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**
- Starting in **Tiki18**, there is a web-based tool to install **Packages**, 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** 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**, a Simple static Composer repository generator.
  - Source: **satis.json**, web: [http://composer.tiki.org](http://composer.tiki.org)
- Picking and maintaining dependencies is a critical skill because [https://www.reddit.com/r/programming/comments/1z09jq/why_your_software_project_will_slowly_die_www/](https://www.reddit.com/r/programming/comments/1z09jq/why_your_software_project_will_slowly_die_www/)
- Here are guidelines for what should be available via **Tiki Packages vs built-in** 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://asset-packagist.org) 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**, in time for **Tiki23** so it will be nice and robust for **Tiki24LTS**

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