EMUL-16/300-PC

In-Circuit Emulator
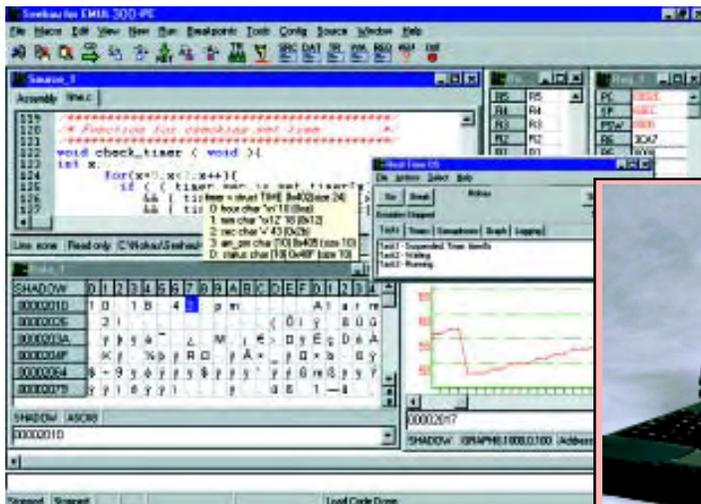
Key Benefits

- Motorola/Freescale 683xx and HC16 are supported.
- Full featured ICE: to 25 MHz. Not a BDM emulator.
- Seehau Intuitive Windows Interface
- Symbolic debug in every mode from binary to C source
- Optional trace board can be installed or upgraded later
- Real-Time trace is real-time: up to 1 Meg deep by 104 bits.
- Trace hase 3 complex trigger levels with timestamp display
- Trace filtering increases the effective data capture
- Up to 4M static emulation memory available with 0 wait states.

Product Overview

The emulator supports both the 68HC16 and 683xx (CPU 32) series microcontrollers up to 25 MHz. Uses the CPU on your project card or an internal emulation CPU. The emulator system consists of an emulator board, trace board, chassis and in-circuit pod. The trace is optional and can be added later. Only the pod is different for various flavors of the HC16 and 683xx. The pod contains the exact production chip used. The Seehau debugger is standard and provides advanced debugging features.

Trace Memory and Triggers

Trace memory is available from 256K to 1 meg and is configurable and viewable in real-time without stealing cycles from the emulation controller. Source code will appear as well as assembly cycles. Full pipeline decoding ensures only executed instructions are displayed. The trace contents can be saved to a file for later analysis.

Triggers can be set on addresses and data ranges, including addresses internal to the target chip. They control trace recording or cause the emulator to stop the target, depending on the options set. The triggers do not intrude into emulation until a break occurs.

Shadow RAM

Shadow RAM allows data accesses in real-time to be displayed in a Data window. Shadow RAM is continuously updated in real-time. The data can be displayed in many numerical and graphical formats in real time without stealing any CPU cycles.

Background Debugging Mode Emulator (BDM)

Nohau also offers an economical BDM emulator. The BDM debug emulator comes with the same Seehau user interface and takes full advantage of all the CPU debugging resources.

Code Coverage and Performance Analysis

Code Coverage shows code that has been executed and is ideal for finding dead code and wasted time. It shows fetch, read and write cycles. Performance Analysis provides statistical information about your programs in a graphical or numerical format. Find out where your code may be wasted processing tasks wastefully.

Breakpoints

Breakpoints are unlimited in number. They can be turned on or off without deleting them. Breakpoints can be one address or a range of addresses and are not part of the real-time trace triggers.

Supported Compilers and Formats

Supports S records, IEEE695, and COFF compilers from Intermetrics, Introl, SDS, Sierra, HIWARE, P&E, Microtec Research and others. C and C++ are supported.

CE

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