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Subject: : AmigaOS4

Topic: : radeonHD video hw acceleration

Re: radeonHD video hw acceleration

Author: : Hans

Date: : 2013/1/9 20:19:04

URL:

Quote:

Rogue wrote:

Note that most Radeons actually support one or the other form of YUV textures, but support for that was never included in Warp3D. It's difficult to retrofit it into the compositing code since that would only work under certain constraints. The R200 for example can use separate YUV plane data but only when using the full three texture units. That means there is no room for a separate alpha map, so things would need to be done in multiple passes with temporary bitmaps.

Interestingly, the R200 entry on wikipedia claims that it can handle up to 6 textures per pass via some "loop-back" technique. I have no idea what the restrictions are, but it could still be doable. If not, then it should still be able to handle YUV422, as that requires just one texture. Plus, they have overlay.

Quote:

Here's hoping we can support more of that stuff on the later chips, with Gallium there is certainly better chances to see this working.

Radeon HD cards have 4 or more texture units (depending on the series), which is enough for separate Y, U, and V textures plus an alpha mask. That will cover planar YUV modes. I already have example shader code for this, although it will have to be adapted.

Radeon X1000 (R500) series cards also have 4 or more texture units, but I'll probably stick to the Radeon HD series only (almost no one uses the Radeon X1000 series, and there are so many other things to spend time on).

Hans