PrestaShop's developer tools

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PrestaShop tries its best to make it easy for developers to build clean and working themes, modules and overriding classes. This is done through a set of developer tools that you can enable whenever you needs them.

By default, PrestaShop turns error reporting off, which makes that if your code fails, you will see a blank page with no information. This is because customers should not see anything from your server. You can get a lot of information using the following tools.

Most of these tools should only be enabled when you are in the development process, on your local installation. If you have to enable them on a production store, you should first disable the store so that only you can see the results of your tests.

Developer mode

PrestaShop's developer mode enables a series of tools to help developers:

- Sets PHP's `display_errors` to "on": errors are displayed in the browser instead of just blank pages.
- Sets PrestaShop's `_PS_DEBUG_SQL_` constant to "true": PrestaShop displays potential problems within your SQL queries.
- Sets PrestaShop's `_PS_DISPLAY_COMPATIBILITY_WARNING_` constant to "true": PrestaShop displays a warning message if a piece of code you are using is deprecated in the current version.

All in all, this mode displays a lot more error messages than the regular mode.

Enabling it is quite easy:

- On your server, open the `/config/defines.inc.php` file.
- Find this line: `define('_PS_MODE_DEV_', false);`
- In this line, change "false" to "true".
- Save your changes.

Now reload any blank or suspicious page: you should get a lot more information.

p() and d()

PHP developers are used to regularly call `print_r($var)` in order to know what lies inside `$var`. In order to properly display the content of $var, they often encapsulates `print_r()` within HTML or XML tags.

PrestaShop does that for you! `p()` and `d()` are both wrappers around `print_r()`. `p()` returns the content of the variable, while `d()` finishes with `die('END')`.

On top of that, PrestaShop defines the `ppp()` and `ddd()` method, which are respectively the aliases of `p()` and `d()`. They work exactly the same, but are often easier to search and find in a huge block of code.

These debug methods are not available by default. To activate them, you must enable the Developer mode (see above).

Profiler

PrestaShop's profiler is a great way to discover the bottlenecks in your code: once enabled, each page on either the front-end or the back-end of your store will display a lot of information about the page and its files:

- Load time.
- Processed hooks.
- Memory usage.
- Number of database queries and their overall duration.
- Database stopwatches per query.
- Duplicate queries.
- Database table stress.
- ObjectModel instances.
- Included files.

This is a huge step in knowing which files or SQL query you should work on when you need to improve the performance of your store.

Enabling it is quite easy:

- On your server, open the `/config/defines.inc.php` file.
- Find this line: `define('_PS_DEBUG_PROFILING_', false);`
- In this line, change "false" to "true".
- Save your changes.

Now load any page of your store, either front-end or back-end, and it will display a lot of statistics at the bottom of the page, below the regular content of that page.

In order to disable the Profiling Mode, simply open the defines.inc.php file and change the value back to "false" in the line mentioned above.

Here is the result from the home page:

Load time: 3.316s
You'd better run your shop on a toaster
config: 1.084s
constructor: 0ms
init: 62ms
checkAccess: 0ms
setMedia: 3ms
postProcess: 0ms
initHeader: 0ms
initContent: 1.792s
initFooter: 245ms
display: 131ms

Hook processing: 2.098s / 9.81 Mb
- displayTop: 545ms / 1.28 Mb
- displayLeftColumn: 431ms / 0.98 Mb
- displayRightColumn: 381ms / 1.4 Mb
- displayFooter: 244ms / 0.56 Mb
- displayHome: 233ms / 0.73 Mb
- displayHeader: 201ms / 4.68 Mb
- displayMyAccountBlock: 56ms / 0.05 Mb
- moduleRoutes: 6ms / 0.13 Mb
- actionFrontControllerSetMedia: 0ms / 0 Mb
- DisplayOverrideTemplate: 0ms / 0 Mb
- actionDispatcher: 0ms / 0 Mb

Memory peak usage: 16.73 Mb
- config: 3.92 Mb
- constructor: 0 Mb
- init: 2.06 Mb
- checkAccess: 0 Mb
- setMedia: 0.1 Mb
- postProcess: 0 Mb
- initHeader: 0 Mb
- initContent: 9.07 Mb
- initFooter: 0.57 Mb
- display: 0.27 Mb

Total cache size (in Cache class): 0.53 Mb

DB type: DbPDO
SQL Queries: 209 queries
Time spent querying: 159ms

Included files: 207
Size of included files: 2.51 Mb

Globals (> 1 Ko only): 75 Ko
- context ≈ 51.8 Ko
- _SERVER ≈ 8.3 Ko
- _MODULES ≈ 5.9 Ko
- _LANG ≈ 3.2 Ko
- _COOKIE ≈ 2.7 Ko

Go to Stopwatch
Go to Doubles
Go to Tables
Go to ObjectModels

Stopwatch (with SQL_NO_CACHE) (total = 209)

24.249 ms SELECT SQL_NO_CACHE p.*, product_shop.*, stock.out_of_stock, IFNULL(stock.quantity, 0) as quantity, MAX(product_attribute_shop.id_product_attribute) id_product_attribute, product_attribute_shop.minimal_quantity AS product_attribute_minimal_quantity, pl.`description`, pl.`description_short`, pl.`available_now`, pl.`available_later`, pl.`link_rewrite`, pl.`meta_description`, pl.`meta_keywords`, pl.`meta_title`, pl.`name`, MAX(image_shop.`id_image`) id_image, il.`legend`, m.`name` AS manufacturer_name, cl.`name` AS category_default, DATEDIFF(product_shop.`date_add`, DATE_SUB(NOW(), INTERVAL 20 DAY)) > 0 AS new, product_shop.price AS orderprice FROM `ps_category_product` cp LEFT JOIN `ps_product` p ON p.`id_product` = cp.`id_product` INNER JOIN ps_product_shop product_shop ON (product_shop.id_product = p.id_product AND product_shop.id_shop = 1) LEFT JOIN `ps_product_attribute` pa ON (p.`id_product` = pa.`id_product`) LEFT JOIN ps_product_attribute_shop product_attribute_shop ON (product_attribute_shop.id_product_attribute = pa.id_product_attribute AND product_attribute_shop.id_shop = 1 AND product_attribute_shop.`default_on` = 1) LEFT JOIN ps_stock_available stock ON (stock.id_product = p.id_product AND stock.id_product_attribute = IFNULL(`product_attribute_shop`.id_product_attribute, 0) AND stock.id_shop = 1) LEFT JOIN `ps_category_lang` cl ON (product_shop.`id_category_default` = cl.`id_category` AND cl.`id_lang` = 1 AND cl.id_shop = 1) LEFT JOIN `ps_product_lang` pl ON (p.`id_product` = pl.`id_product` AND pl.`id_lang` = 1 AND pl.id_shop = 1) LEFT JOIN `ps_image` i ON (i.`id_product` = p.`id_product`) LEFT JOIN ps_image_shop image_shop ON (image_shop.id_image = i.id_image AND image_shop.id_shop = 1 AND image_shop.cover=1) LEFT JOIN `ps_image_lang` il ON (image_shop.`id_image` = il.`id_image` AND il.`id_lang` = 1) LEFT JOIN `ps_manufacturer` m ON m.`id_manufacturer` = p.`id_manufacturer` WHERE product_shop.`id_shop` = 1 AND cp.`id_category` = 2 AND product_shop.`active` = 1 AND product_shop.`visibility` IN ("both", "catalog") GROUP BY product_shop.id_product ORDER BY cp.`position` ASC LIMIT 0,8
in C:\xampp\htdocs\ps1541\classes\Category.php:651
USING FILESORT - 18 rows browsed

11.175 ms SELECT SQL_NO_CACHE p.*, product_shop.*, pl.*, MAX(image_shop.`id_image`) id_image, il.`legend`, cl.`name` AS category_default, a.quantity AS pack_quantity, product_shop.`id_category_default`, a.id_product_pack FROM `ps_pack` a LEFT JOIN `ps_product` p ON p.id_product = a.id_product_item LEFT JOIN `ps_product_lang` pl ON p.id_product = pl.id_product AND pl.`id_lang` = 1 AND pl.id_shop = 1 LEFT JOIN `ps_image` i ON (i.`id_product` = p.`id_product`) LEFT JOIN ps_image_shop image_shop ON (image_shop.id_image = i.id_image AND image_shop.id_shop = 1 AND image_shop.cover=1) LEFT JOIN `ps_image_lang` il ON (i.`id_image` = il.`id_image` AND il.`id_lang` = 1) INNER JOIN ps_product_shop product_shop ON (product_shop.id_product = p.id_product AND product_shop.id_shop = 1) LEFT JOIN `ps_category_lang` cl ON product_shop.`id_category_default` = cl.`id_category` AND cl.`id_lang` = 1 AND cl.id_shop = 1 WHERE product_shop.`id_shop` = 1 AND a.`id_product_pack` = 10 GROUP BY product_shop.id_product
in C:\xampp\htdocs\ps1541\classes\Pack.php:143
USING FILESORT - 2 rows browsed

10.662 ms SELECT SQL_NO_CACHE h.id_hook, h.name as h_name, title, description, h.position, live_edit, hm.position as hm_position, m.id_module, m.name, active FROM `ps_hook` h INNER JOIN `ps_hook_module` hm ON (h.id_hook = hm.id_hook AND hm.id_shop = 1) INNER JOIN `ps_module` as m ON (m.id_module = hm.id_module) ORDER BY hm.position
in C:\xampp\htdocs\ps1541\classes\Hook.php:187
USING FILESORT - 69 rows browsed

10.534 ms SELECT SQL_NO_CACHE p.id_product, pl.`link_rewrite`, pl.`name`, pl.`description_short`, MAX(image_shop.`id_image`) id_image, il.`legend`, ps.`quantity` AS sales, p.`ean13`, p.`upc`, cl.`link_rewrite` AS category FROM `ps_product_sale` ps LEFT JOIN `ps_product` p ON ps.`id_product` = p.`id_product` INNER JOIN ps_product_shop product_shop ON (product_shop.id_product =

Here is the result from the back-office:

Envie d'en savoir plus?

PrestaShop™ 1.5.4.1
Load time:1.246s

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Load time: 1.245s
You'd better run your shop on a toaster
config: **1.17s**
constructor: 0ms
init: **34ms**
checkAccess: 0ms
setMedia: 8ms
postProcess: 0ms
initHeader: 8ms
initContent: 16ms
initFooter: 0ms
display: 10ms

Hook processing: 19ms / 0.81 Mb
displayBackOfficeHeader: 15ms / 0.67 Mb
moduleRoutes: 4ms / 0.13 Mb
displayAdminHomeQuickLinks: 0ms / 0 Mb
displayBackOfficeFooter: 0ms / 0 Mb
actionDispatcher: 0ms / 0 Mb
displayBackOfficeTop: 0ms / 0 Mb
actionAdminControllerSetMedia: 0ms / 0 Mb
displayAdminHomeInfos: 0ms / 0 Mb
displayAdminHomeStatistics: 0ms / 0 Mb
displayBackOfficeHome: 0ms / 0 Mb

Memory peak usage: 8.51 Mb
config: 4.41 Mb
constructor: 0 Mb
init: 1.79 Mb
checkAccess: 0 Mb
setMedia: 0 Mb
postProcess: 0 Mb
initHeader: 0.33 Mb
initContent: 0.45 Mb
initFooter: 0 Mb
display: 0.26 Mb

Total cache size (in Cache class): 0.16 Mb

DB type: DbPDO
SQL Queries: 48 queries
Time spent querying: 18ms

Included files: 73
Size of included files: 1.48 Mb

Globals (> 1 Ko only): 796 Ko
_LANGADM ≈ 753.5 Ko
context ≈ 28.4 Ko
_SERVER ≈ 8.8 Ko
_COOKIE ≈ 3 Ko

Go to Stopwatch
Go to Doubles
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Stopwatch (with SQL_NO_CACHE) (total = 48)

2.829 ms SELECT SQL_NO_CACHE c.`name`, cl.`id_lang`, IF(cl.`id_lang` IS NULL, c.`value`, cl.`value`) AS value, c.id_shop_group, c.id_shop FROM `ps_configuration` c LEFT JOIN `ps_configuration_lang` cl ON (c.id_configuration = cl.id_configuration)
in C:\xampp\htdocs\ps1541\classes\Configuration.php:116
380 rows browsed

1.815 ms SELECT SQL_NO_CACHE h.`name` as hook, m.`id_module`, h.`id_hook`, m.`name` as module, h.`live_edit` FROM `ps_module` m INNER JOIN `ps_hook_module` hm ON hm.`id_module` = m.`id_module` INNER JOIN `ps_hook` h ON hm.`id_hook` = h.`id_hook` WHERE ((SELECT COUNT(*) FROM ps_module_shop ms WHERE ms.id_module = m.id_module AND ms.id_shop IN (1)) = 1) AND (h.name != "displayPayment") AND (hm.id_shop = 1) ORDER BY hm.`position`
in C:\xampp\htdocs\ps1541\classes\Hook.php:296
USING FILESORT - 69 rows browsed

1.247 ms SELECT SQL_NO_CACHE * FROM `ps_tab` t LEFT JOIN `ps_tab_lang` tl ON (t.`id_tab` = tl.`id_tab` AND tl.`id_lang` = 1) ORDER BY t.`position` ASC
in C:\xampp\htdocs\ps1541\classes\Tab.php:230
USING FILESORT - 103 rows browsed

0.748 ms SELECT SQL_NO_CACHE m.`id_module`, m.`name`, (SELECT COUNT(*) FROM `ps_module_shop` ms WHERE m.`id_module` = ms.`id_module` AND ms.`id_shop` = 1) as total FROM `ps_module` m
in C:\xampp\htdocs\ps1541\classes\module\Module.php:163
69 rows browsed

0.649 ms SELECT SQL_NO_CACHE *, (SELECT osl.`name` FROM `ps_order_state_lang` osl WHERE osl.`id_order_state` = o.`current_state` AND osl.`id_lang` = 1 LIMIT 1) AS `state_name` FROM `ps_orders` o LEFT JOIN `ps_customer` c ON (c.`id_customer` = o.`id_customer`) WHERE 1 AND o.id_shop IN (1) ORDER BY o.`date_add` DESC LIMIT 0, 10
in C:\xampp\htdocs\ps1541\classes\order\Order.php:873
USING FILESORT - 2 rows browsed