

First Silicon Solutions

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System Navigator for MIPS

System Navigator tools for MIPS Technologies MIPS32® and MIPS64® Cores.

FS2 System Navigator supports all the latest MIPS cores from the 4K™ and 4KE™ trace enhanced through the 24K™, 34K™ and 74K™ cores.

FS2 System Navigator is designed to support the special features and integrated peripherals of the MIPS family of synthesizable cores. On-Chip Instrumentation (OCI®) extensions are provided in the PDTrace block with many of the MIPS cores. Both on-chip and off-chip trace capabilities are integrated into the synthesizable IP model for the core. This allows FS2 to provide a powerful debug tool with advanced features at a competitive price.

FS2 System Navigator is contained in a compact chassis that connects to the target system using a standard 14-pin EJTAG debug connector or 38-pin Mictor connector. Two versions are available. System Navigator supports on-chip trace only requiring some resources in the SoC to capture and store the trace messages on-chip. The System Navigator Pro™ probe supports both on-chip and off-chip trace features. In off-chip trace capture mode, trace data is streamed off the SoC device and captured in the FS2 system analyzer probe hardware with up to 2 GB of trace data.

Extensive debugger support including Eclipse, GDB/Insight Debugger on Windows and Linux

The System Navigator has several software debugger options. It is integrated with the FS2 Eclipse-based Navigator IDE. The probe also runs on the GDB/Insight debugger running on Windows and Linux. FS2 tool features are available from the Eclipse, GDB or Insight debugger interfaces. This provides an excellent source level debugger at a low cost. It is also integrated with the Viosoft embedded Linux Arriba debugger. Now you can use the FS2 System Navigator with the best-in-class software tools for an intuitive, easy to use interface. The system runs on a PC with Windows® 2000/XP or RedHat Linux and requires a USB 2.0 or 10/100 Ethernet connection (optional). For designs requiring both on-chip and off-chip trace capture, the System Navigator Pro is available with both USB2.0 and 10/100 Ethernet host connections.



FEATURES:

- › Utilizes On-Chip Instrumentation (OCI®) debug extensions in the synthesizable core
- › One tool supports all MIPS cores including 4K™, 4KE™, 5K™, 24K™, 34K™ and 74K™ cores
- › Supports multiple source level debuggers including: Eclipse, GDB Insight and Viosoft Arriba debuggers
- › On-chip trace and optional off-chip trace with some core implementations
- › On-chip trace depth up to 1024 words (PC trace only)
- › Real-time PC execution trace, load/store address, and data trace (off-chip mode)
- › Trace can be gated on/off by on-chip triggers
- › Scalable internal trace depth or external trace port width and speed
- › Off-chip trace up to 128K 32-bit words
- › Unlimited software breakpoints via SDBBP instruction
- › Single step by assembly or C source line, read-write all CPU registers, read-write memory whether CPU is stopped or running
- › Multi-core debug with multiple MIPS cores – mixed core debug with MIPS and other cores supported as an option
- › To download the System Navigator datasheet go to: www.fs2.com/pdfs/SNAV-MIPS.pdf

For more information, contact: info@fs2.com

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