

TYPO3 Core - Bug #24342

t3lib_lock still sometimes has a race condition on deleting locks.

2010-12-15 13:15 - Björn Pedersen

Status: Closed	Start date: 2010-12-15
Priority: Should have	Due date:
Assignee:	% Done: 0%
Category:	Estimated time: 0.00 hour
Target version:	Complexity:
TYPO3 Version: 4.7	Is Regression: No
PHP Version: 5.3	Sprint Focus:
Tags:	
Description	
The problem of already deleted lock files still exists. * Solution : Add a "static" lock class and implement a lockFile-Lock.	
Another problem was, that locks that never were acquired were never released properly: The early return in release returned wrongly	
<ul style="list-style-type: none">• add a destruct member and use it as second flag for the early return	
The patch probably still needs some cleanup, e.g. where to keep the lockLock instance. (issue imported from #M16749)	
Related issues:	
Related to TYPO3 Core - Feature #18557: Integrate locking by database in t3li...	Rejected 2008-04-03
Has duplicate TYPO3 Core - Bug #32282: typo3temp/locks warning. unlink functi...	Closed 2011-12-03

History

#1 - 2010-12-16 14:18 - Björn Pedersen

v2: split into three files (one for each class).

#2 - 2010-12-16 14:23 - Björn Pedersen

related also to: <http://bugs.typo3.org/view.php?id=8010>,

especially as there has been a wish to split each in a separate class.

#3 - 2010-12-16 15:59 - Ernesto Baschny

Maybe it would be easier to get this thing splitted in two separate patches:

- 1) splitting up without changing the functionality
- 2) fixing the race condition part

I think mixing both causes some confusion in the reviewing process (see comment from Dmitry).

And how does it relate to [#18557](#)? Will you be able to integrate Olly's addition in your splitup?

But maybe I understood something wrong, as I haven't really read through the code.

#4 - 2010-12-17 09:12 - Björn Pedersen

Just to summarize current status and my changes:

currently we have t3lib_lock with all the switches in it.

I introduced a new abstract lock class (copying the current t3lib_lock and only removing the acquire and release methods) gets extended to get a functionally equivalent t3lib_lock (with the old acquire and release code) again.
Additionally I introduced a second lock class t3lib_lock_static, also extending the abstract class with release and acquire method.

The static lock does not remove it's ressource, so it can be used as a global lock.
To get rid of the race condition t3lib_lock got an instance (stored in \$globals) of the static class to protect access to it's lock ressource.

#5 - 2010-12-17 09:30 - Ernesto Baschny

It sounds like you have:

- part 1 is a refactoring of t3lib_lock into an abstract and a (backwards compatible) concrete class
- part 2 is a bugfix in t3lib_lock
- part 3 is a new feature t3lib_lock_static

So it would be very great to have this split up in three patches that does that in that order so that the history of changes reflect that.

Maybe before you do that work, we should clarify with Olly if we could have the t3lib_lock_Database ([#18557](#)) using your refactoring too.

About the naming and file location this is more or less how our CGL tells us to do it:

- t3lib_lock = t3lib/class.t3lib_lock.php
- t3lib_lock_AbstractLock = t3lib/lock/class.t3lib_lock_abstractlock.php
- t3lib_lock_Static = t3lib/lock/class.t3lib_lock_static.php
- t3lib_lock_Database = t3lib/lock/class.t3lib_lock_database.php

#6 - 2010-12-17 09:33 - Björn Pedersen

I can integrate patch from Olly in my current rewrite. If there is a decision to generate new sub-classes, it will take more work and reviews.

#7 - 2010-12-17 09:43 - Ernesto Baschny

Hi Olly, you might want to take a look at this issue. What do you think of this? Could this idea of the abstract lock be re-used or made more generic? Maybe we should create a LockInterface above that all?

#8 - 2010-12-17 09:48 - Björn Pedersen

- part 1 is a refactoring of t3lib_lock into an abstract and a (backwards compatible) concrete class
- part 2 is a new feature t3lib_lock_static (needed for the bug fix)
- part 3 is a bugfix in t3lib_lock

For the classes:

The split-up suggested by Dimitry would give

t3lib_lock : A proxy for the sub-classes

t3lib_lock_Simple

t3lib_lock_Flock,

t3lib_lock_Seamphore

t3lib_lock_Database

and static variants of all sub-classes.

#9 - 2010-12-20 10:58 - Björn Pedersen

3a fixes a minor typo

#10 - 2011-01-12 19:12 - Björn Pedersen

Currently postponing it to 4.6. I found some problems with non-triggering autoloader.

#11 - 2011-12-05 14:58 - Xavier Perseguers

- Target version changed from 0 to 4.7.0-alpha2

Unfortunately this patch was not pushed to 4.6 but as refactoring makes sense it may hopefully be part of 4.7. Could you please rework it if needed and push it to Gerrit ASAP?

#12 - 2011-12-05 15:28 - Xavier Perseguers

- Status changed from New to Accepted

There is indeed a race condition, as reported in this syslog (after slightly modifying Core to add additional information):

```
05-12-11 15:24 - cms: Locking: Failed to acquire lock: Lock file could not be created
(/path/to/typo3temp/locks/f288221509d8f33b8e85fbfd25731733)
05-12-11 15:24 - Core: Error handler (FE): PHP Warning: unlink(/path/to/typo3temp/locks/
f288221509d8f33b8e85fbfd25731733) [<a href='function.unlink'>function.unlink</a>]: No such
file or directory in /path/to/t3lib/class.t3lib_lock.php line 21
```

#13 - 2011-12-05 19:24 - Helmut Hummel

- Assignee set to Helmut Hummel

- TYPO3 Version changed from 4.5 to 4.7

- PHP Version changed from 5.2 to 5.3

I take care of this

#14 - 2011-12-06 09:18 - Björn Pedersen

Some more remarks for my patch:

After looking at it, there still some things not optimal:

- The available locking methods are hardcoded, they should probably be declared in TYPO3CONF so that extensions can add locking methods.
- The return value of acquire seems still senseless to me. The information whether we had to wait for lock or not is not really useful, a success/failure indication would be more useful (like a typical posix mutex).

I will probably not have much time to work on the code the next days.

#15 - 2011-12-06 09:32 - Helmut Hummel

Thanks for your ground work so far.

Björn Pedersen wrote:

After looking at it, there still some things not optimal:

Right. I've seen it. I'll take care of it. I already did some cleanup of your patch already but I'm not yet happy with the result. Once I'm ready, I'll push it to Gerrit.

#16 - 2011-12-20 22:50 - Oliver Hader

- Target version changed from 4.7.0-alpha2 to 4.7.0-alpha3

#17 - 2012-02-13 09:42 - Steffen Ritter

- Target version changed from 4.7.0-alpha3 to 4.7.0-beta1

#18 - 2012-03-05 17:56 - Steffen Ritter

- Target version changed from 4.7.0-beta1 to 4.7.0-beta2

#19 - 2012-03-13 08:46 - Björn Pedersen

@Helmut:

Any news on this one?

#20 - 2015-01-07 17:19 - Helmut Hummel

- Assignee deleted (Helmut Hummel)

- Is Regression set to No

#21 - 2015-03-24 12:17 - Markus Klein

- Status changed from Accepted to Closed

- Target version deleted (4.7.0-beta2)

4.7 is not supported anymore and locking has been reworked in CMS 6.2 and will be even more reworked with CMS 7

Files

t3lib_class.t3lib_lock.php.patch	12.1 KB	2010-12-15	Administrator Admin
16749_v2.patch	21.5 KB	2010-12-16	Administrator Admin
16749-v3.diff	30.4 KB	2010-12-20	Administrator Admin
16749-v3a.diff	30.4 KB	2010-12-20	Administrator Admin