

DragonFlyBSD - Submit #3031

Update drm/radeon to Linux 4.7.10 as much as possible

04/26/2017 09:00 PM - davshao

Status:	In Progress	Start date:	04/26/2017
Priority:	Normal	Due date:	
Assignee:	ftigeot	% Done:	90%
Category:	Driver	Estimated time:	0.00 hour
Target version:			

Description

Sometimes one must go backwards before one can go forwards. The attached patch updates drm/radeon to Linux 4.7.10 as much as possible, with the obvious exception of patches related to dma_fence, reservation objects, dma_buf, prime, DisplayPort MST, and interval trees. In particular, because I do not have DisplayPort hardware to test, I expect complete breakage.

When I want decent font display without corruption on a CAICOS Sapphire Radeon HD6450 card, I use in a hacked version of pkgsrc for mesa 17 in /usr/pkg/share/X11/xorg.conf.d a 20-glamor.conf file resembling:

```
Section "Module"
Load "dri2"
Load "glamoregl"
EndSection
Section "Device"
Identifier "Radeon Graphics"
Driver "radeon"
Option "AccelMethod" "glamor"
Option "ShadowPrimary" "on"
EndSection
```

Take out the Option "ShadowPrimary" "on" and there are quite visible artifacts, but I am still able to fire up firefox using

```
LD_PRELOAD=/usr/pkg/lib/libGL.so firefox &
```

with layers acceleration forced to get some sort of display in WebGL Water:

<http://madebyevan.com/webgl-water/>

The patch is radeon47fast.patch generated by git format patch. Also attached is a diff between drm/radeon after the patch compared to Linux 4.7.10's. radeon_4_07.diff shows exactly what is left to be done.

The patch seems to apply cleanly up through at least

```
commit f30091155bf042c3e2934ca63573dabebe30f556
```

```
Date: Mon Apr 24 19:22:39 2017 +0200
```

```
<fcntl.h>: Add some missing defines (required by POSIX).
```

History

#1 - 05/05/2017 05:14 AM - ftigeot

- Status changed from New to In Progress

- Assignee set to ftigeot

- % Done changed from 0 to 90

Thanks for the commit, it has been pushed to master today.

With current dports packages and a Radeon R5 230, there was no need to preload a specific library, the webgl demo was perfectly functional out of the box and no artifact was visible.

#2 - 05/08/2017 07:17 AM - ftigeot

This update unfortunately breaks X11 on at least one system.

Hardware is based on:
drm0: <Hawaii PRO [Radeon R9 290]> on vgapci0

Starting X with no special directives in xorg.conf gives a black screen, and the computer then needs to be hard reset.

#3 - 06/03/2017 02:25 AM - mneumann

ftigeot wrote:

> This update unfortunately breaks X11 on at least one system.

>

> Hardware is based on:

> drm0: <Hawaii PRO [Radeon R9 290]> on vgapci0

>

> Starting X with no special directives in xorg.conf gives a black screen, and the computer then needs to be hard reset.

It works now as of commit <http://gitweb.dragonflybsd.org/dragonfly.git/commit/62dc643ef61b347c4c2e60ad9ea68dd766741c90> (and <http://gitweb.dragonflybsd.org/dragonfly.git/commit/7d829069c0009b901fc3cac433685334a793947f>).

I need `drm.radeon.audio=0` in `/boot/loader.conf`, otherwise `"kldload radeonkms"` will fail with a blank screen.

Also I need to `"kldload radeonkms"` before starting Xorg, otherwise chrome won't work (I have `radeonkms_load="YES"` in `/etc/rc.conf`). WebGL works out of the box, but chrome does show some artifacts, e.g. when I resize the window.

Great work! I think we can close the issue.

#4 - 07/05/2017 10:31 AM - arcade@b1t.name

- File `IMG_20170705_201122.jpg` added

That was so nice you waited for me to try filing a bug for this one and instead finding an open question to join.

drm0: <Trinity [Radeon HG 7560D]> at vgapci0

When loading `radeonkms` something is printed on the screen and screen switches somewhere. When `radeonkms` is loaded via ``/boot/loader.conf`` kernel crashes with attached screen, keyboard is no working because usb was not initialised yet. ``drm.radeon.audio=0`` doesn't help.

I think Xorg has nothing to do here, it just triggers loading `radeonkms` and "things" "happen".

#5 - 07/06/2017 02:38 AM - arcade@b1t.name

- File `bad_and_good.log` added

I can haz logs.

Files

<code>radeon47fast.patch</code>	923 KB	04/27/2017	davshao
<code>radeon_4_07.diff</code>	512 KB	04/27/2017	davshao
<code>IMG_20170705_201122.jpg</code>	919 KB	07/05/2017	arcade@b1t.name
<code>bad_and_good.log</code>	17.8 KB	07/06/2017	arcade@b1t.name