

# Why Choose Direct Insight and Corelis for Boundary Scan?

## A Complete Service

Formed in 1992, Direct Insight is the UK's foremost independent provider of JTAG boundary scan test and programming solutions. We have entered into a long-term partnership with Corelis the California-based leading supplier of boundary scan software and hardware.

Direct Insight's mission is to build long-term relationships with our customers based on the provision of complete solutions encompassing both products and services. This means that we can offer a higher level of support compared with local sales offices of competing equipment vendors, who may be more interested in meeting their monthly sales quota than understanding the bigger picture. As well as a complete package of services including training, consulting and project management, Direct Insight offers a broad range of complementary products and services, such as non-boundary scan flash programming tools, and embedded development tools. This gives us a complete understanding of the product life cycle.

## Performance

Speed of testing and flash programming - vital to a CEM where time is money. Our PCI-1149.1/Turbo card is the highest performance and most feature-rich JTAG controller available today on the market. It can test and program devices at TCK clock speeds of 80MHz. It is the only controller that is capable of testing the board for shorts between Power and Ground and testing for the correct UUT internal power voltages prior to power-up, making it the safest boundary-scan controller in the world. Corelis offers more than 10 different types of controllers compatible with the following computer architectures: PCI, PIO, CPXI, ISA, LAN, VXI, VME, PCMCIA, and USB. All the test software is transportable to all the other controllers with no additional cost.

## Volume production

Corelis is the only company offering a boundary-scan product like ScanExpress that enables concurrent (gang) interconnects testing and in-system programming of Flash Memories and CPLDs for up to 1,024 boards using a single PC and a single operator. All of our products are scalable so that you can minimise the cost for the capability you need today, and expand incrementally as much as necessary for your future needs.

## Best Coverage Analysis

Corelis ScanPlusDFT Test Coverage Analyser is a test coverage tool that analyses boards and systems that include a mix of boundary-scan and non-boundary-scan devices for boundary-scan testability and assists design and test engineers to increase fault coverage and reduce boundary-scan test program development time. It reports test coverage of every net and pin on the board and tells you if a net or pin is fully testable, partially testable, or non-testable. It suggests where test points can be added for additional testability. ScanPlusDFT Analyser intelligently merges various testability reports generated by the ScanPlusTPG test program generator and provides summary and detailed test coverage reports for the board. The combined test coverage reports help engineers to maximise the use of boundary-scan and reduce the need for "nails" access to nets and pins of the board under test. ScanPlusDFT Analyser also generates Fabmaster compatible reports that significantly reduce the cost of the ICT test fixture. All generated reports are Excel compatible.

## Diagnostics and Repair System

By combining the visual aspects of photographic image of the PCB assembly with the detailed layout descriptions supplied by the board netlist and Boundary-Scan fault-report, a complete visual representation of the target system is created that facilitates the quick isolation of any failure under investigation. With its easy-to-use interface, ScanPlus Viewer will allow even the most novice users - with little or no boundary-scan experience - the complete ability to pinpoint the exact source and location of PCB assembly

failures. This is true for even the most complex boards and systems with faults not visible to the naked eye or easily detectable by traditional test methods.

#### Ease of Use

Corelis ScanPlus system is the easiest to use and yet includes features that are offered by our competitors only as additional costly options. Companies that have evaluated every boundary-scan tool set on the market and selected Corelis told us that our tools are easy to learn, easy to use, and yet give up nothing in terms of testing/programming capability and flexibility to do what the user wants. Corelis test vectors include an unique and independent bus-wire test to guarantee the safety of the test vectors on bus-oriented boards.

While offering a complete consultancy service encompassing design for test, testability analysis, test generation etc., it is very much part of Direct Insight's ethos to focus on enabling our customers to do this work for themselves. Corelis products are uniquely user friendly, and lend themselves to easy adoption by the customer.

#### Ownership of Product

Corelis developed its own software and hardware while some competitors buy in their software from other sources or purchase it from a different vendor. Corelis can therefore offer you a hardware/software package designed from the beginning to work together as a system, and designed entirely by Corelis engineers at its facilities in Cerritos, California. The training and technical support you receive from Direct Insight's experts, who are trained by, and have close daily access to the engineers who designed the systems in the first place.

#### Contract Manufacturers

Many contract manufacturers are using Corelis tools worldwide and several major contract manufacturers standardised exclusively on Corelis tools. Recently Jabil Circuits conducted a half-year boundary scan product evaluation study and they selected Corelis as their vendor of choice for boundary-scan testing and in-system programming. Corelis has thousands of customers worldwide with sales and support offices in 20 countries.

#### Support for In-Circuit Testers and Test Executives

Corelis worked closely with Agilent and Teradyne and developed porting kits that allow re-use of Corelis boundary-scan test vectors on Agilent and Teradyne in-circuit testers. ScanPlus Runner software is capable of executing boundary-scan tests and various In-System Programming (ISP) files from third party applications using DLLs or the command line interface. Drivers for the popular National Instruments LabWindows/CVI, LabView, Agilent VEE test environments are provided at no additional charge.

#### Support for Embedded Testing

Corelis system is the only boundary-scan test systems vendor supporting LogicVision embedded testing. Corelis fully integrated its system to LogicVision and become an official "LogicVision Ready" partner. LogiVision's technology is used by the major ASIC developers such as Intel, LSI-Logic, SUN, Cisco, Broadcom, and many other well-known companies.

#### System and Hierarchical Testing

ScanPlus system includes the most comprehensive support for system-level testing. ScanPlus Merge product can be used to combine multiple target assemblies into a single boundary-scan compatible target system. ScanPlus Merge is used for many applications including Motherboard / Daughter card(s) assembly testing, multiple card chassis testing including the backplane, and testing the harness between the modules.

#### Get Boundary Scan Working for You

If you have any questions about Direct Insight and Corelis solutions for boundary scan, then please get in touch. You can visit our website at [www.directinsight.co.uk](http://www.directinsight.co.uk), email us on [info@directinsight.co.uk](mailto:info@directinsight.co.uk), or call +44 1295 768800. If you would like to discuss the way we work, you are welcome to contact Stuart Tindall at [stuart.tindall@directinsight.co.uk](mailto:stuart.tindall@directinsight.co.uk)



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