

SCANWORKS® IJTAG MANUFACTURING

Adding IJTAG to your Non-intrusive Board Test strategy for better test coverage and diagnostics.

OVERVIEW

ScanWorks® IJTAG Manufacturing (IJTAG-ML) software enables reuse of your IJTAG test programs in a manufacturing environment just like boundary-scan test. IJTAG-ML supports the unique instrument operations described in IEEE P1687 Procedural Description Language models to control and run embedded instruments. The IJTAG test programs can be integrated into the ScanWorks platform test sequencer for execution and diagnostics.

IJTAG TEST PROGRAM EXECUTION

Procedural Description Language (PDL) for IJTAG works hand in hand with the Instrument Connectivity Language (ICL) that was created during the test development process using the

Tools Options								
ScanWorks				Run Access Group: Administrators Loop Loop Count:				
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Xilinx_EVAL2				Re	ports	Back t	o <u>D</u> evelopmer	nt
Design:							Help	
Spartan3		-					neip	
Sequence:					Current Ha	rdware: N	Hardware	
PG-LA Sequence					Hardware	Compatible	: Not Applica	ble
Set Active Mappings								
Mapping	Serial Number	Status		Notes:				
				ember Analy This is toggle finally	om the Patte dded instrum zer embedd s followed b s the LEDs o the ADC an	ent to the ed instrum an UTAC on the test d DAC tes	Logic ent. action that board, and	THE STREET
 Step 			Status		Count		Report	
FPGA_SPV1 STAPL_IC1 ITAPL_BTHTE			None None None		0 0			
					0			
UTAG LEDs	None None		ŏ					
IJTAG_EvalADC			None		0			
 UTAG_EvalDAC 			None		0			

IJTAG Development software. The ICL tells the IJTAG-ML where the instruments are located inside the chip from the view point of the JTAG TAP. The PDL engine within the IJTAG-ML executes the IJTAG instructions within your test program on your specific instruments.

IJTAG TEST PROGRAM DIAGNOSTICS

Diagnostics are instrument specific. Within the PDL of each instrument, the diagnostic routines are defined if applicable. Most instruments will include diagnostic routines either built into the PDL or developed during the test development process utilizing the IJTAG development software. The IJTAG development software supports a simple drag and drop development mode or a customized development mode for diagnostic development. The customized development mode is supported by a Tcl (tool command language) interpreter (PDL is based on Tcl) as a standard part of the IJTAG development software.

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ScanWorks® Platform for Embedded Instruments

Logs and Reports		- 0 ->
Description Run Log Data Colection Build Log	Tree Samp 817/2011 4522 PH 917/2011 52/28 PH 917/2011 52/28 PH	
Hide Status	Show All Configurations Save As Print Styles Close Help	
Status	Running operation: XEN3001.UI.IEEE1687_NETWORK.MFP_1.MM0DE_FM0DE_POKE_0.Set_MBIST_Mode INFO: ** Setting to MBIST Mode **	
	Running operation: XEM3001.U1.IEEE1687_NETWORK.IPM_1.INIT_PEEK_MBIST_0.MBIST_Reset	
	Running operation: XEM3001.U1.IEEE1687_NETWORK.IPM_1.INIT_PEEK_MBIST_0.MBIST_Start	
	Running operation: XEM3001.UI.IEEE1687_NETWORK.IPM_1.INIT_PEEK_MEIST_0.BIST_Dome_Monitor(100) WATCH MEIST_DOME: 0b1 MEIST STATUS: Pass	
	Running operation: XEM3001.U1.IEEE1687_NETWORK.IPM_1.INIT_PEEK_MBIST_0.MBIST_Stop	
	Running operation: XEM3001.UI.IEEE1687_NETWORK.MFP_1.MM0DE_FM0DE_POKE_0.Set_PEEK_Mode INFO: ** Setting to PEEK Mode **	
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USER INTERFACE AND APIS

The IJTAG manufacturing software works within the ScanWorks platform squencer. The user interface allows engineers to apply existing actions and sequences to the unit being tested. Once a sequence is selected, the actions within that sequence are displayed along with their status. The sequencer can handle preand post-conditions on step level, iretative looping of steps, input of UUT serial numbers, user notes and more. Standard result reports are easily viewed showing the results of each sequence step with links to

the detailed information for that given step. The same functionality as the Sequencer provides, and more, is available through the ScanWorks APIs, which functions in conjunction with LabVIEW[™], LabWindows[™], Test Stand, Agilent (HP)-VEE, Visual Basic[®], Tel, Perl, C, C++, C#, allowing the IJTAG tests to be executed and diagnosed from virtually any test executive.

SCANWORKS PLATFORM FOR EMBEDDED INSTRUMENTS

ScanWorks Platform for Embedded Instruments is a seamless software environment to access, run and collect data from any instrument in your chips, circuit boards or systems. The ScanWorks Platform includes products for Boundary-Scan Test (BST), Processor-Controlled Test (PCT), High-Speed I/O (HSIO) Validation, FPGA-Controlled Test (FCT) and IJTAG test.

ASSET CONTACTS:

Please contact your ScanWorks sales representative for more information.

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