



Intelligent Design Software for Adaptive SoC and FPGA Developers

SHORTEN COMPILE TIME. BOOST PERFORMANCE.

Design complexity is growing across industries. Rely on the AMD Vivado™ Design Suite to move fast and optimize adaptive SoCs and FPGAs for today's requirements.

THE FAST PATH TO FMAX



Create, integrate, and implement complex designs with the industry's only machine learning-powered electronic design automation tool.

Reach new levels of efficiency

5x

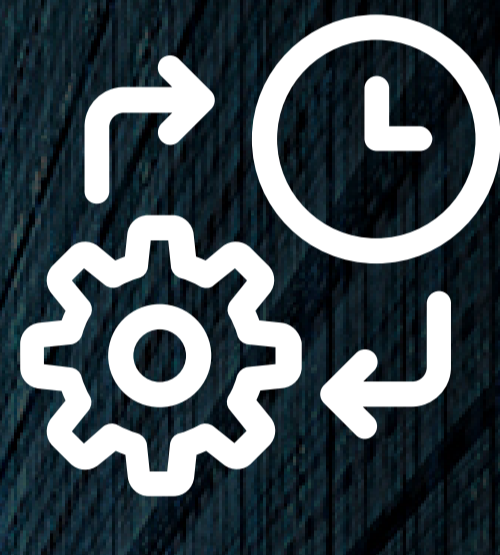
average compile time improvement¹

Confidently meet performance goals

13%

average improvement in QoR²

STREAMLINE THE DESIGN CYCLE



Abstract Shell

Enable fast compile time and secure collaboration

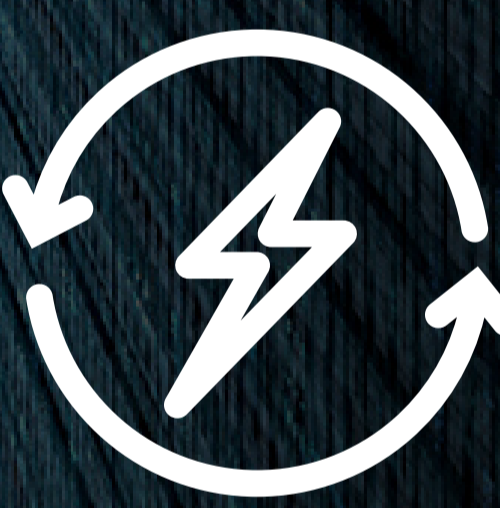
- Reduce compile time and memory overhead.
- Drive productivity with team-based design.
- Provide proprietary features for data security in a multi-user environment.



Intelligent Design Runs

Close timing in fewer iterations

- Reduce design iterations with intelligence-based recommendations.
- Efficiently achieve better QoR using machine learning algorithms.
- Score designs and analyze performance automatically.



Power Design Manager

Get accurate power estimation from the start

- Confidently evaluate design power consumption.
- Save time and effort early in the design cycle.
- Estimate power accurately for target devices.

MADE FOR GAME-CHANGING AMD ADAPTIVE DEVICES

Adaptive SoCs



FPGAs



VIVADO™ DESIGN SUITE

Achieve top-quality results for complex designs even faster.

[Learn More](#)

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1. Testing done by AMD Vivado engineering team on fifty-eight customer designs for AMD Virtex UltraScale+ using the AMD Vivado ML software tool version 2021.1 running Abstract Shell mode versus Full Shell Mode. Results reflect a single test run of all designs; differences calculated and averaged. Actual results will vary due to factors including specific design, system configuration, and software versions.

2. Testing done by AMD Vivado engineering team as of April 14, 2023, on fifty customer designs for AMD Virtex UltraScale+ using the AMD Vivado ML software tool version 2023.1 running IDR (Intelligent Design Runs) mode versus without (default mode). Results reflect a single test run of all designs; differences calculated and averaged. Actual results will vary due to factors including specific design, system configuration, and software versions. VIV-004

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