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GLTRON

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GLTron for Macintosh version 0.70

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GLTron on the web (latest manual and information): http://www.gltron.org/

Welcome to GLTron for Macintosh! This document attempts to cover all bases concerning the Macintosh version of this cross-platform game. You will find information for installation, troubleshooting, and performance tweaking. If you feel there is something missing or erroneous in this document, please notify me, as I strive to make this readme as informative as possible. For more information, consult the official GLTron web page.

System Requirements:

Unlike most recent 3D games, GLTron does not push every component of your system to the max. It should be playable at 640x480 on most PowerPC machines. It will be ridiculously fast on new G3's and G4's.

Required Software:

MacOS 8.1 minimum, 9.2 or later preferred.

DrawSprocket Lib 1.7.3 minimum, 1.7.8 preferred. Part of Apple's GameSprockets.
        http://apple.com/games/updates

InputSprocket Lib 1.1 minimum (optional, for gamepad support), 1.7.3 preferred. Part of Apple's GameSprockets.
        http://apple.com/games/updates

OpenGL version 1.0 minimum, 1.2.1 or later preferred:
        http://www.apple.com/opengl/

Hardware Requirements:

Note: all fps based on single-player view mode.

Minimum (Get around 15- 25 fps)
• At least 100mhz for Hardware Rendered OpenGL
• At least 200mhz for Software Rendered OpenGL (No Textures/Alpha Blending)
• 32 MB RAM

Typical System (Get around 20-30 fps)
• 200 mhz 603/ 180 mhz 604 / old G3
• ATI Rage Pro / 3dfx voodoo 1 graphics accelerator with full OpenGL drivers
• 32 MB RAM

Awesome System (Get around 60 - 100+ fps)
• G3 233 or better
• NVidia GeForce / ATI Rage 128 or Radeon / 3dfx voodoo 2,3,4,5 with full OpenGL drivers
• 64 MB RAM

Known Bugs:

Gameplay Issues:

Controls

Press space to start/restart/pause the game
Use up/down/enter/escape to navigate the menus.
Use left/right to change values (e.g. sound volume)

Controls for Player 1:

turn left: 'a'
turn right: 's'
Controls for Player 2:
turn left: 'k'
turn right: 'l'
Controls for Player 3:
turn left: '5'
turn right: '6'
Controls for Player 4:
turn left: Cursor left
turn right: Cursor right
l

Change View:
look left: 'q'
look right: 'w'
accelerate: 'e'
'F1': Single player view
'F2': Two player view
'F3': Four player view
'F10': Change Camera type (chase/pan/cockpit/manual)
'F12': Save screen to a PNG file on the desktop

Camera:
mouse movement: pan
mouse click: zoom in
command+mouse click: zoom out

General Trouble-shooting tips:

Getting software to run correctly (especially games) is sometimes tricky.
Here are some tips I have learned from feedback from users like you
(thanks!) and my own experimentation.

Remove the "gltronPrefs.txt" file (in your preferences folder) to reset to the
default settings.

Try changing display depth to 16 bit (thousands of colors), if you have
OpenGL acceleration but less than 6MB VRAM.

Try running with extensions disabled (start up with shift key). This will let you know if some pesky extension is causing trouble.

A nice site for debugging graphics cards and drivers is http://www.xlr8yourmac.com.

Most often, problems are due to software configuration glitches on your system. Verify that your software is the latest version available, or at least the version specified in this document. It is common that users have a version of DrawSprocket earlier than 1.7.3, which will not work.

If GLTron fails to launch, try holding down the command (apple) key when opening GLTron, and select the "output to file" option, then "OK". This will create the files "stdout.txt" and "stderr.txt", which may contain useful debugging information.

If GLTron crashes unexpectedly or quits with errors, please install MacsBug: http://developer.apple.com/tools/debuggers/MacsBug/ and reboot. Run GLTron, and enter this when the debugger comes up: stdlog <return>. Wait for the logging to complete. Type es <return>, and mail the file "StdLog" on the Desktop along with a report from Apple System Profiler (under the Apple Menu), "stderr.txt" and "stdout.txt" to me <walisser@mac.com> . I will diagnose the problem and get back to you ASAP.

Technical Notes / Performance Tweaking:

Full-Screen Mode

The full-screen mode will attempt to use the bit-depth of the monitor you run the game on (as configured in Monitors Control Panel and selected when you startup GLTron).

Older ATi Cards, like the Rage Pro (not Rage 128 Pro) will run much faster if you set the display depth to thousands of colors (16 bit). On newer cards the difference may not be noticable.

If you have a millons of colors (32 bit) capable accelerator card, you will want to run it in 32 bit mode, since it will look better without all that dithering.

The resolution modes that can be set in-game are somewhat limited; to use other modes, you can edit the gltron.ini file (in your Preferences Folder).

Software Rendering

Software rendering may be acceptable on some systems. For example, on a G3/233 I get about 15 fps with textures disabled at 512x384.

OpenGL is actually faster in 16bit (thousands of colors) software mode than 8bit (256 colors) software mode.

You can hold down the command (apple) key at startup and type -O in the textfield to configure GLTron to optimize rendering for software OpenGL. With this option GLTron will be ugly, but faster.

3dfx Users

Always use the latest drivers from 3dfx (with the exception of revA iMac with GameWizard Voodoo2, see below), and no Mesa3dfx extension (ok, I lied: if you are up to the challenge, you _can_ try running under mesa, but the fact remains that you can't use mesa and 3dfx drivers at the same time)

ATI / Others

Should run with no problems on mulitple monitor/multiple OpenGL card systems and all in-a-window capable OpenGL drivers. If it doesn't, please let me know!

If you want a nice floor texture, set the depth of the main screen to millions of colors.

Customizing the Sound Track

GLtron now has the ability to playback mp3 files and other music.

Put your music in the music/ directory and prefix the filename with 'song_', e.g. 'song_aybabtu.mp3'. Use the arrow keys on the Audio->Song menu item to cycle through the list (generated at startup).

Advanced Options

You can specify advanced runtime options by holding down the command(apple) key while starting up. Command line settings are saved between sessions, so you will have to bring up the dialoag again to remove them. Note that some of these settings are mirrored in the menu system options. Here are (some of) the available command line options (Note: this list doesn't accurately reflect 0.70+):

-F   don't display FPS counter
-t   don't display floor texture, use lines instead(huge speed gain)
-w   don't display walls (speed gain)
-m   don't show lightcycle (speed gain)
-x   don't show crash texture (speed gain)
-g   don't show glows (small speed gain)
-c   don't show ai status
-C   show ai status (default: on)
-1   Set resolution to 320x240
-2   Set resolution to 640x480 (default)
-3   Set resolution to 800x600
-4   Set resolution to 1024x768
-5   Set resolution to 1280x1024
-s   Don't play sound
-i   force startup in a window (requires Toolbox video driver)
-O   optimize for software rendering (SLOWER on 3D cards!)

Verified Systems

I have removed the verified systems list. This is because GLTron *should* run on any system with a correct software configuration.

The video setup code in 0.60+ is unlike the other releases of GLTron. It is possible that your system worked fine in 0.59, but will not work properly in 0.60+. Please report to me your bugs if this is the case!

iMac with GameWizard Voodoo2
I have reports of this running with iMac equipped with GameWizard card, here is what you need to do (based on a user report, I have no iMac):

You should be able to get it working using 3dfx beta 5 or later Generic

Voodoo2 drivers. Remember to disable the "OpenGL Renderer ATI" extension if you want to ensure that the voodoo card is always used. (This does not require a restart, by the way).

You can obtain the beta drivers at www.mac3dfx.com.

History
to 0.70
  • new AI that actively tries to cut you off
  • two new Gameplay modes:
    - Booster (where you can accelerate using a limited 'Turbo' supply), and
    - Wall Acceleration (where you speed up if you get close to an enemy
cycles trail)
  • better handling of .ini file (versioning & protection against partly written
files)
  • simplified GUI
  • various other bugfixes

to 0.62:
  •gamepad/joystick support
  •better & faster shadows
  • red outlines on the recognizer
  • better 3D sound effects
  • sound effects for player's lightcycle
  • sound effects for recognizer flying overhead
  • support for 'switching songs' (add your own music)
  • mp3 support
  • better camera zoom functions
  • integrated scripting language
  • more & more intuitive configuration options
  • many stability & performance enhancements

to 0.61:
  •fixed lightcycle-hits-lightcycle lockup bug
  •fixed a view z-buffer issues
  •camera settings are saved
  •added new texture sets

to 0.6:

- the default settings are changed to more closely reflect the movie.
- gltron is now a 100% SDL application - robust and efficient events, video and sound
- many bugs fixed - stability improvements, memory leaks plugged
- mouse controlled menus - speed through customization
- plug-in art pack support - create your own texture sets
- 3d sound - the cycle loop is back!
- gltron can run on locked volumes (Shareware CDs, etc)

to 0.59:
- configurable keys
- all new graphics elements (uses PNG format now)
- memory requirement is a bit higher now
- gltron will run a bit slower due to more detailed cycle models

to 0.54 (Internal release):
- added nicer textures (Contributed by Nicolas Zimmermann)
- added a custom icon suite (Contributed by Nicolas Zimmermann)
- gltron.ini file is by default not included, fixes a problem some people were having starting up the game for the first time.
- fixed a crashing bug when quitting on some systems
- full-screen code is completely re-worked - DrawSprocket is not required for 3dfx mode
- revised this Readme
- Sound Effects and Music via SDL/SDL Mixer - OpenGL is still using GLUT

to 0.53:
- added a 3dfx.ini file
- squashed blinking text bug

to 0.52:
- music via libmikmod
- fullscreen capable

Obtaining the Source Code:
GLTron is an open source program. The full source code can be obtained by visiting http://www.gltron.org and following the provided download instructions.

Copyright Information:

GLTron is Copyright (C) Andreas Umbach.
The soundtrack "Revenge of the Cats" is Copyright (C) Peter Hajba.

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