



libreChainEDA Project: Design for Reuse Tool Flow Scripts

Kactus2 is a gui based design tool that can enter or modify hardware IP modules. It supports IP-Xact 1685-2014 design files.

Supported Tools



Kactus2 **Version 3.2.35** sourceforge.net/projects/kactus2/

Kactus2 is a gui based design tool that can enter or modify hardware IP modules. It supports IP-Xact 1685-2014 design files.

Fusesoc **Version 1.5** github.com/olofk

Fusesoc is a package manager that can fetch component IP from a IP host server such as opencores.org or github.com. It can also run tool flow scripts from the command line.

Socgen **Version 1.0.0** sourceforge.net/projects/socgen/

Socgen is a package of scripts for processing IP-Xact files and running IP-Xact componentGenerators



Icarus Verilog

Icarus verilog **Version 10** iverilog.icarus.com/

Icarus verilog is a semi complete verilog only simulator

Verilator Version 3.886 www.veripool.org/projects/verilator/wiki/Installing

Verilator is a verilog simulator that is limited to synthesize able only verilog.

Verilog-perl Version 3.418 www.veripool.org/wiki/verilog-perl

Verilog-perl provides some very useful support utilites.

Gtkwave Version 3.3.76 gtkwave.sourceforge.net/

Gtkwave is a VCD file wave viewer for simulations.

Covered Version 0.7.10 covered.sourceforge.net

Covered is a VCD file analyzer that provides code coverage metrics for simulations.

Yosys version 0.6 www.clifford.at/yosys/

Yosys is a HDL synthesizer.

Arachne-PNR version 0.0 www.clifford.at/arachne-pnr/

Arachne-pnr performs place and route for fpgas

ICE Storm version 0.0 www.clifford.at/icestorm/

Ice Storm creates programming files for fpgas

LibreChainEDA Supported Development Boards

Digilent Nexys2

Lattice IceStick

DE0_nano

Installation

Ubuntu

Install git from Ubuntu apps store

```
sudo apt-get install git
```

download libreChainEDA repo from github.com

```
mkdir github.com
```

```
chdir github.com
```

```
mkdir ouabache
```

```
cd ouabache
```

```
git clone http://github.com/ouabache/fossi
```

Install tools from Ubuntu apps store

```
cd fossi/install/Ubuntu
```

```
make install
```

Install remaining tools

```
cd fossi/tools
```

```
./install_all
```

Testing

copy development area

```
cp -r ~/github.com/ouabache/fossi/DESIGN ~/my_name
```

```
chdir my_name
```

```
./test_fusesoc          <= run a fusesoc demo
```

```
./test_socgen           <= run a socgen demo
```