

Versioning Vagrant in Atlas

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Introducing Vagrant

- Vagrant is used to virtualize server environments
 - Hypervisors host the virtualized servers
 - Vagrant is **not** a hypervisor
 - Several hypervisors are supported:
 - VirtualBox
 - VMWare
 - Server state is managed as Virtual Machine (VM) Images
 - Images for Vagrant are termed **Boxes**
- Server environments can be provisioned
 - System packages and services are automatically installed
 - Provisioning can be complex or simple
 - BASH scripting
 - Ansible
 - Puppet



Infrastructure at Lafayette College

- We do not use Vagrant
 - We use VM's provisioned using the Red Hat Enterprise Virtualization Suite
- Reproducing environments is costly
 - Requires consistency in server environments
- `fcrepo_wrapper` **and** `solr_wrapper`
 - Superb for development
 - Limited utility for performance testing
 - Not recommended for production releases of complex Hydra Heads

Infrastructure using Vagrant

- Vagrant Boxes for GeoConcerns
 - Boxes were restructured in the most recent GeoConcern sprint
 - Boxes needed to support new releases of the `geo_concerns` Gem
 - **This bound releases of the Gem to releases of Boxes**
- Vagrant Development at Lafayette College
 - Provisioning and testing Boxes is underway
 - Support for Puppet in provisioning has been successful
 - But we still required that Boxes be rebuilt between testing iterations

Atlas

- Atlas is a Box storage service
 - Vagrant can download “released” Boxes from Atlas
 - These Boxes are built and versioned
- Boxes can be shared
 - This is nearly universal to Vagrant projects
- A Box on Atlas can serve as a Base Box
 - The Base Box provides the initial environment
 - Steps in the build process can be decoupled

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https://atlas.hashicorp.com/geoconcerns/boxes/geo-concerns-vagrant

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Atlas

🏠 Versions

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🔍 Atlas Documentation

🟢 All Systems Operational

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boxes / geoconcerns/geo-concerns-vagrant / box versions

This version was created 19 days ago. This is the currently released version. v0.0.10.0

geo-concerns-vagrant

Requirements

- [Vagrant](#)
- [VirtualBox](#)

Setup

```
1. git clone https://github.com/geoconcerns/geo-concerns-vagrant.git
2. cd geo-concerns-vagrant
3. vagrant up
```

You can shell into the machine with `vagrant ssh` or `ssh -p 2222 vagrant@localhost`

Using Geo Concerns

- A stock [Geo Concerns](#) app is built in the Vagrant in `/home/vagrant/geo-concerns-demo`
 - Once connected to the Vagrant VM, start with:
`cd geo-concerns-demo; rake demo:servers`
- Access the app at <http://localhost:3000>.
- To setup an initial user account:
 - Click "Log In" in the upper right, and then "Sign up" in the login form.
 - Enter your username and password, and click "Sign up" to create your account and sign in.
- Once signed in, you can create content by clicking the "+" button in the upper right.

Environment

- Ubuntu 14.04 64-bit base machine
- A stock [Geo Concerns](#) app which can be run at: <http://localhost:3000>

<https://atlas.hashicorp.com/geoconcerns/boxes/geo-concerns-vagrant>

Atlas Beyond Vagrant

- Docker
 - Docker is a popular alternative to virtualizing an entire machine
 - Vagrant can deploy Docker Containers “inside of a Box”
 - This can reduce the Vagrant Box to a Docker host
 - GeoConcerns currently uses this approach



Atlas Beyond Vagrant

- Packer
 - Vagrant is used frequently for development environments in projects
 - Packer is an alternative to Vagrant optimized for Base Boxes (e. g. minimal installs of Ubuntu)
 - Can build using an ISO for an operating system
 - Like Vagrant, exports Boxes to Atlas



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Thank You for Your Attention