
Subject: : AmigaOS4

Topic: : GL4ES: another OpenGL over OpenGL ES2 emulation - some tech. info and porting progress

Re: GL4ES: another OpenGL over OpenGL ES2 emulation - some tech. info and porting progress

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URL:

> the same data ? I mean , if there is DMA to transfer bitmap to VRAM

Yes, For Wazp3D57 I have made some code that hack a bitmap transfer to be used to copy vertices to VBO.
(ouuh what a hack but it works)

It changed almost nothing to speed on Sam460 & X5000 but dont know if those machines use dma for that

> about BufferUnlock of warp3dnova, there is no mention about any big->little endian conversion

IMHO what I understood:

There are differents method for updating the VBO

but in fact Nova just read and/or write the data

When you lock it (can) read/reorder the VBO data to a buffer that you will access.

When you unlock it (can) write/reorder the buffer to the VBO data.

As reordering is done Nova side you never accesss to real data that are on the GPU VRAM but on a reordered buffer

You can also do write only (ie write all new vertices values from your buffer)

or read only (ie read some GPU datas)

or read/write (ie change some vertices)

Certainly let Nova do the reordering was not a good idea as datas are then accessed several times (vs a cpu that will write to real GPU vram directly the reordered datas)

See below Nova doc

```
// W3DN_STATIC_DRAW: Written:(CPU) once    Read: rendered many times
// W3DN_STATIC_READ: Written:(GPU) once    Read: CPU many times
// W3DN_STATIC_COPY: Written:(GPU) once    Read: rendered many times
// W3DN_DYNAMIC_DRAW: Written:(CPU) occasionally Read: rendered many times
// W3DN_DYNAMIC_READ: Written:(GPU) occasionally Read: CPU many times
// W3DN_DYNAMIC_COPY: Written:(GPU) occasionally Read: rendered many times
// W3DN_STREAM_DRAW: Written:(CPU) frequently Read: rendered a few times
// W3DN_STREAM_READ: Written:(GPU) frequently Read: CPU a few times
// W3DN_STREAM_COPY: Written:(GPU) very often Read: rendered a few times
```