

DragonFlyBSD - Bug #1589

ACPI update

10/26/2009 01:52 PM - polachok

Status: Closed	Start date:
Priority: Normal	Due date:
Assignee: polachok	% Done: 0%
Category:	Estimated time: 0.00 hour
Target version:	

Description

I am working on updating ACPI to modern state and ACPI interrupt routing. You can get the current code here [1]. It's going not bad but I have some questions which I need answers for before moving on.

1) Locking. I have no idea which one should be used. There're 2 families of locking macros: ACPI_SERIAL_* and ACPI_LOCK_* (see sys/dev/acpica5/acpivar.h). FreeBSD uses mtx_* for ACPI_LOCK and sx_* for ACPI_SERIAL.

2) APIC. Current APIC code doesn't allow setting interrupts from other subsystems and changing interrupts after boot, but this is required for BUS_CONFIG_INTR to work.

[1] <http://gitweb.dragonflybsd.org/~polachok/dragonfly.git/newacpi>

History

#1 - 10/26/2009 06:06 PM - dillon

: I am working on updating ACPI to modern state and ACPI interrupt routing. You can get the current code here [1]. It's going not bad but I have some questions which I need answers for before moving on.
:
: 1) Locking. I have no idea which one should be used. There're 2 families of locking macros: ACPI_SERIAL_* and ACPI_LOCK_* (see sys/dev/acpica5/acpivar.h). FreeBSD uses mtx_* for ACPI_LOCK and sx_* for ACPI_SERIAL.

Either a lockmgr lock or our new mtx* lock (which are blockable locks like lockmgr locks) for both. Our mtx lock API is different from FreeBSD's (not meant to be API compatible).

: 2) APIC. Current APIC code doesn't allow setting interrupts from other subsystems and changing interrupts after boot, but this is required for BUS_CONFIG_INTR to work.

Could you expand on this a bit? We set aside a fixed number of vectors but that's the only real limitation that I can think of.

-Matt
Matthew Dillon
<dillon@backplane.com>

#2 - 11/05/2009 05:17 PM - polachok

I'm planning to commit this on the weekend, so please test the branch [1] or, alternatively, you can download cd [2] or usb [3] image. PCI part is not enabled by default.

[1] <http://gitweb.dragonflybsd.org/~polachok/dragonfly.git/newacpi>
[2] <http://polachok.v12.su/dfly.iso.bz2>
[3] <http://polachok.v12.su/dfly.img.bz2>

#3 - 11/05/2009 07:30 PM - eocallaghan

Works fine here, Lenovo X301.
Although hitting the function key for suspend/resume does nothing

although I assume its normal as its a livecd?

Cheers,
Edward.

2009/11/5 Alexander Polakov <polachok@gmail.com>:
> 2009/10/26, Alexander Polakov <polachok@gmail.com>:
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>

#4 - 11/07/2009 10:31 AM - ahuete.devel

Hi Polachok,

I've just tried the USB image in my Acer Aspire One. It boots fine but once it reaches the part where the login is displayed, it shows the DFBSD logo like in a infinite loop and no login prompt is showed. I can't try CD ISO because this notebook lacks of CD drive.

Cheers,
Antonio Huete

2009/11/5 Alexander Polakov <polachok@gmail.com>:
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>

#5 - 11/07/2009 05:03 PM - justin

> Hi Polachok,

>

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> once it reaches the part where the login is displayed, it shows the
> DFBSD logo like in a infinite loop and no login prompt is showed. I
> can't try CD ISO because this notebook lacks of CD drive.

What does the "normal" DragonFly USB image do? If that one has the same problem, then we know it's not the ACPI changes causing it. Plus I'm curious to see if it works on that model Acer - I don't recall if it was tried before.

#6 - 11/07/2009 05:16 PM - eocallaghan

Hi,

Its got nothing to do with the ACPI changes.
I also seen this, move to another virtual terminal. Your see gettty pegging the cpu at around 97% as it loops. (if I am thinking of the same bug I saw the other day), any way, does not look complex to fix.

Cheers,
Edward.

2009/11/7 <justin@shiningsilence.com>:
>> Hi Polachok,
>>
>> I've just tried the USB image in my Acer Aspire One. It boots fine but

>> once it reaches the part where the login is displayed, it shows the
>> DFBSD logo like in a infinite loop and no login prompt is showed. I
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> problem, then we know it's not the ACPI changes causing it. Plus I'm
> curious to see if it works on that model Acer - I don't recall if it was
> tried before.
>
>

#7 - 11/07/2009 05:52 PM - Johannes.Hofmann

Alexander Polakov <polachok@gmail.com> wrote:
> 2009/10/26, Alexander Polakov <polachok@gmail.com>:
>> I am working on updating ACPI to modern state and ACPI interrupt
>> routing. You can get the current code here [1]. It's going not bad but
>> I have some questions which I need answers for before moving on.
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>
> [1] <http://gitweb.dragonflybsd.org/~polachok/dragonfly.git/newacpi>

Boots and works fine on a Thinkpad X60s. APIC_IO needs still to be
commented out, otherwise it hangs on boot after detecting the ahci
based disk (same as with current ACPI).

Cheers,
Johannes

#8 - 11/07/2009 07:31 PM - eocallaghan

Ah, well there was a fix for the AHCI stuff committed after the git
base of this ACPI branch and it was not rebased before the ISO was
spun, so its most likely fixed once this ACPI stuff hits the main tree
Johannes.

2009/11/7 Johannes Hofmann <johannes.hofmann@gmx.de>:
> Alexander Polakov <polachok@gmail.com> wrote:
>> 2009/10/26, Alexander Polakov <polachok@gmail.com>:
>>> I am working on updating ACPI to modern state and ACPI interrupt
>>> routing. You can get the current code here [1]. It's going not bad but
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> commented out, otherwise it hangs on boot after detecting the ahci
> based disk (same as with current ACPI).
>
> Cheers,
> Johannes
>

#9 - 11/10/2009 11:56 PM - eocallaghan

I spotted a nasty looking problem:

ACPI Warning: Cannot release the ACPI Global Lock, it has not acquired 20090521
evmisc-629
ACPI Exception: AE_NOT_ACQUIRED, Could not release Global Lock 20090521 exutils-426

Could you have a look into this please polachok.

Thanks,
Edward.

#10 - 11/11/2009 08:57 PM - polachok

Can you please try this diff [1] ? I don't have hardware with both SMP and EC.

[1] <http://leaf.dragonflybsd.org/~polachok/acpi-ec-lock.diff>

#11 - 11/12/2009 07:47 AM - dillon

:Alexander Polakov <polachok@gmail.com> added the comment:
:
:Can you please try this diff [1] ? I don't have hardware with both SMP and =
:EC.
:
:[1] <http://leaf.dragonflybsd.org/~polachok/acpi-ec-lock.diff>
:

How can I tell if I have this feature? What is acpi-ec?

-Matt
Matthew Dillon
<dillon@backplane.com>

#12 - 11/12/2009 12:33 PM - TGEN

Matthew Dillon wrote:
> :Alexander Polakov <polachok@gmail.com> added the comment:
> :
> :Can you please try this diff [1] ? I don't have hardware with both SMP and =
> :EC.
> :
> :[1] <http://leaf.dragonflybsd.org/~polachok/acpi-ec-lock.diff>
> :
> How can I tell if I have this feature? What is acpi-ec?

That is an ACPI Embedded Controller, a microcontroller device which manages a system and offers an interface via ACPI to query its status and execute commands. Examples are setting brightness levels on an LCD screen if the graphics controller doesn't allow you to set it, advanced queries regarding the state of a battery in a laptop, acceleration sensors, the ThinkLight in IBM/Lenovo ThinkPad laptops, etc. Most (modern) laptops have one, and if you see acpi_ec attach in dmesg you probably do as well.

Cheers,
--
Thomas E. Spanjaard
tgen@netphreax.net
tgen@deepbone.net

#13 - 04/02/2010 10:42 PM - alexh

The ACPI update seems to work decently. If new problems crop up they should and will be reported separately anyways, so I'm closing this.

Cheers,
Alex Hornung