

Vagrant

**development environments
made easy**





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ANGULARJS



How many of you are **developers?**

Which is your **OS**?
Win? Mac? Linux?

Project setup/configuration can be
time consuming

Several **clients**, several **projects**
in one machine **is painful**



Trying new things is **difficult**

Can we do **better?**

Virtual machines

NICKYWIRE



Meet **Vagrant**

vagrantup.com

Vagrant: a command line tool for **managing** virtual machines

Providers: virtualbox, vmware, ec2, ...

how does it works

```
$ vagrant init hashicorp/precise64  
$ vagrant up  
...  
enjoy
```

Vagrantfile

```
Vagrant.configure(VAGRANTFILE_API_VERSION) do |config|

  config.vm.hostname = "myvm"
  config.vm.box = "hashicorp/precise64"
  config.vm.network "private_network", ip: "192.168.33.10"

  config.ssh.forward_agent = true

  config.vm.synced_folder "./www", "/var/www", type: "nfs", id:
"vagrant-root"

  config.vm.provider :virtualbox do |v|
    v.customize ["modifyvm", :id, "--memory", 1024]
  end

  config.vm.provision "puppet" do |puppet|
    puppet.manifests_path = "vagrant/puppet/manifests"
    puppet.manifest_file = "default.pp"
    puppet.options = '--verbose --modulepath /etc/puppet/modules'
  end
end
```

Base Boxes

```
config.vm.box = "hashicorp/precise64"
```

preconfigured machines, different flavors
all have the same user: vagrant (password: vagrant)

<https://atlas.hashicorp.com/boxes/search>

Discover Vagrant Boxes

This page lets you discover and use Vagrant Boxes created by the community. You can search by operating system, architecture or provider.

Search for boxes by operating system, included software, architecture and more

Provider filter

virtualbox

vmware_desktop

digitalocean

aws

rackspace

hyperv

parallels

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[ubuntu/trusty64](#) Official Ubuntu Server 14.04 LTS (Trusty Tahr) builds

2,274,785 downloads | 14.04 | last release 12 months ago



[hashicorp/precise64](#) A standard Ubuntu 12.04 LTS 64-bit box.

1,604,500 downloads | 1.1.0 | last release 1 years ago



[laravel/homestead](#) Official Laravel local development box.

1,127,312 downloads | 0.2.5 | last release 1 month ago



[hashicorp/precise32](#) A standard Ubuntu 12.04 LTS 32-bit box.

952,896 downloads | 1.0.0 | last release 1 years ago



[chef/centos-6.5](#) A standard CentOS 6.5 x64 base install

590,999 downloads | 1.0.0 | last release 1 years ago

<http://www.vagrantbox.es/>

Vagrantbox.es

Vagrant is an amazing tool for managing virtual machines via a simple to use command line interface. With a simple **vagrant up** you can be working in a clean environment based on a standard template.

These standard templates are called **base boxes**, and this website is simply a list of boxes people have been nice enough to make publicly available.

Suggest a Box

Do you know of another base box? [Send a pull request](#) and we'll add it to the list below.

Available Boxes

To use the available boxes just replace {title} and {url} with the information in the table below.

```
$ vagrant box add {title} {url}
$ vagrant init {title}
$ vagrant up
```

The list of boxes was last updated on July 25th, 2014.

Search:

Name	Provider	URL
Debian Jessie 8.0 RC2 64-bit (Minimal, Shranked + Guest Additions 4.3.24 + Puppet 3.7.2)	VirtualBox	<input type="button" value="Copy"/> http://static.gender-api.com/debian-8-jessie-rc2-x64-slim.box

Network

```
config.vm.network "private_network", ip: "192.168.33.10"
```

how to reach the machine
private or public

synced folders

```
config.vm.synced_folder "./myproject", "/var/  
www/myproject", type: "nfs", id: "vagrant-root"
```

share your working directory with the vm
you can continue using your favorite IDE

vm native

nfs (sry Win users)

rsync

SSH forward agent

```
config.ssh.forward_agent = true
```

nice if you need access to private repo
don't need to configure the vm

common settings

```
config.vm.hostname = "myvm"
```

```
config.vm.provider :virtualbox do |vb|
```

```
  vb.memory = "4096"
```

```
  vb.cpus = "4"
```

```
end
```

setting hostname, nice if you ssh in the vm
setting cpus and memory for performance

provisioning

```
config.vm.provision "puppet" do |puppet|  
  puppet.manifests_path = "vagrant/puppet/manifests"  
  puppet.manifest_file  = "default.pp"  
  puppet.options = '--modulepath /etc/puppet/modules'  
end
```

configure & install db, files, webserver...

provisioners: puppet, chef, ansible, bash, ...

provisioning with puppet

```
mysql_database{ 'mydatabase':  
  ensure => present,  
  charset => 'utf8',  
  collate => 'utf8_general_ci',  
  require => Class['mysql::server'],  
}
```

```
file { "/var/www/web/logs":  
  ensure => "directory",  
  mode   => 777  
}
```

VMs management

creating a vm

```
$ vagrant init  
$ vagrant up
```

provision a vm

\$ vagrant provision

stopping a vm

```
$ vagrant halt
```


reloading a vm

```
$ vagrant reload
```

destroy a vm

```
$ vagrant destroy
```

Usage patterns

one vm, one project

```
.
├── Vagrantfile
├── vagrant
│   ├── puppet
│   └── ...
├── index.php
├── wp-admin
├── wp-config.php
├── wp-content
└── ...
    ├── wp-cron.php
    ├── wp-includes
    └── xmlrpc.php
```

`config.vm.synced_folder "./", "/var/www/myproj"`

one vm, one project

every project is self contained
you might end up with a lot of VMs

one vm, n projects

```
.
├── vmconfig
│   ├── Vagrantfile
│   ├── vagrant
│   └── puppet
│   ...
├── project1
│   └── wp-content
│   ...
├── project2
│   └── wp-content
│   ...
└── project3
    └── wp-content
```

`config.vm.synced_folder` “../”, “/var/www/”

one vm, n projects

good for related apps/projects
less duplicated vm

package your own base box

“golden image” pattern
share a fully configured vm with your team

package your own base box

```
$ vagrant package mybox.box
```

package your own base box

```
$ vagrant box add ./mybox.box mybox
```

```
config.vm.box = "mybox"
```

make your vm accessible

expose your vm on the internet
testing webhook, debugging, ...

```
$ vagrant share [--ssh]
```

plugins

extends vagrant functionalities

tons of plugins:

- providers
- provisioners
- host management
- ...

<https://github.com/mitchellh/vagrant/wiki/Available-Vagrant-Plugins>

<http://vagrant-lists.github.io/>

install a plugin

```
$ vagrant plugin install [plugin]
```

vbguest: keeps vbox guest addition updated
hostmanager: modifies your host file

configuring hostmanager

```
if Vagrant.has_plugin?("HostManager")  
  
  config.hostmanager.enabled = true  
  config.hostmanager.manage_host = true  
  config.hostmanager.ignore_private_ip = false  
  config.hostmanager.include_offline = true  
  
  config.hostmanager.aliases=%w(www.myproj.local)  
end
```

wrap up

tired of configuring projects? vagrant can help!

if you work alone: no shared environment

if you work in a team: share project easily

that's all folks!

Questions?



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