Project name: Libre-SOC Cavatools: Power ISA Simulator

Project number: 2021-08-071

Most recent payment: 2024-08-30

RfP Details

Date submitted: 2024-08-30 at 14:09

Payment: no

Deliverables review: pending

Payment approval: pending

Recipient: Luke Leighton

984 Support SVP64 in cavatools €5500

Subtask wrapup

Total amount requested for this task: **€5500**

Total requested amount in this RfP: €5500

Results:

```
Top level page detailing main deliverables: <a
href="https://libre-
soc.org/docs/pypowersim">https://libre-
soc.org/docs/pypowersim</a>/
Tutorials: <a href="https://libre-
soc.org/docs/pypowersim_tut">https://libre-
soc.org/docs/pypowersim_tut</a>/
```

Listed below: each task completed in the NLnet top-level pypowersim project, with references to the relevant reports.

Summary of PyPowerSim Documentation and Related Work:

1. **PyPowerSim Overview**: PyPowerSim is a Python-based simulator for the OpenPOWER ISA, designed to aid in the development and testing of processor instructions. It supports instruction-level simulation for verifying correctness and performance.
   [Documentation](https://libre-soc.org/docs/pypowersim/)

2. **PyPowerSim Bug Fixes and Enhancements**: Addressed issues related to instruction decoding and simulation accuracy, improving the simulator's reliability (Bug #758).
   [Bug Report](https://bugs.libre-soc.org/show_bug.cgi?id=758)

3. **PyPowerSim Tutorial**: A comprehensive guide was created to help developers understand and utilize PyPowerSim effectively for simulating OpenPOWER instructions.
   [Tutorial](<a href="https://libre-

soc.org/docs/pypowersim_tut">https://libre-soc.org/docs/pypowersim_tut/)

4. **Development Logs**: Logged detailed discussions and troubleshooting steps taken to resolve issues during the development of PyPowerSim, focusing on specific instruction implementations.
   [IRC Log](https://libre-soc.org/irclog/%23libre-soc.2023-09-10.log.html#t2023-09-10T18:44:49)

5. **PyPowerSim Source Code**: The source code for PyPowerSim, including instruction decoders and other components, was maintained and updated to support ongoing development.
   [Source Code](https://git.libre-soc.org/?p=openpower-isa.git;a=blob;f=src/openpower/decoder/isa/pypowersim.py)

6. **HDL Workflow Scripts**: Scripts were developed to streamline the HDL workflow, ensuring smoother integration between PyPowerSim and hardware development processes.
   [HDL Workflow](https://libre-

soc.org/HDL_workflow/devscripts/)

These accomplishments have significantly advanced the development and usability of PyPowerSim, making it a crucial tool in the OpenPOWER development ecosystem.

Remarks:

Request status

Deliverables approval:	pending
Transaction approval:	pending
Payment	no

Back to overview

Make a new request

In case of questions or errors, send a mail.