Core - Task # 55169

Epic # 55070 (Accepted): Workpackages
  Epic # 55065 (New): WP: Overall System Performance (Backend and Frontend)
    Epic # 55656 (Accepted): Optimize overall Extbase performance
      Story # 55168 (Accepted): Optimize Extbase generic persistence

Status:	Under Review	**Priority:**	Could have
Author:	Felix Oertel	**Category:**	Extbase
Created:	2014-01-20	**Assigned To:**	Felix Oertel
Updated:	2015-06-15	**Due date:**	
TYPO3 Version:	6.2		
PHP Version:			
Complexity:	hard		
Sprint Focus:			
Subject:	Extbase: fetch child objects in one query		

Description

To get the child-objects of a collection, extbase runs one query per object. If you got an objectStorage with 10 posts each with an author, extbase will use ten queries to get them. This generates a lot of database hits on applications making heavy use of child-objects (like FAL).

We have to try to reduce the queries to one per type. It should (in theory) not be too hard, to fetch ten authors in one "uid IN (1,2,3)"-query, cache them 1st level and map them to the corresponding parent object on request.

At the moment it's only possible to set @lazy-annotation globally in the domain model, so we should give the user a way to disable pre-fetching on a per-query-base.

Subtasks:

Feature # 60460: Refactor lazyLoading handling in extbase	**Accepted**

Related issues:

related to Core - Task # 59917: User Repositories in internal persistence logic	**Under Review**	**2014-06-27**	**2014-07-09**

History

#1 - 2014-01-20 14:57 - Alexander Schnitzler

Why not cache "SELECT * FROM" on every table? **scnr**

#2 - 2014-01-26 10:07 - Felix Oertel

Alexander Schnitzler wrote:

> *Why not cache "SELECT * FROM" on every table? **scnr***

Because it would - most likely - take up too much ram.

#3 - 2014-01-27 11:27 - Stephan Großberndt

https://de.wikipedia.org/wiki/Liste_von_Abkürzungen_(Netzjargon)#S

#4 - 2014-02-14 19:26 - Ernesto Baschny

- Subject changed from fetch child objects in one query to Extbase: fetch child objects in one query

- Category set to Extbase

- TYPO3 Version set to 6.2

#5 - 2014-03-14 21:37 - Xavier Perseguers

Beware with "uid IN (1,2,3)"-query, there is a hard-limit to 1000 items in the list when using MySQL. This is why I implemented those kinds of queries many times like that:

```
1      $chunkSize = 1000;
2      $constraints = array();
3      while (count($uids) > 0) {
4        $chunk = array_slice($uids, 0, $chunkSize);
5        if ($plainArray) {
6          $constraints[] = 'uid IN (' . implode(',', $chunk) . ')';
7        } else {
8          $constraints[] = $query->in('uid', $chunk);
9        }
10       $uids = array_slice($uids, count($chunk));
11     }
```


(was used in the context of doing complex queries to retrieve uids of objects to be returned in some findBy method the "old" way, efficiently, without Extbase, and only then use Extbase to fetch domain objects.

Of course with 10 or 100 posts, this is not a problem but we should think of real life scenarios as well!

#6 - 2014-06-27 08:28 - Felix Oertel

- Due date set to 2014-07-09

- Target version changed from 6.2.0 to 7.0

- Start date changed from 2014-01-20 to 2014-06-27

- Estimated time set to 48.00

- Remaining (hours) set to 48.0

#7 - 2014-08-20 22:13 - Gerrit Code Review

- Status changed from Accepted to Under Review

- Remaining (hours) deleted (48.0)

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

It is available at http://review.typo3.org/32286

#8 - 2014-08-20 22:25 - 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 http://review.typo3.org/32286

#9 - 2014-08-20 22:34 - 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 http://review.typo3.org/32286

#10 - 2014-12-23 19:48 - Mathias Schreiber

- Target version changed from 7.0 to 7.1 (Cleanup)

#11 - 2015-03-15 19:33 - 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/32286

#12 - 2015-06-05 18:40 - Christian Kuhn

the pending patch was abandoned.

#13 - 2015-06-15 17:45 - Benjamin Mack

- Target version changed from 7.1 (Cleanup) to 7.4 (Backend)