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Subject: : AmigaOS4

Topic: : Shaderjoy 1.14

Re: Shaderjoy 1.8

Author: : kas1e

Date: : 2020/6/1 20:57:34

URL:

@Capehill

Quote:

Nice. Maybe it could be bundled with Shaderjoy?

If you think it worth it at all, then sure :)

Quote:

Nice to hear some issues have been fixed already.

Hans seems to spend quite a good time on bug fixing last week, and he dealt with most of the issues we had: matrix one, garbage with helper functions, boolean issues, and some others. I think he's latest video were about fighting with Nova bugs: <https://www.youtube.com/watch?v=hZpb0b0ai58>

The only big issue remains which means some major rework probably, it's register allocator part. As I understand it (but can be wrong), the current register allocator in Nova is a more or less simple one, which takes the amount of GPU registers as it, in the hope it will be enough. But with complex shaders, it's not enough sadly. So we need new register allocator doing spiling and stuff (create a buffer to which copy content of all registers, and take necessary values when needing it only). It's like we do 20 years ago on some i286 CPU which had quite a small amount of registers which wasn't enough. But I didn't know of course how it in comparison with today's GPU, probably much harder :)

And there is a couple of rendering issues, which I trying to catalog and creating bug reports one by one.

And few missing instructions which used pretty often, like OpImageSampleExplicitLod and OpFwidth.

And a couple of regressions since 1.68

But if I understand things right, all the latest issues we had and which were fixed, almost all the time were related to current register allocator. So rewriting it can be also resulting in auto-fixing other bugs that we had now. But maybe it better to fix all bugs with current register allocator, and only after moving on a new one if Hans decides to do so at all of course.

But surely Nova pretty advanced already, taking into account that Hans alone works one, together with Radeon drivers :) Who imagine that we will for real have all those OGLS2 (which is pretty much advanced too), and 3d party apps too like shaderjoy and glsnoop :)