

TYPO3 Core - Task #54251

Epic # 55070 (Closed): Workpackages

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

Bug # 52949 (Closed): Speed decrease since 4.5

GeneralUtility::array_merge_recursive_overrule has bad performance

2013-12-06 22:43 - Markus Klein

Status:	Closed	Start date:	2013-12-06
Priority:	Should have	Due date:	
Assignee:	Markus Klein	% Done:	100%
Category:	Performance	Estimated time:	0.00 hour
Target version:	6.2.0	Complexity:	easy
TYPO3 Version:	6.2	Sprint Focus:	
PHP Version:	5.5		
Tags:			
Description			
<p>According to my profiling activities, GeneralUtility::array_merge_recursive_overrule has really bad performance. (~ 111 ms own time for a BE call, that ranks number 3 in the list of the most expensive calls based on own time sorting.)</p> <p>Some tests show that this is due to many array copy actions during the recursive calls (foreach constructs with \$val being a copy of possibly large subarrays).</p> <p>I propose to optimize this method by:</p> <ol style="list-style-type: none">1. making the first parameter by reference thus working on the original array2. move the function from GeneralUtility to ArrayUtility3. deprecate the function in GeneralUtility, but still work on a copy of the first array there to preserve backwards compatibility4. change all calls in core to use the new method <p>This brings the own time of the function down to 42 ms on my test system, getting the function out of the expensive calls in TYPO3 CMS.</p>			
Related issues:			
Related to TYPO3 Core - Task #57499: Improve deprecation message of GeneralUt...		Closed	2014-04-01
Related to TYPO3 Core - Bug #63812: Lower memory use in ArrayUtil->mergeRecur...		Closed	2014-12-12

Associated revisions

Revision 2917b074 - 2014-01-08 13:13 - Markus Klein

[TASK] Improve performance of array_merge_recursive_overrule

The method GeneralUtility::array_merge_recursive_overrule() always works on a copy of the given array(s). This is highly inefficient when it comes to really big arrays and recursion.

This patches moves the functionality into the class ArrayUtility and changes the behaviour to use a reference to the original array.

All calls in the core are adjusted accordingly.

Furthermore we deprecate the method in GeneralUtility and preserve backward compatibility.

Resolves: #54251

Releases: 6.2

Change-Id: I5499905593c2124897de5998be985e546a3d05ee

Reviewed-on: <https://review.typo3.org/25986>

Reviewed-by: Michiel Roos

Tested-by: Michiel Roos

Reviewed-by: Wouter Wolters

Tested-by: Wouter Wolters

Reviewed-by: Ernesto Baschny

Tested-by: Ernesto Baschny

History

#1 - 2013-12-06 22:43 - Markus Klein

- Parent task set to #52949

#2 - 2013-12-06 23:05 - 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/25986>

#3 - 2013-12-06 23:08 - 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/25986>

#4 - 2013-12-07 17:10 - 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/25986>

#5 - 2013-12-09 12:03 - 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/25986>

#6 - 2013-12-09 14:05 - 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/25986>

#7 - 2013-12-09 15:02 - 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/25986>

#8 - 2013-12-17 00:07 - 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/25986>

#9 - 2013-12-19 01:06 - 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/25986>

#10 - 2013-12-29 17:02 - 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/25986>

#11 - 2013-12-29 17:04 - 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/25986>

#12 - 2014-01-08 13:30 - Markus Klein

- Status changed from Under Review to Resolved

- % Done changed from 0 to 100

Applied in changeset [2917b0745d5c10e13f5910776dfb02371b12](#).

#13 - 2017-10-23 21:46 - Riccardo De Contardi

- Status changed from Resolved to Closed