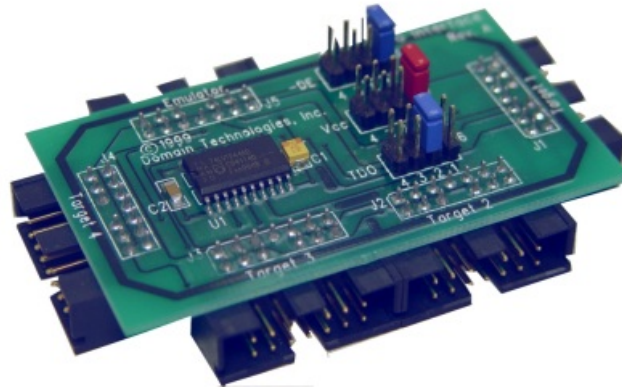


QUAD-JTAG Adapter

Synchronous Debugging of Daisy-chained Devices

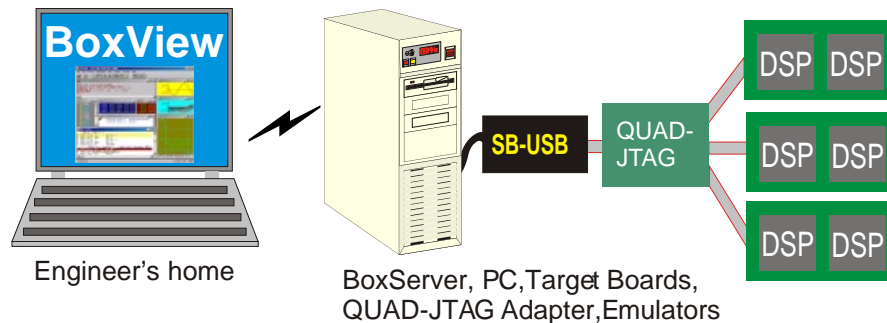


Connector Pinouts:

TDI	1	2	GND
TDO	3	4	GND
TCK	5	6	GND
nc	7	8	key
-RST	9	10	TMS
VCC	11	12	nc
-DE	13	14	-TRST

Overview:

Efficiently debug multiple daisy-chained devices with the QUAD-JTAG adapter and Domain Technologies' BoxView debugger. This handy adapter enables simultaneous control and interaction of multiple devices through their debug sessions. Each connected board's DSP can be controlled synchronously as well as individually for the utmost flexibility in a testing environment. In addition, non-DSP JTAG devices can be included in the scan chain; BoxView's powerful boundary scan operation allows individual pin states to be observed.



Product Description:

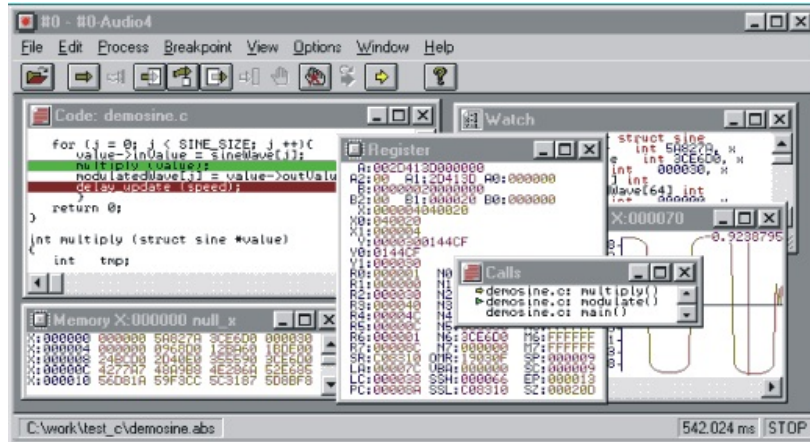
The QUAD-JTAG adapter is used in conjunction with BoxView Debugger and BoxServer Connectivity software for simultaneous control of multiple devices. In the example above, an engineer is debugging multiple target boards that are daisy chained together using the QUAD-JTAG adapter. Any Domain Technologies emulator (SB-USB2-DSP, SB-USB, USB-EMU, SB-56K) can be connected to the QUAD-JTAG to facilitate debugging. A BoxView debug session is enabled for each daisy chained device. Remote access to the BoxView session is provided by BoxServer. Engineers can run/halt/single step the devices synchronously as well as individually through the BoxView debugger.

There are 3 sets of jumpers on the QUAD-JTAG. The TD0: selects the last device in the scan chain, so it's test data out can be returned to the emulator. The VCC: connects the target's VCC to the board; at least one is necessary for the operation. The -DE: selects which target's *Debug Event* signal is connected to the emulator; active low pulse from the DSP is used for the bench-marking function. When connected to another target, it causes the target to enter debug mode.

Solving Complex Debugging Problems

BoxView Features:

- Fast Data Access
- Graphical Plots
- Boundary Scan Operations

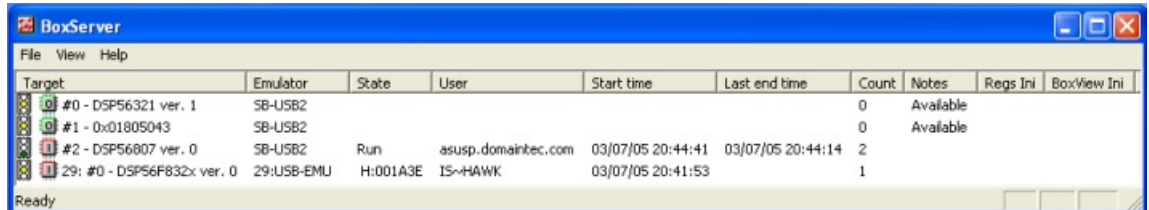


BoxView™: Control and Interact with Your DSPs

All Domain Technologies' emulators are compatible with BoxView™, our high level language debugger. BoxView™ allows programmers to test and debug applications with fast data access and extensive display capabilities. Information is controlled and organized by interacting with the target DSP through monitoring software or on-chip hardware circuitry. BoxView's visual user interface includes different numeric formats and graphical plots. Powerful boundary scan operations (requires BSDL file access) are supported which enables non-intrusive monitoring of the target device pins, even while the target device is executing its own application code.

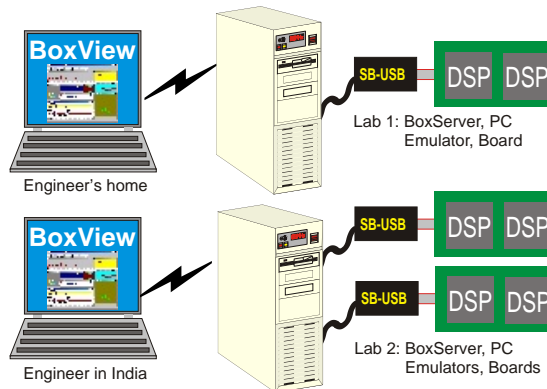
BoxServer Features:

- Scalable and Flexible
 - Single User, Single DSP
 - Multiple Users and DSPs
- Conveniently Accessed
 - Direct Connect
 - Remote via TCP/IP



BoxServer™: Multi-DSP and Multi-User Debug Access

More complex configurations such as debugging with multiple users, multiple DSP targets, or remote access are all supported seamlessly with the addition of our BoxServer™ software. This multi-core, multi-device development capability allows the user to start/stop/single-step selected devices simultaneously. Access to multiple devices is provided from single or multiple workstations via TCP/IP connection.



Solution for Multiple Remote Users, Multiple Boards

BoxView with BoxServer solve the problem of control when two engineers need access to multiple DSPs. Each engineer, individually uses BoxView for debugging. Remote access for each debug session, via TCP/IP, is managed by BoxServer. In addition, BoxServer controls multiple emulators.