

Requests through wp-ajax.php

How to speed it up...

Problem

- post requests to wp-ajax.php are not cached by supercache or our cache server
- requests (depending on complexity) might take a while

Example

11 locaties door **heel Nederland**

Selecteer regio



Type evenement



Aantal personen



Aantal m2



Bekijk locaties

WP Structure

- CPT: location
 - TAX: location_region
- CPT: event_type
- CPT: location_filter
 - TAX: location_people
 - TAX: location_surface

IJsselhallen publieksevenement

Permalink: http://localhost/libema-be-website/business/blog/location_filter/ijsselhallen-publieksevenement/ [Edit](#)

Locatie filter extra velden

Filter voor deze locatie

IJsselhallen Zwolle

Type evenement

Publieksevenement

Yoast SEO

Meertalige inhoud configureren

Relevanssi post controls

Publiceren

[Wijzigingen bekijken](#)

Status: **Gepubliceerd** [Edit](#)

Zichtbaarheid: **Openbaar** [Edit](#)

Geplaatst op: **2 June 2016 17:01** [Edit](#)

[Duplicate Location filter](#)

Leesbaarheid: **Heeft verbetering nodig**

SEO: **Niet beschikbaar**

[Naar prullenbak](#)

[Bijwerken](#)

Location people

All Items [Meest gebruikt](#)

- | | |
|--------------------------------------------------|-------------------------------|
| <input checked="" type="checkbox"/> < 20 | Primair |
| <input checked="" type="checkbox"/> 20-200 | Primair maken |
| <input checked="" type="checkbox"/> 200-1.000 | Primair maken |
| <input checked="" type="checkbox"/> 1.000-5.000 | Primair maken |
| <input checked="" type="checkbox"/> 5.000-10.000 | Primair maken |
| <input type="checkbox"/> 10.000-20.000 | |
| <input type="checkbox"/> > 20.000 | |

[+ Add New Item](#)

Location surfaces

All Items [Meest gebruikt](#)

- | | |
|---------------------------------------------------|-------------------------------|
| <input checked="" type="checkbox"/> < 500 | Primair |
| <input checked="" type="checkbox"/> 500-2.500 | Primair maken |
| <input checked="" type="checkbox"/> 2.500-5.000 | Primair maken |
| <input checked="" type="checkbox"/> 5.000-7.500 | Primair maken |
| <input checked="" type="checkbox"/> 7.500-12.500 | Primair maken |
| <input checked="" type="checkbox"/> 12.500-20.000 | Primair maken |
| <input type="checkbox"/> 20.000-40.000 | |
| <input type="checkbox"/> > 40.000 | |

Request

action:iv_location_filter
do:findEventsInRegion
id:19

11 locaties door heel Nederland

Selecteer regio



Type evenement



Aantal personen



Aantal m2



Bekijk locaties

```

public static function get_all_for_region( $region_id ) {

    // first get all locations in region
    $location_args = array(
        'post_type' => 'location',
        'posts_per_page' => -1,
        'tax_query' => array(
            array(
                'taxonomy' => 'location_region',
                'key' => 'term_id',
                'terms' => $region_id
            )
        )
    );

    $locations = get_posts( $location_args );
    $location_ids = wp_list_pluck( $locations, 'ID' );

    // now get all event filters for these locations
    $args = array(
        'post_type' => 'location_filter',
        'posts_per_page' => -1,
        'meta_query' => array(
            array(
                'key' => 'location_filter_location',
                'value' => $location_ids,
                'compare' => 'IN'
            )
        )
    );

    $filters = get_posts( $args );

    // now get the unique list of event types coupled to these filters
    $types = array();
    foreach( $filters as $filter ) {
        $type_id = get_field( 'location_filter_event_type', $filter->ID );
        if ( !in_array( $type_id, $types ) ) {
            $event_type = get_post( $type_id );
            $types[] = array( 'id' => $type_id, 'name' => $event_type->post_title );
        }
    }

    return $types;
}

```


Should probably write a custom query,
but anyway...

No optimization

Name	Status	Type	Initi...	Size	Time
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>VM...</u>	502 B	2.38 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>VM...</u>	502 B	2.33 s
<input type="checkbox"/> info?t=1506544057420	200	xhr	<u>VM...</u>	423 B	5 ms
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>VM...</u>	1.6 KB	2.93 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>VM...</u>	2.1 KB	3.06 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>VM...</u>	806 B	2.79 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>VM...</u>	656 B	2.50 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>VM...</u>	1.6 KB	2.74 s

W3 Total cache with WP Object Cache

Name	Sta...	Type	...	S...	Time
<input type="checkbox"/> admin-ajax....	200	xhr	...	5...	1.90 s
<input type="checkbox"/> admin-ajax....	200	xhr	...	5...	1.88 s
<input type="checkbox"/> info?t=1506...	200	xhr	...	4...	13 ms
<input type="checkbox"/> admin-ajax....	200	xhr	...	7...	3.71 s
<input type="checkbox"/> admin-ajax....	200	xhr	...	7...	1.80 s
<input type="checkbox"/> admin-ajax....	200	xhr	...	7...	1.52 s
<input type="checkbox"/> admin-ajax....	200	xhr	...	7...	1.57 s
<input type="checkbox"/> admin-ajax....	200	xhr	...	7...	1.55 s
<input type="checkbox"/> admin-ajax....	200	xhr	...	7...	1.54 s
<input type="checkbox"/> admin-ajax....	200	xhr	...	7...	1.53 s
<input type="checkbox"/> admin-ajax....	200	xhr	...	7...	1.53 s

'Self made' option cache

<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	2.4 ...	2.68 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	1.6 ...	2.61 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	2.4 ...	2.64 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	2.4 ...	2.66 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	2.4 ...	2.58 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	1.6 ...	2.75 s

```
// try to fetch from cache
$cache_field = 'cache_get_all_for_region_'. $region_id;
$cache = get_option( $cache_field );
if ( $cache ) {
    return $cache;
}
```

iv-minimal-ajax.php

<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	731 B	3.43 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	2.2 ...	3.27 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	1.4 ...	2.94 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	2.2 ...	3.17 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	1.4 ...	3.01 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	730 B	2.96 s

.. worse..

```
define( 'SHORTINIT', TRUE );
```

and require needed files myself... (long list...)

<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V</u> ...	3.3 ...	3.23 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V</u> ...	3.3 ...	3.13 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V</u> ...	3.3 ...	3.17 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V</u> ...	3.3 ...	3.16 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V</u> ...	3.3 ...	3.17 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V</u> ...	3.3 ...	3.08 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V</u> ...	3.3 ...	3.19 s

Redis Object Cache

<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	2.4 ...	1.44 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	1.6 ...	1.45 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	2.4 ...	1.46 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	1.6 ...	1.43 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	2.4 ...	1.45 s
<input type="checkbox"/> admin-ajax.php	200	xhr	<u>V...</u>	1.6 ...	1.44 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	2.2 ...	2.63 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	1.4 ...	1.11 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	2.2 ...	1.10 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	1.4 ...	1.08 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	2.2 ...	1.14 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	1.4 ...	1.14 s
<input type="checkbox"/> iv-minimal-ajax.php	200	xhr	<u>V...</u>	2.2 ...	1.06 s

Conclusion

- 2 to 3 times faster with object cache
- haven't investigated possible downsides
- quick win:
 - do a GET-request instead of a POST-request
 - GET-requests are cached by the caching server