
LSE-PC

Release devel

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Talks:

- [Early PC architecture \(French\) - Rémi Audebert - LSE Week 2015](#)
- [Introducing the LSE-PC \(French\) - Pierre Surply - LSE Week 2015](#)

Links:

- [git repository](#)
- [Google+ page](#)

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CHAPTER 1

Introduction to the LSE-PC project

The LSE-PC is an IBM-PC/AT clone using an original 80386SX and a FPGA.

The LSE-PC is written mostly in Verilog 2005.

Icarus Verilog

Icarus Verilog is an open source Verilog compiler and simulation tool.

Simulation with gtkwave

For advanced usage, install gtkwave with tcl scripting support enabled. For Arch Linux, see *gtkwave-tcl-svn* on AUR.

Then use a gtkwave rc file such as:

```
# Automatically add signals from a list
set names [list]
lappend names "SignalName1"
lappend names "SignalName2"
set num_added [ gtkwave::addSignalsFromList $names ]

# Set the default zoom level
gtkwave::setZoomFactor -20
```

Quartus II

Quartus II is the design software for Altera FPGA's.

Setup

For Linux, and preferably Arch Linux.

```
# Download the latest Quartus and the Cyclone IV data.
$ wget http://download.altera.com/akdlm/software/acdsinst/14.1/186/ib_installers/
↳ QuartusSetupWeb-14.1.0.186-linux.run
$ wget http://download.altera.com/akdlm/software/acdsinst/14.1/186/ib_installers/
↳ cyclone-14.1.0.186.qdz

# Install QuartusII, it will auto-detect and install the CycloneIV support.
$ chmod +x QuartusSetupWeb-14.1.0.186-linux.run
$ ./QuartusSetupWeb-14.1.0.186-linux.run # if this fails, append '--mode gtk'
```

When using Arch Linux, the libcurl library bundled with Quartus II may make it crash after a few minutes, therefore remove it, Quartus II will use the one installed system-wide.

```
$ cd altera/14.1/quartus/linux64
$ mv libcurl.so.4 libcurl.so.4.orig
```

Speed up compilation

- For multi processor compilation, enable TalkBack in **Tools -> Options -> General -> Internet Connectivity -> TalkBack Options**
- Enable Smart compilation: **Assignments -> Settings -> Compilation -> Process Settings -> Use smart compilation**

CHAPTER 3

Indices and tables

- `genindex`
- `modindex`
- `search`