```
(RPAQQ COLOROBJCOMS
       [(FNS * COLOROBJFNS)
        (FILES COLOR)
        (INITVARS (COLOROBJ.DEFAULT.COLOR 'RED))
        (VARS (COLOROBJFNS '(COLOROBJ.CREATE COLOROBJ.DISPLAYFN COLOROBJ.GETFN COLOROBJ.IMAGEBOXFN
                                   COLOROBJ.PUTFN COLOROBJ.COPYFN COLOROBJ.WHENOPERATEDONFN))
         (COLOROBJ.IMAGEFNS (IMAGEFNSCREATE (FUNCTION COLOROBJ.DISPLAYFN)
                                     (FUNCTION COLOROBJ.IMAGEBOXFN)
                                     (FUNCTION COLOROBJ.PUTFN)
                                     (FUNCTION COLOROBJ.GETFN)
                                     (FUNCTION COLOROBJ.COPYFN)
                                     (FUNCTION COLOROBJ.BUTTONEVENTFN)
                                     (FUNCTION NILL)
                                     (FUNCTION NILL)
                                     (FUNCTION NILL)
                                     (FUNCTION NILL)
                                     (FUNCTION NILL)
                                     (FUNCTION COLOROBJ.WHENOPERATEDONFN)
                                     (FUNCTION NILL])

(RPAQQ COLOROBJFNS (COLOROBJ.CREATE COLOROBJ.DISPLAYFN COLOROBJ.GETFN COLOROBJ.IMAGEBOXFN COLOROBJ.PUTFN
                          COLOROBJ.COPYFN COLOROBJ.WHENOPERATEDONFN))

(DEFINEQ
```

(**COLOROBJ.CREATE**
```
  [LAMBDA (COLOR)                                              (* gbn "13-Jan-86 16:00")

          (* * create a color object. color is anything acceptable to dspcolor
          (atoms on colornames, rgb triples, indices))

    (LET ((COLOROBJ (IMAGEOBJCREATE NIL COLOROBJ.IMAGEFNS)))
         (IMAGEOBJPROP COLOROBJ 'COLOR (OR COLOR COLOROBJ.DEFAULT.COLOR))
         COLOROBJ])
```

(**COLOROBJ.DISPLAYFN**
```
  [LAMBDA (COLOROBJ IMAGE.STREAM)                              (* gbn "13-Jan-86 17:51")

          (* On the display a color object shows up as the color name, otherwise it has no image.
          On any stream it has the sideeffect of changing the foreground color)

    (LET* ((COLOR (IMAGEOBJPROP COLOROBJ 'COLOR))
           (X (DSPXPOSITION NIL IMAGE.STREAM))
           (Y (DSPYPOSITION NIL IMAGE.STREAM)))
          (DSPCOLOR COLOR IMAGE.STREAM)
          (SELECTQ (IMAGESTREAMTYPE IMAGE.STREAM)
              (DISPLAY (DSPFONT '(WEIGHT BOLD)
                             IMAGE.STREAM)
                       (LET* ((STRING (IMAGEOBJPROP COLOROBJ 'COLOR))
                              (STRINGREGION (STRINGREGION STRING IMAGE.STREAM))
                              (LEFT (ADD1 (fetch (REGION LEFT) of STRINGREGION)))
                              (BOTTOM (fetch (REGION BOTTOM) of STRINGREGION))
                              (REGION (create REGION
                                             LEFT _ LEFT
                                             BOTTOM _ BOTTOM
                                             HEIGHT _ (IPLUS (fetch (REGION HEIGHT) of STRINGREGION)
                                                            2)
                                             WIDTH _ (IPLUS (fetch (REGION WIDTH) of STRINGREGION)
                                                            6)))
                              (TOP (fetch (REGION TOP) of REGION))
                              (RIGHT (fetch (REGION RIGHT) of REGION)))
                             (IMAGEOBJPROP COLOROBJ 'REGION REGION)
                             (CENTERPRINTINREGION STRING REGION IMAGE.STREAM)
                             (DRAWLINE LEFT BOTTOM LEFT (SUB1 TOP)
                                    1
                                    'INVERT IMAGE.STREAM)
                             (DRAWLINE LEFT TOP (SUB1 RIGHT)
                                    TOP 1 'INVERT IMAGE.STREAM)
```

```
                                    (DRAWLINE RIGHT TOP RIGHT (ADD1 BOTTOM)
                                             1
                                             'INVERT IMAGE.STREAM)
                                    (DRAWLINE RIGHT BOTTOM (ADD1 LEFT)
                                             BOTTOM 1 'INVERT IMAGE.STREAM)))
                (NILL])
```

₍**COLOROBJ.GETFN**
```
  [LAMBDA (INPUT.STREAM TEXTSTREAM)                         (* gbn "13-Jan-86 15:42")
                                                           (* reads the COLOR and creates an COLOROBJ)

    (COLOROBJ.CREATE (READ INPUT.STREAM])
```

₍**COLOROBJ.IMAGEBOXFN**
```
  [LAMBDA (COLOROBJ IMAGE.STREAM CURRENT.X RIGHT.MARGIN)   (* gbn "13-Jan-86 16:01")

         (* * Returns a null imagebox, except to the display, where it returns the size of the box)

    (LET NIL (SELECTQ (IMAGESTREAMTYPE IMAGE.STREAM)
                (DISPLAY (create IMAGEBOX
                                XSIZE _ (IPLUS (STRINGWIDTH (IMAGEOBJPROP COLOROBJ 'COLOR)
                                                    (DSPFONT NIL IMAGE.STREAM))
                                        8)
                                YSIZE _ (IPLUS (FONTHEIGHT (DSPFONT NIL IMAGE.STREAM))
                                        4)
                                YDESC _ 4
                                XKERN _ 0))
                    (create IMAGEBOX
                        XSIZE _ 0
                        YSIZE _ 0
                        YDESC _ 0
                        XKERN _ 0])
```

₍**COLOROBJ.PUTFN**
```
  [LAMBDA (COLOROBJ OUTPUT.STREAM)                          (* gbn "13-Jan-86 15:57")
                                                           (* prints only the color to the file)

    (PRINT (IMAGEOBJPROP COLOROBJ 'COLOR)
           OUTPUT.STREAM])
```

₍**COLOROBJ.COPYFN**
```
  [LAMBDA (IMAGEOBJ FROMSTREAM TOSTREAM)                    (* gbn "13-Jan-86 15:58")
    (COLOROBJ.CREATE (IMAGEOBJPROP IMAGEOBJ 'COLOR)
           TOSTREAM])
```

₍**COLOROBJ.WHENOPERATEDONFN**
```
  [LAMBDA (A B C C)                                         (* gbn " 6-Jan-85 13:23")
                                                           (* DUMMY)
    ])
)

(FILESLOAD COLOR)

(RPAQ? COLOROBJ.DEFAULT.COLOR 'RED)

(RPAQQ COLOROBJFNS (COLOROBJ.CREATE COLOROBJ.DISPLAYFN COLOROBJ.GETFN COLOROBJ.IMAGEBOXFN COLOROBJ.PUTFN
                        COLOROBJ.COPYFN COLOROBJ.WHENOPERATEDONFN))

(RPAQ COLOROBJ.IMAGEFNS
      (IMAGEFNSCREATE (FUNCTION COLOROBJ.DISPLAYFN)
              (FUNCTION COLOROBJ.IMAGEBOXFN)
              (FUNCTION COLOROBJ.PUTFN)
              (FUNCTION COLOROBJ.GETFN)
              (FUNCTION COLOROBJ.COPYFN)
              (FUNCTION COLOROBJ.BUTTONEVENTFN)
              (FUNCTION NILL)
              (FUNCTION NILL)
              (FUNCTION NILL)
              (FUNCTION NILL)
              (FUNCTION NILL)
              (FUNCTION COLOROBJ.WHENOPERATEDONFN)
              (FUNCTION NILL)))

(PUTPROPS COLOROBJ COPYRIGHT ("Venue & Xerox Corporation" 1985 1986 1987 1990))
```