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edit by: rmk

changes to: (FNS DOCOBJ-INCLUDE-EDIT-WINDOWP)

previous date: 19-Mar-2024 19:36:25 {WMEDLEY}<lispusers>DOC-OBJECTS.;35

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

(RPAQQ **DOC-OBJECTSCOMS**

[

;;; This TEdit subsystem implements an extensible facility originally intended to provide bibliography and citation capabilities. The TEdit function  
;;; GET.OBJ.FROM.USER, the one triggered by typing ^O, calls the function PROMPTFOREVALED which is redefined by this subsystem to be  
;;; equivalent to the function DocObj-Acquire-Object. This function inserts IMAGEObjects into the current TEdit, and is driven by the variables  
;;; DocObjectsMenu and DocObjectsMenuCommands (analogous to BackgroundMenu and BackgroundMenuCommands). Each menu entry contains a  
;;; form that, when EVAL'd, creates and returns a particular kind of IMAGEOBJ. Note that this form is EVAL'd under the function DocObj-Acquire-Object,  
;;; which runs under the function GET.OBJ.FROM.USER, which gets TEXTSTREAM and TEXTOBJ as arguments. They can be (and are) used freely to  
;;; record state or other desired info. The image objects supplied by this subsystem are 'Eval'd Form' (i.e., the original behavior of ^O), 'Screen Snap'  
;;; (equivalent to right-buttoning in the background while holding the SHIFT key down), etc.

```
(FILES (SYSLOAD)
  TEDIT TEDIT IMAGEOBJ)
(DECLARE%: EVAL@COMPILE DONTCOPY (FILES TEDIT-EXPORTS.ALL))
(VARS (DocObjectsMenu NIL)
  (DocObjectsConfirmEditMenu NIL))
[INITVARS (DocObjectsMenuCommands NIL)
  (DocObjectsMenuFont (FONTCREATE ' (MODERN 12 BOLD))
  (COMS ;; The hook into GET.OBJ.FROM.USER
  (FNS DOCOBJ-ACQUIRE-OBJECT DOCOBJ-INIT DOCOBJ-TEDIT-MENU-ENTRY DOCOBJ-GET-LOOKS
    DOCOBJ-REGISTER-OBJECT DOCOBJ-STRING-IMAGEBOX DOCOBJ-WAIT-MOUSE DOCOBJ-INVOKE-IMAGEOBJFN
    DOCOBJ-BEFOREHARDCOPYFN DOCOBJ-AFTERHARDCOPYFN))
[COMS ;; Eval'd Form
  (FNS DOCOBJ-ACQUIRE-EVALED-OBJECT)
  (ADDVARS (DocObjectsMenuCommands ("Eval'd Form" (DOCOBJ-ACQUIRE-EVALED-OBJECT)
    "Insert the value of a form to be typed in"))
[COMS ;; Screen Snap
  (FNS DOCOBJ-ACQUIRE-SNAPPED-OBJECT)
  (ADDVARS (DocObjectsMenuCommands ("Screen Snap" (DOCOBJ-ACQUIRE-SNAPPED-OBJECT)
    "Insert a snap from the screen"))
[COMS ;; Time Stamp
  (DECLARE%: DONTCOPY (RECORDS DOCOBJ-TIMESTAMP))
  (FILES (SYSLOAD)
    DATEFORMAT-EDITOR)
  (FNS DOCOBJ-EDIT-TIMESTAMP DOCOBJ-MAKE-TIMESTAMP DOCOBJ-MAKE-TIMESTAMP-IMAGEFNS
    DOCOBJ-TIMESTAMP-BUTTONEVENTINFN DOCOBJ-TIMESTAMP-COPYFN DOCOBJ-TIMESTAMP-DISPLAYFN
    DOCOBJ-TIMESTAMP-GETFN DOCOBJ-TIMESTAMP-IMAGEBOXFN DOCOBJ-TIMESTAMP-PREPRINTFN
    DOCOBJ-TIMESTAMP-PUTFN DOCOBJ-TIMESTAMP-TO-STRING)
  (INITVARS (DocObjectsTimeStampFormat)
    (DOCOBJ-TIMESTAMP-IMAGEFNS (DOCOBJ-MAKE-TIMESTAMP-IMAGEFNS)))
  (ADDVARS (DocObjectsMenuCommands ("Time Stamp" (DOCOBJ-MAKE-TIMESTAMP)
    "Date & time this document is PUT"))
[COMS ;; File Stamp
  (FNS DOCOBJ-MAKE-FILESTAMP DOCOBJ-MAKE-FILESTAMP-IMAGEFNS DOCOBJ-FILESTAMP-COPYFN
    DOCOBJ-FILESTAMP-DISPLAYFN DOCOBJ-FILESTAMP-GETFN DOCOBJ-FILESTAMP-IMAGEBOXFN
    DOCOBJ-FILESTAMP-GET-FULLNAME DOCOBJ-FILESTAMP-NEW-FULLNAME DOCOBJ-FILESTAMP-PREPRINTFN
    DOCOBJ-FILESTAMP-PUTFN)
  (INITVARS (DOCOBJ-FILESTAMP-IMAGEFNS (DOCOBJ-MAKE-FILESTAMP-IMAGEFNS)))
  (ADDVARS (DocObjectsMenuCommands ("File Stamp" (DOCOBJ-MAKE-FILESTAMP)
    "Name of file to which this document was last PUT.")]
[COMS ;; Horizontal Rule
  (FILES (SYSLOAD)
    HRULE READNUMBER)
  (FNS DOCOBJ-MAKE-HRULE DOCOBJ-EDIT-HRULE DOCOBJ-HRULE-INIT DOCOBJ-HRULE-GET-WIDTH
    DOCOBJ-HRULE-BUTTONEVENTINFN)
  (VARS (DOCOBJ-HRULE-RULE-PAD)
    (DOCOBJ-HRULE-BLANK-PAD))
  (ADDVARS (DocObjectsMenuCommands ("Horizontal Rule" (DOCOBJ-MAKE-HRULE)
    "One or more horizontal rules")))
  (P (DOCOBJ-HRULE-INIT)))
[COMS ;; INCLUDE
  (DECLARE%: EVAL@COMPILE DONTCOPY (RECORDS INCLOBJ))
  (INITVARS (DOCOBJ-INCLUDE-SAFE T))
  (FNS DOCOBJ-MAKE-INCLUDE DOCOBJ-MAKE-INCLUDE-IMAGEFNS DOCOBJ-INCLUDE-CREATE-OBJ
    DOCOBJ-INCLUDE-EDIT DOCOBJ-INCLUDE-EDIT-WINDOWP DOCOBJ-INCLUDE-RESET-OBJ)
  (FNS DOCOBJ-INCLUDE-BEFOREHARDCOPYFN DOCOBJ-INCLUDE-CLEANUPFN DOCOBJ-INCLUDE-BUTTONEVENTINFN
```

```

DOCOBJ-INCLUDE-COPYFN DOCOBJ-INCLUDE-DISPLAYFN DOCOBJ-INCLUDE-GETFN DOCOBJ-INCLUDE-IMAGEBOXFN
DOCOBJ-INCLUDE-PREPRINTFN DOCOBJ-INCLUDE-PUTFN)
(INITVARS (DOCOBJ-INCLUDE-EDITMENU)
(DOCOBJ-INCLUDE-IMAGEFNS (DOCOBJ-MAKE-INCLUDE-IMAGEFNS)))
(ADVARS (DocObjectsMenuCommands ("Include" (DOCOBJ-MAKE-INCLUDE)
"Include another document right here when hardcopying"])
(DECLARE%: DONTEVAL@LOAD DOCOPY (P (DOCOBJ-INIT)))
(DECLARE%: EVAL@LOAD DONTCOPY (COMS (PROP FILETYPE DOC-OBJECTS)
(PROP MAKEFILE-ENVIRONMENT DOC-OBJECTS]))

```

;;; This TEdit subsystem implements an extensible facility originally intended to provide bibliography and citation capabilities. The TEdit function GET.OBJ.FROM.USER, the one triggered by typing ^O, calls the function PROMPTFOREVALED which is redefined by this subsystem to be equivalent to the function DocObj-Acquire-Object. This function inserts IMAGEOBJs into the current TEdit, and is driven by the variables DocObjectsMenu and DocObjectsMenuCommands (analogous to BackgroundMenu and BackgroundMenuCommands). Each menu entry contains a form that, when EVAL'd, creates and returns a particular kind of IMAGEOBJ. Note that this form is EVAL'd under the function DocObj-Acquire-Object, which runs under the function GET.OBJ.FROM.USER, which gets TEXTSTREAM and TEXTOBJ as arguments. They can be (and are) used freely to record state or other desired info. The image objects supplied by this subsystem are 'Eval'd Form' (i.e., the original behavior of ^O), 'Screen Snap' (equivalent to right-buttoning in the background while holding the SHIFT key down), etc.

```

(FILESLoad (SYSLOAD)
TEDIT TEDIT IMAGEOBJ)

```

```

(DECLARE%: EVAL@COMPILE DONTCOPY

```

```

(FILESLoad TEDIT-EXPORTS.ALL)
)

```

```

(RPAQQ DocObjectsMenu NIL)

```

```

(RPAQQ DocObjectsConfirmEditMenu NIL)

```

```

(RPAQ? DocObjectsMenuCommands NIL)

```

```

(RPAQ? DocObjectsMenuFont (FONTCREATE ' (MODERN 12 BOLD)))

```

;; The hook into GET.OBJ.FROM.USER

```

(DEFINEQ

```

**(DOCOBJ-ACQUIRE-OBJECT**

```

[LAMBDA NIL

```

; Edited 22-Jun-2023 14:14 by rmk  
; Edited 15-Oct-87 16:27 by Koomen

;;; This function is invoked by TEdit's GET.OBJ.FROM.USER (cf. the Library file IMAGEOBJ) after (CHANGENAME (QUOTE GET.OBJ.FROM.USER) (QUOTE PROMPTFOREVALED) (QUOTE DOCOBJ-ACQUIRE-OBJECT))

;;; When adding more items to the DocObjectsMenuCommands, do (SETQ DocObjectsMenu

```

(DECLARE (GLOBALVARS DocObjectsMenu DocObjectsMenuCommands DocObjectsMenuFont))
(CI:UNLESS (type? MENU DocObjectsMenu)
(SETQ DocObjectsMenu (create MENU
TITLE _ "Select object type: "
CENTERFLG _ T
ITEMS _ DocObjectsMenuCommands
MENUFONT _ DocObjectsMenuFont)))
(MENU DocObjectsMenu])

```

**(DOCOBJ-INIT**

```

[LAMBDA NIL

```

; Edited 8-Oct-87 21:32 by Koomen

;;; This function changes the behavior of standard TEdit such that ^O will invoke the DocObjects system; an entry to invoke the DocObjects system is also added to TEdit's middle button menu.

```

(DECLARE (GLOBALVARS TEDIT.DEFAULT.MENU))
(CHANGENAME 'GET.OBJ.FROM.USER 'PROMPTFOREVALED 'DOCOBJ-ACQUIRE-OBJECT)
(TEDIT.ADD.MENUITEM TEDIT.DEFAULT.MENU '(Object (FUNCTION DOCOBJ-TEDIT-MENU-ENTRY)
"Insert a Document Object"))

```

**(DOCOBJ-TEDIT-MENU-ENTRY**

```

[LAMBDA (TEXTSTREAM)

```

; Edited 8-Oct-87 21:31 by Koomen

;;; This is the entry point into the DocObjects system from TEdit's middle button menu. GET.OBJ.FROM.USER used to call PROMPTFOREVALED but DocObjects changes this into a call to DOCOBJ-ACQUIRE-OBJECT.

```

(GET.OBJ.FROM.USER TEXTSTREAM (TEXTOBJ TEXTSTREAM))

```

**(DOCOBJ-GET-LOOKS**

```

[LAMBDA (TEXTOBJ CH#ORCHARLOOKS)

```

; Edited 19-Mar-2024 19:36 by rmk  
; Edited 29-Oct-2022 21:30 by rmk  
(\* Koomen " 4-Feb-87 23:37")

;;; Adapted from {ERIS}<TEDIT>TEDITLOOKS.;30 dated '15-Oct-85 16:51:10' to return looks itself, rather than a proplist. (\* jds "10-Jul-85 16:02")

; Return a PLIST of character looks

```
(PROG ((TEXTOBJ (TEXTOBJ TEXTOBJ))
      LOOKS FONT NLOOKS)
      [COND
        ((type? CHARLOOKS CH#ORCHARLOOKS)
         (SETQ LOOKS CH#ORCHARLOOKS))
        ((ZEROP (FGETTOBJ TEXTOBJ TEXTLEN))
         (SETQ LOOKS (FGETTOBJ TEXTOBJ CARETLOOKS)))
        ((FIXP CH#ORCHARLOOKS)
         (SETQ LOOKS (PLOOKS (\TEDIT.CHTOPC (IMIN (FGETTOBJ TEXTOBJ TEXTLEN)
                                                  CH#ORCHARLOOKS)
                                                  TEXTOBJ)
                             (SETQ LOOKS (PLOOKS (\TEDIT.CHTOPC (IMIN (FGETTOBJ TEXTOBJ TEXTLEN)
                                                                      (GETSEL CH#ORCHARLOOKS CH#)
                                                                      TEXTOBJ)
                                                                      (NULL CH#ORCHARLOOKS)
                                                                      (SETQ LOOKS (PLOOKS (\TEDIT.CHTOPC (IMIN (FGETTOBJ TEXTOBJ TEXTLEN)
                                                                      (GETSEL (FGETTOBJ TEXTOBJ SEL)
                                                                      CH#)
                                                                      TEXTOBJ)
                                                                      (RETURN LOOKS))
```

; He handed us a CHARLOOKS. Unparse it for him.

; There's no text in the document. Use the extant caret looks.

; He gave us a CH# to get the looks of. Grab it.

; Get the looks of the selected text

; Get the looks of the selected text

;;; Now break the looks apart into a PROPLIST

```
(SETQ NLOOKS (\TEDIT.UNPARSE.CHARLOOKS.LIST LOOKS))
(RETURN NLOOKS)]
```

(DOCOBJ-REGISTER-OBJECT

```
[LAMBDA (OBJECT)
```

; Edited 23-Oct-87 14:48 by Koomen

;; The following ensures that all DocObjects get a chance to do whatever they want to before and after hardcopying. Each DocObject can associate a BEFOREHARDCOPYFN and/or an AFTERHARDCOPYFN with the ImageObj representing the DocObject

```
(DECLARE (SPECVARS TEXTOBJ))
(if OBJECT
  then (TEXTPROP TEXTOBJ 'BEFOREHARDCOPYFN (FUNCTION DOCOBJ-BEFOREHARDCOPYFN))
        (TEXTPROP TEXTOBJ 'AFTERHARDCOPYFN (FUNCTION DOCOBJ-AFTERHARDCOPYFN))
        OBJECT))
```

(DOCOBJ-STRING-IMAGEBOX

```
[LAMBDA (STRING IMAGESTREAM)
```

(\* Koomen " 9-Feb-87 17:22")

```
(DECLARE (SPECVARS CHNO TEXTOBJ))
(PROG (LOOKS CLOFFSET FONT DEVICE HEIGHT DESCENT)
      (SETQ LOOKS (DOCOBJ-GET-LOOKS TEXTOBJ CHNO))
      (SETQ CLOFFSET (fetch (CHARLOOKS CLOFFSET) of LOOKS))
      (SETQ FONT (fetch (CHARLOOKS CLFONT) of LOOKS))
      (if (NEQ (FONTPROP FONT 'DEVICE)
              (SETQ DEVICE (IMAGESTREAMTYPE IMAGESTREAM)))
          then (SETQ FONT (FONTCOPY FONT 'DEVICE DEVICE)))
      (SETQ HEIGHT (FONTHEIGHT FONT))
      (SETQ DESCENT (FONTPROP FONT 'DESCENT))
      (RETURN (create IMAGEBOX
                    XSIZE _ (STRINGWIDTH STRING FONT)
                    YSIZE _ (IPLUS HEIGHT (IABS CLOFFSET))
                    YDESC _ (IDIFFERENCE DESCENT CLOFFSET)
                    XKERN _ 0))
```

(DOCOBJ-WAIT-MOUSE

```
[LAMBDA (STREAM)
```

; Edited 8-Oct-87 23:46 by Koomen

```
(while (NOT (MOUSESTATE UP)) bind (REGION _ (DSPCLIPPINGREGION NIL STREAM))
  do (if (NOT (INSIDEP REGION (LASTMOUSEX STREAM)
                             (LASTMOUSEY STREAM)))
        then (RETURN NIL))
  finally (RETURN T))
```

(DOCOBJ-INVOKE-IMAGEOBJFN

```
[LAMBDA (CH# PIECE IMAGEOBJFNNAME)
```

; Edited 28-Jun-2023 19:45 by rmk  
; Edited 9-Sep-2022 16:10 by rmk  
; Edited 7-Sep-2022 23:11 by rmk  
; Edited 6-Sep-2022 10:05 by rmk  
; Edited 15-Oct-87 23:35 by Koomen

;; If PIECE is an IMAGEOBJ, invoke the function associated with the ImageObj property IMAGEOBJFNNAME on the IMAGEOBJ and the character position where the IMAGEOBJ is located.

```
(CL:WHEN (AND (type? PIECE PIECE)
              (EQ OBJECT.PTYPE (PTYPE PIECE)))
  (LET ((IMAGEOBJ (PCONTENTS PIECE))
        IMAGEOBJFN)
    (SETQ IMAGEOBJFN (IMAGEOBJPROP IMAGEOBJ IMAGEOBJFNNAME))
    (CL:WHEN (AND IMAGEOBJFN (DEFINEDP IMAGEOBJFN))
      (APPLY* IMAGEOBJFN IMAGEOBJ CH# PIECE))))]
```

(DOCOBJ-BEFOREHARDCOPYFN

[LAMBDA (TEXTSTREAM TEXTOBJ)

; Edited 16-Mar-2024 10:05 by rmk
; Edited 16-Jul-2023 16:53 by rmk
; Edited 10-Jul-2023 22:29 by rmk
; Edited 25-May-93 13:07 by sybalsky.mv:envos

:: This is the only BEFOREHARDCOPYFN, provided by DOC-OBJECTS. If the text doesn't contain any such objects, the property is NIL and the
:: piece-scan doesn't happen. This is installed in the TEXTOBJ by the call to DOCOBJ-REGISTER-OBJECT from every DOCOBJ create function.

(RESETLST

:: We don't want to update the display lines to show the intermediate state while we are updating the pieces.

(RESETSAVE (TEXTPROP TEXTOBJ 'DON'TUPDATE T)
\ (TEXTPROP ,TEXTOBJ 'DON'TUPDATE OLDVALUE))
(LET ((PREVEVENTS (GETTOBJ TEXTOBJ TXTHISTORY))
(OLDDIRTY (GETTOBJ TEXTOBJ \DIRTY))
(PREVSEL (\TEDIT.COPYSEL (TEXTSEL TEXTOBJ)))
FAILED)

:: This is a little tricky because the imageobj function may screw around with the piece containing the object, delete it or replace it
:: with something else. But presumably it links into the previous saved piece, and we continue from there.

[bind OBJ FN PREVPC (CH# \_ 1)
(PC \_ (\TEDIT.FIRSTPIECE TEXTOBJ)) while PC
do (SETQ PC (if (AND (EQ OBJECT.PTYPE (PTYPE PC))
(SETQ OBJ (PCONTEXTS PC))
(SETQ FN (IMAGEOBJPROP OBJ 'BEFOREHARDCOPYFN))
(DEFINEDP FN))
then (SETQ PREVPC (PREVPIECE PC))
(CL:UNLESS (APPLY\* FN TEXTOBJ OBJ PC CH#)
(SETQ FAILED T)
(RETURN))
(if PREVPC
then (NEXTPIECE (if (EQ PC (NEXTPIECE PREVPC))
then ;; Nothing affected this PC, advance
(add CH# (PLEN PC))
PC
else ;; Otherwise investigate its replacement
PREVPC))
elseif (EQ PC (\TEDIT.FIRSTPIECE TEXTOBJ))
then (add CH# (PLEN PC))
(NEXTPIECE PC)
else ;; Investigate the replacement of the previous first piece.
(\TEDIT.FIRSTPIECE TEXTOBJ))
else (add CH# (PLEN PC))
(NEXTPIECE PC]

; Restore previous settings
; The history event may restore SEL, but...

(SETTOBJ TEXTOBJ \DIRTY OLDDIRTY)

:: Make a single undoing event for the after fn

(for ETAIL on (GETTOBJ TEXTOBJ TXTHISTORY) until (EQ ETAIL PREVEVENTS) collect (CAR ETAIL)
finally (SETTOBJ TEXTOBJ TXTHISTORY (CONS \$\$VAL PREVEVENTS)))

:: In case something screws up, at least redisplaying will show something correctly (even if we aren't \DIRTY)

(\TEDIT.MARK.LINES.DIRTY TEXTOBJ 1 (TEXTLEN TEXTOBJ))
(CL:WHEN FAILED
(DOCOBJ-AFTERHARDCOPYFN TEXTSTREAM TEXTOBJ) ; UNDO whatever was saved
(SETTOBJ TEXTOBJ SEL PREVSEL)
'DON'T)))

(DOCOBJ-AFTERHARDCOPYFN

[LAMBDA (TEXTSTREAM TEXTOBJ)

; Edited 15-Mar-2024 14:24 by rmk
; Edited 15-Jul-2023 15:57 by rmk
; Edited 25-May-93 13:08 by sybalsky.mv:envos

(RESETLST

(RESETSAVE (TEXTPROP TEXTOBJ 'DON'TUPDATE T)
\ (TEXTPROP ,TEXTOBJ 'DON'TUPDATE OLDVALUE))
(LET ((PREVUNDONE (GETTOBJ TEXTOBJ TXTHISTORYUNDONE))
(TEDIT.UNDO TEXTOBJ)
(SETTOBJ TEXTOBJ TXTHISTORYUNDONE PREVUNDONE)
(\TEDIT.MARK.LINES.DIRTY TEXTOBJ 1 (TEXTLEN TEXTOBJ))
(\TEDIT.UPDATE.SCREEN TEXTOBJ)))

:: Eval'd Form

(DEFINEQ

(DOCOBJ-ACQUIRE-EVALED-OBJECT

[LAMBDA NIL

(\* Koomen "30-Sep-86 02:08")

(\* This is the original function called under GET.OBJ.FROM.USER \*)

(PROMPTFOREVALED "Form to eval: ")

```
)
(ADDTOVAR DocObjectsMenuCommands ("Eval'd Form" (DOCOBJ-ACQUIRE-EVALED-OBJECT)
                                     "Insert the value of a form to be typed in"))
;; Screen Snap
(DEFINEQ
(DOCOBJ-ACQUIRE-SNAPPED-OBJECT
  [LAMBDA NIL
    (GETREGION)])
  (* Koomen "26-Sep-86 16:55")
)
```

```
(ADDTOVAR DocObjectsMenuCommands ("Screen Snap" (DOCOBJ-ACQUIRE-SNAPPED-OBJECT)
                                     "Insert a snap from the screen"))
```

```
;; Time Stamp
(DECLARE%: DONTCOPY
(DECLARE%: EVAL@COMPILE
(RECORD DOCOBJ-TIMESTAMP (IDATE DATESTR FORMAT))
)
)
(FILESLoad (SYSLOAD)
  DATEFORMAT-EDITOR)
(DEFINEQ
```

```
(DOCOBJ-EDIT-TIMESTAMP
  [LAMBDA (TIMESTAMP)
    (PROG [(FORMAT (EDIT-DATEFORMAT (fetch (DOCOBJ-TIMESTAMP FORMAT) of TIMESTAMP)
    (if FORMAT
      then (replace (DOCOBJ-TIMESTAMP FORMAT) of TIMESTAMP with FORMAT)
      (replace (DOCOBJ-TIMESTAMP DATESTR) of TIMESTAMP with NIL)
      (RETURN TIMESTAMP)])
    (* Koomen " 4-Feb-87 14:08")
)
```

```
(DOCOBJ-MAKE-TIMESTAMP
  [LAMBDA NIL
    (DECLARE (GLOBALVARS DOCOBJ-TIMESTAMP-IMAGEFNS DocObjectsTimeStampFormat)
    (IMAGEOBJCREATE (create DOCOBJ-TIMESTAMP
      IDATE _ (IDATE)
      FORMAT _ DocObjectsTimeStampFormat)
      DOCOBJ-TIMESTAMP-IMAGEFNS))
    (* Koomen " 4-Feb-87 13:54")
)
```

```
(DOCOBJ-MAKE-TIMESTAMP-IMAGEFNS
  [LAMBDA NIL
    (LET ((DISPLAYFN (FUNCTION DOCOBJ-TIMESTAMP-DISPLAYFN))
          (IMAGEBOXFN (FUNCTION DOCOBJ-TIMESTAMP-IMAGEBOXFN))
          (PUTFN (FUNCTION DOCOBJ-TIMESTAMP-PUTFN))
          (GETFN (FUNCTION DOCOBJ-TIMESTAMP-GETFN))
          (COPYFN (FUNCTION DOCOBJ-TIMESTAMP-COPYFN))
          (BUTTONEVENTINFN (FUNCTION DOCOBJ-TIMESTAMP-BUTTONEVENTINFN))
          (COPYBUTTONEVENTINFN (FUNCTION NIL))
          (WHENMOVEDFN (FUNCTION NIL))
          (WHENINSERTEDFN (FUNCTION NIL))
          (WHENDELETEDFN (FUNCTION NIL))
          (WHENCOPIEDFN (FUNCTION NIL))
          (WHENOPERATEDONFN (FUNCTION NIL))
          (PREPRINTFN (FUNCTION DOCOBJ-TIMESTAMP-PREPRINTFN)))
      (IMAGEFNSCREATE DISPLAYFN IMAGEBOXFN PUTFN GETFN COPYFN BUTTONEVENTINFN COPYBUTTONEVENTINFN WHENMOVEDFN
        WHENINSERTEDFN WHENDELETEDFN WHENCOPIEDFN WHENOPERATEDONFN PREPRINTFN))
    ; Edited 8-Oct-87 22:53 by Koomen
)
```

```
(DOCOBJ-TIMESTAMP-BUTTONEVENTINFN
  [LAMBDA (IMAGEOBJ WINDOWSTREAM SELECTION RELX RELY WINDOW HOSTSTREAM BUTTON)
    ; Edited 8-Oct-87 23:43 by Koomen
    (if (AND (EQ BUTTON 'MIDDLE)
      (DOCOBJ-WAIT-MOUSE WINDOWSTREAM))
      then (ALLOW.BUTTON.EVENTS)
      (if (DOCOBJ-EDIT-TIMESTAMP (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM))
        then 'CHANGED))
)
```

```
(DOCOBJ-TIMESTAMP-COPYFN
  [LAMBDA (IMAGEOBJ SOURCEHOSTSTREAM TARGETHOSTSTREAM)
    (DECLARE (GLOBALVARS DOCOBJ-TIMESTAMP-IMAGEFNS))
    (IMAGEOBJCREATE (COPYALL (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM))
      DOCOBJ-TIMESTAMP-IMAGEFNS))
  (* Koomen "31-Jan-87 00:30")
)
```

**(DOCOBJ-TIMESTAMP-DISPLAYFN**

[LAMBDA (IMAGEOBJ IMAGESTREAM IMAGESTREAMTYPE HOSTSTREAM) (\* Koomen " 4-Feb-87 14:11")  
(PRINTOUT IMAGESTREAM (DOCOBJ-TIMESTAMP-TO-STRING (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM)))]

**(DOCOBJ-TIMESTAMP-GETFN**

[LAMBDA (FILESTREAM) (\* Koomen "31-Jan-87 00:19")  
(**DECLARE** (GLOBALVARS DOCOBJ-TIMESTAMP-IMAGEFNS))  
(IMAGEOBJCREATE (READ FILESTREAM)  
DOCOBJ-TIMESTAMP-IMAGEFNS)]

**(DOCOBJ-TIMESTAMP-IMAGEBOXFN**

[LAMBDA (IMAGEOBJ IMAGESTREAM CURRENTX RIGHTMARGIN) (\* Koomen " 9-Feb-87 17:13")  
(LET\* ((TIMESTAMP (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM))  
(TIMESTRING (DOCOBJ-TIMESTAMP-TO-STRING TIMESTAMP)))  
(**DOCOBJ-STRING-IMAGEBOX** TIMESTRING IMAGESTREAM))]

**(DOCOBJ-TIMESTAMP-PREPRINTFN**

[LAMBDA (IMAGEOBJ) ; Edited 8-Oct-87 22:29 by Koomen  
(**DOCOBJ-TIMESTAMP-TO-STRING** (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM))]

**(DOCOBJ-TIMESTAMP-PUTFN**

[LAMBDA (IMAGEOBJ FILESTREAM) (\* Koomen " 4-Feb-87 14:08")  
(PROG [(TIMESTAMP (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM))  
(**replace** (DOCOBJ-TIMESTAMP IDATE) **of** TIMESTAMP **with** (IDATE))  
(**replace** (DOCOBJ-TIMESTAMP DATESTR) **of** TIMESTAMP **with** NIL)  
(PRINT TIMESTAMP FILESTREAM)])]

**(DOCOBJ-TIMESTAMP-TO-STRING**

[LAMBDA (TIMESTAMP) (\* Koomen " 4-Feb-87 14:12")  
(OR (STRINGP (**fetch** (DOCOBJ-TIMESTAMP DATESTR) **of** TIMESTAMP))  
(**replace** (DOCOBJ-TIMESTAMP DATESTR) **of** TIMESTAMP **with** (GDATE (**fetch** (DOCOBJ-TIMESTAMP IDATE) **of** TIMESTAMP)  
(**fetch** (DOCOBJ-TIMESTAMP FORMAT) **of** TIMESTAMP)))]

)

(RPAQ? DocObjectsTimeStampFormat )

(RPAQ? DOCOBJ-TIMESTAMP-IMAGEFNS (DOCOBJ-MAKE-TIMESTAMP-IMAGEFNS))

(ADDTOVAR DocObjectsMenuCommands ("Time Stamp" (DOCOBJ-MAKE-TIMESTAMP)  
"Date & time this document is PUT"))

:: File Stamp

(DEFINEQ

**(DOCOBJ-MAKE-FILESTAMP**

[LAMBDA NIL ; Edited 8-Oct-87 22:55 by Koomen  
(**DECLARE** (SPECVARS TEXTOBJ)  
(GLOBALVARS DOCOBJ-FILESTAMP-IMAGEFNS))  
(IMAGEOBJCREATE (**DOCOBJ-FILESTAMP-NEW-FULLNAME** TEXTOBJ)  
DOCOBJ-FILESTAMP-IMAGEFNS)]

**(DOCOBJ-MAKE-FILESTAMP-IMAGEFNS**

[LAMBDA NIL ; Edited 8-Oct-87 22:54 by Koomen  
(LET ((DISPLAYFN (FUNCTION DOCOBJ-FILESTAMP-DISPLAYFN))  
(IMAGEBOXFN (FUNCTION DOCOBJ-FILESTAMP-IMAGEBOXFN))  
(PUTFN (FUNCTION DOCOBJ-FILESTAMP-PUTFN))  
(GETFN (FUNCTION DOCOBJ-FILESTAMP-GETFN))  
(COPYFN (FUNCTION DOCOBJ-FILESTAMP-COPYFN))  
(BUTTONEVENTINFN (FUNCTION NIL))  
(COPYBUTTONEVENTINFN (FUNCTION NIL))  
(WHENMOVEDFN (FUNCTION NIL))  
(WHENINSERTEDFN (FUNCTION NIL))  
(WHENDELETEDFN (FUNCTION NIL))  
(WHENCOPIEDFN (FUNCTION NIL))  
(WHENOPERATEDONFN (FUNCTION NIL))  
(PREPRINTFN (FUNCTION DOCOBJ-FILESTAMP-PREPRINTFN)))  
(IMAGEFNSCREATE DISPLAYFN IMAGEBOXFN PUTFN GETFN COPYFN BUTTONEVENTINFN COPYBUTTONEVENTINFN WHENMOVEDFN  
WHENINSERTEDFN WHENDELETEDFN WHENCOPIEDFN WHENOPERATEDONFN PREPRINTFN))]

**(DOCOBJ-FILESTAMP-COPYFN**

[LAMBDA (IMAGEOBJ SOURCEHOSTSTREAM TARGETHOSTSTREAM) (\* Koomen "31-Jan-87 04:10")  
(**DECLARE** (GLOBALVARS DOCOBJ-FILESTAMP-IMAGEFNS))  
(IMAGEOBJCREATE (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM)  
DOCOBJ-FILESTAMP-IMAGEFNS)]

**(DOCOBJ-FILESTAMP-DISPLAYFN**

[LAMBDA (IMAGEOBJ IMAGESTREAM IMAGESTREAMTYPE HOSTSTREAM) ; Edited 8-Oct-87 22:56 by Koomen  
(PRINTOUT IMAGESTREAM (DOCOBJ-FILESTAMP-GET-FULLNAME IMAGEOBJ))

**(DOCOBJ-FILESTAMP-GETFN**

[LAMBDA (FILESTREAM) ; Edited 8-Oct-87 22:58 by Koomen  
(**DECLARE** (GLOBALVARS DOCOBJ-FILESTAMP-IMAGEFNS))  
(**LET** ((FULLNAME (READ FILESTREAM))  
(IMAGEOBJCREATE (AND FULLNAME (MKSTRING FULLNAME))  
DOCOBJ-FILESTAMP-IMAGEFNS))

**(DOCOBJ-FILESTAMP-IMAGEBOXFN**

[LAMBDA (IMAGEOBJ IMAGESTREAM CURRENTX RIGHTMARGIN) ; Edited 8-Oct-87 22:59 by Koomen  
(**LET** ((FULLNAME (DOCOBJ-FILESTAMP-GET-FULLNAME IMAGEOBJ))  
(**DOCOBJ-STRING-IMAGEBOX** FULLNAME IMAGESTREAM))

**(DOCOBJ-FILESTAMP-GET-FULLNAME**

[LAMBDA (IMAGEOBJ NODEFAULTFLG) ; Edited 8-Oct-87 22:59 by Koomen  
(**PROG** [(FULLNAME (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM)  
(**RETURN** (OR (if FULLNAME  
                  **then** (if (LITATOM FULLNAME)  
                          **then** (MKSTRING FULLNAME)  
                          **elseif** (STRINGP FULLNAME)  
                          **then** (COPYALL FULLNAME)))  
(if (NOT NODEFAULTFLG)  
      **then** "-- not yet filed --"])

**(DOCOBJ-FILESTAMP-NEW-FULLNAME**

[LAMBDA (TEXTOBJ) ; Edited 8-Oct-87 22:52 by Koomen  
(**PROG** ((FULLNAME (FULLNAME TEXTOBJ))  
(**RETURN** (if FULLNAME  
          **then** (if (LITATOM FULLNAME)  
                  **then** (MKSTRING FULLNAME)  
                  **elseif** (STRINGP FULLNAME)  
                  **then** (COPYALL FULLNAME))

**(DOCOBJ-FILESTAMP-PREPRINTFN**

[LAMBDA (IMAGEOBJ) ; Edited 8-Oct-87 22:56 by Koomen  
(**DOCOBJ-FILESTAMP-GET-FULLNAME** IMAGEOBJ T)]

**(DOCOBJ-FILESTAMP-PUTFN**

[LAMBDA (IMAGEOBJ FILESTREAM) ; Edited 8-Oct-87 22:39 by Koomen  
(**PROG** [(FULLNAME (MKSTRING (FULLNAME FILESTREAM)  
(IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM FULLNAME)  
(**PRINT** FULLNAME FILESTREAM)]

)

(RPAQ? **DOCOBJ-FILESTAMP-IMAGEFNS** (DOCOBJ-MAKE-FILESTAMP-IMAGEFNS))

(**ADDTOVAR DocObjectsMenuCommands** ("File Stamp" (DOCOBJ-MAKE-FILESTAMP)  
  "Name of file to which this document was last PUT."))

:: Horizontal Rule

(FILESLOAD (SYSLOAD)  
          HRULE READNUMBER)

(DEFINEQ

**(DOCOBJ-MAKE-HRULE**

[LAMBDA NIL (\* Koomen " 4-Feb-87 16:12")  
(HRULE.CREATE (**bind** WIDTH **for** I **from** 1 **while** (AND (SETQ WIDTH (**DOCOBJ-HRULE-GET-WIDTH** (ODDP I)  
  (EQ I 1)))  
  (GREATERP WIDTH 0))  
          **collect** WIDTH])

**(DOCOBJ-EDIT-HRULE**

[LAMBDA (IMAGEOBJ) (\* Koomen " 4-Feb-87 15:45")  
(**PROG** [NEWWIDTH (OLDWIDTH (MKLIST (IMAGEOBJPROP IMAGEOBJ 'RULE.WIDTH)  
(SETQ NEWWIDTH (COPYALL OLDWIDTH))  
(**if** (AND (NLSETQ (EDITE NEWWIDTH))  
          (NOT (EQUAL NEWWIDTH OLDWIDTH)))  
      **then** (IMAGEOBJPROP IMAGEOBJ 'RULE.WIDTH NEWWIDTH)  
(**RETURN** IMAGEOBJ)]

**(DOCOBJ-HRULE-INIT**

[LAMBDA NIL (\* Koomen " 4-Feb-87 16:13")

(\* \* provide HRULE editing \* \*)

(DECLARE (GLOBALVARS HRULE.IMAGEFNS))
(replace (IMAGEFNS BUTTONEVENTINFN) of HRULE.IMAGEFNS with (FUNCTION DOCOBJ-HRULE-BUTTONEVENTINFN)
NIL))

(DOCOBJ-HRULE-GET-WIDTH

[LAMBDA (RULE? FIRST?) ; Edited 24-May-93 23:35 by sybalsky.mv:envos
(DECLARE (GLOBALVARS DOCOBJ-HRULE-BLANK-PAD DOCOBJ-HRULE-RULE-PAD LASTMOUSEX LASTMOUSEY))
[COND
((NULL DOCOBJ-HRULE-RULE-PAD)
(SETQ DOCOBJ-HRULE-RULE-PAD (CREATE.NUMBERPAD.READER "Rule width: " NIL NIL NIL T T))
(SETQ DOCOBJ-HRULE-BLANK-PAD (CREATE.NUMBERPAD.READER "Blank space: " NIL NIL NIL T T))
(COND
(FIRST? (MOVEW DOCOBJ-HRULE-RULE-PAD LASTMOUSEX LASTMOUSEY)
(MOVEW DOCOBJ-HRULE-BLANK-PAD LASTMOUSEX LASTMOUSEY)))
(NUMBERPAD.READ (COND
(RULE? DOCOBJ-HRULE-RULE-PAD)
(T DOCOBJ-HRULE-BLANK-PAD))
T])]

(DOCOBJ-HRULE-BUTTONEVENTINFN

[LAMBDA (IMAGEOBJ WINDOWSTREAM SELECTION RELX RELY WINDOW HOSTSTREAM BUTTON) ; Edited 8-Oct-87 23:43 by Koomen
(if (AND (EQ BUTTON 'MIDDLE)
(DOCOBJ-WAIT-MOUSE WINDOWSTREAM))
then (ALLOW.BUTTON.EVENTS)
(if (DOCOBJ-EDIT-HRULE IMAGEOBJ)
then 'CHANGED])
)

(RPAQQ DOCOBJ-HRULE-RULE-PAD NIL)

(RPAQQ DOCOBJ-HRULE-BLANK-PAD NIL)

(ADDTOVAR DocObjectsMenuCommands ("Horizontal Rule" (DOCOBJ-MAKE-HRULE)
"One or more horizontal rules"))

(DOCOBJ-HRULE-INIT)

:: INCLUDE

(DECLARE%: EVAL@COMPILE DONTCOPY

(DECLARE%: EVAL@COMPILE

(RECORD INCLOBJ (FILENAME ENABLEDP))

)

(RPAQ? DOCOBJ-INCLUDE-SAFE T)

(DEFINEQ

(DOCOBJ-MAKE-INCLUDE

[LAMBDA NIL ; Edited 15-Oct-87 14:54 by Koomen
(DECLARE (SPECVARS TEXTOBJ))
(PROG ((SUBFILE (TEDIT.GETINPUT TEXTOBJ "Enter file name: ")))
(if SUBFILE
then (RETURN (DOCOBJ-INCLUDE-CREATE-OBJ SUBFILE))
else (TEDIT.PROMPTPRINT TEXTOBJ "... aborted."))
)

(DOCOBJ-MAKE-INCLUDE-IMAGEFNS

[LAMBDA NIL ; Edited 23-Oct-87 00:20 by Koomen
(LET ((DISPLAYFN (FUNCTION DOCOBJ-INCLUDE-DISPLAYFN))
(IMAGEBOXFN (FUNCTION DOCOBJ-INCLUDE-IMAGEBOXFN))
(PUTFN (FUNCTION DOCOBJ-INCLUDE-PUTFN))
(GETFN (FUNCTION DOCOBJ-INCLUDE-GETFN))
(COPYFN (FUNCTION DOCOBJ-INCLUDE-COPYFN))
(BUTTONEVENTINFN (FUNCTION DOCOBJ-INCLUDE-BUTTONEVENTINFN))
(COPYBUTTONEVENTINFN (FUNCTION NIL))
(WHENMOVEDFN (FUNCTION NIL))
(WHENINSERTEDFN (FUNCTION NIL))
(WHENDELETEDFN (FUNCTION NIL))
(WHENCOPIEDFN (FUNCTION NIL))
(WHENOPERATEDONFN (FUNCTION NIL))
(PREPRINTFN (FUNCTION DOCOBJ-INCLUDE-PREPRINTFN)))
(IMAGEFNSCREATE DISPLAYFN IMAGEBOXFN PUTFN GETFN COPYFN BUTTONEVENTINFN COPYBUTTONEVENTINFN WHENMOVEDFN
WHENINSERTEDFN WHENDELETEDFN WHENCOPIEDFN WHENOPERATEDONFN PREPRINTFN))

(DOCOBJ-INCLUDE-CREATE-OBJ

[LAMBDA (INCLOBJ) ; Edited 21-Jun-2023 20:37 by rmk



; Edited 23-Oct-87 14:06 by Koomen

```
(DECLARE (GLOBALVARS DOCOBJ-INCLUDE-IMAGEFNS))
(LET (IMAGEOBJ
      (CL:WHEN (AND INCLOBJ (NLISTP INCLOBJ))
              ;; Just a file name
              (SETQ INCLOBJ (create INCLOBJ
                                   FILENAME _ (MKSTRING INCLOBJ)
                                   ENABLEDP _ T)))
      (SETQ IMAGEOBJ (IMAGEOBJCREATE INCLOBJ DOCOBJ-INCLUDE-IMAGEFNS))
      (DOCOBJ-INCLUDE-RESET-OBJ IMAGEOBJ)
      (DOCOBJ-REGISTER-OBJECT IMAGEOBJ)
      IMAGEOBJ])
```

(DOCOBJ-INCLUDE-EDIT

[LAMBDA (INCLOBJ)

; Edited 9-May-2018 11:09 by rmk:
; Edited 9-May-2018 10:35 by rmk:
; Edited 26-Oct-87 19:57 by Koomen

```
(DECLARE (SPECVARS TEXTOBJ))
(SELECTQ [MENU (OR DOCOBJ-INCLUDE-EDITMENU (SETQ DOCOBJ-INCLUDE-EDITMENU
                                                (create MENU
                                                  TITLE _ "Edit Include"
                                                  ITEMS _ ' ("New File" 'NEW.FILE "Include a different
                                                            file"
                                                            ("Edit File" 'EDIT.FILE "Edit the included
                                                            file"
                                                            ("Enable" 'ENABLE "Include the file during
                                                            hardcopy"
                                                            ("Disable" 'DISABLE "Do not include the file
                                                            during hardcopy"))
                                                  CENTERFLG _ T
                                                  MENUOFFSET _ ' (-1 . 30)
                                                  CHANGEOFFSETFLG _ 'Y]
(NEW.FILE (LET [(NEWNAME (TEDIT.GETINPUT TEXTOBJ "Enter new file name: " (fetch (INCLOBJ FILENAME)
                                                                                   of INCLOBJ]
                                          (if [AND NEWNAME (SETQ NEWNAME (MKSTRING NEWNAME))
                                              (NOT (EQUAL NEWNAME (fetch (INCLOBJ FILENAME) of INCLOBJ]
                                          then (replace (INCLOBJ FILENAME) of INCLOBJ with NEWNAME)
                                          T)))
(EDIT.FILE (for w in (OPENWINDOWS)
               bind [FULLNAME _ (OR [FINDFILE (fetch (INCLOBJ FILENAME) of INCLOBJ]
                                             T
                                             (CONS (PACKFILENAME.STRING 'HOST (FILENAMEFIELD (FETCH
                                                                                               TXTFILE
                                                                                               OF TEXTOBJ)
                                                                                               'HOST)
                                                                                               'DIRECTORY
                                                                                               (FILENAMEFIELD (FETCH TXTFILE OF TEXTOBJ)
                                                                                               'DIRECTORY]
                                                                                               (INFILEP (fetch (INCLOBJ FILENAME) of INCLOBJ]
                                          first (if (NULL FULLNAME)
                                                  then (TEDIT.PROMPTPRINT TEXTOBJ "Can't find " T)
                                                  (TEDIT.PROMPTPRINT TEXTOBJ (fetch (INCLOBJ FILENAME) of INCLOBJ))
                                                  (RETURN))
                                          when (SETQ W (DOCOBJ-INCLUDE-EDIT-WINDOWP FULLNAME W)) do (TOTOPW W)
                                                  (GIVE.TTY.PROCESS W)
                                                  (RETURN))
                                          finally (TEDIT (MKATOM FULLNAME))))
(ENABLE (if (NOT (fetch (INCLOBJ ENABLEDP) of INCLOBJ))
            then (replace (INCLOBJ ENABLEDP) of INCLOBJ with T)
            T))
(DISABLE (if (fetch (INCLOBJ ENABLEDP) of INCLOBJ)
            then (replace (INCLOBJ ENABLEDP) of INCLOBJ with NIL)
            T))
NIL])
```

(DOCOBJ-INCLUDE-EDIT-WINDOWP

[LAMBDA (FILENAME WINDOW)

; Edited 27-Mar-2024 23:42 by rmk
; Edited 26-Oct-87 19:53 by Koomen

```
(CL:WHEN (WINDOWP WINDOW)
  (OR (LET (TEXTOBJ TXTFILE)
        (CL:WHEN (AND (SETQ TEXTOBJ (TEXTOBJ WINDOW T))
                      (SETQ TXTFILE (GETTOBJ TEXTOBJ TXTFILE))
                      (STREAMP TXTFILE)
                      (SETQ TXTFILE (FULLNAME TXTFILE))
                      (OR (STRINGP TXTFILE)
                          (LITATOM TXTFILE))
                      (STRING-EQUAL FILENAME TXTFILE))
        WINDOW))
      (DOCOBJ-INCLUDE-EDIT-WINDOWP FILENAME (WINDOWPROP WINDOW 'ICONFOR]))]
```

(DOCOBJ-INCLUDE-RESET-OBJ

[LAMBDA (IMAGEOBJ)

; Edited 16-Jul-2023 10:02 by rmk
; Edited 23-Oct-87 14:09 by Koomen

```
(DECLARE (GLOBALVARS DOCOBJ-INCLUDE-IMAGEFNS))
(PROG (INCLOBJ FNAME)
  (if (SETQ INCLOBJ (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM))
    then (SETQ FNAME (fetch (INCLOBJ FILENAME) of INCLOBJ))
        (IMAGEOBJPROP IMAGEOBJ 'INCLDISPLAYSTRING (CONCAT "@Include[" FNAME "]"))
        (IMAGEOBJPROP IMAGEOBJ 'DONTINCLDISPLAYSTRING (CONCAT "@DoNotInclude[" FNAME "]"))))
  (IMAGEOBJPROP IMAGEOBJ 'BEFOREHARDCOPYFN (FUNCTION DOCOBJ-INCLUDE-BEFOREHARDCOPYFN))
  ;; There is now no need to cleanup afterwards--the TEDIT history undoes the inclusion and any other hardcopy stuff.
  (AND NIL (IMAGEOBJPROP IMAGEOBJ 'AFTERHARDCOPYFN (FUNCTION DOCOBJ-INCLUDE-AFTERHARDCOPYFN))
)
)
```

(DEFINEQ

**(DOCOBJ-INCLUDE-BEFOREHARDCOPYFN**

```
[LAMBDA (TEXTOBJ OBJ PC CH#)
; Edited 16-Feb-2024 23:47 by rmk
; Edited 23-Jul-2023 22:45 by rmk
; Edited 16-Jul-2023 11:14 by rmk
; Edited 10-Jul-2023 22:18 by rmk
; Edited 22-Jun-2023 16:44 by rmk
```

;; This replaces the PC, the piece with an included-file object, with the contents of that file. The undo event will restore the object. Since the piece  
;; with the object is deleted, its paragraph looks are ignored and only the lookos of the inserted file are interpreted. E.g., to get a page break before  
;; the included file, either the first piece of that file must be a page break, or a blank NEWPAGEBEFORE paragraph must come before the OBJ.'

;; Returns T if the inclusion is succeeds as intended, NIL otherwise.

;; Not sure why the INCLUDEDP property. If enabled, it's included.

```
(if (fetch (INCLOBJ ENABLEDP) of (IMAGEOBJPROP OBJ 'OBJECTDATUM))
  then (LET ([INCLFILE (fetch (INCLOBJ FILENAME) of (IMAGEOBJPROP OBJ 'OBJECTDATUM))
              (TXTFILE (GETTOBJ TEXTOBJ TXTFILE))
              INCLSTREAM)
            [SETQ INCLFILE (FINDFILE INCLFILE T (AND TXTFILE (CONS (PACKFILENAME.STRING
                                                                    'HOST
                                                                    (FILENAMEFIELD TXTFILE 'HOST)
                                                                    'DIRECTORY
                                                                    (FILENAMEFIELD TXTFILE 'DIRECTORY))
                                                                    DIRECTORIES)
              (if INCLFILE
                then ;; No point in prompting: it just flashes by
                     (AND NIL (TEDIT.PROMPTPRINT TEXTOBJ (CONCAT "Including " INCLFILE "...")
                                                                    T))
                     (\TEDIT.UPDATE.SEL (TEXTSEL TEXTOBJ)
                                           CH# 1 'LEFT T) ; Set the destination
                     (\TEDIT.DELETE TEXTOBJ (TEXTSEL TEXTOBJ)
                                                                    T)
                     (TEDIT.INCLUDE TEXTOBJ INCLFILE NIL NIL DOCOBJ-INCLUDE-SAFE)
                     (AND NIL (TEDIT.PROMPTPRINT TEXTOBJ (CONCAT "Including " INCLFILE "...done"))))
                else ;; Did not succeed as intended. Caller should restore the stream, maybe selecting and highlighting the bad inclusion.
                     (TEDIT.PROMPTPRINT TEXTOBJ (CONCAT "Included file " (fetch (INCLOBJ FILENAME)
                                                                              of OBJ)
                                                                    " not found")
                                                                    T T)
                     NIL))
            (else ;; Succeeded as intended
              T])
  NIL))
```

**(DOCOBJ-INCLUDE-CLEANUPFN**

```
[LAMBDA (TEXTSTREAM STARTPOS LEN)
; Edited 15-Mar-2024 14:08 by rmk
; Edited 11-Dec-2023 11:32 by rmk
; Edited 22-Jun-2023 16:53 by rmk
; Edited 6-Sep-2022 10:08 by rmk
; Edited 3-Jun-93 12:43 by sybalsky:mv:envos
```

;; Do the cleanup of removing an included file's pieces (and closing it) after hardcopying with inclusions.

```
(HELP "NOTUSED?" 'DOCOBJ-INCLUDE-CLEANUPFN)
(LET ((TEXTOBJ (TEXTOBJ TEXTSTREAM)))
  (for PC inselpieces (\TEDIT.SELPIECES STARTPOS (SUB1 (IPLUS STARTPOS LEN))
                      TEXTOBJ)
    when (MEMB (PTYPE PC)
              FILE.PTYPES)
      do (CLOSEF? (PCONTENTS PC)))
  ;; We don't want these deletes on the history list
  (replace (TEXTOBJ TXTHISTORY) of TEXTOBJ with (PROG1 (fetch (TEXTOBJ TXTHISTORY) of TEXTOBJ)
                                                       (TEDIT.DELETE TEXTSTREAM STARTPOS LEN)))
  (BLOCK])
```

**(DOCOBJ-INCLUDE-BUTTONEVENTINFN**

```
[LAMBDA (IMAGEOBJ WINDOWSTREAM SELECTION RELX RELY WINDOW HOSTSTREAM BUTTON)
; Edited 23-Oct-87 00:46 by Koomen
```

```
(if (AND (EQ BUTTON 'MIDDLE)
```

```

(DOCOBJ-WAIT-MOUSE WINDOWSTREAM)
then (ALLOW.BUTTON.EVENTS)
      (if (DOCOBJ-INCLUDE-EDIT (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM))
          then (DOCOBJ-INCLUDE-RESET-OBJ IMAGEOBJ)
              'CHANGED])

```

(DOCOBJ-INCLUDE-COPYFN

```

[LAMBDA (IMAGEOBJ SOURCEHOSTSTREAM TARGETHOSTSTREAM) ; Edited 23-Oct-87 00:13 by Koomen
  (DOCOBJ-INCLUDE-CREATE-OBJ (COPYALL (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM])

```

(DOCOBJ-INCLUDE-DISPLAYFN

```

[LAMBDA (IMAGEOBJ IMAGESTREAM IMAGESTREAMTYPE HOSTSTREAM) ; Edited 22-Jun-2023 14:00 by rmk
; Edited 23-Oct-87 14:42 by Koomen

(LET [(INCLOBJ (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM)]
      (CL:WHEN [AND INCLOBJ (OR (EQ IMAGESTREAMTYPE 'DISPLAY)
                               (NOT (fetch (INCLOBJ ENABLEDP) of INCLOBJ)
                                     [printout IMAGESTREAM (IMAGEOBJPROP IMAGEOBJ (if (fetch (INCLOBJ ENABLEDP) of INCLOBJ)
                                                                                       then 'INCLDISPLAYSTRING
                                                                                       else 'DONTINCLDISPLAYSTRING]))])

```

(DOCOBJ-INCLUDE-GETFN

```

[LAMBDA (FILESTREAM) ; Edited 26-Oct-87 22:00 by Koomen
  (LET ((INCLOBJ (READ FILESTREAM)))
    (if (NLISTP INCLOBJ)
        then ;; Version 1: Just filename as string
              ;; Version 2: List whose CAR is filename
              (SETQ INCLOBJ (create INCLOBJ
                                   FILENAME _ INCLOBJ))
        (if (NLISTP (CDR INCLOBJ))
            then ;; Version 3: List whose CADR is ENABLEDP flag
                (NCONC1 INCLOBJ T))
        (DOCOBJ-INCLUDE-CREATE-OBJ INCLOBJ))

```

(DOCOBJ-INCLUDE-IMAGEBOXFN

```

[LAMBDA (IMAGEOBJ IMAGESTREAM CURRENTX RIGHTMARGIN) ; Edited 23-Oct-87 14:41 by Koomen
  (OR (LET [(INCLOBJ (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM)]
            (if [AND INCLOBJ (OR (EQ (IMAGESTREAMTYPE IMAGESTREAM)
                                     'DISPLAY)
                               (NOT (fetch (INCLOBJ ENABLEDP) of INCLOBJ)
                                     then (DOCOBJ-STRING-IMAGEBOX (IMAGEOBJPROP IMAGEOBJ (if (fetch (INCLOBJ ENABLEDP) of INCLOBJ)
                                                                                       then 'INCLDISPLAYSTRING
                                                                                       else 'DONTINCLDISPLAYSTRING))
                                     IMAGESTREAM))
            (create IMAGEBOX
                    XSIZE _ 0
                    YSIZE _ 0
                    YDESC _ 0
                    XKERN _ 0])

```

(DOCOBJ-INCLUDE-PREPRINTFN

```

[LAMBDA (IMAGEOBJ) ; Edited 23-Oct-87 14:19 by Koomen
  (fetch (INCLOBJ FILENAME) of (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM])

```

(DOCOBJ-INCLUDE-PUTFN

```

[LAMBDA (IMAGEOBJ FILESTREAM) ; Edited 15-Oct-87 17:17 by Koomen
  (PRINT (IMAGEOBJPROP IMAGEOBJ 'OBJECTDATUM)
         FILESTREAM)
)

```

(RPAQ? DOCOBJ-INCLUDE-EDITMENU )

(RPAQ? DOCOBJ-INCLUDE-IMAGEFNS (DOCOBJ-MAKE-INCLUDE-IMAGEFNS))

(ADDTOVAR DocObjectsMenuCommands ("Include" (DOCOBJ-MAKE-INCLUDE) "Include another document right here when hardcopying"))

(DECLARE%: DONTEVAL@LOAD DOCOPY

(DOCOBJ-INIT)

(DECLARE%: EVAL@LOAD DONTCOPY

(PUTPROPS DOC-OBJECTS FILETYPE :TCOMPL)

(PUTPROPS DOC-OBJECTS MAKEFILE-ENVIRONMENT (:READTABLE "INTERLISP" :PACKAGE "INTERLISP" :BASE 10))

---

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