Core - Feature # 46615

Status:	Closed	**Priority:**	Could have
Author:	Alexander Opitz	**Category:**	Performance
Created:	2013-03-23	**Assigned To:**	Alexander Opitz
Updated:	2013-11-12	**Due date:**	

PHP Version:	
Complexity:	
Sprint Focus:	
Subject:	Speed improvements in ClassLoader

Description

The ClassLoader has different speed problems as he loads and manages big arrays of backward compatibility aliases for classes (for example intersecting arrays with around 2400 and 5000 entries).

So to improve this, we can move this code out to a ClassLoader only for backward compatibility which will do class alias loading if needed. This helps to reduce the loading time if only "modern" code is used.

Speedtest on the start page of the introduction package:

Testsystem: PHP 5.4.13, MariaDB 5.5.29
Testcommand: ab -c 10 -n 100 http://localhorst.typo61/

Before:
Time taken for tests: 19.813 seconds
Total transferred: 23000 bytes
HTML transferred: 0 bytes
Requests per second: 5.05 [#/sec] (mean)
Time per request: 1981.282 [ms] (mean)
Time per request: 198.128 [ms] (mean, across all concurrent requests)
Transfer rate: 1.13 [Kbytes/sec] received

After:
Time taken for tests: 12.570 seconds
Total transferred: 1035500 bytes
HTML transferred: 990700 bytes
Requests per second: 7.96 [#/sec] (mean)
Time per request: 1256.969 [ms] (mean)
Time per request: 125.697 [ms] (mean, across all concurrent requests)
Transfer rate: 80.45 [Kbytes/sec] received

Related issues:

related to Core - Epic # 47018: Implement Composer support and clean package ...	**Resolved**	**2013-08-28**

History

#1 - 2013-03-24 10:05 - Alexander Opitz

- Assigned To set to Alexander Opitz

#2 - 2013-03-24 12:37 - Gerrit Code Review

- Status changed from Accepted to Under Review

Patch set 1 for branch **master** has been pushed to the review server.

It is available at https://review.typo3.org/19249

#3 - 2013-03-24 14:56 - Gerrit Code Review

Patch set 2 for branch **master** has been pushed to the review server.

It is available at https://review.typo3.org/19249

#4 - 2013-03-25 01:03 - Xaver Maierhofer

Hello,

i don't know much about the issue above. But your "ab" result is not representative at all.

10 parallel request and 100 request total on a local system is good luck on result. I/O to get all files, cache of your system.

Example here

```
ab -c 10 -n 100 http://www.XYZ
This is ApacheBench, Version 2.3 <$Revision: 655654 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking www.XYZ (be patient).....done

Server Software:        Apache
Server Hostname:        www.XYZ
Server Port:            80

Document Path:          /
Document Length:        19849 bytes

Concurrency Level:      10
Time taken for tests:   0.297 seconds
Complete requests:      100
Failed requests:        0
Write errors:           0
Total transferred:      2018500 bytes
HTML transferred:       1984900 bytes
Requests per second:    336.25 [#/sec] (mean)
Time per request:       29.740 [ms] (mean)
Time per request:       2.974 [ms] (mean, across all concurrent requests)
Transfer rate:          6628.15 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median  max
Connect:        0    0   0.3      0       1
Processing:    21   29   5.4     28      47
Waiting:       21   28   5.4     28      47
Total:         21   29   5.4     28      48
```

Percentage of the requests served within a certain time (ms)

    50%   28
    66%   29
    75%   31
    80%   33
    90%   36
    95%   39
    98%   47
    99%   48
   100%   48 (longest request)

Next time i get one long request "100%   1032 (longest request)" and loading time is by 1.03 sec.

Maybe you use more requests. PHP Mode Version and cache modules (apc, opcache ...) make often a difference from speed.

But in the end - Nice to see you try to speedup thing in TYPO3 core!

#5 - 2013-03-25 12:28 - Alexander Opitz

The test was against another notebook during the FAL code sprint with and without APC (But the results didn't show any changes). So the system was to slow to use other parameters for ab testing.

More data is available in the mailing list:

Starting here: http://lists.typo3.org/pipermail/typo3-team-core/2013-March/053641.html
Continuing here: http://lists.typo3.org/pipermail/typo3-team-core/2013-March/053739.html

#6 - 2013-03-27 19:55 - Gerrit Code Review

Patch set 2 for branch **master** has been pushed to the review server.
It is available at https://review.typo3.org/19283

#7 - 2013-09-12 09:21 - Alexander Opitz

- Status changed from Under Review to Accepted

- Priority changed from Should have to Could have

- Target version deleted (6.1.0)

#8 - 2013-11-12 15:59 - Alexander Opitz

- Status changed from Accepted to Closed

The performance problems were addressed in another way for TYPO3 6.2, who is using a PackageManager which also can handle flow/composer packages. More issues will be handled as subtask of #52304