**How to use converter**

These are the various programs/ applications which you need to use converter:

Ruby

pngcrush

mupdf

**1)How to install ruby on mac system**

**Install Ruby 1.9**

Snow Leopard and Lion ship with Ruby 1.8.7, but this is an old version and we're going to also install Ruby 1.9.3. We won't be updating the system-installed Ruby. That way, you'll be able to switch back and forth between these Ruby versions if you like.

1. RVM compiles Ruby versions from source code, and to do that it uses the GCC compiler .

Check to see if you have GCC installed by opening a Terminal session and typing

gcc --version

If you see a version number, then you're all set.

1. Next, to install RVM from its GitHub repository (the recommended way), you need a working version of the git version control system.

Check to see if you already have git installed by typing the following:

git --version

If you see a version number, then you're good to go. If the git command isn't found, then download the latest version of the graphical Git installer from the [git-osx-installer](http://code.google.com/p/git-osx-installer/downloads/list?can=3) downloads page. Once it has finished downloading, simply double-click the .dmg file to start the installation process.

1. With that out of the way, install RVM by going back to your Terminal prompt and typing (or copying and pasting) the following:

bash -s stable < <(curl -s https://raw.github.com/wayneeseguin/rvm/master/binscripts/rvm-installer)

Note that bash isn't the prompt here; you actually have to type it. And be careful: there are two less-than signs in this command, with a space between them.

1. When the RVM installation is complete (it's fairly quick), reload your Terminal shell environment by typing

source ~/.bash\_profile

This knits RVM into your environment and causes RVM to be loaded into any new Terminal sessions.

1. Close your Terminal session and open a new session. Then confirm that RVM is being loaded properly by typing

type rvm | head -1

Note that type is a command that you actually have to type.

You should see the following:

rvm is a function

1. Now that you have RVM installed, you're ready to install Ruby 1.9.3. To do that, type

rvm install 1.9.3

If you get an error and you have Xcode 4.2 installed, you may have to use

rvm install 1.9.3 --with-gcc=clang

This will download, compile, and install Ruby 1.9.3 into a directory managed by RVM (it's under the ~/.rvm directory).

When the installation is done and you're back at a command prompt, set Ruby 1.9.3 as the current Ruby version in your Terminal session by typing

rvm use 1.9.3

1. Then verify that Ruby 1.9.3 is the current Ruby version by typing

ruby -v

You should see

ruby 1.9.3p125 (2012-02-16 revision 34643) [x86\_64-darwin11.3.0]

1. Now set Ruby 1.9.3 as the *default* version to be used whenever you open any new Terminal sessions by typing

rvm --default 1.9.3

1. Finally, although not required, you'll likely want to generate the Ruby core documentation by typing

rvm docs generate

This takes a little while to complete, but in the end you'll have all the Ruby documentation at your fingertips.

you can now easily switch between Ruby versions. For example, if you ever want to go back to the system-installed version of Ruby (1.8.7), simply type

rvm system

And to switch back to Ruby 1.9.3, type

rvm 1.9.3

Alternatively, you can switch back to the default version (1.9.3) by typing

rvm default

And when a new version of Ruby comes along, you can easily install it alongside your existing versions.

**2)** **How to install pngcrush:**

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1. Download the pngcrush
2. Extract the source code
3. Compile pngcrush
4. Download pngcrush: direct link: <http://sourceforge.net/projects/pmt/files/pngcrush/1.7.20>
5. Extract the source code
6. While in the pngcrush-1.7.2 folder, run these commands to compile it.

make

sudo mv pngcrush /user/local/bin

The make command compiles the code. Next line move the executable to /usr/local/bin. It does not matter where you move the compiled executable, but we recommend that you put it in a place within your environment’s path.

**Note:** where to put the pngcrush folder : After downloading and unzipping the pngcrush, rename the folder as pngcrush.

It should be put inside Ximera/converter

**3)How to install mupdf:**

In order to install mupdf you will need several third party libraries: freetype2, jbig2dec, libjpeg, openjpeg, and zlib. We have prepared a package ([mupdf-thirdparty.zip](http://www.mupdf.com/download/)) that you can unzip in the mupdf source tree if you don't have them installed on your system.

Direct link to download: <http://code.google.com/p/mupdf/downloads/list?q=source>

Download both the source and thirdparty file.

While in the mupdf folder, run these commands to compile it.

make

# if you get an error then :

The configuration file for mupdf mistakes the architecture of the computer. You can fix this by making the changes describe below. The changes to the makeconfig file are underlined. If you are working with a 32bit Mac, then the CFLAGS and LDFLAGS should be set to -m32:

You can find makeconfig file inside the mupdf folder with the name makerule  
  
# Mac OS X build depends on some thirdparty libs  
ifeq "$(OS)" "Darwin"  
SYS\_FREETYPE\_INC := -I/usr/X11R6/include/freetype2  
CFLAGS += -I/usr/X11R6/include  
LDFLAGS += -L/usr/X11R6/lib  
RANLIB\_CMD = ranlib $@  
X11\_LIBS := -lX11 -lXext  
#ifeq "$(arch)" "amd64"  
CFLAGS += -m64  
LDFLAGS += -m64  
#else  
#CFLAGS += -m32  
#LDFLAGS += -m32  
#endif  
endif

**Note:** mupdf should be put inside Ximera/converter and thirdparty should be inside ximera/converter/mupdf

4) To run extract and slice ruby files

Both files take one pdf file. Here we are using transIdeaEg.pdf file to run it.