

File created: 5-Dec-87 20:03:36 {QV}<NOTECARDS>1.3L>LIBRARY>NCSCREEN.;1

changes to: (VARS NCSCREENCOMS)

previous date: 3-May-87 22:05:14 {QV}<NOTECARDS>1.3K>LIBRARY>NCSCREEN.;3

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

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;;
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(RPAQQ **NCSCREENCOMS**
((DECLARE%: DONTCOPY (PROP MAKEFILE-ENVIRONMENT NCSCREEN)))

;;; Functions for laying out sets of cards. Also some handy utility functions for windows.

(GLOBALVARS SCREEN.CascadeXSpace SCREEN.CascadeYSpace)
(VARS (SCREEN.CascadeXSpace 3)
(SCREEN.CascadeYSpace 8))
; Functions for laying out cards on the screen.
(FNS SCREEN.LayoutCardsInSquare SCREEN.LayoutCardsInCascade SCREEN.GetCascadePosition
SCREEN.LayoutCardsInSurround SCREEN.SurroundCardWithFileBoxContents)
; These move cards and windows.
(FNS SCREEN.MoveCardToPos SCREEN.MoveWinToPos SCREEN.WinShrinkAndPlace)
; These compute corner positions for windows.
(FNS SCREEN.WinLLCorner SCREEN.WinLRCorner SCREEN.WinULCorner SCREEN.WinURCorner)))

(DECLARE%: DONTCOPY

(PUTPROPS **NCSCREEN MAKEFILE-ENVIRONMENT** (:PACKAGE "IL" :READTABLE "INTERLISP" :BASE 10))
)

;;; Functions for laying out sets of cards. Also some handy utility functions for windows.

(DECLARE%: DOEVAL@COMPILE DONTCOPY

(GLOBALVARS SCREEN.CascadeXSpace SCREEN.CascadeYSpace)
)

(RPAQQ **SCREEN.CascadeXSpace** 3)

(RPAQQ **SCREEN.CascadeYSpace** 8)

;; Functions for laying out cards on the screen.

(DEFINEQ

(**SCREEN.LayoutCardsInSquare**
[LAMBDA (StartPos Cards) (* rht%: " 3-May-87 21:55")

(* * Layout the windows of Cards in a square with the upper left corner of the mess at StartPos.)

(LET ((NumCards (LENGTH Cards))
NumCols)
[SETQ NumCols (ADD1 (FIX (SQRT (SUB1 NumCards))
(for Card in Cards bind (Pos _ StartPos)
(Col _ 1)
NextRowPos Win
do (SCREEN.MoveCardToPos Card Pos)
(SETQ Win (NCP.CardWindow Card))
(if (EQ Col 1)
then (SETQ NextRowPos (SCREEN.WinLLCorner Win)))
(if (EQ Col NumCols)
then (SETQ Col 1)
(SETQ Pos NextRowPos)
else (SETQ Col (ADD1 Col))
(SETQ Pos (SCREEN.WinURCorner Win)))
finally (GIVE.TTY.PROCESS Win))

(**SCREEN.LayoutCardsInCascade**
[LAMBDA (StartPos Cards) (* rht%: " 3-Jan-85 19:54")

(* * Layout the windows of Cards in a cascaded, overlapping deck with the upper left corner of the mess at StartPos.)

(for Card in Cards bind (Pos _ StartPos)
Win
when (NCP.ValidCard Card) do (SCREEN.MoveCardToPos Card Pos)
(SETQ Win (NCP.CardWindow Card))
(SETQ Pos (SCREEN.GetCascadePosition Win)))

(SCREEN.GetCascadePosition

```
(PROG (Selection FileBoxChildren NumberOfChildren NumberDisplayed)
[COND
  (AND (NULL Card)
        (NULL Box))
    (NCP.PrintMsg NIL T "Select center card and a filebox." (CHARACTER 13))
  (OR (SETQ Selection (NCP.SelectCards))
      (RETURN)))
```

```

    (SETQ Card (CAR Selection))
    (SETQ Box (CADR Selection))
    (NULL Card)
    (NCP.PrintMsg NIL T "Select center card.")
    (OR (SETQ Card (CAR (NCP.SelectCards)))
        (RETURN)))
    (NULL Box)
    (NCP.PrintMsg NIL T "Select FileBox.")
    (OR (SETQ Box (CAR (NCP.SelectCards)))
        (RETURN))
    (SETQ FileBoxChildren (NCP.FileBoxChildren Box))
    (SETQ NumberOfChildren (LENGTH FileBoxChildren))
    (SETQ NumberDisplayed (SCREEN.LayoutCardsInSurround Card FileBoxChildren))
    (if (ILESSP NumberDisplayed NumberOfChildren)
        then (NCP.PrintMsg NIL T "Only able to display " NumberDisplayed " out of " NumberOfChildren "
            total cards." (CHARACTER 13))
    )
)

```

;; These move cards and windows.

(DEFINEQ

(**SCREEN.MoveCardToPos**

[LAMBDA (Card Pos Corner)

(* rht%: " 2-May-87 18:37")

(* * Move a card's window such that its Corner corner is at Pos.)

```

(DECLARE (GLOBALVARS NC.OffScreenPosition))
(SCREEN.MoveWinToPos (OR (NCP.CardWindow Card)
    (NCP.OpenCard Card NC.OffScreenPosition))
    Pos Corner])

```

(**SCREEN.MoveWinToPos**

[LAMBDA (Win Pos Corner)

(* rht%: " 3-May-87 21:54")

(* * Move a window such that its upper left corner is at Pos. Then possibly move it again to make sure it's all on the screen. Corner, if present, should be one of the litatoms UL, LL, UR, LR signifying which corner of the card should wind up at position Pos. Corner defaults to UL.)

```

(LET ((Region (WINDOWREGION Win)))
    [SELECTQ Corner
        (LL (MOVEW Win (fetch (POSITION XCOORD) of Pos)
            (fetch (POSITION YCOORD) of Pos)))
        (UR [MOVEW Win (ADD1 (DIFFERENCE (fetch (POSITION XCOORD) of Pos)
            (fetch (REGION WIDTH) of Region)))
            (ADD1 (DIFFERENCE (fetch (POSITION YCOORD) of Pos)
            (fetch (REGION HEIGHT) of Region)))]
        (LR (MOVEW Win (ADD1 (DIFFERENCE (fetch (POSITION XCOORD) of Pos)
            (fetch (REGION WIDTH) of Region)))
            (fetch (POSITION YCOORD) of Pos)))
        (MOVEW Win (fetch (POSITION XCOORD) of Pos)
            (ADD1 (DIFFERENCE (fetch (POSITION YCOORD) of Pos)
            (fetch (REGION HEIGHT) of Region)]
        (SETQ Region (MAKEWITHINREGION (COPY (WINDOWREGION Win))
            WHOLESCEEN))
        (MOVEW Win (fetch (REGION LEFT) of Region)
            (fetch (REGION BOTTOM) of Region])
    )
)

```

(**SCREEN.WinShrinkAndPlace**

[LAMBDA (Win)

(* rht%: " 2-May-87 18:39")

(* * Shrink the given window, if not already shrunk, and place in the upper left corner of Win.)

```

(DECLARE (GLOBALVARS NC.OffScreenPosition))
(LET ((WinULCorner (SCREEN.WinULCorner Win))
    ShrunkWin)
    (if (AND Win (SETQ ShrunkWin (SHRINKW Win NIL NC.OffScreenPosition)))
        then (SCREEN.MoveWinToPos ShrunkWin WinULCorner)
        else Win])
)

```

;; These compute corner positions for windows.

(DEFINEQ

(**SCREEN.WinLLCorner**

[LAMBDA (Win)

(* rht%: " 2-May-87 18:38")

(* * Return the position of the lower left corner of Win.)

```

(LET ((Region (WINDOWREGION Win)))

```

```
(create POSITION
  XCOORD _ (fetch (REGION LEFT) of Region)
  YCOORD _ (fetch (REGION BOTTOM) of Region])
```

(SCREEN.WinLRCorner

[LAMBDA (Win)

(* rht%: " 2-May-87 18:42")

(* * Return the position of the lower right corner of Win.)

```
(LET ((Region (WINDOWREGION Win)))
  (create POSITION
    XCOORD _ (fetch (REGION RIGHT) of Region)
    YCOORD _ (fetch (REGION BOTTOM) of Region]))
```

(SCREEN.WinULCorner

[LAMBDA (Win)

(* rht%: " 2-May-87 18:42")

(* * Return the position of the upper left corner of Win.)

```
(LET ((Region (WINDOWREGION Win)))
  (create POSITION
    XCOORD _ (fetch (REGION LEFT) of Region)
    YCOORD _ (fetch (REGION TOP) of Region)))
```

(SCREEN.WinURCorner

[LAMBDA (Win)

(* rht%: " 2-May-87 18:43")

(* * Return the position of the upper right corner of Win.)

```
(LET ((Region (WINDOWREGION Win)))
  (create POSITION
    XCOORD _ (fetch (REGION RIGHT) of Region)
    YCOORD _ (fetch (REGION TOP) of Region)))
```

)

(PUTPROPS NCSCREEN COPYRIGHT ("Xerox Corporation" 1984 1985 1987))

FUNCTION INDEX

SCREEN.GetCascadePosition	2	SCREEN.SurroundCardWithFileBoxContents	2
SCREEN.LayoutCardsInCascade	1	SCREEN.WinLLCorner	3
SCREEN.LayoutCardsInSquare	1	SCREEN.WinLRCorner	4
SCREEN.LayoutCardsInSurround	2	SCREEN.WinShrinkAndPlace	3
SCREEN.MoveCardToPos	3	SCREEN.WinULCorner	4
SCREEN.MoveWinToPos	3	SCREEN.WinURCorner	4

VARIABLE INDEX

NCSCREENCOMS	1	SCREEN.CascadeXSpace	1	SCREEN.CascadeYSpace	1
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PROPERTY INDEX

NCSCREEN	1
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