PSR-6 and PSR-16 in Netgen Stack

By BM and MB





The need for caching PSR's





Caching PSR's

- Caching is a common way to improve the performance of any project
- Many libraries roll their own caching libraries
- Developers have to learn multiple systems
- The problem of supporting multiple frameworks (TedivmStashBundle)



The future looks cached and standardized

- A common interface for caching systems will solve our problems
- Developers can count on the systems working the way they're expecting
- No more a whole assortment of adapters







Goal:

 Allow developers to create cache-aware libraries that can be integrated into existing frameworks



Interfaces:

- CacheltemInterface
- CacheltemPoolInterface
- CacheException
- InvalidArgumentException



PSR-6 - CacheltemInterface

- public function getKey()
- public function get()
- public function isHit()
- public function set(\$value)
- public function expiresAt(\$expiration)
- public function expiresAfter(\$time)



PSR-6 - CacheltemPoolInterface

- public function getItem(\$key)
- public function getItems(array \$keys = array())
- public function hasItem(\$key)
- public function clear()



PSR-6 - CacheltemPoolInterface

- public function deleteltem(\$key)
- public function deleteltems(array \$keys)
- public function save(CacheltemInterface \$item)
- public function saveDeferred(CacheltemInterface
 \$item)
- public function commit()



PSR-6 - Libraries

- Symfony Cache
- PHP Cache
- Laminas Cache (Zend Cache)
- Stash Cache







PSR-16 (simple cache)

Goals:

- a simple interface for cache operations
- support for operations on multiple keys
- Providing an adapter that turns a PSR-6 into a PSR-Simple-Cache



PSR-16 (simple cache)

Non-Goals:

 Solving all possible edge cases, PSR-6 does this well already.



PSR-16 (simple cache)

Why bother?

- standardized layer of simplicity on top of PSR-6
- barebones by design
- to be used only by the most simple cases
- layer of convenience on top of PSR-6



PSR-16 - Libraries

- Symfony Cache
- PHP Cache
- Laminas Cache (Zend Cache)



PSR-(6|16) in Symfony





Symfony Cache Component

- PSR-6
- Cache Contracts



Symfony Cache - PSR-6

Item:

A single unit of information stored as key/value pair, where the key is the unique identifier of the information and the value is its contents.



Symfony Cache - PSR-6

Pool:

A logical repository of cache items. All cache operations are performed through the pool. Applications can define as many pools as needed.



Symfony Cache - PSR-6

Adapter:

It implements the actual caching mechanism to store the information in the filesystem, in a database, etc.



Symfony Cache - available adapters

The following cache adapters are available:

APCu, Array, Chain, Couchbase, Doctrine, Filesystem,

Memcached, PDO & Doctrine DBAL, PHP Array, PHP

Files, Proxy, Redis



Symfony Cache - sugar on top

- AdapterInterface
- TagAwareAdapterInterface
- PruneableInterface



PSR-(6|16) in Netgen Stack





PSR-6 demo





PSR-16 demo





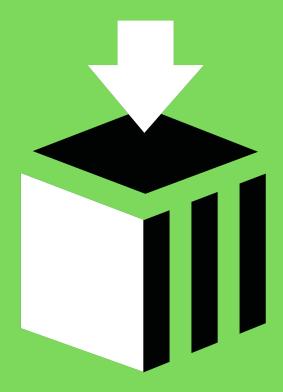
Links

- https://github.com/MarioBlazek/caching-psrs-in-netgen-stack
- https://www.php-fig.org/psr/psr-6/
- https://www.php-fig.org/psr/psr-16/
- https://symfony.com/doc/current/components/cache.html
- https://symfony.com/doc/current/components/cache/psr6_psr16_adapters.html





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