

## **Introduction.**

*GTMOUSE* is a Borland Pascal 6.0 & 7.0 Unit for mouse handling. *GTMouse* is not a mouse driver, it works over any standard mouse driver. If included it converts standard block mouse cursor in smoothly moving across the screen arrow-like mouse cursor in TEXT MODE of video adapter. This is similar to Norton Utilities 6.0, PCTools 7.0 and some others programs. *GTMouse* will make your application program much more attractive and professionally looking. This is possible only for EGA or VGA adapters, it don't do anything on others adapters.

Initially developed for Borland's *Turbo Vision* package, it may be used with various TP mouse drivers, such as TurboPower Software's *Object Professional*, IdSoft D&M's *MouseLib* and others.

News in version 1.3.

- The support of BP7 protected mode;
- Internal Sleeper is included in unit.

## **File List.**

This package contains the following files.

GTMOUSE6.TPU - TP 6.0 unit (rename to GTMOUSE.TPU)  
GTMOUSE.TPU - TP 7.0 unit  
GTMOUSE.TPP - BP 7.0 protected mode unit  
GTMOUSE.DOC - this file  
GTMOUSE.WRI - the same as GTMOUSE.DOC but in Windows 3.1 Write format  
GTMOUSE.TXT - interface section of *GTMouse*.TPU  
GTMOUSE.REG - registration File.

TVBDEMO.PAS - simple Turbo Vision sample program with  
TVBDEMO.EXE *GTMouse* included. Slow modification of Borland's TVGUID14.PAS.

LIBDEMO.PAS - MouseLib 6.0 sample with *GTMouse* included  
LIBDEMO.EXE

OPDEMO.PAS - Object Professional Mouse sample with *GTMouse* included  
OPDEMO.EXE

## **1. Usage of *GTMouse*.**

Simply copy *GTMOUSE*.TPU file in your TPU direction and include *GTMouse* in **use** clause of your program

```
uses GTMouse,...{any others TPUs};
```

ATTENTION. The *GTMouse* must be the FIRST used TPU of program. More accuratly it must precede any TP mouse driver (such as Drivers of Turbo Vision package).

Now recompile and run your program. You will see the arrow-like mouse cursor which is smoothly moving over the screen and changing with pushing of any mouse button. Besides this the behavior of your program doesn't have to change.

You can use *GTMouse* without any additional calls, but they can improve your program.

### **1.1 Mouse Cursor Form Changing.**

*GTMouse* contains some predefined mouse cursor images. There are two procedures to select mouse cursor image

```
SelectNotPressedImage (nmImage:ImageNames) ;
SelectPressedImage (nmImage:ImageNames) ;
```

for notpressed and pressed mouse button respectively. Moreover you can make your own image and connect it with any ImageName by procedure

```
LinkUserImageWith (nmImage:ImageNames,MyArrow:ImageArray) ;
```

where ImageArray = array[0..15] of byte. Example of Cursor Image:

Byte	BitMap	MyArrow
0	00000000	\$00
1	01000000	\$40
2	01100000	\$60
3	01110000	\$70
4	01111000	\$78
5	01111100	\$7c
6	01111110	\$7e
7	01111000	\$78
8	01101100	\$6c
9	01001100	\$4c
10	00001100	\$0c
11	00001100	\$0c
12	00000000	\$00
13	00000000	\$00
14	00000000	\$00
15	00000000	\$00

## **1.2 Activate and deactivate GTMouse.**

There are two procedures

```
DoneGTMouse;
InitGTMouse;
```

to deactivate and reactivate GTMouse respectively.

If your program use COMMAND.COM to start other programs or run DOS shell you must deactivate GTMouse before this and reactivate it after:

```
. . . .
DoneGTMouse; {Deactivate GTMouse}
SwapVectors;
Exec (GetEnv ('COMSPEC'),...);
SwapVectors;
InitGTMouse; {Reactivate GTMouse}
. . . .
```

At the program beginning GTMouse activates automatically.

## **1.3 Reserved symbols.**

If you are using GTMouse there are eight symbols (from 256 possible) which can't be used to screen output. These symbols reserved by GTMouse to dynamically redefine their views to form graphics mouse cursor. By default they are (#01, #02, #03, #04, #208, #209, #215, #216). To replace them with any others use

```
ChangeCursorArray (var mArray) ;
```

where parameter is array[1..8] of chars. Last four characters must be in pseudo graphics

range (\$c0..\$df), first four must not be in this range. Last demand connected with VGA peculiarities in text mode.

#### **1.4 Internal Sleeper.**

Sleeper activates automatically with default params. You can reactivate it at any moment with

```
InitSleeper (nWaitTime, xUpLeft, yUpLeft, xDnRight, yDnRight);
```

where

nWaitTime is a no-event waiting time to sleep (in seconds), other params - screen region in which the occurrence of mouse cursor cause the "sleeping" of program. The default is

```
InitSleeper (30, 80, 1, 80, 1);
```

To deactivate sleeper simply set variable *Sleeper* to **false**.

#### **2. About samples.**

TVBDEMO.EXE is not a special GTMouse sample, it is slightly modified Turbo Vision Guide example TVGUID14.PAS. Besides GTMouse we include only the possibility to change mouse cursor form (with Alt-H key or from status line). You can look also the modified windows and buttons views, to compare compile and run TVBDEMO.PAS with your compiler and Turbo Vision TPU's. This TVBDEMO.EXE has been compiled with our own version of TurboVision TPU's, all registered users of GTMouse can obtain them on special request.

Others samples illustrate the technique of GTMouse usage with Object Professional and MouseLib packages. The main advise is to avoid any screen SCROLLs and screen SAVING/RESTORING with active mouse cursor, so your code must be something about

```
. . . . .
HideMouse; {call to hide mouse in your mouse driver}
{Any screen changing code}
ShowMouse;
. . . . .
```

#### **3. Some recommendations.**

- deactivate GTMouse when use internal debugger of Turbo Pascal IDE;
  - deactivate GTMouse before any videomode change. GTMouse works with various screen text modes, simply reactivate it after mode changing.
- Important.* Deactivate GTMouse in graphics modes.

#### **4. Registration.**

The Graphic mouse cursor in Text mode unit (GTMouse) is provided on 'as is' basis without warranty of any kind, expressed or implied. The person using the software bears all risk as to the quality and performance of the software.

We will try to extend our support to unregistered users during their evaluation period, however we reserve the right to limit our support for unregistered users if their requests become taxing for us. For registered users the support is unlimited. Questions and any comments on this unit and source code can be send to us via E-Mail addresses.

**evsikov@lcta5.jinr.dubna.su** or  
**sychov@jinr.dubna.su**

or via usual mail to

**Igor Evsikov**  
**LCTA, Joint Institute for Nuclear Research, (Dubna)**  
**PO Box 79, Head Post Office**  
**101000 Moscow Russia**

For registration details look file GTMOUSE.REG.

Russia, Dubna, June 30 1993.

□