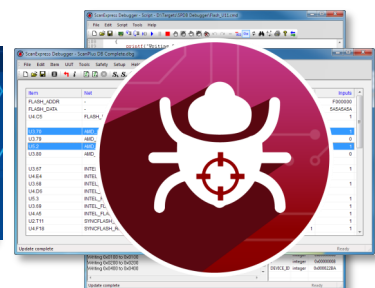


ScanExpress Debugger

Boundary-Scan Interactive Analyzer & Toolkit



Preferred Boundary-Scan Solutions—Acclaimed Technical Support

Features

- Interactive control and observation of all boundary-scan controllable inputs and outputs
- Visual representation of boundary-scan ICs shows pin activity in real-time
- Comprehensive pin and net browser with grouping, sort, and filter capability for easy identification and selection of boundary-scan pins
- Two scripting modules—advanced and basic—provide easy, automated access to boundary-scan signals
- Advanced script debugger boasts powerful code development capabilities including break points, single step, watch window, and more
- Intuitive software assists with short and open fault identification on and between BGA and other fine-pitch components
- Powerful JTAG protocol command interface for low-level access using simple JTAG scans
- TCK test helps find the maximum clock rate for a unit under test (UUT)
- Real-time data checking prevents conflicts and unsafe values
- Customizable Graphical User Interface (GUI) with window docking
- Interfaces with NI LabVIEW, NI LabWindows/CVI, Agilent VEE, Visual Basic, and other third party test executives
- Fully complies with IEEE standard 1149.1
- Supports Corelis high-performance JTAG controllers
- Compatible with Windows XP, Windows Vista, Windows 7, and Windows 8

Benefits

- Speed up hardware development on products with BGA and fine-pitch components that are not accessible with external probes.
- Decrease test complexity by utilizing non-intrusive boundary-scan technology for virtual access.
- Modular JTAG toolkit makes boundary-scan test tasks easy for all users.

Test probe access is a luxury—modern electronic system design techniques such as blind and buried vias or ball-grid-array (BGA) devices guarantee limited signal access. Test points quickly reduce precious board real-estate and can even degrade performance. ScanExpress Debugger overcomes these limitations to provide the control and visibility necessary to quickly debug and test hardware, using a simple JTAG port to interface with IEEE-1149.1 compliant devices.

Whether debugging prototype hardware, enhancing production tests with boundary-scan control, or diagnosing a faulty board in the field, ScanExpress Debugger's easy-to-use and versatile interface helps engineers test and debug systems faster and more efficiently.

Applications

Development

Debug hardware faults in systems with JTAG, even on components with no physical access.

Production

Integrate boundary-scan control and test scripts into automated test routines.

Service & Repair

Troubleshoot hard-to-find faults with just a desktop JTAG controller and a PC.

Learn More: For more information about Corelis products, please visit www.corelis.com



Overview

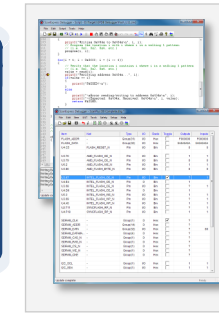
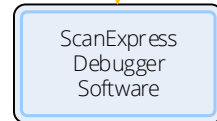
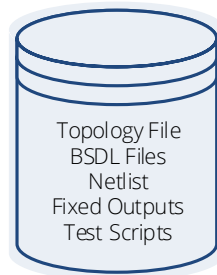
ScanExpress Debugger is a software application designed to assist engineers with hardware debug during prototype design verification and testing as well facilitate boundary-scan control in both automated and manual test environments. Utilizing a high-performance Corelis JTAG controller along with user-friendly and intuitive Windows-based software and a powerful software API, ScanExpress Debugger can take control of a UUT boundary-scan chain and control system signals.

Graphical User Interface

ScanExpress Debugger features an interactive GUI with two main views: the pin grid and the script debugger.

The pin grid features controls to set and monitor the state of individual pins and groups of pins on the UUT. Data editing and manipulation is easy—common GUI functions such as copy, cut, and paste as well as insertion, deletion, and clearing of data table rows are included.

Additional functions allow resetting or updating of the Unit Under Test, selecting board safety options, and enabling continuous sample or update mode. To complement the pin grid, IC display windows can be enabled for any component on the boundary-scan chain, enabling at a



Intuitive JTAG/Boundary-Scan Toolkit

- Powerful pin grid view with IC display windows
- Basic scripting for simple peek & poke
- Advanced scripting & automation
- Low level JTAG scans
- Find maximum TCK rate
- Discover undocumented op codes



Unit Under Test (UUT)

ScanExpress Debugger uses a simple JTAG interface with multiple tools to control and observe signals on the UUT

glance visualization of pin activity and convenient functions to directly manipulate system signals.

The script debugger features an integrated development environment for debug and execution of user-created scripts. The "C"-style scripting language should be familiar to users with a programming background.

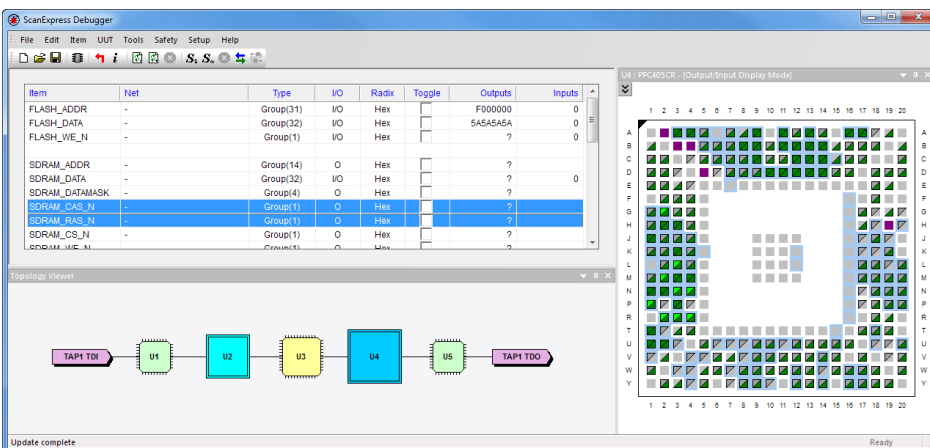
Additional Tools

ScanExpress Debugger includes additional tools to simplify JTAG debugging. The protocol command interface can be used for low-level register scans, while the simple script interface is ideal for peek-and-

-poke operations. Tools are also included to determine the maximum UUT clock rate and test the system for undocumented op codes.

Application Programming Interface (API)

ScanExpress Debugger includes a DLL interface with powerful JTAG functions for integration into user applications and test environments. The API can be integrated into C language applications or used with popular test executive systems such as National Instruments LabVIEW, National Instruments TestStand, and Agilent VEE to add boundary-scan control to any test environment.



The ScanExpress Debugger Grid View and display windows allow convenient control and observation of all boundary-scan signals in a system

Ordering Information

- Part Number 20409

For more information about Corelis ScanExpress products, please visit our website at <http://www.corelis.com/>

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