

Ruby trunk - Feature #13743

Support linking of files opened with O_TMPFILE

07/13/2017 11:18 AM - Glass_saga (Masaki Matsushita)

Status:	Rejected
Priority:	Normal
Assignee:	Glass_saga (Masaki Matsushita)
Target version:	2.5
Description	
This patch enables linking of files opened with O_TMPFILE into file system. Users can make a temporary file persistent as named file.	
<pre>File.open(".", IO::WRONLY IO::TMPFILE) do f f.write("content") f.chmod(0600) File.link(f, "file_name") # make temporary file persistent end</pre>	

History

#1 - 07/13/2017 11:33 AM - nobu (Nobuyoshi Nakada)

Extension of File.link, but not File#link?

#2 - 07/13/2017 09:08 PM - normalperson (Eric Wong)

glass.saga@gmail.com wrote:

Feature [#13743](#): Support linking of files opened with O_TMPFILE
<https://bugs.ruby-lang.org/issues/13743>

I like this feature.

patch.diff (2.44 KB)

```
+ if (!NIL_P(tmp) && from_fptr && from_fptr->fd >= 0) { /* when 'from' is an IO and opened */
+   char from_path[PATH_MAX];
+
+   rb_io_flush(from);
+   FilePathValue(to);
+   to = rb_str_encode_ospath(to);
+   snprintf(from_path, PATH_MAX, "/proc/self/fd/%d", from_fptr->fd);
```

However, PATH_MAX (4096 on Linux) is excessive use of stack. Since fd is an int, we can safely set a smaller size.

Also, I'm not sure why rb_io_flush needs to be called, here.

Thanks.

#3 - 07/14/2017 01:46 AM - nobu (Nobuyoshi Nakada)

normalperson (Eric Wong) wrote:

However, PATH_MAX (4096 on Linux) is excessive use of stack. Since fd is an int, we can safely set a smaller size.

```
static const char self_fd[] = "/proc/self/fd/%d";
char from_path[sizeof(self_fd) - 2 + DECIMAL_SIZE_OF_BITS(sizeof(int))];
```

#4 - 07/14/2017 06:28 AM - akr (Akira Tanaka)

I feel this is too Linux and environment specific. For example, it depends /proc/fd.

I think that it is better to provide linkat(2) directly.
(Extend File.link or add File.linkat.)

#5 - 07/14/2017 06:39 AM - matz (Yukihiko Matsumoto)

- Status changed from Open to Rejected

This API is pretty simple but only works on Linux. I am not positive to add platform-specific features to the language core. I'd rather recommend considering making it a gem.

Matz.

#6 - 02/23/2018 10:48 AM - Glass_saga (Masaki Matsushita)

- Related to Feature #4592: Tempfile added

#7 - 02/23/2018 10:50 AM - Glass_saga (Masaki Matsushita)

- Related to deleted (Feature #4592: Tempfile)

Files

patch.diff	2.44 KB	07/13/2017	Glass_saga (Masaki Matsushita)
------------	---------	------------	--------------------------------