

PHPStan and static analytics

PHP Bergen - 20.02.2025 @steinmb

https://php-bergen.github.io/phpbergen_202502-phpstan

https://github.com/PHP-Bergen/phpbergen_202502-phpstan

PHPStan versions

- PHPStan version 1.x
- PHPStan version 2.0 (11.11.2024)
- PHP 8.4 PHPStan 2.1



Static analytics vs unit tests

Install and use PHPStan

- `composer require --dev phpstan/phpstan`
- `./vendor/bin/phpstan analyse src tests`

```
> cat phpstan.neon
parameters:
    level: 4
    editorUrl: 'phpstorm://open?file=%file%&line=%line%'
paths:
    - src
    - tests
phpVersion: 80400
```

```
phpbergen_202502-phpstan on ⚡ master [!?] via 🐄 v8.4.3
> █
```

Configure phpstan.neon

Rule levels

- PHPStan version 1.x: 0 - 9
- PHPStan version 2.x: 0 - 10 (one loader)

PHPStan bodyscan

- Check all rule levels in one go.
- <https://github.com/TomasVotruba/phpstan-bodyscan>

```
▶ ./vendor/bin/phpstan-bodyscan
Running PHPStan level 0: found 0 errors
Running PHPStan level 1: found 0 errors
Running PHPStan level 2: found 0 errors
Running PHPStan level 3: found 0 errors
Running PHPStan level 4: found 0 errors
Running PHPStan level 5: found 0 errors
Running PHPStan level 6: found 2 errors
Running PHPStan level 7: found 2 errors
Running PHPStan level 8: found 2 errors

+-----+-----+-----+
| Level | Error count | Increment |
+-----+-----+-----+
| 0     | 0           | -       |
| 1     | 0           | -       |
| 2     | 0           | -       |
| 3     | 0           | -       |
| 4     | 0           | -       |
| 5     | 0           | -       |
| 6     | 2           | + 2    |
| 7     | 2           | -       |
| 8     | 2           | -       |
+-----+-----+-----+
phpbergen_202502-phpstan on p master [!?] via 🐧 v8.4.3 took 2m11s
▶ 
```

Where to run?

Command line

IDE / editor

Git hooks

CI - Gitlab Github

```
jobs:
  code-quality:
    runs-on: ubuntu-latest
    strategy:
      matrix:
        php-versions: ['8.4', '8.5']

    steps:
      - name: Checkout
        uses: actions/checkout@v4

      - name: Setup PHP with tools
        uses: shivammathur/setup-php@v2
        with:
          php-version: ${matrix.php-versions}
          tools: composer, phstan

      - name: Run PHPStan
        run: phpstan --level=4 --error-format=github analyse src tests
```

Git hooks

- <https://github.com/phpro/grumphp>
- composer require --dev phpro/grumphp



Extend PHPStan

[https://github.com/phpstan/
phpstan-strict-rules](https://github.com/phpstan/phpstan-strict-rules)

Official extensions

- Doctrine
- PHPUnit
- Symfony Framework
- beberlei/assert
- webmozart/assert
- Mockery
- azjazz/psl
- Nette Framework
- Dibi - Database Abstraction Library

Unofficial extensions

- Laravel (Larastan and Bladestan)
- Drupal
- WordPress
- Laminas
- Phony
- Prophecy
- marc-mabe/php-enum
- myclabs/php-enum

Unofficial extensions

- Yii2
- TYPO3
- Nextras ORM
- Sonata
- Magento
- CakePHP
- Safe PHP
- psr/log
- Faker

Custom rules and why



Abstract syntax tree (AST)

Run: Lexing -> Parsing -> Compiling

Generate baseline (cheating)

- –generate-baseline
- `phpstan.neon`: includes:
 - `phpstan-baseline.neon`

Praktisk introduksjon til Drupal CMS

Torsdag 20 mars 2025 - Netlife