

Core - Task # 54525

Epic # 55070 (Accepted): Workpackages

Epic # 55065 (New): WP: Overall System Performance (Backend and Frontend)

Story # 55078 (Closed): Optimize PHP code performance in TYPO3 methods

Status:	Resolved	Priority:	Should have
Author:	Michiel Roos	Category:	Performance
Created:	2013-12-20	Assigned To:	
Updated:	2014-02-14	Due date:	
TYPO3 Version:	6.2		
PHP Version:	5.3		
Complexity:	easy		
Sprint Focus:			
Subject:	Optimize file- and path functions in GeneralUtility		
Description	Optimize several frequently called methods: <ul style="list-style-type: none">- getFileAbsFileName()- validPathStr()- isAllowedAbsPath()- verifyFilenameAgainstDenyPattern()		

Associated revisions

Revision e1781feb - 2014-02-14 15:40 - Michiel Roos

[TASK] Optimize GeneralUtility path methods

The following methods are amongst the most frequently called ones:

- getFileAbsFileName()
- validPathStr()
- isAllowedAbsPath()
- verifyFilenameAgainstDenyPattern()

They can be optimized to return early, save some variable assignments and save some preg_match calls.

Change-Id: Id30b2f9b5a053d4267d9c24339f414821ba661ea

Resolves: #54525

Releases: 6.2

Reviewed-on: <https://review.typo3.org/26505>

Reviewed-by: Helmut Hummel

Tested-by: Helmut Hummel

Reviewed-by: Stefan Neufeind

Reviewed-by: Markus Klein

Tested-by: Markus Klein

History

#1 - 2013-12-20 00:45 - Gerrit Code Review

- Status changed from New to Under Review

Patch set 1 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.

It is available at <https://review.typo3.org/26505>

#2 - 2013-12-20 01:23 - Gerrit Code Review

Patch set 2 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.

It is available at <https://review.typo3.org/26505>

#3 - 2013-12-20 01:26 - Gerrit Code Review

Patch set 3 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.

It is available at <https://review.typo3.org/26505>

#4 - 2013-12-22 16:38 - Gerrit Code Review

Patch set 4 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.

It is available at <https://review.typo3.org/26505>

#5 - 2014-01-08 23:40 - Gerrit Code Review

Patch set 5 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.

It is available at <https://review.typo3.org/26505>

#6 - 2014-01-09 01:37 - Gerrit Code Review

Patch set 6 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.

It is available at <https://review.typo3.org/26505>

#7 - 2014-01-09 10:36 - Gerrit Code Review

Patch set 7 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.

It is available at <https://review.typo3.org/26505>

#8 - 2014-01-09 12:40 - Gerrit Code Review

Patch set 8 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.

It is available at <https://review.typo3.org/26505>

#9 - 2014-01-09 14:11 - Georg Ringer

so what is the measured benefit?

#10 - 2014-01-09 15:14 - Michiel Roos

I'll post some stats this evening.

These methods are being called a lot during the frontend rendering and backend rendering. Parsing and concatenating JS and CSS and generating cache files etc.

But to give you a rough impression. These are the current call counts for an uncached backend request (/typo3/backend.php), right after clearing all cache:

Times are inclusive wall time.

```
TYPO3\CMS\Core\Utility\GeneralUtility::isAllowedAbsPath - 2.267 calls - 364,98 ms
TYPO3\CMS\Core\Utility\GeneralUtility::validPathStr   - 2.315 calls - 168,77 ms
TYPO3\CMS\Core\Utility\GeneralUtility::isAbsPath      - 4.598 calls - 77,33 ms
TYPO3\CMS\Core\Utility\GeneralUtility::resolveBackPath - 608 calls - 23,03 ms
```

The total wall time was 10,43 s here . . . mostly taken by file_put_contents(), rename(), chgrp() etc.

Reduction in call times with the patch:

```
TYPO3\CMS\Core\Utility\GeneralUtility::isAllowedAbsPath - 67,30 ms
TYPO3\CMS\Core\Utility\GeneralUtility::validPathStr   - 9,19 ms
TYPO3\CMS\Core\Utility\GeneralUtility::isAbsPath      - 33,97 ms
TYPO3\CMS\Core\Utility\GeneralUtility::resolveBackPath - 2,32 ms
```

#11 - 2014-01-10 21:04 - Michiel Roos

Here is a test for the isAbsPath function to get an impression: <http://pastebin.com/0BqyVGrc>

#12 - 2014-01-28 10:05 - Ernesto Baschny

- Target version changed from next-patchlevel to 6.2.0
- Parent task set to #55078

#13 - 2014-02-06 14:11 - Gerrit Code Review

Patch set 9 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.
It is available at <https://review.typo3.org/26505>

#14 - 2014-02-06 15:08 - Gerrit Code Review

Patch set 10 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.
It is available at <https://review.typo3.org/26505>

#15 - 2014-02-07 17:39 - Gerrit Code Review

Patch set 11 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.
It is available at <https://review.typo3.org/26505>

#16 - 2014-02-13 11:48 - Gerrit Code Review

Patch set 12 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.

It is available at <https://review.typo3.org/26505>

#17 - 2014-02-14 12:59 - Gerrit Code Review

Patch set 13 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.

It is available at <https://review.typo3.org/26505>

#18 - 2014-02-14 16:30 - Michiel Roos

- *Status changed from Under Review to Resolved*

- *% Done changed from 0 to 100*

Applied in changeset commit:e1781feb954fa9208c604928d0943e1373b2f11c.