

ECE421 – Ruby Install in ETLC5-005

Ruby Version Manager

The **Ruby Version Manager** (RVM) has been installed in ETLC 5-005 for use in ECE421. Using RVM allows the user to easily switch between Rubies when needed. Note that Rubies can only be installed by privileged users. Students are not privileged users. Contact esupport@ece.ualberta.ca if a Ruby that you need is not installed and you would like it installed into global space.

- The current system ruby is:

```
[nem1@e5-05-20 ~]$ rvm use system
Now using system ruby.
[nem1@e5-05-20 ~]$ ruby -v
ruby 2.0.0p648 (2015-12-16) [x86_64-linux]
```

- To see a list of the rubies that are installed via RVM execute:

```
[nem1@e5-05-20 ~]$ rvm list
```

```
rvm rubies
```

```
  jruby-9.1.7.0 [ x86_64 ]
  rbx-3.71 [ x86_64 ]
=* ruby-2.2.6 [ x86_64 ]
  ruby-2.3.3 [ x86_64 ]
  ruby-2.4.0 [ x86_64 ]
```

```
# => - current
# =* - current && default
# * - default
```

- To switch between rubies execute:

```
[nem1@e5-05-20 ~]$ rvm use 2.2.6
Using /afs/ualberta.ca/home/n/e/nem1/.rvm/gems/ruby-2.2.6
```

Note that gems are installed in user space. No privilege is required to install the gems for each version. Gems are version dependent so if you want gems for each version you'll need to install the same gem for each version of Ruby that requires it.

- To switch back to the system ruby execute:

```
[nem1@e5-05-20 ~]$ rvm use system  
Now using system ruby
```

RubyMine

Rubymine is installed. RubyMine is an IDE for Ruby development provided to us by JetBrains. You may wish to install this on your personal machines. JetBrains offers free access to their products to students:

<https://www.jetbrains.com/student/>

Launch RubyMine in ETLC5-005 by executing

```
[nem1@e5-05-02 ~]$ rubymine.sh
```

If you are prompted for RubyMine License Activation select License server. The license server address should be auto-detected and set as shown below.

The screenshot shows a window titled "RubyMine License Activation". At the top, there are two radio buttons: "Activate" (which is selected) and "Evaluate for free". To the right of these is a button labeled "Buy RubyMine". Below this, the text "Activate license with:" is followed by three radio buttons: "JetBrains Account", "Activation code", and "License server" (which is selected). Underneath, the label "License server address:" is followed by a text input field containing the URL "http://jetbrains.ece.ualberta.ca:8090". To the right of the input field is a blue link labeled "More info...". Below the input field is a button labeled "Discover server". At the bottom right of the window are two buttons: "Activate" and "Exit".

Working with Gems

Users may choose to install gems for any version of Ruby that is installed. Note that gems are version dependent and are installed in user space. Sometimes gems require system libraries that are not installed. If installation of a gem fails due to a system dependency contact esupport@ece.ualberta.ca to request installation of the system dependency. When contacting esupport specify which gem is causing issues.

To tell RVM to install gems in user space you need to run the following command once for each ruby:

```
[nem1@e5-05-20 ~]$ rvm user gemsets
```

To install gems execute (rake is used as an example):

```
[nem1@e5-05-20 ~]$ gem install rake
```

Remember that gems are installed for a particular version of Ruby. To list installed gems associated with the current Ruby execute:

```
[nem1@e5-05-20 ~]$ ruby -v
ruby 2.2.6p396 (2016-11-15 revision 56800) [x86_64-linux]
```

```
[nem1@e5-05-20 ~]$ gem list
```

*** LOCAL GEMS ***

```
atk (3.1.9, 3.1.1)
bigdecimal (default: 1.2.6)
cairo (1.15.10, 1.15.5)
cairo-gobject (3.1.9, 3.1.1)
fxruby (1.6.38)
gdk3 (3.1.9, 3.1.1)
gdk_pixbuf2 (3.1.9, 3.1.1)
gem-wrappers (1.2.7)
gio2 (3.1.9, 3.1.1)
glib2 (3.1.9, 3.1.1)
gobject-introspection (3.1.9, 3.1.1)
gtk3 (3.1.9, 3.1.1)
gtksourceview3 (3.1.1)
io-console (default: 0.4.3)
json (default: 1.8.1)
mini_portile2 (2.3.0)
native-package-installer (1.0.4)
pango (3.1.9, 3.1.1)
pkg-config (1.2.8)
psych (default: 2.0.8)
rake (12.3.0, default: 10.4.2)
rdoc (default: 4.2.0)
require_all (1.4.0)
visualruby (3.1.11)
```

- To uninstall a gem execute (rake is again used as an example)
-

```
[nem1@e5-05-20 ~]$ gem uninstall rake
Remove executables:
  rake
```

```
in addition to the gem? [Yn]  y
Removing rake
Successfully uninstalled rake-12.3.0
```

Using FxRuby

The fox toolkit is installed to support FxRuby. I tested FxRuby with 2.2.6/2.3.3/2.4.0 and was able to run the demo calculator executable as a test. I was not able to install FxRuby using the system Ruby.

To install the FxRuby gem execute:

```
[nem1@e5-05-02 ECE421]$ gem install fxruby
```

Using JRuby

JRuby is installed and uses the standard RVM commands. To switch to JRuby and run a Ruby file, execute:

```
[nem1@e5-05-20 ~]$ rvm use jruby  
Using /afs/ualberta.ca/home/n/e/nem1/.rvm/gems/jruby-9.1.7.0  
[nem1@e5-05-20 ECE421]$ jruby JavaSwingHelloWorld.rb
```

Using RBX

RBX version 3.7.1 is installed. Please note that GTK3 –based gems like visualruby will not run with RBX.

References

RVM:

<https://rvm.io/>

RubyMine:

<https://www.jetbrains.com/ruby/?gclid=CNKKmteJ99ACFQUQaQodGYwB6w&gclid=aw.ds.ds&dclid=CKKNh9iJ99ACFQdIAQodxcAlHg>

Fox Toolkit:

<http://www.fox-toolkit.org/>

Jruby

http://rubylearning.com/satishtalim/jruby_tutorial.html

FxRuby:

www.fxruby.org

Document Author

Nancy Minderman

Nancy.minderman@ualberta.ca