

Chapter 1 - Introduction and overview

Course authors (Git file)



- 1 Welcome
- 2 Course overview
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- 4 The Training sessions
- 5 Open-source EDA for digital designs
- 6 AMA (Ask me anything)



Section 1

Welcome



Trainer profile

Me:

Name, Company / Uni

Why i'm here. My motivation.

What i've done before.

What interests me most.



Participants backgrounds and motivations

You:

Name, Company / Uni

Why i'm here. My motivation.

What i've done before.

What interests me most.



Section 2

Course overview



Chapter names

- 01 Introduction
- 02 Workflow
- 03 Design and example pick
- 04 OpenROAD first run
- 05 PDK Examination
- 06 Data in OpenROAD
- 07 LVS and DRC
- 08 Simulation and PPA
- 09 Scripting
- 10 GDS and Tapeout



Chapter names

- 01 Introduction
- 02 Workflow
- 03 Design and example pick
- 04 OpenROAD first run
- 05 PDK Examination






Day 1 - 2

- 06 Data in OpenROAD
- 07 LVS and DRC
- 08 Simulation and PPA
- 09 Scripting
- 10 GDS and Tapeout

Day 3 - 5



Schedule for the course

Mon	Tue	Wed	Thu	Fri
L1: Introduction	Q1, Q2: Recap Feedback	Q3, Q4: Recap Feedback	Q5, Q6: Recap Feedback	Q7: Recap
T1: Training	L3: Verilog T3: Training	L5: PDK T5: Training	L7: OpenROAD Flow scripts T7: Training	L8: Tapeout Feedback
				
L2: OpenROAD tools	L4: OpenROAD first run	L6: OpenROAD GUI	L7: OpenROAD Flow scripts 2	Spare time and Wrap-Up
T2: Training	T4: Training	T6: Training	T7: Training	

L : Lectures

T : Training and
Hands-On

Q : Questions



Section 3

Course components



Lectures



Lectures:

- All the chapters start with a lecture slide deck.
- The trainer will walk you through the content of the lectures.
- Whenever you have a question in between: ask directly.
- The lectures contain the base knowledge of the course.



Trainings



Common training tasks:

Every training sessions starts with the common part. The tasks of the common part are sufficient to follow along the content of the course. If you're a beginner, these trainings should be your goal to reach.



Advanced training tasks:

The advanced training sessions are for those With pre knowledge. If the common training was finished fast or was just to easy, the advanced sessions get you convered.



Bonus training tasks:

Still time left to do some tasks? Want something to take with you as homework? Please enjoy the bonus rounds of the training sessions.

Cheat Sheets



Some things are really hard to remember:

- Abbreviations
- Complex relations and graphics
- EDA tools workflow
- Schedule of the week
- Mathematics (joking, we're not doing math here)
- ...

- That is why we have Cheat Sheets.
- They're made for cheating the hard parts.
- Cheatsheets work best when printed as handouts.
- You should have them nearby the computer during the course.



Questions



Questions:

- The questions are for re-visiting and remembering a previous chapter.
- They guide an interactive session between the trainer and the room:
 - Trainer: Asks the questions.
 - Room: Answers the questions.
 - Skipping a question is fine.
 - Not knowing the answer is fine.
 - This is not a test nor a challenge.
 - Think of this as a helpfull recap of yesterdays content.
 - If no answer is found, the trainer helps with the answer.



Section 4

The Training sessions



Login at IHP

Now:

- Onboarding to the computers for everyone



Levels

- Success points inbetween lectures
- This is too fast
- This is too slow



Availablity GitHub PDF Downloads

- Follow in your own tempo. Get all the data here:
- Link / QR to the course materials

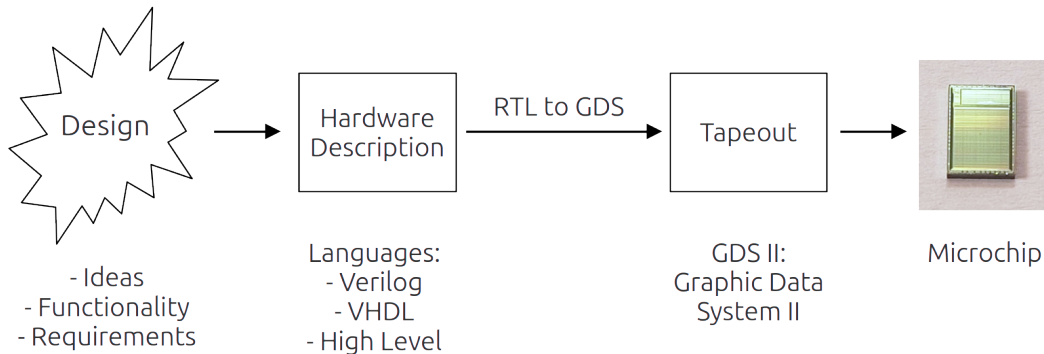


Section 5

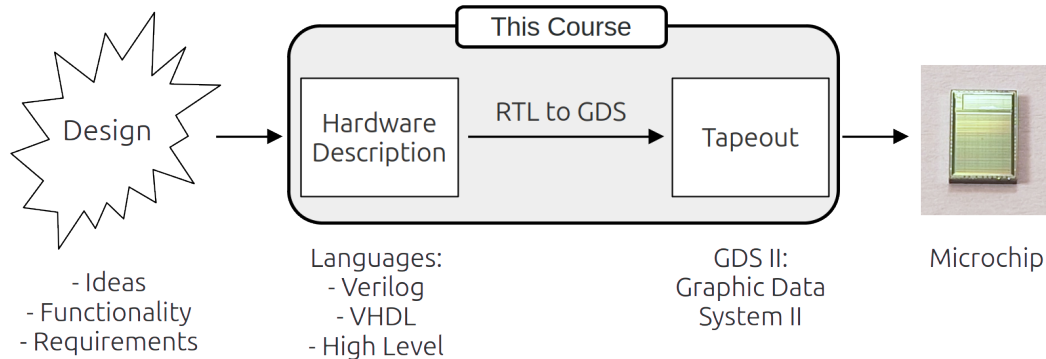
Open-source EDA for digital designs



From Design to Microchip



RTL to GDS - Workflow



The cheatsheet

First usage of the cheatsheet:

- EDA
- RTL
- GDS II
-



Further topics

- What is the new thing with this course?
- Advantages of open-source in EDA
- The actual state of open-source EDA
- Goals of this course.
- How to participate and interact with this course.
- Producing chips at IHP with the open PDK



Section 6

AMA (Ask me anything)



AMA (Ask me anything)

- Opportunity to ask questions about everything (chapter 1 ?).

