



# SweRV Core™ Support Package

*In A Nutshell*

30/03/2021

*Zdeněk Přikryl*

# Codasip®

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*Solving Your On-Chip Processing Challenges*



# Who is Codasip?

Leading provider of **RISC-V processor IP** and processor **design automation tools**

Company founded in 2014 in Brno, Czech Republic (EU)

- Based on 10 years of university research on processor design automation
- Founding member of the RISC-V Foundation, [www.riscv.org](http://www.riscv.org)
- Introduced world's first licensable RISC-V processor IP in November 2015

Company headquarters and R&D centers located in the EU

- 90+ employees
- Branch office in Shenzhen, China
- Sales offices worldwide

## RISC-V PROCESSORS

- Selection of processors for any application
- Low power, small size, high performance
- RISC-V-compliant and customizable

## STUDIO

- Create or modify processors using a high level description
- Fine-tune the design for performance, area and power
- Automatically generate dev tools SDK and HDK

# SweRV CORE SUPPORT PACKAGE

- Comprehensive package of tools
- EDA flows, examples, docs and support
- Available exclusively from CodaSIP

# What Is SweRV?

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*Open-Source RISC-V Cores*



# The Family Of SweRV RISC-V Cores

Targeting high performance embedded applications

Developed by **Western Digital**

Open-sourced via **CHIPS Alliance**

The RTL provided **free of charge**

SweRV  
EH1

|   |        |
|---|--------|
| 1 | thread |
| 2 | issue  |
| 9 | stage  |

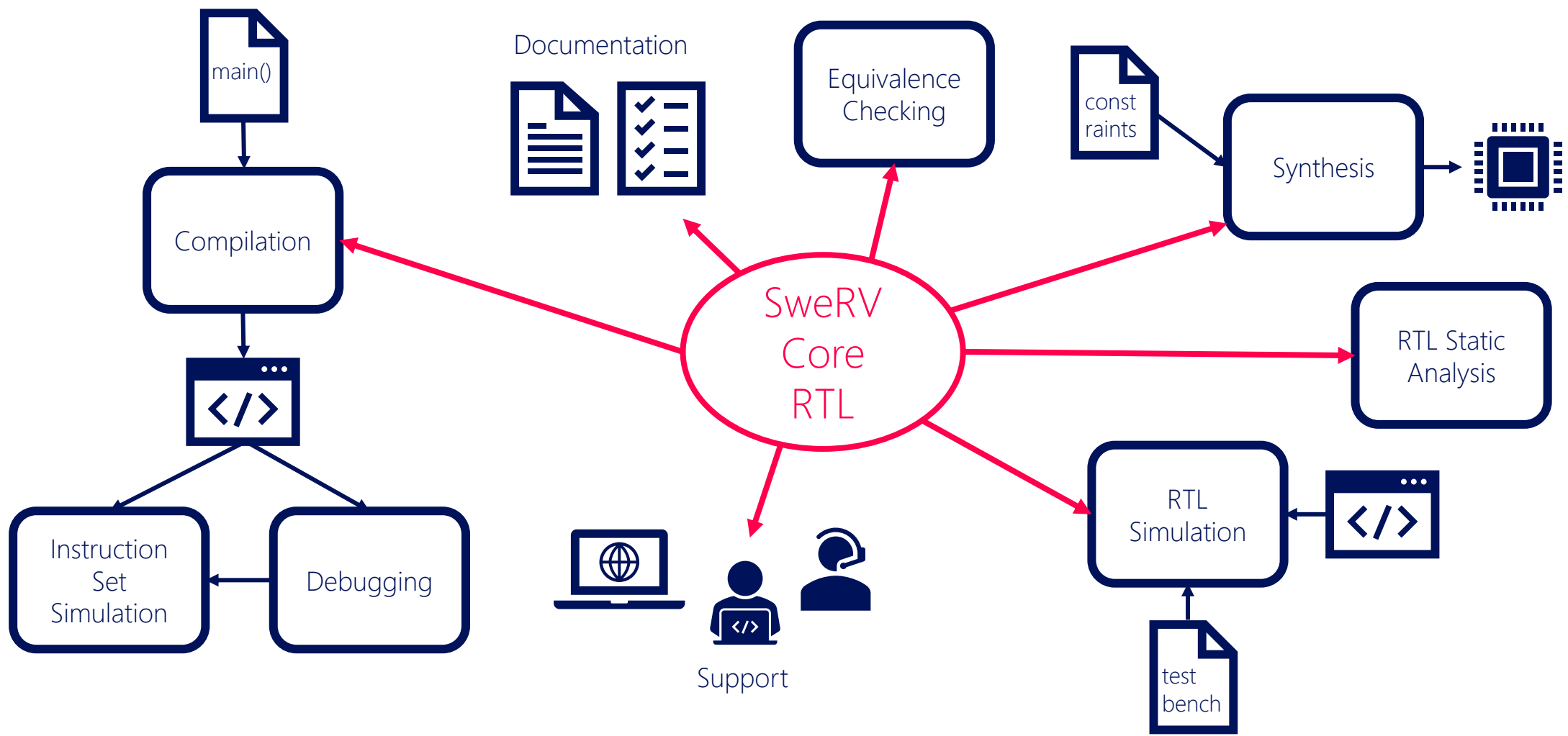
SweRV  
EH2

|   |        |
|---|--------|
| 2 | thread |
| 2 | issue  |
| 9 | stage  |

SweRV  
EL2

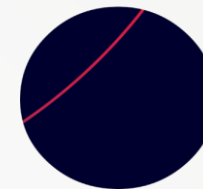
|   |        |
|---|--------|
| 1 | thread |
| 1 | issue  |
| 4 | stage  |

# RTL is free! But is it enough?



# SweRV Core™ Support Package

*Everything You Need To Deploy The Core*



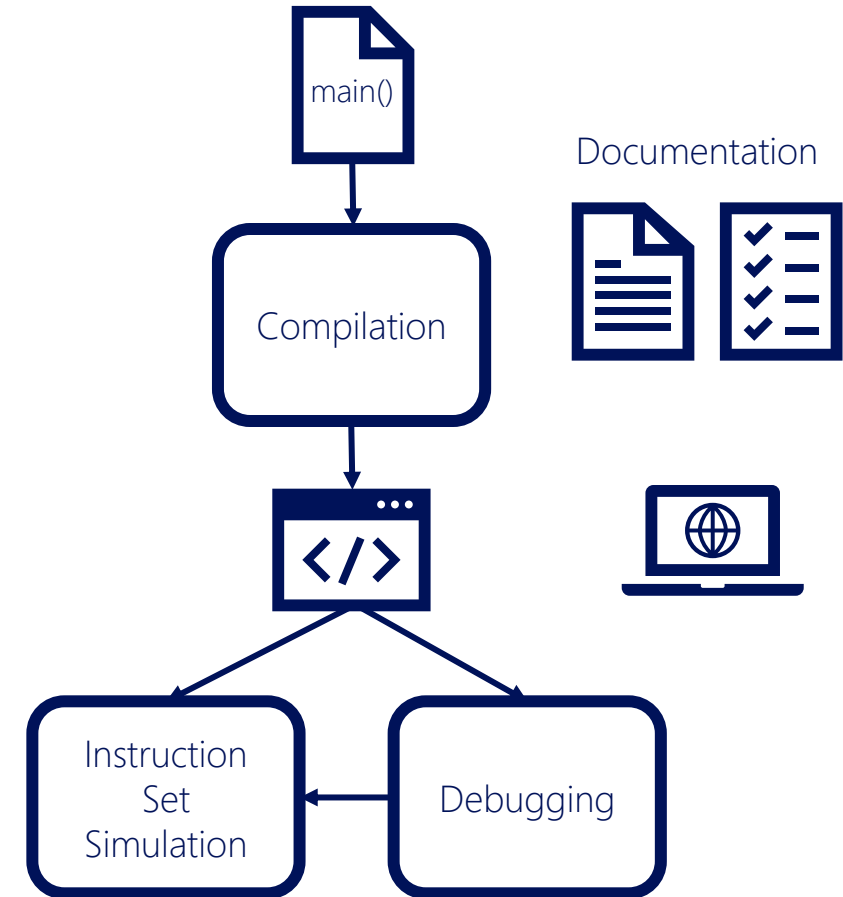


# The Free Version

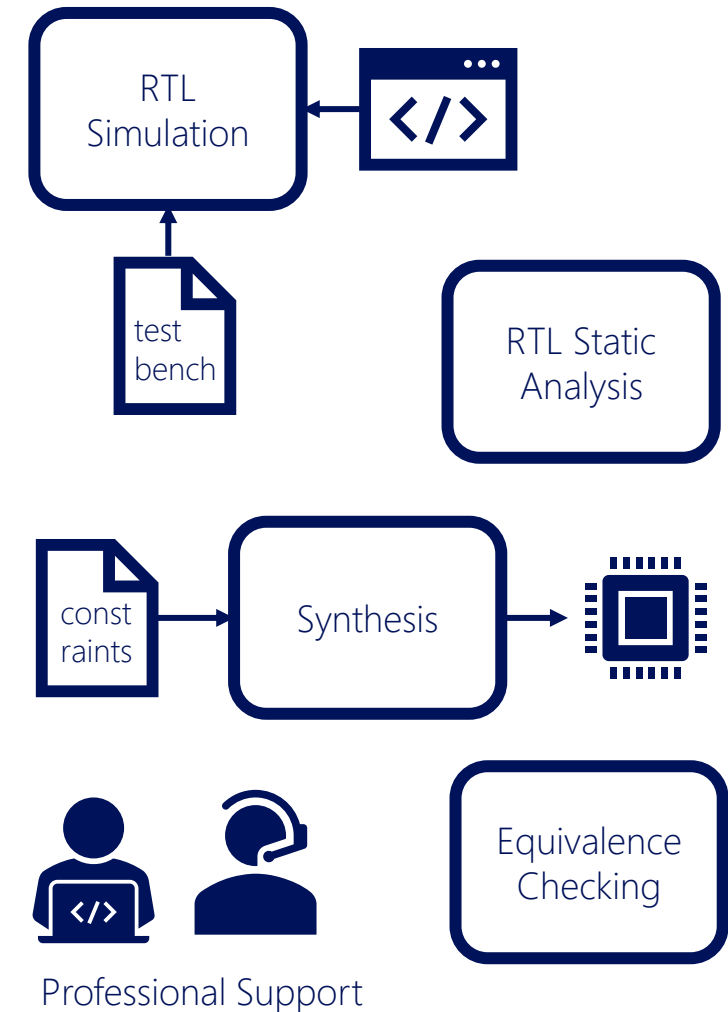
Free student/educational version

The **open-source** contents will stay free

Support may be reached via **GitHub**



## Professional support for the customers



# Add-Ons To SweRV Core EH1

Commercially licensed add-ons to the open source SweRV core EH1

## Floating point unit

- Single or double precision
- RISC-V F & D extensions

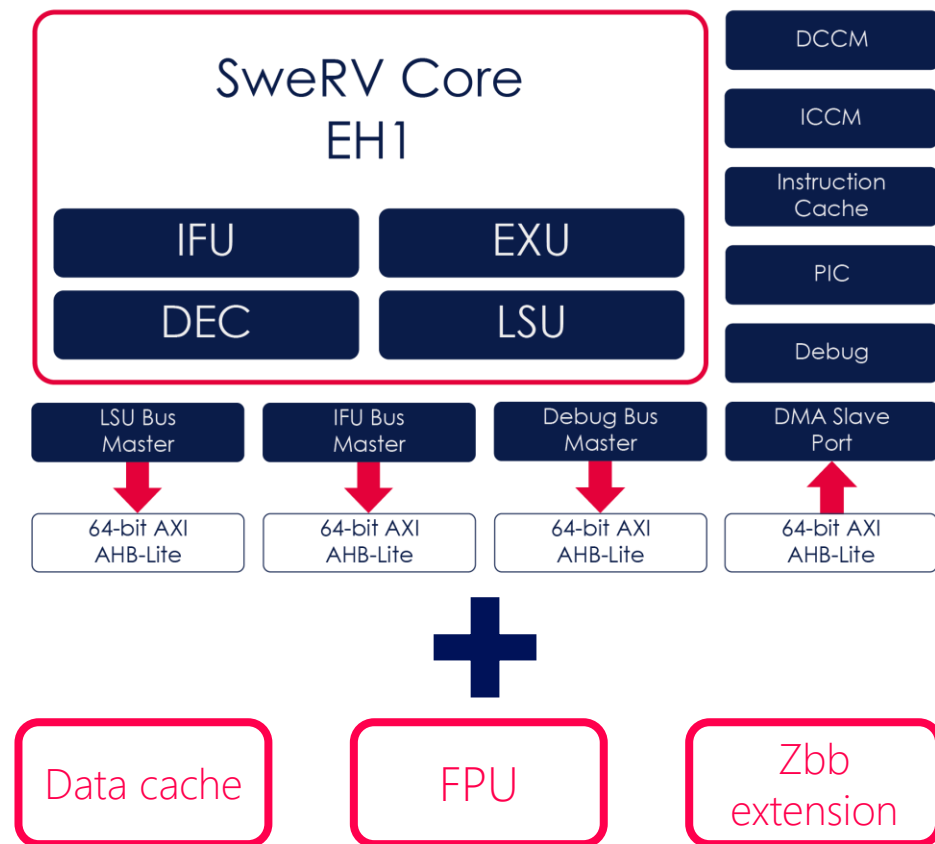
## Data cache

- AXI or AHB Lite interface
- Size, associativity, cache-line is configurable

## Zbb extension

- Endianness instructions only

## SweRV Core™





Now, it's your turn!

For the Pro version please e-mail

**[contact@codasip.com](mailto:contact@codasip.com)**

For the Free version please visit

**<https://github.com/chipsalliance/Cores-SweRV-Support-Package>**