# GitLab Development Kit

Configure and manage a GitLab development environment.

Read on for installation instructions or skip to doc/howto for usage documentation.

#### Overview

GitLab Development Kit (GDK) provides a collection of scripts and other resources to install and manage a GitLab installation for development purposes. The source code of GitLab is spread over multiple repositories and it requires Ruby, Go, Postgres/MySQL, Redis and more to run. GDK helps you install and configure all these different components, and start/stop them when you work on GitLab.

### Contributing to GitLab Development Kit

Contributions are welcome, see CONTRIBUTING.md for more details.

### **Getting started**

The preferred way to use GitLab Development Kit is to install Ruby and dependencies on your 'native' OS. We strongly recommend the native install since it is much faster than a virtualized one. Due to heavy IO operations a virtualized installation will be much slower running the app and the tests.

To do a native install:

- 1. Prepare your computer
- 2. Set-up GDK

Or if you want to use [Vagrant] instead (e.g. need to do development from Windows), see <u>the instructions for our Vagrant with Virtualbox setup</u>. If you want to use [Vagrant] with [Docker][docker engine] on Linux, see <u>the instructions for our Vagrant with Docker setup</u>.

After installation learn how to use GDK

If you have an old installation update your existing GDK installation

### Design goals

- Get the user started, do not try to take care of everything
- Run everything as your 'desktop' user on your development machine
- GitLab Development Kit itself does not run sudo commands
- It is OK to leave some things to the user (e.g. installing Ruby)

## Differences with production

- gitlab-workhorse does not serve static files
- C compiler needed to run bundle install (not needed with Omnibus)
- GitLab can rewrite its program code and configuration data (read-only with Omnibus)
- 'Assets' (Javascript/CSS files) are generated on the fly (pre-compiled at build time with Omnibus)
- Gems (libraries) for development and functional testing get installed and loaded
- No unified configuration management for GitLab and gitlab-shell (handled by Omnibus)
- No privilege separation between Ruby, Postgres and Redis
- No easy upgrades
- Need to download and compile new gems ('bundle install') on each upgrade

#### License

The GitLab Development Kit is distributed under the MIT license, see the LICENSE file.