Installation, environment, audit and CSP operators

Seven operators the Exponential kernel added - installation_name, is_production_system, exp_environment, exp_environment_badge, audit_label, csp_nonce and view_parameter - with the settings they read, what they return...

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These operators belong to the current Exponential kernel and are registered in `kernel/common/eztemplateautoload.php`. They need no extension.

Operator	Class and file
`installation_name`, `is_production_system`	`ExpInstallationOperator`, `kernel/classes/expinstallationoperator.php`
`exp_environment`, `exp_environment_badge`	`expEnvironmentOperator`, `kernel/common/expenvironmentoperator.php`
`audit_label`	`expAuditTemplateOperator`, `kernel/classes/audit/console/expaudittemplateoperator.php`
`csp_nonce`	`expContentSecurityPolicyOperator`, `kernel/common/expcontentsecuritypolicyoperator.php`
`view_parameter`	`expViewParameterOperator`, `kernel/common/expviewparameteroperator.php`

Contents

1. The operators: installation_name, is_production_system, exp_environment, exp_environment_badge, audit_label, csp_nonce, view_parameter
2. Examples

The operators

installation_name

Generated page: installation_name.

Parameter	Type	Required	Default
`hide_on_prod`	boolean	no	`false`

- **Input:** none.
- **Returns:** `site.ini [SiteSettings] EzInstallationName`, trimmed (an empty string when not set); with `hide_on_prod` an empty string on a production system.

The value is read once per request (

`ExpInstallationDetailsOutputFilter::installationName()`, `kernel/classes/expinstallationdetailsoutputfilter.php`). Use it to label test copies of a site.

is_production_system

Generated page: is_production_system.

- **Input:** none. **Parameters:** none.
- **Returns:** `true` when the installation name is not empty and is listed in `[SiteSettings] ProductionInstallationList[]`, otherwise `false`.

exp_environment

Generated page: exp_environment.

- **Input:** none. **Parameters:** none.
- **Returns:** the environment name from the `EXP_ENV` constant (`config.env.php`, read by `eZINI::environment()`), or an empty string when it is not set or not valid (it must match `^[a-z][a-z0-9_-]{0,31}$`). The environment also decides which extra settings files `eZINI` reads.

Template

```
{if eq( exp_environment(), 'test' )}<div class="test-site-banner">Test site</div>{/if}
```

exp_environment_badge

Generated page: exp_environment_badge.

- **Input:** none. **Parameters:** none.
- **Returns:** the environment badge of the administration header as a hash: `level`, `name`, `short`, `release`, `display`, `title` and `key`.

The badge comes from `site.ini` `[AdminEnvironment]` of the current siteaccess (`expEnvironmentOperator::badge()`):

- `Level`: `development`, `test`, `staging` or `production`; `auto` derives it from `EXP_ENV` (`dev`/`development`, `test`, `stage`/`staging`, `prod`/`production`/`live`). Empty, unknown, or `auto` without a matching environment: no badge (`level` is an empty string and every other field stays empty).
- `Name`, `ShortName`: the texts; empty takes the level's translated name and code (DEV, TEST, STAGE, PROD).
- `Release` and `ShowVersion=enabled`: text and the Exponential version after the name, joined by `·`.
- `BadgeDisplay=always` shows it permanently (`display` is `always`), anything else only on hover or focus (`hover`); `ShowInTitle` other than `disabled` sets `title`.
- `key` joins all of them for the keys of cache-blocks that draw the badge.

audit_label

Generated page: audit_label.

- **Input:** an audit event name such as `content.node.move`. **Parameters:** none.
- **Returns:** the human label from the audit taxonomy (`expAuditConsole::label()`), translated in the context `kernel/audit`; an empty string for an empty or non-scalar input.

A name the taxonomy does not know is turned into a label by dropping the first part and replacing dots and underscores with spaces (`expAuditTaxonomy::label()`), and is not translated: `no.such.event` gives `Such event`. The label is not escaped: `{$e.name|audit_label|wash}`.

csp_nonce

Generated page: csp_nonce.

- **Input:** none. **Parameters:** none.
- **Returns:** the nonce of the Content Security Policy of this request (`expContentSecurityPolicy::templateNonce()`, `kernel/private/classes/expcontentsecuritypolicy.php`), or an empty string when the policy of the siteaccess is disabled or carries no nonce (`nonce=""` is harmless).

Template

```
<script nonce="{csp_nonce()}">...</script>
```

The nonce is the same for every call within one request and new for every request. **Never print it inside a `cache-block` or a view-cached template**: the cached copy would carry the nonce of another request and the browser would block the script. Better still, move the script into a file loaded through the design's script list, which needs no nonce.

view_parameter

Generated page: view_parameter.

- **Input:** a text or a number. **Parameters:** none.
- **Returns:** the value as the value of a view parameter, `/(name)/<value>`, written as every view writes it (`expViewParameters::encode()`, `kernel/classes/expviewparameters.php`): `/` as `~2F`, `(` and `)` as `~28` and `~29`, `~` as `~7E`, `%` and `+` as `~25` and `~2B`, the rest readable (a space `%20`). An array gives an empty string.

Template

```
<a href={concat( 'settings/view/', $siteaccess, '/', $file, '/(q)/', $name|view_parameter )|ezurl
}>...</a>
```

The view reads the value back with `expViewParameters::get()`. Never write a view parameter with `|urlencode`: Apache refuses the `%2F` it makes of a slash, and the kernel's second decoding turns `%2B` into a space. The encoding and its rules: View parameters: how a value travels in an address.

Examples

On the `site` siteaccess, which has no installation name, no `EXP_ENV` and no nonce in its policy:

Template

```
1 installation_name: [{installation_name()}]
2 hide_on_prod: [{installation_name( true() )}]
3 is_production_system: {is_production_system()|choose( 'no', 'yes' )}
4 environment: [{exp_environment()}]
5 csp_nonce on site: length {csp_nonce()|count_chars}
6 audit_label: {'content.node.move'|audit_label} / {'no.such.event'|audit_label}
```

Output:

```
1 installation_name: []
2 hide_on_prod: []
3 is_production_system: no
4 environment: []
5 csp_nonce on site: length 0
6 audit_label: Node move / Such event
```

On the `admin` siteaccess, whose policy carries a nonce (no badge level is set on a development installation):

Template

```
{def $badge = exp_environment_badge()}
level=[{$badge.level}] name=[{$badge.name}] short=[{$badge.short}] display={$badge.display} title
={$badge.title|choose( 'no', 'yes' )}
csp_nonce on admin: length {csp_nonce()|count_chars}, same on the second call: {eq( csp_nonce(),
csp_nonce() )|choose( 'no', 'yes' )}
```

Output:

```
level=[] name=[] short=[] display= title=no
csp_nonce on admin: length 22, same on the second call: yes
```

Related pages

- Content security policy for applications
- Environment settings and secrets
- All template operators (generated)
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