

# Makerchip IDE

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

Josiga S

FOSSEE Team, IIT Bombay

November 21, 2022



# Learning Objectives

**In this tutorial, we will learn to**



# Learning Objectives

In this tutorial, we will learn to

► **Edit and**



# Learning Objectives

In this tutorial, we will learn to

- ▶ Edit and
- ▶ Run simulations in the Makerchip IDE



# System Requirements

To record this tutorial, I am using



# System Requirements

To record this tutorial, I am using

► **Ubuntu OS v20.04**



# System Requirements

To record this tutorial, I am using

- ▶ Ubuntu OS v20.04

- ▶ eSim v2.2



# System Requirements

To record this tutorial, I am using

- ▶ Ubuntu OS v20.04
- ▶ eSim v2.2





# System Requirements

**To record this tutorial, I am using**

- ▶ **Ubuntu OS v20.04**
- ▶ **eSim v2.2**

**The process demonstrated in this tutorial is similar in Windows OS also**



# Pre-requisites

**To follow this tutorial, the learner must have**



# Pre-requisites

To follow this tutorial, the learner must have

- ▶ Basic knowledge of eSim



# Pre-requisites

To follow this tutorial, the learner must have

- ▶ Basic knowledge of eSim
- ▶ Familiarity with verilog



# Pre-requisites

To follow this tutorial, the learner must have

- ▶ Basic knowledge of eSim
- ▶ Familiarity with verilog
- ▶ Basic knowledge of Makerchip-NgVeri feature



# Pre-requisites

- For pre-requisite eSim tutorials, please visit <https://spoken-tutorial.org>



# Code Files

- The files used in this tutorial are provided in the Code files link



# Code Files

- ▶ The files used in this tutorial are provided in the Code files link
- ▶ Please download and extract the files





# Code Files

- ▶ The files used in this tutorial are provided in the Code files link
- ▶ Please download and extract the files
- ▶ Make a copy and then use them while practicing



# More about lint\_off commands

- ▶ To know more about lint\_off errors, please refer <https://verilator.org/guide/latest/warnings.html#list-of-warnings>



# Summary

In this tutorial, we learnt to

- ▶ Edit and
- ▶ Run simulations in the Makerchip IDE



# Assignment

As an assignment, please do the following

- ▶ Download and open the file **shift.v** in **Makerchip** tab
- ▶ **shift.v** is available in Code files link
- ▶ Click on **Edit in Makerchip** option



# Assignment

- ▶ Remove the errors appearing in the **LOG** tab
- ▶ Compile and view the waveforms in the **WAVEFORM** tab
- ▶ Add the required signals
- ▶ Recompile and verify the waveforms



# About the Spoken Tutorial Project

- ▶ Watch the video available at [https://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](https://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



# Answers for THIS Spoken Tutorial

- ▶ Questions in THIS Spoken Tutorial
- ▶ Visit <https://forums.spoken-tutorial.org>
- ▶ Choose the minute and second where you have the question
- ▶ Explain your question briefly
- ▶ The Spoken Tutorial project will ensure an answer
- ▶ You will have to register to ask questions





# FOSSEE Forum

- For any general or technical questions on eSim, visit the FOSSEE forum and post your question

<https://forums.fossee.in/>



# Circuit Simulation Project

- ▶ The FOSSEE team coordinates the Circuit Simulation project
- ▶ For more details visit:  
<https://esim.fossee.in/circuit-simulation-project>



# TextBook Companion Project

- ▶ The FOSSEE team coordinates the TextBook Companion project
- ▶ For more details visit:  
<https://esim.fossee.in/textbook-companion-project>



# Lab Migration

- ▶ The FOSSEE team coordinates the Lab migration project
- ▶ For more details visit:  
<https://esim.fossee.in/lab-migration-project>



# Acknowledgement

- ▶ **The Spoken Tutorial project is funded by Ministry of Education, Govt. of India**



# Thank you

- ▶ This is Josiga, a FOSSEE Summer fellow 2022, IIT Bombay signing off

