

Installing nMigen

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May 11, 2020

What is it?

nMigen is a Python based, high level RTL. It uses **Yosys** to help it emit Verilog.

nMigen can perform RTL simulations inside Python. In the near future, nMigen will also be able to use the C++ based YosysCXX as a backend for simulation, resulting in very fast simulations.

Installation

Install homebrew

First, make sure that you have **brew** installed.

Then tap the RTL tools brew tap.

On **linux**, you might have to do the following first.

```
brew tap linuxbrew/xorg
```

Then do:

```
brew tap bracketmaster/rtl
```

Install yosys

```
brew install bracketmaster/rtl/yosys --HEAD
```

Install nMigen

It is recommended that you use a virtual python environment.

You can use the one you created earlier when installing **cocotb**.

```
source ~/.virtualenvs/rtl/bin/activate
pip3 install git+https://github.com/m-labs/nmigen.git
```

Using nMigen

Anytime you want to run Python nMigen code, simply do:

```
source ~/.virtualenvs/rtl/bin/activate
```

and you're off!