

Re: [PATCH] Open Firmware device tree virtual filesystem

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2006-12/msg08138.html>

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 - *Date:* Sun, 31 Dec 2006 15:12:26 +0100 (MET)
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On Dec 30 2006 15:38, Mitch Bradley wrote:

Request for comments.

It is similar in some respect to fs/proc/proc_devtree.c , but does not use procs, nor does it require an intermediate layer of code to create a flattened representation of the device tree.

NB: openpromfs does not use procs either. It just happens to be mounted somewhere down there.

```
+++ b/Documentation/filesystems/ofwfs.txt
+== Property Value Encoding ==
+
+A regular file in ofwfs contains the exact byte sequence that
+comprises the OFW property value. Properties are not reformatted
+into text form, so numeric property values appear as binary
+integers. While this is inconvenient for viewing, it is generally
+easier for programs that read property values, and it means that
+Open Firmware documentation about property values applies
+directly, without having to separately document an ASCII
+transformation (which would have to separately specified for
+different kinds of properties).
```

I appreciate the ASCII formatting that openpromfs currently does. Perhaps, should OFWFS be used, it could offer both?

```
+== Environment Assumptions ==
+
+The ofwfs code assumes that the Open Firmware client interface
+callback can be executed during Linux kernel startup
+(specifically, at "core_initcall" time). When ofwfs is
```

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- +initialized, it copies out the property values, so that subsequent
- +accesses to the tree do not require callbacks into OFW.

openpromfs also has many parts read-only, only one object, /options/security-password, is writable. Hence caching it once and forever seems ok.

BUT, the eeprom utility may be used to modify values, and if used, I would like to see ofwfs show the updated value. openpromfs does it today:

```
15:09 ares:/proc/openprom/options # cat oem-banner?  
false  
15:09 ares:/proc/openprom/options # eeprom 'oem-banner?=true'  
15:09 ares:/proc/openprom/options # cat oem-banner?  
true
```

(BTW, why does not openpromfs have it rw?)

- +== Recommended Mount Point ==
- +
+The recommended mount point for ofwfs is /ofw. (TBD: Should it be
+mounted somewhere under /sys instead?)

Somewhere in /sys/firmware perhaps.

~J'
--
-

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