Checklists for PHP developers

Copyable checklists for PHP work on Exponential - before you write, for every PHP file, for a new class, a view, a command or cronjob part, a datatype or workflow event, security, Velocity compatibility, tests, a commit...

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This page is for PHP developers who want to check their work in one pass. Each list links to the page that explains it. Copy a list into your pull request description or your review notes.

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Before you write

- ☐ Is there a setting, a shipped extension or an extension point that does it already? (Extension points from PHP)
- ☐ Kernel change or extension? (Contributing PHP changes)
- ☐ The prefix of the new names is chosen (Class naming and the exp prefix)

Every PHP file

- ☐ Starts with `<?php`, Unix line endings, spaces, no trailing spaces
- ☐ `php -l` passes on the newest PHP, and on PHP 8.0 (`make lint80`)
- ☐ No syntax or function newer than PHP 8.0 unguarded (Writing code that runs on PHP 8.0)
- ☐ `array( ... )`, spaces inside parentheses, function braces on their own line (The coding standard)
- ☐ No scalar, return or property type declarations; docblocks with `@param` and `@return`
- ☐ `make phpcs` adds no violations; `make phpstan` adds no findings

A new class

- ☐ One class per file, lower case file name of the class
- ☐ Properties declared (no dynamic properties)
- ☐ `php bin/php/ezpgenerateautoloads.php -e` run (Autoloads and class maps)
- ☐ No class static assigned outside the class body
- ☐ A setting that names the class goes live after the class is deployed

A module view

- ☐ `module.php` names the view's `functions` (policy) (Write your first module view)
- ☐ Written as a class extending `Exponential\Runnable\ModuleView`, the view file one line
- ☐ `$Params` cast and validated
- ☐ Data changes only on POST, through module actions
- ☐ HTML in a template, every value through `|wash`
- ☐ POST, redirect, GET after a successful save; redirect targets from the request checked

A command or cronjob part

- ☐ A class extending `Exponential\Runnable\Command` or `CronjobPart` (Write a console command, Write a cronjob part)
- ☐ `@description` tag in the entry file
- ☐ Exit code `0` on success, another on failure; quiet with `-q`
- ☐ `--dry-run` for anything that changes data
- ☐ Bounded work per run, short transactions, in-memory caches cleared between batches
- ☐ The work in a service class the view, the command and the cronjob part share

A datatype or workflow event type

- ☐ Method signatures exactly as in `eZDataType` / `eZWorkflowEventType` (Write a datatype)
- ☐ Registered with `eZDataType::register()` or `eZWorkflowEventType::registerEventType()` and in the INI file
- ☐ `toString()`/`fromString()` round trip tested
- ☐ `execute()` fast, returns a status, never throws (Write a workflow event type)

Security

- ☐ Input read through `eZHTTPTool`, `$Params` or module actions; numbers cast, choices in allow lists (Validating input and casting)
- ☐ SQL: strings through `escapeString()`, numbers cast, or persistent object conditions (SQL with eZDB, safely)
- ☐ Output escaped for its context; `htmlspecialchars()` with explicit flags (Escaping output

from PHP)

☐ Permissions checked in views, fetch functions, server functions, REST actions and commands (Security in PHP code)

☐ POSTs carry the form token (CSRF protection and ezformtoken)

☐ No secrets in code, URLs or logs

☐ No inline scripts or `style=""` in generated markup

Velocity and long runs

☐ No function statics, no register-once `true` flags (Static state traps)

☐ Caches keyed by siteaccess, language and user where they depend on them

☐ `eZExecution::cleanExit()` not inside `catch ( Exception )`

☐ Paths from `EXP_ROOT_DIR` or `eZSys`, not from a kernel file's `__DIR__`

☐ Tested twice in a row on the same worker, as two users

Tests

☐ A DB-less test for the logic (PHPUnit without a database)

☐ Database tests marked `@group database` (Database and live tests)

☐ INI values set in a test are restored in `tearDown()`

☐ Works with PHPUnit 10.5 to 13

☐ `tests/test-map.json` entry when the test does not name the source file literally

Commit and pull request

☐ Subject starts with `Added:` , `Updated:` , `Fixed:` , `Removed:` or `Renamed:` ; the body says why

☐ The product is written Exponential in the message

☐ `share/filelist.md5` refreshed (`make manifest-fix`) and committed

☐ `make check` passes

☐ CLA on file; pull request small and focused; squashed and rebased onto `main` (Contributing PHP changes)

Deploy

☐ Autoloads regenerated, INI cache cleared (`--clear-tag=ini`)

☐ PHP-FPM reloaded, Velocity workers restarted (`exp:velocity deploy`)

☐ Rendered-output caches cleared after the reload

☐ Caches warmed (OPcache and cache preloading)

☐ Front page and the changed pages checked; logs read

Related pages

- The upgrade checklist
- The release checklist
- PHP developer FAQ
- Free documentation: this page is free to copy, translate and improve under the GNU FDL 1.3.

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