http://rarst.net/slides/caching/

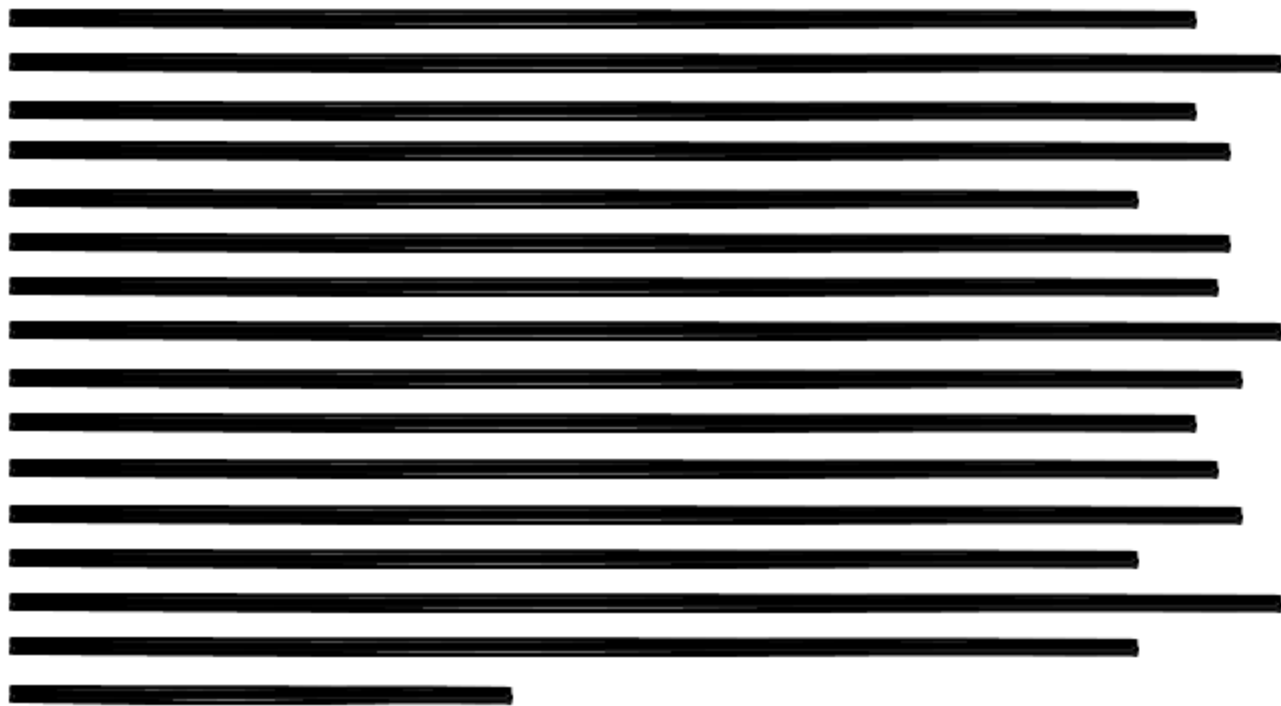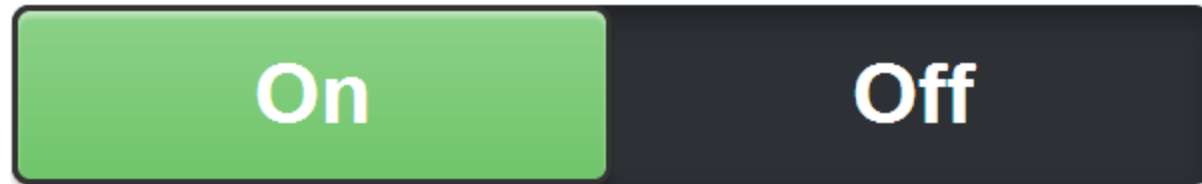# Caching

small big

Things

Andrey "Rarst" Savchenko

- Rarst.net

♦ WPSE (s.tk/wp)

- QueryPosts.com

- Composer.Rarst.net

Caching

On | Off

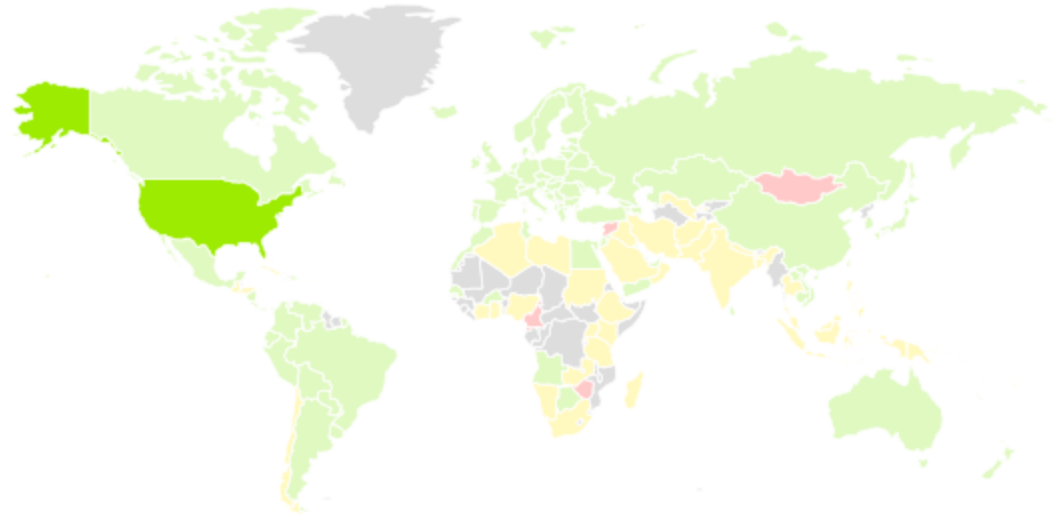disk I/O hit rate HTTP overflow memory staleness invalidation proxy warmup rewrite

Rarst.net load time

- 2.0s median
- 4.3s average

Apdex

$$(\text{satisfied} + \text{tolerating} / 2) / \text{total}$$

Rarst.net apdex — 0.87

- 77% satisfied (<4s)

- 19% tolerating (<16s)

- 4% frustrated (>16s)

$ € £
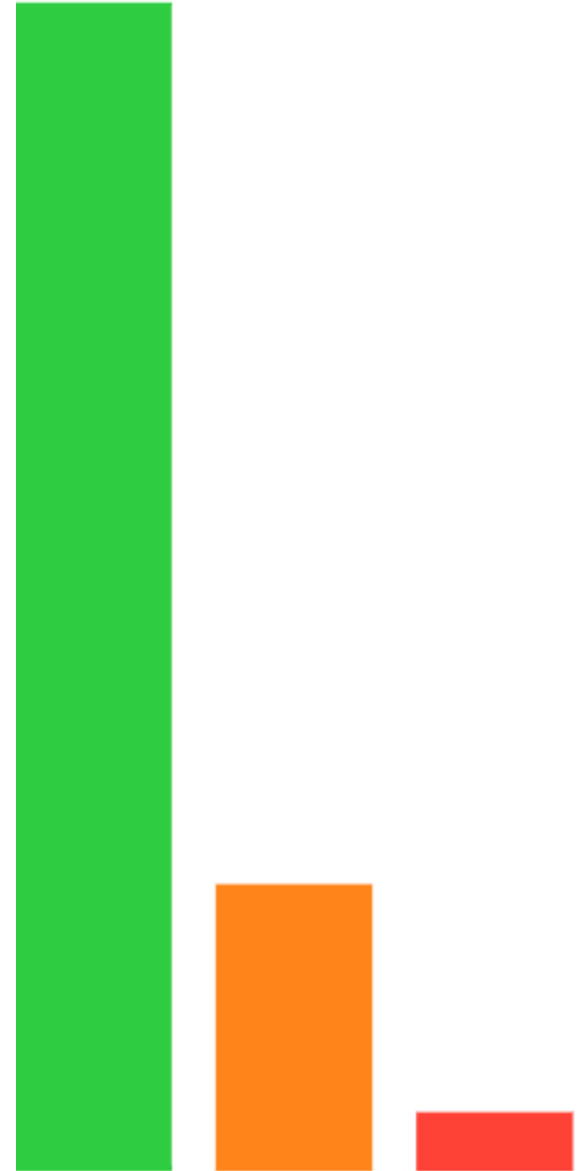
What is visit's potential worth?

(ask aloud — you'll be surprised)

¥ ₽ ₴

Gotchas of full page cache

- reuse between pages

- resource usage

- cold cache

- rewrite

HTTP Cache

`304 Not Modified`

- serve page when necessary

- browser & proxy cache centric

symfony.com/doc/2.4/book/http_cache.html

Edge Side Includes (ESI)

```
<esi:include src="http://example.com/1.html" />
```

- dynamic web content assembly

- high reuse between pages

w3.org/TR/esi-lang

Fragment cache

- independent cache of page parts

- high reuse between pages

+ async updates / serving stale

Gotchas of fragment cache

- anonymizing

- invalidation

- context

- locking

Transients API

- storage

- persistence

- object cache support

  codex.wordpress.org/Transients_API

TLC Transients

- wraps Transients API

- async updates

- safe locking

/markjaquith/WP-TLC-Transients

Fragment Cache (the plugin)

- wraps TLC Transients

- "framework" plugin

- bundled & external handlers

/Rarst/fragment-cache

Plugin responsibilities

- spawn update server

- accept handler registrations

- expose handlers as services

Handler responsibilities

- extend base cache class

- capture fragments' data

- callback, arguments, and salt

Magic is **slow**

KittenPress Pics GIFs Vids

Sleep on keyboard hide when guests come over

Posted on Caturday, 2014-05-03 11:21 by Heighliner

Hate dog need to chase tail yet stick butt in face yet run in circles or attack feet and stick butt in face. Sleep on keyboard stare at ceiling yet behind the couch.

Burrow under covers missing until dinner time. Need to chase tail stand in front of the computer screen flop over climb leg, intrigued by the shower and hate dog.

Make muffins run in circles so intently stare at the same spot or swat at dog all of a sudden go crazy. Sun bathe.

Categories

Maru

Simon's Cat

Grumpy Cat
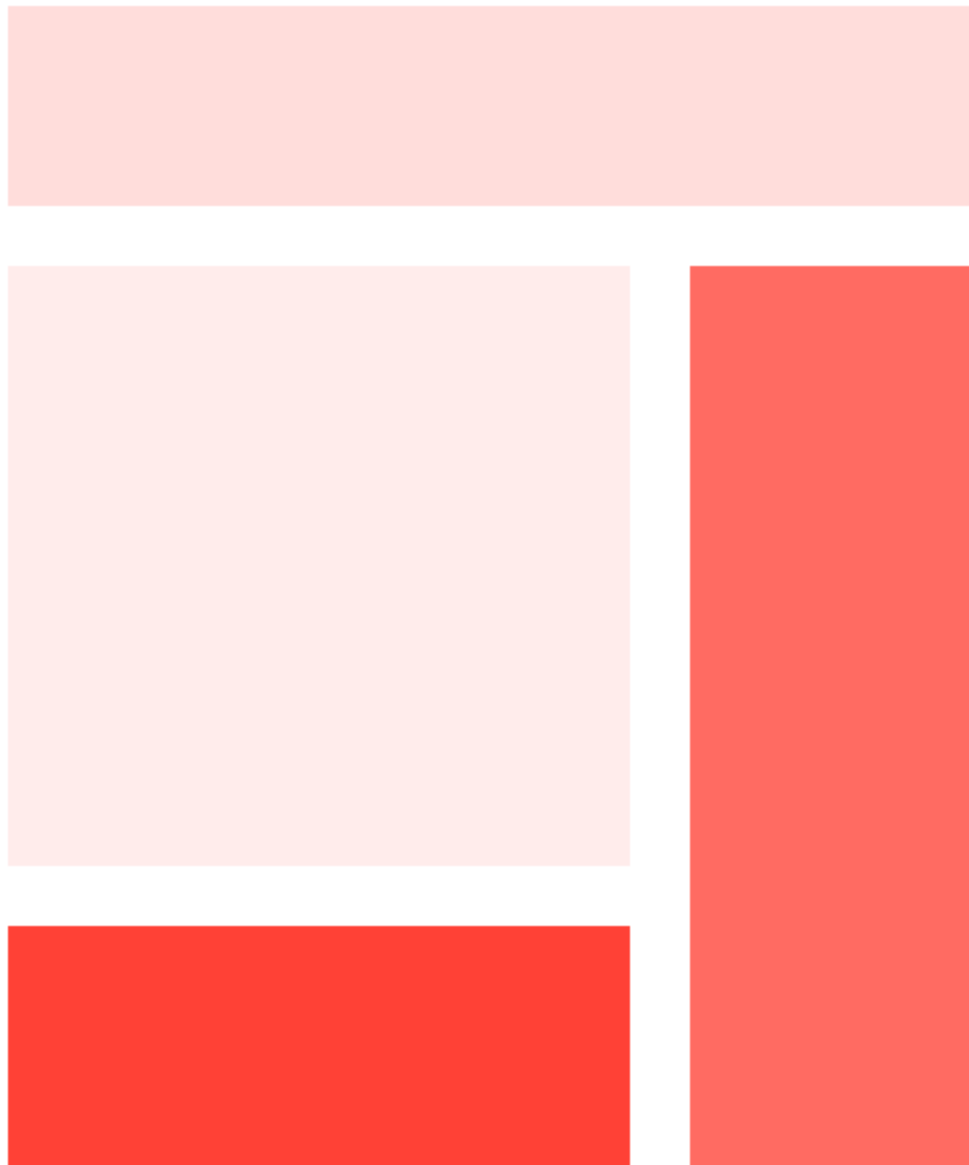
Colonel Meow

Tag Cloud

siberian bengal thai bobcat donskoy turkish angora burmese sphynx bombay persian tomcat siamese balinese birman munchkin

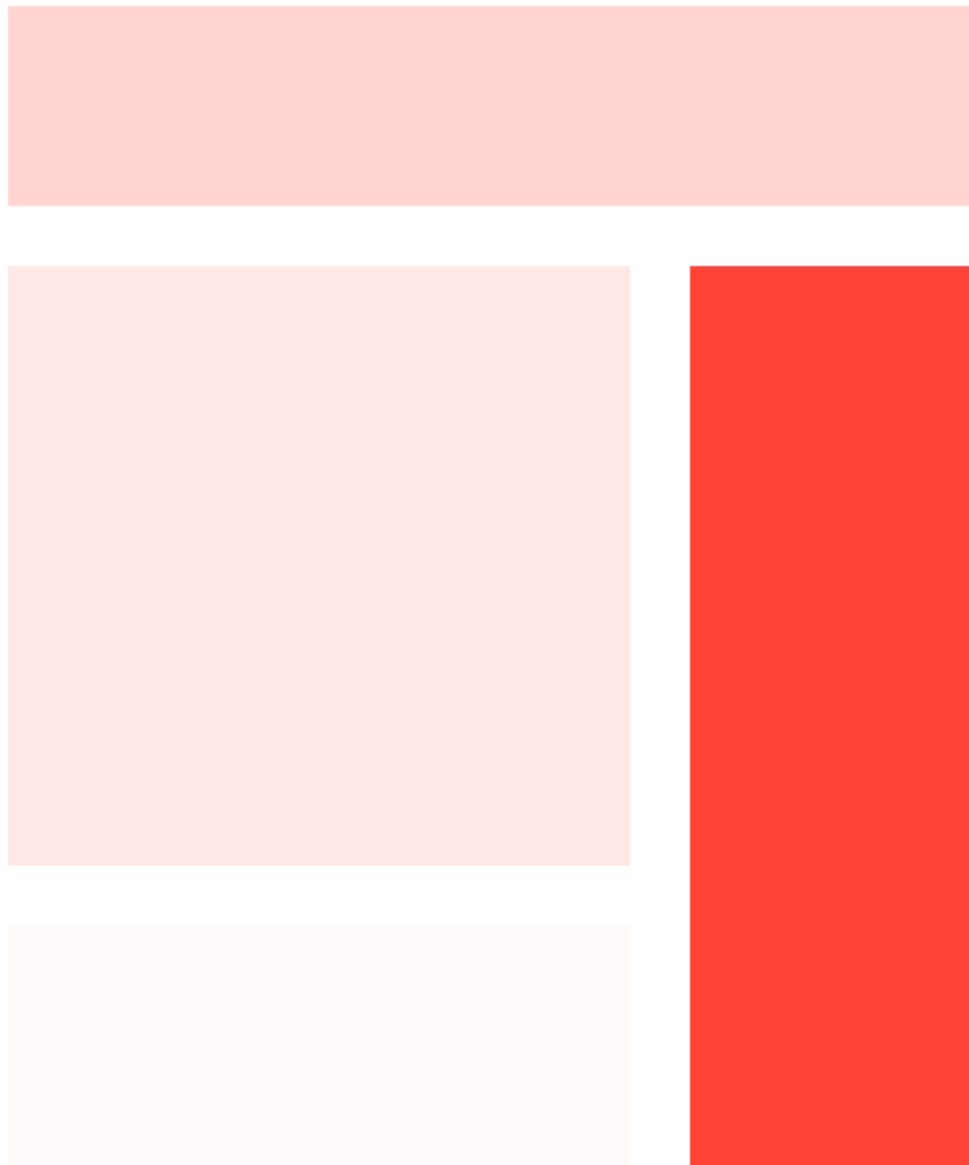| component	time
menu	9%
sidebar	39%
gallery	47%
content	**5%**

Gallery fragment handler

- hijacks `[gallery]` shortcode

- invalidated by:

    - shortcode arguments

    - post modification time

    - post attachments

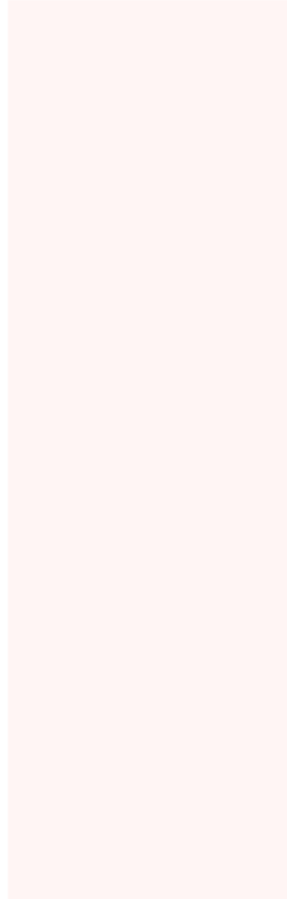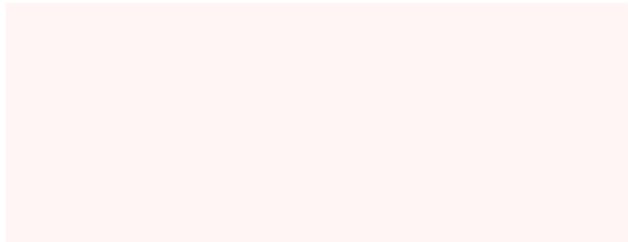| component	time
menu	16%
sidebar	72%
gallery	2%
content	**9%**

Widget fragment handler

- hooks into:

  - `widget_display_callback`

  - `widget_update_callback`

- invalidated by widget instance modified

component	time
menu	59%
sidebar	4%
gallery	4%
content	**33%**

Menu fragment handler

- `pre_wp_nav_menu` — new in 3.9!

- **epic** dirty hack before that:

  `add_filter( 'wp_get_nav_menus',`

  `'__return_empty_array' );`

- invalidated by any menu modified

component	time
menu	9%
sidebar	9%
gallery	9%
content	**73%**

But how much faster is it?

component	improvement
menu	×19
sidebar	×80
gallery	×97
total w/ content	**×19**

Never just "On" a cache

1. **I**mplement

2. **M**onitor

3. **P**rofit

Thank you for listening! Questions?

- @Rarst

- The Loop (s.tk/chat)

Rarst.net/slides/caching