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* Benchmarking Class

classic layout

Benchmarking Class[**¶**](#gjdgxs)

CodeIgniter has a Benchmarking class that is always active, enabling the time difference between any two marked points to be calculated.

Note

This class is initialized automatically by the system so there is no need to do it manually.

In addition, the benchmark is always started the moment the framework is invoked, and ended by the output class right before sending the final view to the browser, enabling a very accurate timing of the entire system execution to be shown.

* [Using the Benchmark Class](#30j0zll)
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[**Using the Benchmark Class**](#3dy6vkm)[**¶**](#30j0zll)

The Benchmark class can be used within your [*controllers*](http://docs.google.com/general/controllers.html), [*views*](http://docs.google.com/general/views.html), or your [*models*](http://docs.google.com/general/models.html). The process for usage is this:

1. Mark a start point
2. Mark an end point
3. Run the “elapsed time” function to view the results

Here’s an example using real code:

$this->benchmark->mark('code\_start');  
  
// Some code happens here  
  
$this->benchmark->mark('code\_end');  
  
echo $this->benchmark->elapsed\_time('code\_start', 'code\_end');

Note

The words “code\_start” and “code\_end” are arbitrary. They are simply words used to set two markers. You can use any words you want, and you can set multiple sets of markers. Consider this example:

$this->benchmark->mark('dog');  
  
// Some code happens here  
  
$this->benchmark->mark('cat');  
  
// More code happens here  
  
$this->benchmark->mark('bird');  
  
echo $this->benchmark->elapsed\_time('dog', 'cat');  
echo $this->benchmark->elapsed\_time('cat', 'bird');  
echo $this->benchmark->elapsed\_time('dog', 'bird');

[**Profiling Your Benchmark Points**](#1t3h5sf)[**¶**](#1fob9te)

If you want your benchmark data to be available to the [*Profiler*](http://docs.google.com/general/profiling.html) all of your marked points must be set up in pairs, and each mark point name must end with \_start and \_end. Each pair of points must otherwise be named identically. Example:

$this->benchmark->mark('my\_mark\_start');  
  
// Some code happens here...  
  
$this->benchmark->mark('my\_mark\_end');  
  
$this->benchmark->mark('another\_mark\_start');  
  
// Some more code happens here...  
  
$this->benchmark->mark('another\_mark\_end');

Please read the [*Profiler page*](http://docs.google.com/general/profiling.html) for more information.

[**Displaying Total Execution Time**](#4d34og8)[**¶**](#3znysh7)

If you would like to display the total elapsed time from the moment CodeIgniter starts to the moment the final output is sent to the browser, simply place this in one of your view templates:

<?php echo $this->benchmark->elapsed\_time();?>

You’ll notice that it’s the same function used in the examples above to calculate the time between two point, except you are **not** using any parameters. When the parameters are absent, CodeIgniter does not stop the benchmark until right before the final output is sent to the browser. It doesn’t matter where you use the function call, the timer will continue to run until the very end.

An alternate way to show your elapsed time in your view files is to use this pseudo-variable, if you prefer not to use the pure PHP:

{elapsed\_time}

Note

If you want to benchmark anything within your controller functions you must set your own start/end points.

[**Displaying Memory Consumption**](#2s8eyo1)[**¶**](#2et92p0)

If your PHP installation is configured with –enable-memory-limit, you can display the amount of memory consumed by the entire system using the following code in one of your view file:

<?php echo $this->benchmark->memory\_usage();?>

Note

This function can only be used in your view files. The consumption will reflect the total memory used by the entire app.

An alternate way to show your memory usage in your view files is to use this pseudo-variable, if you prefer not to use the pure PHP:

{memory\_usage}

[**Class Reference**](#17dp8vu)[**¶**](#tyjcwt)

*class* CI\_Benchmark[¶](#3rdcrjn) mark(*$name*)[¶](#26in1rg)

| Parameters: | * **$name** (*string*) – the name you wish to assign to your marker |
| --- | --- |
| Return type: | void |

Sets a benchmark marker.

elapsed\_time([*$point1 = ''*[, *$point2 = ''*[, *$decimals = 4*]]])[¶](#lnxbz9)

| Parameters: | * **$point1** (*string*) – a particular marked point * **$point2** (*string*) – a particular marked point * **$decimals** (*int*) – number of decimal places for precision |
| --- | --- |
| Returns: | Elapsed time |
| Return type: | string |

Calculates and returns the time difference between two marked points.

If the first parameter is empty this function instead returns the {elapsed\_time} pseudo-variable. This permits the full system execution time to be shown in a template. The output class will swap the real value for this variable.

memory\_usage()[¶](#35nkun2)

| Returns: | Memory usage info |
| --- | --- |
| Return type: | string |

Simply returns the {memory\_usage} marker.

This permits it to be put it anywhere in a template without the memory being calculated until the end. The [*Output Class*](http://docs.google.com/output.html) will swap the real value for this variable.

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Built with [Sphinx](http://sphinx-doc.org/) using a [theme](https://github.com/snide/sphinx_rtd_theme) provided by [Read the Docs](https://readthedocs.org).