Subject: : AmigaOS4
Topic: : Shaderjoy 1.18
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Shaderjoy allows you to display Shadertoy (https://www.shadertoy.com) compatible
fragment shaders. Fragment shaders (sometimes called pixel shaders) are programs
that are executed per fragment (pixel) on the GPU.

Version 1.18 is available on http://capehill.kapsi.fi/ .
Version 1.17 is available on http://os4depot.net/?function=showfil ... hics/viewer/shaderjoy.lha .

Videos:

kas1e demonstrates Shaderjoy 1.0: https://www.youtube.com/watch?v=yUubbKpkPQI
kas1e demonstrates Shaderjoy 1.8: https://www.youtube.com/watch?v=K4MixYoYTgM
Hans talks about bugs reports and Shaderjoy running on background:
https://www.youtube.com/watch?v=oCyw4pqUjYU
Trevor talks about Shaderjoy during his Amiwest presentation: https://www.youtube.com/watch?v=KsM-rDlxhi4


If you have created some compatible shaders, why not share your art with others :) If you haven't created a
shader ever, why not start today?

Take a look at the shaders directory, there you can find some shaders (.frag) created by me and some by
Shadertoy community.

Requires OpenGL ES 2.0 and Warp3D Nova.

History:

1.18
- Add project file support (.sjp).
- Activate the most recently loaded tab.
- Blank mouse pointer completely in fullscreen mode.
- Reorganize RMB menus due to project file.
- Rename "Channels" menu to "Shaders and Channels".
- Rename "Shaders" menu to "Debug".
- Refactor code dealing with file handling.
- Reset frame counter on rewind.

1.17

- Add FLOATTEXTURE tooltype. Note: there is an open driver issue #610.
- Fix mouse Y position (info bar height wasn't taken into account).
- Change iFrame uniform type from float to int.
- Load dropped shader file into Image slot when there is no editor view (tabs).
- Add sobel.frag.
- Refactor logging.

1.16
- Improve AppWindow feature: load file into currently active page.
- Improve Channel window by moving input selection above other gadgets.
- Disable texture file selection gadget when Buffer is chosen.
- Display message box when Buffer compilation fails.
- Compile all programs (Image + Buffers) when compile button is clicked.
- Sync shader code from GUI when compile button is clicked.
- Remove Buffer references in channels when some buffer tab is closed.
- Implement different logging levels. (Not used widely yet.)
- Improve debug logging, especially related to OpenGL resources.
- Fix a bug (of the year) that prevented Buffer channel configuration.
- Add one more rendering pass: render Image to an FBO.
- Use the latest rendered buffer instead of generating new frames in pause mode.
- Clear FBO textures on window resize.

1.15
- Add tab support (Common, Image and Buffers A, B, C, D).
- Allow editing of Common/Buffers A-D.
- Monitor changes of Common/Buffers A-D.
- Change Buffer logic: they are loaded outside the iChannel selection.
- Add Buffer selection to iChannel window: select either texture or Buffer A, B, C or D.
- Fix path issue related to '/' handling.
- Flush stdout to make real-time log filtering possible.
- Rewrite rendering logic for improved frame buffer support.

1.14
- Add Common support. Common file is "included" before shader programs.
- Refactor GUI code.
- Display shader info log always when available. In case of errors and warnings display also a requester.

1.13
- Make channel windows asynchronous and allow opening them simultaneously.
- Make load and save requesters asynchronous.
- On quit or fullscreen toggle, wait for save requester to finish. Otherwise try to close extra windows.
- Do not advance iDate uniform in pause mode.
- Update shader name when filename is passed as a startup argument.
- Set GL viewport during startup.
- Add multipass rendering concept: allow loading of shader programs as iChannels, and
allow loading of textures for those shader programs.

1.12
- Duplicate input / output streams when starting an external text editor.
- Add WINDOWSIZE tooltype.
- Add AUTORELOAD tooltype.

- Display shader name on info element.
- Display info element regardless of EDITORVIEW setting.
- Add channel window for setting up the textures.
- Clear mouse position when loading a new shader.

1.11
- Fix issue with texteditor.gadget creation (caused by missing OpenClass calls).
- Combine Play and Pause buttons.
- Display FPS and time info in a separate GUI element instead of window title bar.
- Monitor shader source file and reload it on change.
- Add Control menu (Play/Pause, Rewind, Compile).
- Rename EDITOR tooltype to EDITORVIEW.

1.10
- Add tooltype EDITOR. When enabled, allow editing in window mode.
- Add tooltype FONTNAME and FONTSIZE, to configure editor font.
- Add tooltype EDITORNAME, to define external editor tool.
- Blank mouse pointer in fullscreen mode, when mouse is inactive.
- Allow pause mode toggling with SPACE key.
- Unpause when loading a shader.
- Update display also during pause mode, but on a slower rate.
- Re-enable reload functionality.

1.9
- Allow shader editing in window mode.
- Add play, pause, rewind and compile buttons in window mode.
- Allow saving of shaders.
- Remember window size when coming back from fullscreen mode.
- Add possibility to check uninitialized variables (requires ogles2.library version 3).
- Add tooltype CHECKUNINITIALIZED.
- Add possibility to dump verbose Nova-level compilation logs (requires ogles2.library version 3).
- Add tooltype SHADERDEBUG.
- Log shader info log always when available (in verbose mode).
- Time and log shader compilation (when in verbose mode).
- Remove possibility to reload shader.

1.8
- Use vertex buffer objects (VBOs).
- Add iTimeDelta and iFrameRate uniforms.
- Add AppWindow support: shaders can be dropped into the window.
- Shader filename can be passed as an argument.
- Improve About box: display GL information.
- Fix issue with blitting over window borders.
- Initialize fragment colour because some shaders do not.
- Reverse iMouse.y.

1.7
- Open all screens with SA_LikeWorkbench tag.
- Disable optimized bitmap allocation.
- Log OpenGL information during startup.
- Display version number on screen title bar.

- Fix an issue where FPS counter was not visible when started in fullscreen mode.

1.6
- Improve VSYNC mechanism.
- Remove FPS counter flickering in fullscreen mode.
- Allow toggling of FPS counter.
- Add SHOWFPS tooltype.
- Add SCREENMODE tooltype.
- Disable Iconify menu option in fullscreen mode.
- Drop command-line argument support in favor of icon tooltypes.

1.5
- Fullscreen mode. Created using SA_LikeWorkbench so it's likely larger and slower than default window mode!
- Improved logger: buffer is no more limited to 16 kilobytes.
- Changed default texture path to "textures/shadertoy" for improve usage.
- User-selectable VSYNC mode (WaitTOF, WaitBOVP or disabled).
- Changed default window size to 800 x 450.
- Display running time on window title bar.
- Display window size on window title bar.
- Use window pointer in ASL requesters.
- Fullscreen tooltype.

1.4
- Add icon tooltypes.

1.3
- Add iDate support.
- Add verbose logging.
- Fix: window pointer is now cleared when close gadget is used.
- Keep textures (iChannels) active when switching shaders.

1.2
- Fix: iChannelResolution is an array of vec3s.
- Workaround: use GL_LINEAR texture filtering to avoid diagonal line where triangles meet.

1.1
- Add iChannel0...3 texture support. Each channel must be loaded manually at the moment.
- Add iChannelResolution0...3 support.
- Add stack cookie and log stack usage at the exit.
- Display a message box in case shader or texture loading fails, instead of exiting.

1.0
- First version