PointerEyesV3.0

John Hughes

COLLABORATORS			
	TITLE : PointerEyesV3.0		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY	John Hughes	August 24, 2022	

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME

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PointerEyesV3.0

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```
                              Pointer Eyes v3.0
                    October 17, 1994


                    by: John Hughes
            johughes@heartland.bradley.edu

   PointerEyesV3.0 © 1994 John Hughes.  All Rights Reserved.
```

This is the documentation which describes how to use Pointer Eyes, a
public screen add-on which displays two eye balls that watch your
mouse pointer and do little eye tricks every now and then.

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1.2 Author & Tech

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```
Program:        PointerEyes
Version:        3.0
Date:           October 17, 1994
Coded by:       John Hughes
Email:          johughes@heartland.bradley.edu
Compiled with:  SAS/C 6.51
Machine:        A4000 68EC030/25  AmigaDOS 3.1
Required:       AmigaDOS 2.04 or above


Beta Testers:   Very special thanks go to all the people on
                the #amiga channel on IRC who helped out
                with the beta testing and those who kept
                leaving me mail with suggestions and testing
                results.

Distribution:   Pointer Eyes V3.0 is Shareware.
                As long as all of the archive stays intact and
                unmodified, Pointer Eyes v3.0 may be distributed
                anywhere.
```

1.3 Contributions

Contributions

Pointer Eyes V3.0 is Shareware.

If you use Pointer Eyes, please send a small contribution in the
form of USA cash, checks, money order... I'm not too picky,
and I'm not asking for much. :)

What is a Small Donation?

  As little as $1.00 (One USA dollar).
  However I would prefer $5.00.

Send contribution to:

  John Hughes
  901 Highview Rd.
  East Peoria, IL 61611 USA

And even if you don't use Pointer Eyes, or don't like it, please
send me EMail telling me why. Thanks. :)

1.4 Synopsis

                    How to use Pointer Eyes?

  It's SIMPLE!
  Just drop it in your WBStartup directory or anywhere else you want
  and double click its icon.
  The settings for Pointer Eyes are stored in it's Workbench icon.

What is Pointer Eyes?

  PointerEyes places a pair of eyes on the title bar of the public
  screen of your choice. The eyes will look at your pointer as you
  move it around the screen, periodically blinking, rolling, or
  going to sleep when you don't move the mouse for a while. It
  will also monitor the env:sys directory for any changes so that
  if it is on the workbench screen, the screen can close and
  reopen when preferences are changed. You can also have the eyes
  follow you and jump from public screen to public screen.

Why use Pointer Eyes?

  o It's small.
  o It stays out of the way by staying on the title bar and can stay
    behind, in front, or float in the other window layers.
  o It enhances the appearance of any public screen.
  o If it is on the workbench screen, you don't have to quit Pointer
    Eyes everytime you change any system preferences so that the
    workbench screen will close.
  o The preferences window uses
            MUI
            version 8.

1.5 Archive Contents

```
                        Archive Contents


  Here are the explanations for all of the files with in this archive.


  File                          Explanation
  ----                          -----------


PointerEyesV3.0
  PointerEyes               --->   Executable
  PointerEyes.info          --->   MagicWB icon for PointerEyes
  PointerEyes.icon2.info    --->   4 color icon for PointerEyes
  PointerEyesV3.0.guide     --->   Documentation in AmigaGuide format
  v1.1.source               --->   Source code directory
    PointerEyesV1.1.c        --->   Source code for Version 1.1
    PointerEyes.Images       --->   Image Source code for Version 1.1
    SCoptions                --->   Configuration file for SAS/C 6.51
    Makefile.gcc             --->   The make file for the GCC compiler


  Why are two icons supplied?

    Use whichever icon you like best.  One was designed to be used
    with MagicWb, and the other is just a four color icon.
```

1.6 Preferences Window

```
                            Preferences Window



      In order to use the Preferences Window, You must have

            MUI
            (Magic User Interface Version 8).  If you do not have it
      installed, you will not be able to use the Preferences
      Window, and Pointer Eyes will not be a commodity.
      The full version of
            MUI
            is not required.




            Activating Prefs Window
                                  Preferences

  Load          Load settings from tooltypes in icon.
  Save          Save settings as tooltypes in icon.
  Default       Reset all settings to the built in default.


                  Follow Public Screen
```

```
   Don't Follow           Eyes don't jump to other public screens
   Frontmost              Eyes always jump to frontmost screen (if public)
   Active                 Eyes always jump to the active public screen


                          Eye Size

   Automatic              Autodetermine the size of the eyes to use.
   Small                  Use the small eyes.
   Big                    Use the big eyes.  (recomended! with 11pt font)

                         Window Depth

   Floating               Eyes hvae no preference to window layers.
   Always Behind          Eyes are always behind all other windows.
   Always in Front        Eyes are always in front of all other windows.


                          Options #2

   Center In Titlebar     Always center the window in the title bar.
   Lock Window            Lock Pointer Eyes window.


                      Color Palettes

   Auto Background Color  Use the title bar's color for background.
   Background Color       Select a background color.

   Auto Eye Color         Use the title bar's text color for eyes.
   Eye Color              Select an eye color.


                          Project

   Show Eyes              Show the eyes on the screen.
   Hide Eyes              Remove the eyes from the screen.
   Hide Prefs             Close the Preferences Window.
   Quit                   Quit Pointer Eyes program.
   About                  Display information on Pointer Eyes.


 For more information on the menus, see
              Tooltypes
            .
```

1.7 Activating Preferences Window

```
                        Activating Preferences Window


 I must stress again that you must have
              MUI
```

```
                    version 8+ for this.
```

There are two ways to do this:
----

  1) Double click the left mouse button on the eyes.

  2) In the commodities Exchange program, click on
      Pointer Eyes 3.0 in the list, then select Show Interface.

Screen for Preferences Window:

  Using the
                  MUI
                  preferences program, you can set where you
  want the Pointer Eyes Preferences window to show up.
  (ie. Frontmost, active, or a particular public screen)

1.8 Tooltypes

                    Description of the icon tooltypes

  The following are the tooltypes in which Pointer Eyes gets its settings
  from when it is started.

  The tooltypes can be marked out so that they are not defined by placing
  parenthesis around the keyword. For example (LOCKED).

LOCKED
    If this tooltype exists, the Pointer Eyes window will not be
    dragable, and it will always remain behind all other windows
    on the public screen.

BACKPEN=
    This is the pen number of the background color.

EYEPEN=
    This is the pen number of the eye color.

AUTOBACKPEN
    If this tooltype exists, the Pointer Eyes window will use the
    color of the title bar as the background color for the window.

AUTOEYEPEN
    If this tooltype exists, the Pointer Eyes window will use the
    color of the title bar's text as the color of the eyes.

CENTERINTITLE
    If this tooltype exists, the Pointer Eyes window will be
    centered vertically within the title bar.

FOLLOWMOUSE=
    The eyes can jump to the frontmost screen if it is public,
    the current active screen if it is public, or the eyes can
    sit still on their current public screen and go nowhere.
    Options are: FALSE, FRONTMOSTSCREEN, and ACTIVESCREEN

WINDOWLAYER=
    The eyes can stay above all windows on the screen, behind all
    windows on the screen, or float at any level.
    Options are: FLOAT, BACK, FRONT

XCOORD=
    This is the horizontal position of the window on the screen in
    pixels.

YCOORD=
    If CENTERINTITLE doesn't exist,this value is used as the vertical
    position of the window on the screen in pixels.

AUTOEYESIZE
    If this tooltype exists, the Pointer Eyes window will automatically
    determine if the big or small eyes should be used in order to fit
    them in the title bar.

EYESIZE=
    If AUTOEYESIZE is not defined, then this size of eyes are used.
    Options are: SMALL or BIG.
    The small eyes are 8 pixels high and the big eyes are 11 pixels
    high.

PUBLICSCREEN=
    Enter the public screen name in which you want Pointer Eyes to
    appear on. The default is the Workbench screen.
    Ex. PUBLICSCREEN=Workbench
    If Pointer Eyes is not able to open a window on the public screen
    specified, it will default to the Workbench Screen.

1.9 Default Settings

                          Default Settings

Follow Frontmost Screen
Automatic Eye Size
Eyes are Always behind other Windows
Center Eyes in Titlebar
Lock Window in its position
Automatic Eye Color
Automatic Background Color
Horizontal Position is 520 pixels

1.10 Features

                                          Pointer Eyes Features

  o Configurable

                      MUI

                      Preferences Window
                      and icon
                      Tooltypes
                      .
  o All settings are saved and loaded from the icon
                      Tooltypes
                      .
  o The background color and eye color are automatic allowing it to look
    as though the eyes are attached to the screen's title bar or you
    can choose it's colors.
  o The eyes can be auto-centered on the title bar or be located
    anywhere on the screen.
  o There are two eye sizes. You may choose between the two or let the
    program determine which best fits your public screen title bar. The
    larger eyes were designed to be used with 11 point fonts.
  o You can choose the public screen in which Pointer Eyes appears on.
  o If the mouse isn't moved for a while, the eyes will go to sleep, and
     periodicaly peek out at you.
  o The eyes will blink at random intervals.
  o The eyes are rolled periodically.
  o Monitors the system preferences files, allowing the WB screen to be
    closed/reopened if system preferences are changed.
  o You can lock the window in place so you don't accidentlly grab it.
  o The eyes can stay behind, infront of all windows or just float.
  o The eyes can follow you around to the front most or active
    public screen.
  o Low task priority of -2, so it doesn't get in the way of other tasks.
  o Load/Save settings to icon
                      Tooltypes
                      . Or reset to defaults.
  o Small code.

1.11 How to quit Pointer Eyes

                              How to Quit Pointer Eyes

You have MUI version 8+ installed:

  1.   Select "Remove" in the Commodities Exchange program.
  2.   Select "Quit" in the preferences window.
  3.   Send Pointer Eyes a CTRL-C.

You don't have MUI version 8+:

1. Double click on the eyes.
2. Send Pointer Eyes a CTRL-C.

1.12 Things to do in the future

Things to do in the future

Have the color change when a window is brought to the front.

Render the eye images for different font sizes.

Use AmigaDOS 3.0 functions to allow the eyes to be any color you want.

Move to California and work in a CGI film effects studio. Any offers? :)

If you have any suggestions or coments about Pointer Eyes,
please send them to: johughes@heartland.bradley.edu

1.13 Source Code

Source Code

I am including the source code for version 1.1 of Pointer Eyes
with this program to encourage people to write and release programs
for Amiga computers. As all programers should know, there is no one
way to write a program, so if you are a beginning programmer, do not
think that this source code demonstrates the proper way of making this
program work. It is simply one alternative way. There are always
better ways of doing things.

You may not distribute the source code or any binary
compiled from the source code if it is altered. However, all you
have to do is send the modifed code to me, tell me what you changed,
and I will add it to my most recent version of Pointer Eyes. You will
receive full credit in the documentation for any modifications which
are used. This is to spare people from confusion of which
Pointer Eyes is the newest and which one contains the most/best
modifications.

Why not include the current version of the source code?

  There are several reasons. It only took me a few days to write
  the code for the first version. Yet, this version has taken me
  several weeks to complete. In order to keep the size of the
  final binary code to a minimum, I almost completely rewrote the
  program and optimized it. This means that the code is much more
  complicated than the first version. The main reason for including
  the source code is to show how simple it can be to program the
  Amiga, and to encourage people to write programs for it. This

version of the source code would probably scare many people away
unless they knew alot about Amiga programming.

What can I use to compile the source code?

   The source code was written in C using
               SAS/C 6.51
               .
   However I gave the source code to friend, Gunther Nikl, who
   uses
               GCC
               and he added support to the source code so that it
   would be compilable using GCC. This was added because SAS/C
   is an expensive compiler and many people have chosen to use GCC.
   The source may also be compilable with
               DICE C
               , although this has
   not been extensively tested.

1.14 SAS/C Compiler

           Using SAS/C to compile Pointer Eyes v1.1

 SAS/C 6.00 should be able to compile this source code just fine,
 however this has not been tested.

 To compile with SAS/C:

   1.   Have SAS/C installed on your Amiga.
   2.   Copy SCoptions, PointerEyesV1.1.c, PointerEyes.Images and
        their icons into an empty directory.
   3.   Put at least the "Build" icon into the same directory.
   4.   Double click the new "Build" icon.
        This will read the SCoptions file to see how to compile
        the source code and then the compiling will begin.
        When the compiling is complete, the executable will
        be created in the same directory.

   5.   A warning will occur. This is because I have placed an
        image in the Pointer Eyes menu instead of text on the 2nd
        line. The compiler is expecting a type of (unsigned char *),
        but gets an (struct Image *). This is NO BIG DEAL and is
        fine.

1.15 GCC Compiler

           Using GCC to compile Pointer Eyes v1.1

The gcc package can be found on Aminet or in the distribution
of gcc2.6. Currently gcc is not able to place data in chip memory
with a "__chip" command but the linker of v2.6 can force the whole
data section into chip memory. You can also use a utility such as
PowerPacker to force the data section into chip memory.

Note: If you want to compile the program with small-data you
      need gcc2.3.3 because all later versions have problems
      with small-data, but large data works fine.

Thanks go to Gunther Nikl for adding GCC compatibility to the
source code.

1.16 DICE C

                                 Using DICE C to compile Pointer Eyes v1.1

To get Pointer Eyes v1.1 to compile in DICE C, a change to the source
code was made. This change was due to the fact that DICE C wants
the __chip keyword before the UWORD, whereas
              SAS/C
              wants it after
the UWORD, and
              GCC
              doesn't even except the __chip.

DICE C: __chip UWORD Crosseddata[] = { ... };

SAS/C: UWORD __chip Crosseddata[] = { ... };

GCC: UWORD Crosseddata[] = { ... };
         Since __chip isn't accepted, the whole data segment must be
         placed in chip memory.

1.17 Bugs

                 Bugs

Thanks go out to all those who reported bugs to me.

I haven't found any yet, however no program is bug free.
Please keep me informed of any bugs that you find.
E-Mail: johughes@heartland.bradley.edu

1.18 Magic User Interface

This application uses MUI Version 8+ if it is available.

MUI – MagicUserInterface

(c) Copyright 1993/94 by Stefan Stuntz

MUI is a system to generate and maintain graphical user interfaces. With
the aid of a preferences program, the user of an application has the
ability to customize the outfit according to his personal taste.

MUI is distributed as shareware. To obtain a complete package containing
lots of examples and more information about registration please look for
a file called "muiXXusr.lha" (XX means the latest version number) on
your local bulletin boards or on public domain disks.

If you want to register directly, feel free to send

DM 30.– or US$ 20.–

to

Stefan Stuntz
Eduard–Spranger–Straße 7
80935 München
GERMANY

1.19 History

History

 I think that the concept of having a pair of eyes on the screen was
 first introduced on the Macintosh. However I am not sure about this.
 Another possibility is unix XWindows.

 PointerEyes was inspired by a program called FollowMouse by
 Kamran Karimi, which I believe was written in 1991. But since that
 was an old program, it was not suited for AmigaDOS 2.04 or greater.
 It also contained many features that I found to be unpleasant.

 I believe that all of this has been taken care of in my version of the
 program. I wanted Pointer Eyes to be much more transparent to the
 user, therefore, the eyes can be automatically placed centered
 vertically in the public screen's title bar, with it's background
 color being the same as the title bar. Also, if Pointer Eyes is on
 the Workbench screen and the user decides to change any system
 preferences which need to close the Workbench screen and reopen it,
 PointerEyes will temporarily close it's window automatically.

v1.0 July 7, 1994

First Version. This was written in just a few days.

v1.1 July 12, 1994

    /* This version is released as source code with v2.0, v2.1 and v3.0 */
    Minor Bug: Added CTRL-C detection. Bug found by Gunther Nikl.
    Minor Bug: Forgot to set the Priority back to its original value.
      before exiting. Bug found by Gunther Nikl.
    Minor Bug: Added newlook menus for dos3.0.Bug found by Gunther Nikl.

v2.0 August 7, 1994

    Now runs correctly under AmigaDos 2.04.
    Added ability to save and load setting to your icon
                Tooltypes
                .
    Added "Reset to Defaults","Last Saved","Center in Title Bar",
      "Auto Background","Background Color","Auto Eye Color","Eye Color",
    "Eye Size" Menus.
    Reduced CPU load.
    Major Bug: Pointer Eyes will now correctly figure out what pen #'s
      to use for the colors. Or the user can define them manually.
      Bug first noticed by Ludwig Kamphenkel.
    The eyes are now outlines instead of solid.
    There are now small eyes for small title bar fonts, and larger
    better looking eyes for bigger title bar fonts.
    Minor Bug: Forgot to set the Priority back to its original value.
      before exiting. Bug found by Gunther Nikl
    Minor Bug: Added CTRL-C detection. Bug found by Gunther Nikl.
    Minor Bug: Added newlook menus for dos3.0.Bug found by Gunther Nikl.
    Added more images for the eyes for smoother eye movement.
    Major Bug: Now makes sure it checks the WB screens title bar font
      instead of just the default public screen's.
    Added ability to put Pointer Eyes on any public screen.
    Included AmigaGuide format documentation. Proofread by Micheal Hatch.

v2.1 August 22, 1994

    Major Bug: Pen numbers are now loaded correctly for the
                tooltypes
                .
      Bug found by J. G. Brandon.
    $VER string was corrected.
    Compiled the code using register parameters.

v3.0 October 17, 1994

    The eyes now will jump to no other screen, the front most public
      screen, or the current active public screen.
    The eyes will stay behind, in front, or just float in the
      window layers.
    Added
                tooltype

```
            FOLLOWSCREEN.
Added
            tooltype
            WINDOWLAYER.
Completely removed the pulldown menus.
If you have
            MUI
            , you can use an
            MUI
            preferences window,
   otherwise you must use the tooltypes.
Eyes follow frontmost screen is now the default.
This version took about 1 week to write.
```