

## Virtual prototyping solutions for ARM Cortex-M23 and Cortex-M33 processors available

### Highlights

- ARM models enable early software development and performance analysis for ARM® Cortex®-M23 and Cortex-M33 processors
- Fast, accurate models make it easy to assess the impact of hardware or software design changes
- Full support for ARM TrustZone® for ARM v8-M secure and non-secure application development

### Jumpstarting software development for latest Cortex-M processors

ARM provides all the tools for developing virtual prototypes – an efficient method of analyzing system design characteristics and developing software before hardware is available. For an even earlier start, pre-configured [Fixed Virtual Platforms](#) (FVPs) are ready for Cortex-M23 and Cortex-M33 software development. ARM models are ideal for developing software for the ARMv8-M architecture with TrustZone and understanding the fundamentals of software and hardware interaction for secure applications.

### ARM models overview

ARM Virtual Prototypes are ideal for designing hardware systems, developing software, or continuous integration solution.

[ARM Cycle Models](#) are 100% cycle accurate models and are ideal for hardware design and performance analysis. Typical usage:

- IP selection and configuration
- Analysis of HW/SW interaction
- Benchmarking and optimization

[ARM Fast Models](#) are instruction accurate models capable of running at speeds up to 200 MIPS and are ideal for software development and testing. Typical usage:

- Functional software debugging
- Software profiling and optimization
- Software validation & continuous integration

[FVPs](#), a complete ARM Cortex-M23 or Cortex-M33 reference platform built with ARM Fast Models, are also available for early system and software development. FVPs are a great way to start software development without a target board and run at speeds comparable to real hardware.

### Integrated solution

Integration with ARM DS-5 Development Studio (DS-5) and Keil Microcontroller Development Kit (MDK) enable building, running and debugging software targeting the latest ARM Cortex-M23 and Cortex-M33 processors without the presence of hardware. The ARM Compiler supports development of both secure and non-secure applications.

### More information

For more information on virtual prototyping solutions from ARM, please visit <https://developer.arm.com/products/system-design>