



**OfficeCRAFT**  
COMPUTER CONSULTANCY

# Ruby Development

## User Manual

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# 1 Introduction

This document covers the procedures and tasks used by TerraBase for Ruby development.

Currently using the OfficeCraft template until the TerraBase template is refined.

This is a working document, so please contribute.

To discuss anything in this document, do to the redmine forum here: <http://www.xxxx.yyy>

To add a change request, or report and issue go here: <http://www.xxxx.yyy>

## 2 Setting Up development system

Take the following steps to set up a Ruby development system.

### 2.1 Install Kubuntu

Install Kubuntu - currently using desktop

<http://www.kubuntu.org/getkubuntu>

If using Vmware workstation change network to direct

### 2.2 Initial Setup

#### Root

change root password using the “sudo passwd root” command.  
To switch to root in terminal type su root

#### Fixed IP Address

if you need a static ip address do the following.

Edit /etc/network/interfaces:

#### Static IP:

```
auto eth0
iface eth0 inet static
address 192.168.0.150
netmask 255.255.255.0
gateway 192.168.0.1
broadcast 192.168.0.255
dns-nameservers 46.33.128.49 46.33.128.50
```

#### commands

```
sudo ifdown eth0 - brings down the interface
sudo ifup eth0 - brings up the interface
```

#### Change Hostname

```
sudo -s
editor /etc/hostname
editor /etc/hosts
shutdown -ry now
```

Just type hostname to get the hostname

## 2.3 Set up Ruby and Rails

Setting up ruby and rails on Ubuntu is relatively straight forward, thanks to the excellent rvm tool.

### Step 1. Prepare the system.

Before proceeding, prepare the system with the build essential package:

```
sudo apt-get install build-essential
```

And the necessary dependencies:

```
sudo apt-get install apache2 curl git libmysqlclient-dev mysql-server nodejs
```

Note: You'll be prompted for a root password for your mysql server.

### Step 2. Install and configure rvm.

We'll be using rvm to do all the heavy lifting for us, so let's install it;

```
curl -L https://get.rvm.io | bash -s stable
```

NOTE - you have to install certificate follow instructions after running the above command and run again

Note: Make sure your casing matches for -L and -s options.

Next we need to source the rvm function in our bash script. I'm using the vim editor here:

```
vim ~/.bashrc
```

append the following to the end of the file and save:

```
source $HOME/.rvm/scripts/rvm
```

Just to make sure we're on the right track: close the terminal, open a new terminal and enter the command:

```
type rvm | head -n1
```

You should see the response: rvm is a function

Next we need to install the necessary prerequisites:

```
rvm requirements --autolibs=enable
```

Note: You will be prompted for your password.

### Step 3. Install the current stable version of ruby.

rvm should now be configured and ready for use. Head over to the Ruby Language site to determine the latest stable version of ruby – at the time of writing this article we're up to ruby 2.2.0.

```
rvm install 2.2.0
```

This may take a while, depending upon your internet connection. Once completed, set the default version:

```
rm use 2.2.0
rm --default 2.2.0
```

To confirm the version of ruby, type:

```
ruby -v
```

#### **Step 4. Install the current stable version of rails.**

Head over to the Ruby on Rails site to determine the current stable version of rails, which at the moment is 4.2. Install rails:

```
gem install rails --version 4.2 --no-ri --no-rdoc
```

This may take a while as the gem files are fetched and configured.

Next verify the rails version:

```
rails -v
```

#### **Step 5. Test the rails environment.**

Create a simple demonstration project to validate our installation, this will take a few minutes to complete:

```
cd ~/
mkdir rails_demo
cd rails_demo
rails new demo
```

Change into the demo folder and start up the server:

```
cd demo
rails server
```

With the WEBrick server running, open a browser and navigate to <http://localhost:3000>

You should see the familiar Welcome aboard message, click on the About your application's environment link to see more details.

Yay! Ruby and Rails are up and running.

#### **Step 6. Install Oracle Java.apache2**

If you prefer, you can skip this step and install the default openjdk Java available in the main repositories. JetBrains, however, recommend Oracle java for performance reasons. Fortunately, this is a simple process thanks to the guys at webupd8:

```
sudo add-apt-repository ppa:webupd8team/java
sudo apt-get update
sudo apt-get install oracle-java8-installer
```

Note: You will be prompted to accept the Oracle license.

This process can take a while, so you might want to grab a coffee whilst Java is downloading and

installing. Upon completion, confirm your version of Java:

```
java -version
```

### **Step 7. Install Rubymine.**

Download Rubymine from the JetBrains Rubymine page to your ~/Downloads folder.

Next, install Rubymine, the current version is 6.0.3:

```
mkdir -p ~/apps  
cd ~/Downloads  
tar -xvf RubyMine-6.0.3.tar.gz  
mv RubyMine-6.0.3 ~/apps/  
cd ~/apps/RubyMine-6.0.3/bin  
./rubymine.sh
```

The Rubymine installer will now prompt you to import settings from a previous version, you can ignore this. It will then ask you for license information, enter your details or select the trial option, and accept the license agreement when prompted.

A configuration dialog will then prompt you to select some default settings, you can always configure these later if you wish.

Note: You will be prompted for your password to create a desktop entry.

You should now see the Rubymine start screen.

From the Rubymine Quick Start panel, select Open Directory and navigate to the demo project you created earlier in ~/rails\_demo/demo. Rubymine may take a moment to index your application.

From <<https://daharper.wordpress.com/2014/04/23/installing-ruby-rails-and-rubymine-in-ubuntu-14-04/>>

## 3 General tasks

### 3.1 Move system

If you move the system it may break the network. This can apply to virtual machines

Try running:

```
udevadm trigger --subsystem-match=net
```

From <<https://access.redhat.com/discussions/1240213>>

### 3.2 Set up Remote Desktop

To set up remote desktop for access via windows:

```
sudo apt-get install xrdp
```

From <<https://community.hpccloud.com/article/using-windows-rdp-access-your-ubuntu-instance>>

#### Change Keyboard

To get UK Keyboard via XRDP copy file below

Here is the corrected UK English keyboard file : km-0809.ini

Copy file to /etc/xrdp

From <<http://component-parts.blogspot.co.uk/2012/08/fixing-uk-keyboard-mapping-for-xrdp.html>>

### 3.3 GIT

in the git bash command widow

```
ssh-keygen -t rsa -C "your\_email@example.com"
```

That creates 2 files. Tracey needs the id\_rsa.pub (the public key)

Once Tracey has the details she will configure Gitolite to give access and give the commands to clone the repositories.

This will give you access to GPSecure and the ART Tool. Both reasonably up-to-date and relatively straightforward.

### 3.4 PHPMYAdmin

phpMyAdmin is a very popular MySQL management software package.

From console:



```
sudo apt-get install phpmyadmin
```

- If you're using Ubuntu 7.10 (Gutsy) or later select Apache2 from the "Configuring phpmyadmin" dialog box.

To set up under Apache all you need to do is include the following line in /etc/apache2/apache2.conf.

```
Include /etc/phpmyadmin/apache.conf
```

From <<https://help.ubuntu.com/community/phpMyAdmin>>

Restart apache2 after editing

Sudo service apache2 restart

From <<http://askubuntu.com/questions/6358/how-do-you-restart-apache>>

## 4 Ruby Development

Enter topic text here.

### 4.1 RVM

RVM is a command-line tool which allows you to easily install, manage, and work with multiple ruby environments from interpreters to sets of gems.

#### **To install a version of Ruby:**

```
rvm install x.x.x
```

This may take a while, depending upon your internet connection. Once completed, set the default version:

```
rvm use x.x.x
```

```
rvm --default x.x.x
```

To confirm the version of ruby, type:

```
ruby -v
```

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