

Core - Task # 54091

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:	Markus Klein	Category:	Performance
Created:	2013-11-29	Assigned To:	
Updated:	2015-01-18	Due date:	
TYPO3 Version:	6.2		
PHP Version:			
Complexity:	medium		
Sprint Focus:			
Subject:	Use === operator instead of strlen() to check for zero length strings		
Description			
<p>Use the === operator instead of the strlen() function to check for strings of length zero.</p> <p>This can give a performance improvement of factor 3.</p> <p>Short note: Although some source claim that strlen() has O(1), for some reason the comparison against an empty string is still faster.</p> <p>Nevertheless, besides the possible performance improvement, this change also improves readability.</p>			
Related issues:			
related to Core - Bug # 67034: Content Slide: slide.collect issues since 7.1.0		Resolved	2015-05-19
related to Core - Bug # 65239: Missing (string) cast or isset() check in HTML...		Resolved	2015-02-23
duplicated by Core - Task # 64199: Cleanup usage of strlen()		Resolved	2015-01-09
precedes Core - Bug # 67040: Backend broken on PostgreSQL - missing (string) ...		Resolved	2015-05-19

Associated revisions

Revision de27a20a - 2014-02-23 11:24 - Markus Klein

[CLEANUP] Replace strlen() with === for zero length check

It is faster to compare a string with === "" to find out if it's empty than to run strlen() on it.

The replacement rules are applied as follows: * if (strlen(\$str))
=> if ((string)\$str !== "") * if (!is_string(\$str) || strlen(\$str) === 0)
=> if (!is_string(\$str) || \$str === "") * If it can be seen easily that \$str is a string, the typecast is omitted.

Resolves: #54091

Releases: 6.2

Change-Id: I59c5cbccea4f98b8f282377e6aa67d970859a457

Reviewed-on: <https://review.typo3.org/27091>

Reviewed-by: Stefan Neufeind

Tested-by: Stefan Neufeind

Revision 4722b6cf - 2015-01-18 14:37 - Markus Klein

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Change-Id: I888d70e42f925bd57ad23b873b72d6a38acb39ef

Resolves: #54091

Releases: master

Reviewed-on: <http://review.typo3.org/27794>

Reviewed-by: Mathias Schreiber <mathias.schreiber@wmdb.de>

Tested-by: Mathias Schreiber <mathias.schreiber@wmdb.de>

Reviewed-by: Stefan Neufeind <typo3.neufeind@speedpartner.de>

Tested-by: Stefan Neufeind <typo3.neufeind@speedpartner.de>

Revision a27dfad8 - 2015-05-20 00:20 - Morton Jonuschat

[BUGFIX] Add missing (string) cast in dbal/DatabaseConnection

This is a regression fix for #54091.

It has been forgotten to cast the lastQuery to a string before checking if it's empty

Resolves: #67040

Related: #54091

Releases: master

Change-Id: I6991cad799e686066f8205749baee4aed20a9127

Reviewed-on: <http://review.typo3.org/39625>

Reviewed-by: Andreas Fernandez <typo3@scripting-base.de>

Tested-by: Andreas Fernandez <typo3@scripting-base.de>

Reviewed-by: Stephan Großberndt <stephan@grossberndt.de>

Reviewed-by: Wouter Wolters <typo3@wouterwolters.nl>

Reviewed-by: Markus Klein <markus.klein@typo3.org>

Tested-by: Markus Klein <markus.klein@typo3.org>

Revision bde48583 - 2015-06-15 12:52 - Benjamin Mack

[BUGFIX] CONTENT cObject slide does not loop

The CONTENT cObject is looping over the SQL query when sliding the rootline and/or collecting but never repeats due to missing braces.

This happened during a cleanup merge in commit 4722b6cf5c97ab415d3d35687ed77750b97e3258.

The patch re-adds the braces.

Resolves: #67034
Related: #54091
Releases: master
Change-Id: Ifc912ea8d5d2861d6888ddc5ac7bd755e3ff6bb4
Reviewed-on: <http://review.typo3.org/40244>
Reviewed-by: Markus Klein <markus.klein@typo3.org>
Tested-by: Markus Klein <markus.klein@typo3.org>
Reviewed-by: Andreas Fernandez <typo3@scripting-base.de>
Tested-by: Andreas Fernandez <typo3@scripting-base.de>

History

#1 - 2013-12-01 16:30 - Stefan Neufeind

In general I like the idea.

Beware though that `strlen()` also returns 0 for `FALSE`, will cast non-strings to a string first (thus correctly gives string-length of integers etc.) and such.

#2 - 2013-12-11 23:02 - Jo Hasenau

Beware though that `strlen()` also returns 0 for `FALSE`, will cast non-strings to a string first (thus correctly gives string-length of integers etc.) and such.

So

```
(string)$foo === "
```

should do the job and `strlen()` can stay for those cases that expect a length > 0

#3 - 2014-01-28 09:54 - Ernesto Baschny

- Target version set to 6.2.0
- Parent task changed from #52949 to #55078

#4 - 2014-01-28 11:06 - Markus Klein

I tested `strlen()` a bit.

```
1$c = FALSE;
2echo strlen($c); // 0
3echo (string)$c === " ? 'empty' : 'not empty'; // empty
4echo $c === " ? 'empty' : 'not empty'; // not empty

1$c = TRUE;
2echo strlen($c); // 1
3echo (string)$c === " ? 'empty' : 'not empty'; // not empty
4echo $c === " ? 'empty' : 'not empty'; // not empty
```

So it suffices to do the cast in cases where we are not sure about the type.

#5 - 2014-01-28 13:58 - 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/27091>

#6 - 2014-01-28 14:17 - 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/27091>

#7 - 2014-01-28 14:43 - 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/27091>

#8 - 2014-01-28 17:21 - 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/27091>

#9 - 2014-02-03 11:02 - 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/27091>

#10 - 2014-02-06 22:08 - 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/27091>

#11 - 2014-02-06 22:18 - Stefan Neufeind

- Subject changed from Use === operator instead of strlen() to check for zero length stirngs to Use === operator instead of strlen() to check for zero length strings

#12 - 2014-02-06 23:26 - 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/27091>

#13 - 2014-02-18 18:18 - 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/27091>

#14 - 2014-02-23 11:23 - 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/27091>

#15 - 2014-02-23 11:30 - Markus Klein

- Status changed from *Under Review* to *Resolved*

- % Done changed from 0 to 100

Applied in changeset commit:de27a20afbd8f413f60029afc5622c7b33212322.

#16 - 2014-02-23 13:20 - Gerrit Code Review

- Status changed from *Resolved* 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/27794>

#17 - 2014-03-04 07:21 - Gerrit Code 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/28017>

#18 - 2014-03-04 08:08 - Michiel Roos

To make travis pass all the failing tests:

One issue is in \TYPO3\CMS\Core\Utility\GeneralUtility::xml2arrayProcess()

Around line: 2273:

```
if ((string)$val['attributes']['index'] !== "") {  
    $tagName = $val['attributes']['index'];  
}
```

Two more string casts are needed in: typo3/sysex/extbase/Classes/Scheduler/FieldProvider.php around line 244

Two more string casts are needed in typo3/sysex/extensionmanager/Classes/Utility/EmConfUtility.php around line 95:

```
- if (strlen($emConf['PHP_version'])) {  
+ if ((string)$emConf['PHP_version'] !== "") {  
    $emConf['constraints']['depends']['php'] = $emConf['PHP_version'];  
}  
- if (strlen($emConf['TYPO3_version'])) {  
+ if ((string)$emConf['TYPO3_version'] !== "") {  
    $emConf['constraints']['depends']['typo3'] = $emConf['TYPO3_version'];  
}
```

#19 - 2014-03-04 10:10 - 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/27794>

#20 - 2014-03-05 09:20 - 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/27794>

#21 - 2014-05-30 11:31 - Markus Klein

- *Target version deleted (6.2.0)*

#22 - 2014-09-21 01:05 - 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 <http://review.typo3.org/27794>

#23 - 2015-01-11 18:51 - 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 <http://review.typo3.org/27794>

#24 - 2015-01-12 14:43 - 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 <http://review.typo3.org/27794>

#25 - 2015-01-17 11:27 - 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 <http://review.typo3.org/27794>

#26 - 2015-01-17 22:30 - 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 <http://review.typo3.org/27794>

#27 - 2015-01-18 12:03 - 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 <http://review.typo3.org/27794>

#28 - 2015-01-18 15:00 - Markus Klein

- *Status changed from Under Review to Resolved*

