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## SHOWTIME

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Uses: BITMAPFNS, SCALEBITMAP, READBRUSH

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### INTRODUCTION

SHOWTIME provides a user interface to read, write, and edit bitmaps in several different formats. Among the supported formats is RES, used in VIEWPOINT Freehand Graphics. Other supported formats include Brush (Mesa Doodle format); and Lisp.

SHOWTIME has been written to readily accomodate new formats. Users may add new formats to Showtime by writing format-specific read and/or write functions and adding them to those Showtime knows about (described below).

Selecting SHOWTIME from the background will provide the user the opportunity to specify an area to use as the SHOWTIME window. After the user creates a SHOWTIME window, a left mouse button within the window will popup a menu of available options. There may only be one bitmap displayed in a SHOWTIME window at a time, but any number of SHOWTIME windows may be opened. Shrinking a SHOWTIME window will create an icon with the name of the bitmap that is displayed in the window.

### Functions, Variables, and Lisp Code Examples

SHOWTIME.FORMAT.FNS [Variable]

A global association list that maintains a list of all the formats Showtime knows about and the read and write functions to use with those formats. This variable should be updated by calling the function SHOWTIME.ADD.FORMAT to ensure successful integration of any new bitmap formats.

SHOWTIME.DEFAULT.FORMAT [Variable]

A variable that is initially set to 'LISP. This format uses the binary storage routines found in the lispusers module BITMAPFNS.

(SHOWTIME.ADD.FORMAT *FORMAT READFN SAVEFN*) [Function]

A function that should be called when the user wants Showtime to know about new bitmap formats. *FORMAT* may be any descriptive atom, such as RES or LISP. *READFN* and *SAVEFN* must be functions that have as the first two arguments FILENAME and BITMAP. In addition, the READFN must return a bitmap.

For example, the READFN code for LISP format is:

```
(LAMBDA (FILENAME)

(* this function must <1> read a bitmap from a file and <2> return the value
of the bitmap)

  (READBM (OPENFILE FILENAME (QUOTE INPUT))))
```

For example, the WRITEN code for LISP format is:

```
(LAMBDA (FILENAME BITMAP) (* TBigham "30-Dec-86 13:09")

(* this function must write a bitmap to a file)

  (WRITEBM (OPENFILE FILENAME (QUOTE OUTPUT)) BITMAP))
```

### **ACKNOWLEDGEMENTS**

SHOWTIME was originally developed to provide a user interface in the exchange of bitmaps between the VIEWPOINT and INTERLISP-D environments. Tom Wall initiated the idea to exchange bitmaps between these environments and was instrumental in developing the code to write RES files. Gary Gocek originally wrote the code to read RES files; Mitch Garnaat wrote the code to write BRUSH files; reading brush files is supported by the lispusers module READBRUSH written by Larry Masinter. The SHOWTIME icon was designed and created by Mary Baecher-Cocca.