOP BORDER-WIDTH)
                       INSIDE-WIDTH BORDER-WIDTH NIL CLIPPING-REGION)
                 ;; up the right
                 (IL:BLTSHADE BORDER-SHADE DSP (- RIGHT BORDER-WIDTH)
                       BOTTOM BORDER-WIDTH (- HEIGHT BORDER-WIDTH)
                       NIL CLIPPING-REGION)
                 ;; across the bottom
                 (IL:BLTSHADE BORDER-SHADE DSP INSIDE-LEFT BOTTOM INSIDE-WIDTH BORDER-WIDTH NIL CLIPPING-REGION)
                 ))))

(DEFGLOBALVAR *SCREEN-BITMAP* (IL:SCREENBITMAP))

(DEFGLOBALVAR RENAISSANCE-BITMAP '
```



```
)

(DEFGLOBALPARAMETER SQUARES-BITMAP '
```



```
)

(DEFGLOBALPARAMETER TILE-BITMAP '
```



```
)

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

```
(IL:GLOBALVARS IL:WINDOWBACKGROUNDSHADE IL:WHOLESCREEN)
)

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

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