Composer

Composer is a Software Dependency Manager for PHP, which is heavily used by Tiki.

- **Official website:** [https://getcomposer.org/](https://getcomposer.org/)
- **Package repositories:**
  - Main: [https://packagist.org/](https://packagist.org/)
  - Secondary: [https://asset-packagist.org](https://asset-packagist.org) (after considering other options)
- Tiki uses Composer to manage **125+ library dependencies in PHP and JavaScript**, which are bundled as part of the regular Tiki install.
- Superfluous code is removed via [CleanVendors](https://dev.tiki.org/Composer)
- Starting in **Tiki18**, there is a web-based tool to install [Packages](https://dev.tiki.org/Composer), which permits to manage even more libraries. This is to provide easy access to dependencies that are not shipped as part of the standard Tiki installation.
- [cweagans/composer-patches](https://dev.tiki.org/Composer) is used to patch dependencies. This is usually used until a patch is incorporated in a released version of a library
  - the patches should be versioned as binary files, to avoid problems with line breaks
- The Tiki community runs its own instance of [Satis](https://dev.tiki.org/Composer), a Simple static Composer repository generator.
- Picking and maintaining dependencies is a critical skill because
  - [https://www.reddit.com/r/programming/comments/1z09jq/why_your_software_project_will_slowly_die_without/](https://www.reddit.com/r/programming/comments/1z09jq/why_your_software_project_will_slowly_die_without/)
- Here are guidelines for what should be available via [Tiki Packages vs built-in](https://dev.tiki.org/Composer) to Tiki directly, as we are careful to manage complexity and avoid the worst of dependency hell, as explained at [https://pluginproblems.com](https://pluginproblems.com)
- Developers coordinate here: [https://dev.tiki.org/Composer](https://dev.tiki.org/Composer)

**History**

- Tiki started in 2002, and there was no such tool to manage dependencies
- The **first release of Composer was in 2012**.
- In 2013, **Tiki started using Composer and progressively porting dependencies** (instead using SVN externals)
- From 2014 to 2017: dependencies are progressively migrated to Composer
- In 2017, **Composer usage in Tiki was revamped** and a web-based Composer tool was added -> Packages
- In 2018, we [added support for asset-packagist.org](https://dev.tiki.org/Composer) for when dependencies are not on Packagist.org but only NPM or Bower.
- In 2018, a simple way to install packages via FTP: [https://packages.tiki.org/](https://packages.tiki.org/)
- In 2021, we moved to [Composer v2](https://dev.tiki.org/Composer), in time for [Tiki23](https://dev.tiki.org/Composer) so it will be nice and robust for [Tiki24 LTS](https://dev.tiki.org/Composer)

**Stats**