Why the code has no type declarations

An explanation of one rule that surprises PHP developers - Exponential code is written without scalar, return and property types and without strict_types - what is allowed instead, how types are documented and checked…

Source file: doc/eng-us/help/php-developers/why-no-type-declarations.md Last changed 2026-11-04
https://doc.exponential.earth/learninminutes/exphelp/viewer/help/php-developers/why-no-type-declarations.md

This page is for PHP developers who come from code bases where `declare( strict_types=1 )` and typed signatures are the norm. In Exponential they are not allowed in new code. The rule is deliberate; this page explains it, so you can follow it without fighting it.

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The rule

The sniff `bin/phpcs/Exponential/Sniffs/TypeDeclarations/NoTypeDeclarationsSniff.php` reports, each with its own code:

Code	Example it reports
`StrictTypes`	`declare( strict_types=1 );`
`ParameterType`	`function foo( int $a )`, `function foo( string|array $a )`, also promoted constructor parameters
`ReturnType`	`function foo(): array`
`PropertyType`	`public string $name;`
`ConstantType`	`const string NAME = '...';`

Allowed, because PHP 5 had them and the kernel uses them throughout: `array`, `callable`, `self` and class or interface names, also nullable:

PHP

```php
public function render( array $items, ?eZINI $ini = null, ?callable $filter = null )
```

Why

1. **Consistency with the existing code.** The 6.0.15 kernel and libraries are written without these declarations. A file that mixes two styles is harder to read and review than either style alone.
2. **Behavior does not change by accident.** Adding `int` to a parameter in code that has always received numeric strings, `null` or `false` turns a working call into a `TypeError`. In a code base with thousands of callers, including extensions the project has never seen, that risk is real; the kernel's own PHP 8 work shows how many values arrive as `null` or strings (PHP 8 migration notes for your code).
3. **Signatures stay compatible.** Extensions subclass kernel classes (`eZDataType`, `eZPersistentObject`, `eZWorkflowEventType`). A return type added to a kernel method forces every subclass to add it too, or the subclass no longer loads.
4. **PHP 8.0.** Several declaration forms (`never`, intersection types, typed constants, `readonly`) do not exist on 8.0, the oldest supported version (7.4 is usable without support from 6.0.15).

How types are documented instead

Every class and public method carries a docblock with `@param` and `@return`, and properties with `@var`:

PHP

```php
/**
 * The items of one user, newest first.
 *
 * @param int $userID
 * @param int $limit at most 100
 * @return acmeReportItem[]
 */
public static function fetchByUser( $userID, $limit = 20 )
{
    $userID = (int)$userID;
    $limit = max( 1, min( 100, (int)$limit ) );
    ...
}
```

Note the casts at the top of the method: input is converted where it enters, which is the kernel's way of making a value the type it should be (Validating input and casting).

How types are still checked

- **PHPStan** reads the docblocks. `phpstan.neon.dist` sets `treatPhpDocTypesAsCertain: false`, so a docblock type guides the analysis without turning every defensive check into an error (Static analysis with PHPStan).
- **Tests** assert the values, not only the types (PHPUnit without a database).
- **Casts and checks** at the boundary: `(int)` for ids, allow lists for choices, `is_array()` before `count()`.

The exceptions

Where	Allowed
files under `tests/`	`: void` on `setUp()`, `tearDown()` and the other PHPUnit template methods, which PHPUnit requires
methods implementing SPL interfaces	no return type, but the `#[\ReturnTypeWillChange]` attribute
third-party code in `vendor/`	whatever its authors wrote; it is not checked
an extension with its own standard	the rule applies to code that follows the kernel's standard; an extension may declare its own `phpcs.xml`

Common questions

Can I disable one code of the sniff for my extension? Yes: each report has its own code, so a ruleset can exclude one. The kernel does not.

Will the rule change? The standard describes the code as it is. Raising it would be a project decision taken in small steps, like raising the PHPStan level; until then, new kernel code follows it.

Related pages

- The coding standard (phpcs.xml.dist)
- Coding standards
- Quality checks
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