

## TYPO3 Core - Task #57594

Epic # 55070 (Closed): Workpackages

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

Epic # 55656 (Closed): Optimize overall Extbase performance

### Optimize ReflectionService Cache handling

2014-04-03 11:15 - Marc Bastian Heinrichs

<b>Status:</b>	Closed	<b>Start date:</b>	2017-05-31
<b>Priority:</b>	Should have	<b>Due date:</b>	
<b>Assignee:</b>	Marc Bastian Heinrichs	<b>% Done:</b>	100%
<b>Category:</b>	Extbase	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	9.0	<b>Complexity:</b>	
<b>TYPO3 Version:</b>	8	<b>Sprint Focus:</b>	
<b>PHP Version:</b>	7.0		
<b>Tags:</b>			
<b>Description</b>			
A the moment the ReflectionService cache handling has some drawbacks:			
<ul style="list-style-type: none"><li>• it doesn't support nested Extensions (#12518)</li><li>• the cache data for main extensions (e.g. fluid/extbase) are redundant cached and e.g. are not reused from different extensions on one page (performance)</li><li>• some Reflection evaluation is missing, that it could be used by the ClassInfoFactory (performance)</li></ul>			
<b>Subtasks:</b>			
Feature # 81389: Injected ReflectionService without call to initialize/shutdown			<b>Closed</b>
<b>Related issues:</b>			
Related to TYPO3 Core - Bug #91726: Transient annotation is ignored		<b>New</b>	<b>2020-06-30</b>
Blocks TYPO3 Core - Task #55654: Extbase: Optimize ClassInfoFactory with the ...		<b>Closed</b>	<b>2014-02-04</b>

### Associated revisions

#### Revision 73b5e17d - 2017-10-17 17:35 - Alexander Schnitzler

[!!!][TASK] Replace ClassInfo with ClassSchema

Extbase came along with two main caches for reflection data. `extbase_reflection` and `extbase_object`. The latter mostly stored information that were relevant to the dependency injection, like inject methods and properties and constructor parameters. The information was gathered by actual reflection and by analysing doc blocks of properties and methods.

`extbase_reflection` stored similar reflection and doc block data about objects but mainly for the parts outside dependency injection. For example, the validation resolver used it to identify `@validate` tags, the ActionController used it to identify which properties not to validate. The ORM also used it a lot to find annotated types via `@var` and so on.

There were a few issues with these two approaches:

- A lot of redundant data was fetched
- Data was fetched multiple times at different locations
- The `extbase_reflection` cache was stored each plugin separately, resulting in a lot of redundant cache data for each plugin cache
- At a lot of places, the reflection service was used to reflect objects, but the data wasn't cached or taken from a cache resulting in performance drawbacks

This patch solves these issues with several approaches:

- The `extbase_object` cache has been removed completely and all necessary information about objects, mainly `@inject` stuff, is

now fetched from the ReflectionService as well.

- The ReflectionService does still create ClassSchema instances but these were improved a lot. All necessary information is now gathered during the instantiation of ClassSchema instances. That means that all necessary data is fetched once and then it can be used everywhere making any further reflection superfluous.
- As runtime reflection has been removed completely, along with it several reflection classes, that analyzed doc blocks, have been removed as well. These are no longer necessary.
- The extbase\_reflection cache is no longer plugin based and will no longer be stored in the database in the first place. Serialized ClassSchema instances will be stored in typo3temp.

Releases: master  
Resolves: #57594  
Resolves: #55654  
Change-Id: I93b905c85c4f28775f014ca8b585347bf6f1e7d3  
Reviewed-on: <https://review.typo3.org/54381>  
Reviewed-by: Benni Mack <[benni@typo3.org](mailto:benni@typo3.org)>  
Tested-by: Benni Mack <[benni@typo3.org](mailto:benni@typo3.org)>  
Tested-by: TYPO3com <[no-reply@typo3.com](mailto:no-reply@typo3.com)>  
Reviewed-by: Susanne Moog <[susanne.moog@typo3.org](mailto:susanne.moog@typo3.org)>  
Tested-by: Susanne Moog <[susanne.moog@typo3.org](mailto:susanne.moog@typo3.org)>

#### Revision d9d8f19a - 2017-10-31 07:42 - Alexander Schnitzler

[FOLLOWUP][!!!!][TASK] Replace ClassInfo with ClassSchema

Increase test coverage of ClassSchema and ReflectionService

Releases: master  
Resolves: #57594  
Resolves: #55654  
Change-Id: If413dc0b428f94dffef13e1875e3a7af4f9939b7  
Reviewed-on: <https://review.typo3.org/54482>  
Tested-by: TYPO3com <[no-reply@typo3.com](mailto:no-reply@typo3.com)>  
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Tested-by: Markus Klein <[markus.klein@typo3.org](mailto:markus.klein@typo3.org)>

## History

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### #1 - 2014-04-03 11:23 - Marc Bastian Heinrichs

- Category set to Extbase

### #2 - 2015-11-12 11:51 - Alexander Opitz

- Target version changed from next-patchlevel to 8 LTS

### #3 - 2017-05-04 17:48 - Benni Mack

- Target version changed from 8 LTS to Candidate for patchlevel

### #4 - 2017-10-12 17:00 - Gerrit Code Review

- Status changed from Accepted 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/54381>

### #5 - 2017-10-12 17:01 - 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/54381>

### #6 - 2017-10-12 17:59 - 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/54381>

### #7 - 2017-10-12 18:18 - 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/54381>

**#8 - 2017-10-12 22:27 - 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/54381>

**#9 - 2017-10-12 22:28 - 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/54381>

**#10 - 2017-10-12 22:37 - 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/54381>

**#11 - 2017-10-13 10:23 - 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/54381>

**#12 - 2017-10-13 11:32 - 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/54381>

**#13 - 2017-10-13 11:57 - Alexander Schnitzler**

- Target version changed from Candidate for patchlevel to 9.0
- TYPO3 Version changed from 6.2 to 8
- PHP Version set to 7.0

**#14 - 2017-10-13 12:23 - 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/54381>

**#15 - 2017-10-13 13:37 - 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/54381>

**#16 - 2017-10-13 14:18 - 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/54381>

**#17 - 2017-10-13 15:15 - 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/54381>

**#18 - 2017-10-13 15:57 - Gerrit Code Review**

Patch set 14 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.  
It is available at <https://review.typo3.org/54381>

**#19 - 2017-10-16 12:32 - Gerrit Code Review**

Patch set 15 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.  
It is available at <https://review.typo3.org/54381>

**#20 - 2017-10-17 14:16 - Gerrit Code Review**

Patch set 16 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.  
It is available at <https://review.typo3.org/54381>

**#21 - 2017-10-17 15:10 - Gerrit Code Review**

Patch set 17 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.  
It is available at <https://review.typo3.org/54381>

**#22 - 2017-10-17 15:15 - Gerrit Code Review**

Patch set 18 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.  
It is available at <https://review.typo3.org/54381>

**#23 - 2017-10-17 16:04 - Gerrit Code Review**

Patch set 19 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.  
It is available at <https://review.typo3.org/54381>

**#24 - 2017-10-17 16:39 - Gerrit Code Review**

Patch set 20 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.  
It is available at <https://review.typo3.org/54381>

**#25 - 2017-10-17 16:50 - Gerrit Code Review**

Patch set 21 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.  
It is available at <https://review.typo3.org/54381>

**#26 - 2017-10-17 17:12 - Gerrit Code Review**

Patch set 22 for branch **master** of project **Packages/TYPO3.CMS** has been pushed to the review server.  
It is available at <https://review.typo3.org/54381>

**#27 - 2017-10-17 18:00 - Anonymous**

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

Applied in changeset [73b5e17d1807bc0e9bb2a11dc5f2affc65b304bd](#).

**#28 - 2017-10-27 14:09 - 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/54482>

**#29 - 2017-10-31 08:00 - Anonymous**

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

Applied in changeset [d9d8f19a0b1ba36bd35dca77afc1047b50f20de9](#).

**#30 - 2018-10-02 11:57 - Benni Mack**

- Status changed from *Resolved* to *Closed*

**#31 - 2020-06-30 00:58 - Markus Klein**

- Related to Bug #91726: *Transient annotation is ignored* added