

# PHP BERGEN - COMPOSER

@steinmb

[https://github.com/steinmb/phpbergen\\_202203](https://github.com/steinmb/phpbergen_202203)

<https://getcomposer.org>

# PACKAGE MANAGER

- apt (Advanced package tool)
- npm (Node.js) / Bundler (Ruby)

# PHP PACKAGE MANAGERS

# PECL (PHP Extension Commun

- PHP extensions
- written in C

```
pecl install xdebug
```

# PEAR package ma

PHP Extension and Application Repository

- CPAN-ish
- System wide
- PEAR packages
- Can install PECL extensions

# COMPOSER

# Application-level package

Current versions and performance





Basic installation



```
composer require 'monolog/monolog'
```

```
composer remove 'monolog/monolog'
```

# composer.json

```
{  
  "require": {  
    "monolog/monolog": "^2.4.*"  
  }  
}
```



Install dev packages

# composer.json

```
{  
  "require": {  
    "monolog/monolog": "^2.4"  
  },  
  "require-dev": {  
    "phpunit/phpunit": "^9.5"  
  }  
}
```

▶ 0:00 / 0:08



Downgrade to older version

# DEPENDENCY WRANGLING

```
composer require "monolog/monolog:2.3.0"
```

# UPGRADE

```
composer outdated
```

```
composer update "monolog/monolog"
```

# USE LIBRARIES

```
require 'vendor/autoload.php';

$logger = new \Monolog\Logger('phpBergen');
$logger->pushHandler(
    new \Monolog\Handler\StreamHandler(
        __DIR__ . '/logs/demo.log',
        \Monolog\Logger::WARNING
    )
);
$logger->warning('PHP Bergen i progress');
```

Example 1



# PHP-FIG (FRAMEWORK INTEROPERABILITY)

PSR - PHP Standards Recommendations

# AUTOLOADING

PSR-0/PSR-4

# PSR-3: LOGGER INTERFACE

A common interface for logging libraries

# COMPOSER.LOCK / COMPOSE

```
"name": "monolog/monolog",  
"version": "2.4.0",  
"source": {  
  "type": "git",  
  "url": "https://github.com/Seldaek/monolog.git",  
  "reference": "d7fd7450628561ba697b7097d86db72662"  
}
```

# BUILD APPLICATION

```
composer install --no-dev
```

Output == "deployable artefact".

Example: Docker container, tarball, ftp, rsync

# CONFIGURATION

```
{  
}
```

A minimum compo

# THE PHP PACKAGE REPOSITORY

[Packagist](#) is the main Composer repository. It aggregates public PHP packages installable with Composer.

# COMPOSER AND GIT

```
"repositories": [  
  {  
    "type": "composer",  
    "url": "https://packages.drupal.org/7"  
  },  
  {  
    "type": "vcs",  
    "url": "git@git.app.uib.no:uib-ub/skeivtarkiv/ska_tags.git"  
  }  
]
```

```
"require": {  
  "drupal/ska_tags": "^1.0"  
}
```



# SATIS

Ultra-lightweight, static file-based version of packagist

```
{
  "name": "My Repository",
  "homepage": "http://packages.example.org",
  "repositories": [
    { "type": "vcs", "url": "https://github.com/mycompany/priv",
    { "type": "vcs", "url": "http://svn.example.org/private/re",
    { "type": "vcs", "url": "https://github.com/mycompany/priv
  ],
  "require-all": true
}
```

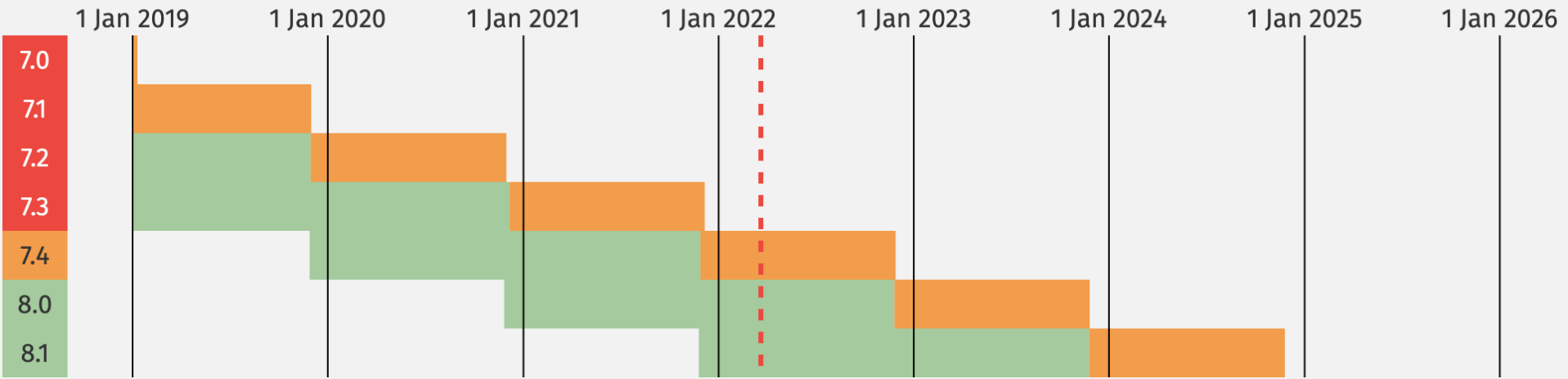
satis.json

ref: [Handling private packages](#)

UPGRADE P

Branch	Initial Release		Active Support Until		Security Support Until	
<a href="#">7.4</a>	28 Nov 2019	2 years, 3 months ago	28 Nov 2021	3 months ago	28 Nov 2022	in 8 months
<a href="#">8.0</a>	26 Nov 2020	1 year, 3 months ago	26 Nov 2022	in 8 months	26 Nov 2023	in 1 year, 8 months
<a href="#">8.1</a>	25 Nov 2021	3 months ago	25 Nov 2023	in 1 year, 8 months	25 Nov 2024	in 2 years, 8 months

Or, visualised as a calendar:



text

# PLATFORM WITH COMPOSER

```
"require": {  
    "php": ">=8.0.0",  
    "ext-curl": "*",  
    "ext-json": "*",  
}
```

```
"config": {  
    "sort-packages": true,  
    "platform": {  
        "php": "8.1"  
    }  
}
```

# CHECK UPGRADE PATH

```
composer why-not php 8.2
```

```
composer why-not php 7.1
```

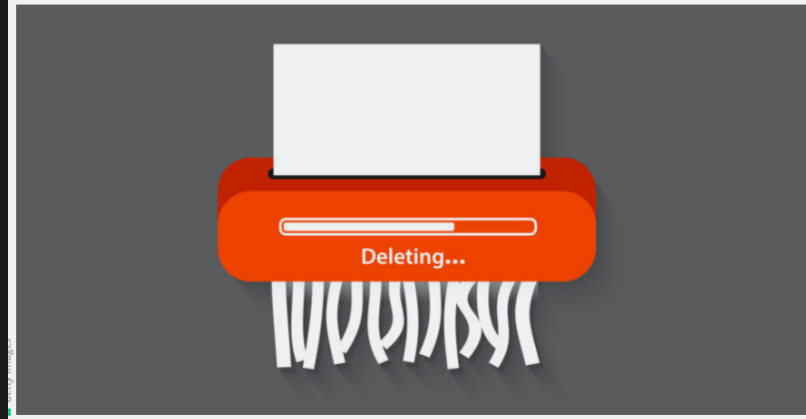
# SUPPLY CHAIN SECURITY

## Supply chain attacks

### Sabotage: Code added to popular NPM package wiped files in Russia and Belarus

When code with millions of downloads nukes user files, bad things can happen.

DAN GOODIN - 3/18/2022, 7:31 PM



Ref: Code added to popular NPM package wiped files  
in Russia and Belarus

# Over 90 WordPress themes, plugins backdoored in supply chain attack

By **Bill Toulas**

January 21, 2022

10:34 AM

0



Ref: [Over 90 WordPress themes, plugins backdoored](#)



- Minimum stability
- <http://fabien.potencier.org/signing-project-releases.html>
- <https://github.com/composer/composer/issues/4022>

# SPØRSMÅL?

