

The Complete OCP Verification Environment

CoreCreator II provides capabilities to simulate OCP Cores and OCP-based Systems. It includes verification IP to generate and respond to OCP stimulus, an OCP checker to ensure protocol compliance, a performance analyzer to measure system performance and a disassembler, which helps to view the behavior of OCP traffic (See fig. 1).

CoreCreator II can be used with traditional Verilog and VHDL testbench environments to create directed tests for OCP designs. It also adds support for the Verification Methodology Manual that can be used to develop constrained-random verification environments. CoreCreator provides the Verification IP and debugging tools necessary for validating Open Core Protocol implementations, reducing design time and risk, ensuring rapid time to market.

CoreCreator Key Features

- Industry leading Designware OCP Verification IP (*provided by Synopsys, Inc.*)
- OCP2 Protocol Compliance Checking (*provided by Sonics, Inc.*)
- Post Processing Performance Analysis and Transaction Disassembly (*provided by Sonics, Inc.*)

Verification IP

- Support for OCP 2.0, 2.1, 2.2 and 2.2.1 configurations
- Traffic generation and response
- Provides coverage status as described in section 4 of the OCP-IP compliance checks document
- Generates logs and reports of observed OCP transactions
- Supports all major simulators
- Includes example Verilog, VHDL and SystemVerilog testbenches
- Supports configuration from RTL_Conf file
- Support for CoreCreator legacy Verilog interface

SVA OCP Checker

- Checks OCP2 interfaces for protocol compliance, ensuring traffic legality
- Validates any given OCP interfaces against protocol rules outlined in the OCP Specification

OCP Performance Analyzer (ocpperf2)

- Performance analysis tool measures the performance of OCP transfers and burst transactions
- Enables measurement and tuning of performance on a single OCP socket

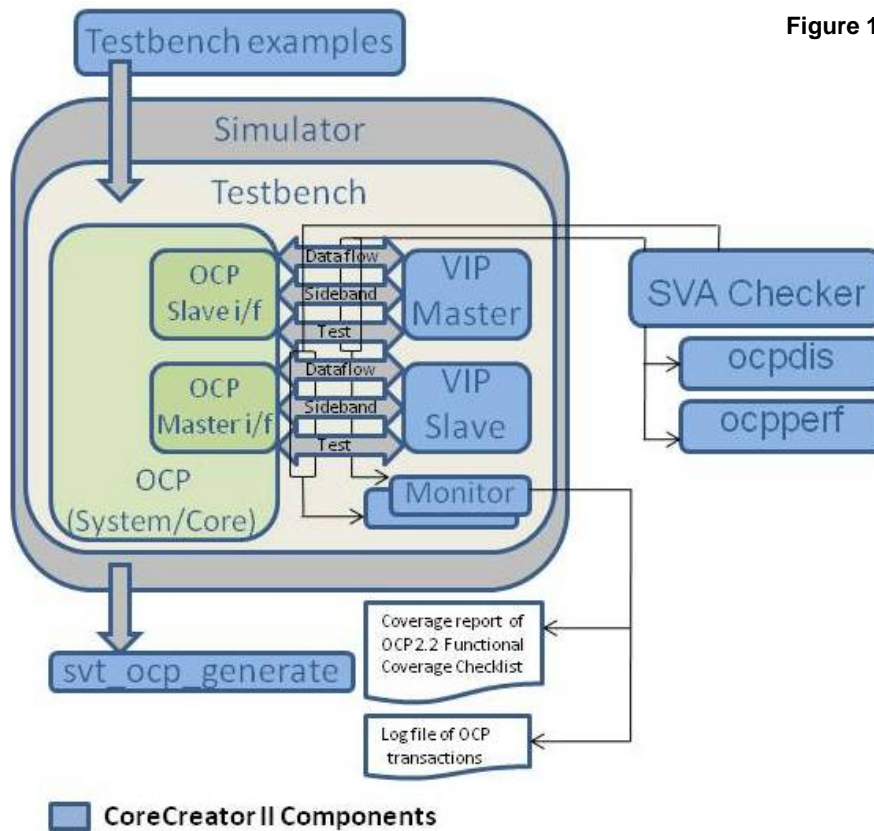
OCP Disassembler (ocpdis2)

- Command line disassembler tool
- Displays OCP connection activity in a convenient reporting format

Benefits

- Faster and more complete verification of OCP designs and systems
- Allows for performance analysis and tuning of complex OCP-based systems

Figure 1



Membership Benefit

OCP-IP members receive free training and support, software tools, including CoreCreator, enabling them to focus on the challenges of SoC design. Leveraging OCP-IP’s infrastructure eliminates the need to internally manage, document, train and evolve a proprietary standard and acquire accompanying support tools, freeing up critical resources for the real design work, and so ensuring enormous cost savings. Members can now request copies of CoreCreator II as part of the benefits of their membership agreement by visiting the OCP-IP website at www.ocpip.org

Upgrading from CoreCreator 4.0 to CoreCreator II

To ease the transition for members to the new verification IP, the latest version also includes support for the existing CoreCreator Verilog task interface.

Simulator Support

- Questa from Mentor Graphics
- NC-Sim from Cadence Design Systems
- VCS®, VCS-MX from Synopsys Inc

Platform Support

Linux OS

OCP-IP

The OCP International Partnership Association, Inc. (OCP-IP), formed in 2001, promotes and supports the Open Core Protocol (OCP) as the complete socket standard ensuring rapid creation and integration of interoperable virtual components. OCP-IP’s Governing Steering Committee participants include: Nokia [NYSE: NOK], Sonics Inc., Synopsys [SNPS], Texas Instruments [NYSE: TXN], and Toshiba Semiconductor Group (including Toshiba America TAEC). OCP-IP is a non-profit corporation delivering the first fully supported, openly licensed, core-centric protocol comprehensively fulfilling system-level integration requirements. The OCP facilitates IP core reusability and reduces design time, risk, and manufacturing costs for SoC designs. For additional background and membership information, visit www.ocpip.org.



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