

iSolve RAM

Hardware-Based Functional Verification

D A T A S H E E T



Mentor's iSolve RAM high-capacity external memory solution meets the rigorous demands of today's most challenging SoC designs.

Advanced Verification for SoC Designs with Large Memory Capacities

Mentor Graphics® iSolve™ RAM is a high-speed, high-capacity memory modeling solution ideally suited for the verification of System-on-Chip (SoC) designs that contain large memories. When used with hardware-assisted verification platforms, such as Mentor's Veloce™ emulation, iSolve RAM increases the overall productivity of system-level verification by providing a solution that accurately models the real memories within a design.

To achieve the speed required to upload and download the multiple-GBytes of data found in large memories, the iSolve RAM uses a novel approach called the "side door" access method to load or unload the memory content without the

need to run emulation clock cycles. Because of this unique approach, users are able to efficiently run emulations in minutes that would otherwise take hours to run.

Easy-to-Use Environment

The iSolve RAM's graphical user interface (GUI) provides an easy-to-use environment for configuring design memories. Running the GUI on a Linux workstation, a user can specify typical memory parameters such as memory type, memory size, data size, column size, and number of banks. Additionally, users can initialize, peek and poke memories, and control the fast uploading and downloading of design memories.

Batch Mode Scripting Language

For added flexibility, iSolve RAM can also be used with a batch mode scripting

Product features and benefits:

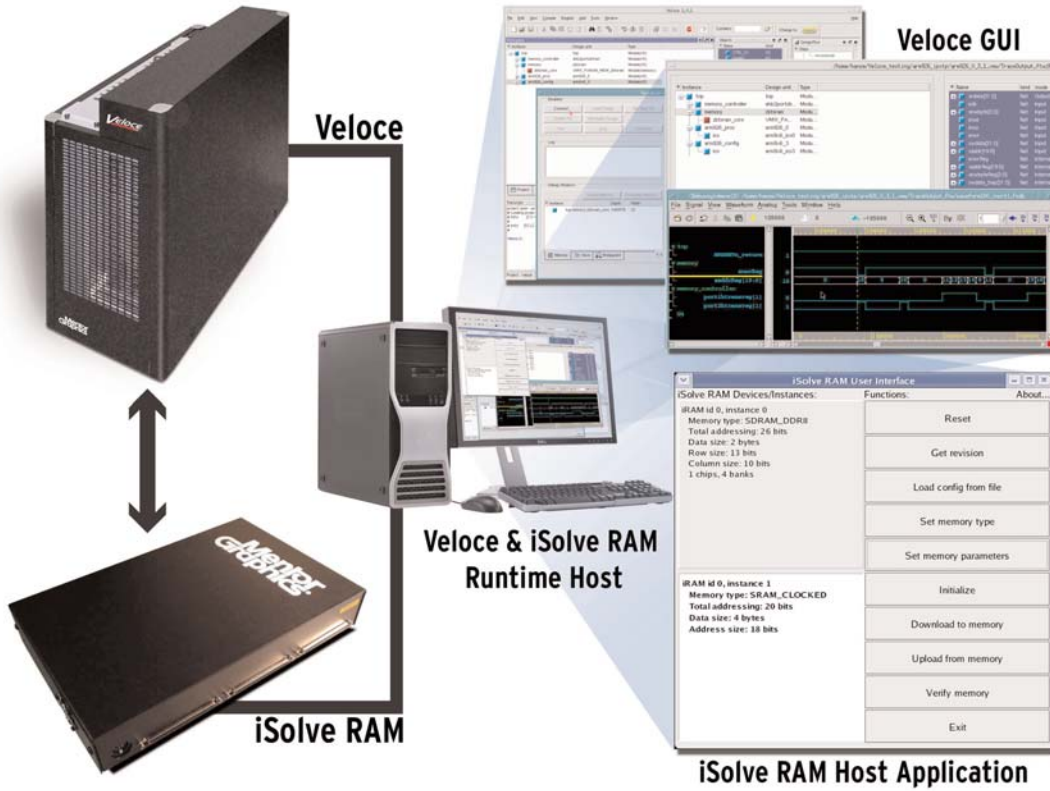
- External memory solution for popular types: DDR, DDR2, DDR3, SDRAM, and SSRAM
- High capacity – delivers up to 4GBytes memory per solution
- Maximum capacity of 64GBytes meets the most challenging SoC designs
- Two memory instances per solution increases overall user flexibility
- High-speed memory upload and download capabilities (through the iSolve RAM host interface at 1 to 2 minutes per GByte) increases verification productivity
- Flexible, easy-to-use GUI provides control over setup, initialization, upload/download, memory instance, memory type, and other common operations
- Batch mode operation of commands increases efficiency and addresses the needs of "power users"

Product specifications:

- Host interface support: Linux Red Hat Enterprise 4.0, SuSE SLES 9.1
- Platforms: Veloce Solo, Veloce Quattro
- Performance: Up to 1.5 MHz in emulation

language. iSolve RAM provides simple connections to the hardware emulator and host workstation for true plug-and-play usage. Easy set-up and emulation debug are provided through the iSolve RAM host application, which can handle

GBytes of data upload and download in minutes, with functional cycles handled through the standard emulator clock, leading to high-performance emulation and increased productivity.



The iSolve RAM can be used as an external memory solution in a Veloce emulation environment.

Visit our web site at www.mentor.com/emulation for more information.

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