

TYPO3 Core - Bug #51116

Task # 52304 (Closed): Performance issues

Massive speed problem from TYPO3 version 6.x at the first page request after long period

2013-08-16 14:46 - Harald no-lastname-given

Status: Closed	Start date: 2013-08-16
Priority: Won't have this time	Due date:
Assignee:	% Done: 100%
Category: Performance	Estimated time: 0.00 hour
Target version:	Complexity:
TYPO3 Version: 6.0	Is Regression: No
PHP Version: 5.3	Sprint Focus:
Tags:	
Description Dear ladies and gentlemen! I want to tell you that I have a massive connection problems since TYPO3 version 6.x. If my page after a period of about 10 hours (in the meantime the site was never called!!!) is called for the first time , often takes several of seconds to a browser can open the page. Then the connection speeds are fine. The page can be used properly? Everything goes very fast! To my "calming" I could now confirm that the same phenomenon have other people. And my provider could confirm that some of his customers have the same problems. I use NO fluid templating engine! I have built my page on automaketemplate. I do not write them out of desperation. Rather, I would like to point out or maybe can confirm the TYPO3 User hereby further. Thank you very much Harald	
Related issues:	
Related to TYPO3 Core - Bug #52125: Saving records takes ages to complete	Closed 2013-09-19
Related to TYPO3 Core - Bug #52235: Timeout when copying pages recursively du...	Closed 2013-09-24
Related to TYPO3 Core - Task #53747: Change TCA cache from php code to serial...	Closed 2013-11-18

Associated revisions

Revision 8167fb19 - 2013-09-25 16:28 - Markus Klein

[BUGFIX] Increase performance of exports for caches

Exporting arrays for caches is now done with var_export().

Resolves: #51116

Releases: 6.2, 6.1, 6.0

Change-Id: I7519fd9c2ab21cc22a3f4e092b611c6bca58c30f

Reviewed-on: <https://review.typo3.org/23969>

Reviewed-by: Xavier Perseguers

Tested-by: Xavier Perseguers

Reviewed-by: Helmut Hummel

Reviewed-by: Christian Kuhn

Tested-by: Christian Kuhn

Revision db5fb247 - 2013-09-25 16:29 - Markus Klein

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Reviewed-by: Xavier Perseguers
Tested-by: Xavier Perseguers
Reviewed-by: Helmut Hummel
Reviewed-by: Christian Kuhn
Tested-by: Christian Kuhn
(cherry picked from commit 8167fb19bc4539814a222185a8380be9add2e465)
Reviewed-on: <https://review.typo3.org/24051>

Revision 68bb2922 - 2013-09-25 16:33 - Markus Klein

[BUGFIX] Increase performance of exports for caches

Exporting arrays for caches is now done with `var_export()`.

Resolves: #51116
Releases: 6.2, 6.1, 6.0
Change-Id: I7519fd9c2ab21cc22a3f4e092b611c6bca58c30f
Reviewed-on: <https://review.typo3.org/24052>
Reviewed-by: Christian Kuhn
Tested-by: Christian Kuhn

Revision 690a3713 - 2013-09-26 21:42 - Christian Kuhn

[BUGFIX] Configure main extbase caches for unlimited entry lifetime

The extbase reflection and object caches are "stable" cache entries and only need to be deleted if extensions change or are updates. The extension manager takes care of flushing in this case.

Currently, the default lifetime of those cache entries is only one hour, so they are recalculated pretty often. This is especially a problem if the site was not accessed for more than an hour, since tons of cache entries exceeded their lifetime and require recalculation.

The patch moves the cache configuration of the required extbase extension to `DefaultConfiguration` and sets unlimited default lifetime for object and reflection cache.

Change-Id: I671692645aeb104f7fa73595cc79b25ed5984b85
Resolves: #52305
Related: #51116
Related: #52304
Releases: 6.2, 6.1, 6.0
Reviewed-on: <https://review.typo3.org/24069>
Reviewed-by: Christian Kuhn
Tested-by: Christian Kuhn

Revision bb94fe09 - 2013-09-26 21:43 - Christian Kuhn

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Resolves: #52305
Related: #51116
Related: #52304
Releases: 6.2, 6.1, 6.0
Reviewed-on: <https://review.typo3.org/24069>
Reviewed-by: Christian Kuhn
Tested-by: Christian Kuhn
(cherry picked from commit 690a3713830fc25e39e9f26937376b0aba10412d)

Reviewed-on: <https://review.typo3.org/24081>

Revision 0deefa07 - 2013-09-26 21:45 - Christian Kuhn

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The patch moves the cache configuration of the required extbase extension to DefaultConfiguration and sets unlimited default lifetime for object and reflection cache.

Change-Id: I671692645aeb104f7fa73595cc79b25ed5984b85

Resolves: #52305

Related: #51116

Related: #52304

Releases: 6.2, 6.1, 6.0

Reviewed-on: <https://review.typo3.org/24082>

Reviewed-by: Christian Kuhn

Tested-by: Christian Kuhn

History

#1 - 2013-08-16 14:52 - Harald no-lastname-given

I wanted to add that this is "NOT" a cache issue is and other people have the same problem from the 6.x version of TYPO3

Harald

#2 - 2013-08-19 11:06 - Martin Borer

Hi Harald,

I've had similar problems, but it was not a Typo3 issue. It was a configuration issue of MySQL. Which version of MySQL do you use? I've had problems after an Upgrade from MySQL 5.1 to 5.5. Insert Queries to innodb tables were very slow!

Had to set:

```
innodb_flush_log_at_trx_commit = 0
```

in my.cnf under [mysqld] part.

#3 - 2013-08-19 11:55 - Harald no-lastname-given

Hi Martin!

Thank you for your recommendation. I started the project with MySQL 5.5!

Unfortunately I have no way to access the mysql.ini. This is managed by my TYPO3-hoster.

This hoster is a TYPO3 specialist and only hosts TYPO3 projects. He is also well known. I think it will fit regarding this setting.

Thank you very much

Harald

#4 - 2013-08-23 09:52 - Henrik Ziegenhain

Hi Martin,

thank you for the recommendation regarding MySQL settings.

We are also affected by this issue.

The Hoster disabled the option and the page generation is much faster.

So, is this an TYPO3 Issue that should be solved or a suboptimal configuration?

#5 - 2013-08-23 15:00 - Martin Borer

Henrik Ziegenhain wrote:

So, is this an TYPO3 Issue that should be solved or a suboptimal configuration?

Hi Henrik,

Glad that your problems are solved now! I've had to spend a lot of time, to figure this out. ;)

No it's more a suboptimal/wrong configuration than a Typo3 Error! Typo3 4.5 instances on such systems are also very slow.

I've had this problem on a debian Wheezy server. It's possible that only this systems are 'affected'... I don't know.

#6 - 2013-08-23 15:25 - Harald no-lastname-given

- *Target version set to 6.0.9*

Dear Ladies and Gentlemen!

I have found an interesting post on typo3 forge, which may have a link with my problem described?

<http://forge.typo3.org/issues/50231>

Many Thanks

Harald

#7 - 2013-08-25 12:54 - Henrik Ziegenhain

Hi Martin,

our hoster said, it has to do with ext4 filesystem.

If I remember right: every database action is stored in the filesystem for a better data integrity.

Generating a non-cached page took ~30sec, a cached page was rendered in about 300ms.

#8 - 2013-08-29 14:08 - Martin Borer

Henrik Ziegenhain wrote:

Hi Martin,

our hoster said, it has to do with ext4 filesystem.

If I remember right: every database action is stored in the filesystem for a better data integrity.

Generating a non-cached page took ~30sec, a cached page was rendered in about 300ms.

Ohh sound's interesting! So the main problem is not the MySQL Setting `innodb_flush_log_at_trx_commit`?

Do you know, what has to be done to fix the ext4 issue?

#9 - 2013-08-29 14:51 - Henrik Ziegenhain

I think the combination of ext4 and `innodb_flush_log_at_trx_commit` was the problem.

Sorry, but I am not so familiar with those technical issues.

#10 - 2013-08-30 18:34 - Ernesto Baschny

- *Category set to Performance*

- *Status changed from New to Needs Feedback*

- *Priority changed from Should have to Won't have this time*

- *Target version deleted (6.0.9)*

So nothing TYPO3 can do except that we could document the settings or system configuration somewhere, right? Maybe you could add this somewhere to this (first hit in Google for "TYPO3 performance"): http://wiki.typo3.org/Performance_tuning

If that's okay, we would then close this bug issue in our tracker.

#11 - 2013-09-20 15:45 - Martin Borer

Yes.. for me, it's not a Typo3 Issue!

As Hanrik pointed out, it's a ext4 issue.

Truncating table queries were also very slow! Clear Typo3 Cache took very long.

Had to disable write barriers of the mounted ext4 hd to fix this (<https://wiki.archlinux.org/index.php/Ext4>).

So changing MySQL Setting `innodb_flush_log_at_trx_commit` fixes only one part of the Problem.

#12 - 2013-09-23 08:29 - Stefan Froemken

Hello,

do you really know WHAT `innodb_flush_log_at_trx_commit` does? It stops writing the log for just 1 second. So...if something gets wrong your data gets lost if you set this value to 0. I know...this options makes MySQL about 50% faster with inserts. This is pretty cool and works only with InnoDB (Mainly Cache tables of TYPO3). So this option is NOT the problem. This options gives you some more performance in general, but not only regarding a special TYPO3-Version. With this option you can speed up TYPO3 4.6, also.

So please: Do NOT turn off this options. It is for safety reasons and has nothing to do with this problem here. Sure, it speeds up your webpage, but it does NOT solve your problem.

Stefan

#13 - 2013-09-23 10:11 - Ernesto Baschny

- *Is Regression set to No*

The compromise setting `innodb_flush_log_at_trx_commit` anyway is "2" which makes the transaction commit write to the log file, but sync to disk only each second. This makes up the best compromise as even on a mysql crash this stands (of course not ACID compliant).

Usually you are much interested in high performance all the time, and do not care about the very unlikely situations of a power outage or a kernel panic where you **could** loose "1 sec of data". In these situations you probably have other worries than this potential data lost (cache tables, logs ..).

The performance benefits are so tremendous so I cannot recommend anything else (except if your website is performing highly delicate bank transactions or you are obliged by law to ACID compliance).

Back to topic: I think the issue with the "first hit after a long time" has more to do with the the operating system not having important parts of the file system (i.e. mysql files) in RAM anymore, and mysql also having deallocated vital buffers already. This happen even more visible if your hoster is hosting multiple sites on the same machine which were hit in the meantime.

I also don't think this is a TYPO3 issue but something to tune on server side, and very specific to the specific setup the hoster is caring to run it (NFS, remote MySQL servers, etc).

#14 - 2013-09-23 12:16 - Stefan Froemken

To say "This is not a TYPO3 problem" is easy to say. But in my opinion there are many changes within TYPO3 just at starting period. Just one example: You have changed the load of TCA. Please check your profiling against `Utility\ArrayUtility::arrayExport($GLOBALS['TCA']);` This takes 1,1 Second on my local machine with SSD. What do you think what will it take on a HDD? 3 or 4 seconds?

I will create a patch for this here in this ticket and you all can check if it helps a little bit.

Stefan

#15 - 2013-09-23 12:22 - Gerrit Code Review

- *Status changed from Needs Feedback to Under Review*

Patch set 1 for branch **master** has been pushed to the review server.

It is available at <https://review.typo3.org/23969>

#16 - 2013-09-23 14:22 - Alexander Opitz

The output of `cat /proc/meminfo` may help to see if this is more a problem of the server.

#17 - 2013-09-23 15:47 - Ernesto Baschny

@Stefan, don't get me wrong, I am not opposing working on performance in the 6.x branch, as I am sure we have still lot to do in this area which was a bit neglected lately. The original reporter mentioned that the problem was ext4 + the mysql setting, which is what "TYPO3 cannot do anything about it" (except maybe document some "known pitfalls").

Great that you took some time to work on the performance front by profiling and getting into detail, Stefan. I support this work and hope others can jump in. I'll try to work on that area too a bit.

#18 - 2013-09-23 16:48 - Martin Borer

@Stefan,

Don't know if Herald's performance issues are solved now. I've had similar problems and for me it was obvious that the problem was on MySQL/Server side. If a simple insert query takes some seconds instead of milliseconds, there has to be something wrong with the server configuration/setup. It's possible that disabling writing barriers on ext4 systems will do the trick and you don't have to disable `innodb_flush_log_at_trx_commit` anymore. Have not tested this..

But improving Typo3 performance in general is always a good idea!.. ;)

#19 - 2013-09-25 12:24 - Gerrit Code Review

Patch set 2 for branch **master** has been pushed to the review server.
It is available at <https://review.typo3.org/23969>

#20 - 2013-09-25 14:57 - Gerrit Code Review

Patch set 3 for branch **master** has been pushed to the review server.
It is available at <https://review.typo3.org/23969>

#21 - 2013-09-25 15:36 - Gerrit Code Review

Patch set 4 for branch **master** has been pushed to the review server.
It is available at <https://review.typo3.org/23969>

#22 - 2013-09-25 16:14 - Christian Kuhn

+1 on Ernesto's analysis innodb_flush_log_at_trx_commit = 2 , we set this, too.

#23 - 2013-09-25 16:29 - Gerrit Code Review

Patch set 1 for branch **TYPO3_6-1** has been pushed to the review server.
It is available at <https://review.typo3.org/24051>

#24 - 2013-09-25 16:30 - Markus Klein

- *Status changed from Under Review to Resolved*
- *% Done changed from 0 to 100*

Applied in changeset [db5fb2477fa3244ef6c61de9333d399ac6d3a4f6](#).

#25 - 2013-09-25 16:32 - Gerrit Code Review

- *Status changed from Resolved to Under Review*

Patch set 1 for branch **TYPO3_6-0** has been pushed to the review server.
It is available at <https://review.typo3.org/24052>

#26 - 2013-09-25 17:30 - Markus Klein

- *Status changed from Under Review to Resolved*

Applied in changeset [68bb29220a8a8ab9934d354e35ee3af802519ace](#).

#27 - 2013-09-26 16:09 - Christian Kuhn

- *Parent task set to #52304*

#28 - 2018-10-02 12:10 - Benni Mack

- *Status changed from Resolved to Closed*