



Agilent Medalist i3070 Software Release 07.00p

Release Notes

The new Agilent Medalist i3070 In-circuit Test 07.00p software release includes features such as AutoDebug, ease of use, AutoOptimizer, and test development improvements as well as VTEP v2.0 (VTEP, iVTEP and Network Parameter Measurement).

Improvements based on more than 70 customers' requests that contain defects and enhancements are also included and given in Appendix A. Appendix B shows the compatibility matrix.

What's New in Medalist i3070 Software Release 07.00p?

Ease of use

The new point-and-click interface removes the user's need to type in commands during the operation of the tester. All commands are menu based, thus the user does not need to remember each command to be executed. This allows inexperienced users to start using the system quickly.

Interactive Pin Locator

The Interactive Pin Locator allows the user to search for any component on the board under test as well as probes and testhead resources. This tool is an enhancement over the "find pins" command. This tool can be used during the test debug process to identify the location of a failing component or the location of a probe on the fixture. Together with the handheld probe, the connectivity of a component pin to the tester can be checked quickly using this tool.

Test development improvements

The algorithm for test development has been improved. For resistors and capacitor tests, wires selection and test options selection have been improved in the IPG such that they reduce the test times of these tests. It is possible for a typical board to see 20% improvements to the analog test time. The node sequencing in the shorts test has been recalculated to reduce the occurrence of phantom shorts.



AutoDebug

With the AutoDebug tool, unpowered passive analog components can be debugged with the click of a button, so even someone with limited ICT experience can perform a complete analog test debug in a matter of hours. AutoDebug fine-tunes tests so boards pass reliably in production. It runs the selected test, captures measurement data, evaluates the data, adds or deletes measurement options, and compiles the tests. You set the rules, and AutoDebug does the rest.

AutoOptimizer

The AutoOptimizer feature is a tool for the production test engineer. With wear and tear of the fixture during the production process and changes in process parameters, it may be necessary for the production test engineer to modify test options. The AutoOptimizer can optimize the test times for these tests with a click of a button, reducing the test times by 10 to 50% per test. AutoOptimizer checks to see that tests are stable up to a user specified CPK. It's great for cleaning up programs that have been modified during production runs, allowing tests to once again run fast and reliably.

Flexibility to convert from Mux to UnMux pin cards

The i3070 provides a single software stream and compatible hardware to allow the user to use both HybridPlus Mux pin cards as well as Hybrid144 UnMux pin cards.

Innovative features: VTEP v2.0

Medalist VTEP v2.0 is a suite of vectorless test techniques which encompasses the new Network Parameter Measurement technology as well as the original Agilent Medalist VTEP technology and the award-winning Medalist iVTEP. The new Network Parameter Measurement technology is a world-first, allowing users to detect opens on power and ground pins on connectors – something which many industry players had previously considered as beyond existing test capabilities.

Default User and Group Accounts

Table 1 Agilent Medalist i3070 system users

User Name	Default Password	Member of	Definition and Permissions
operator	operator	AgilentICTOperators	For operators who are using the system to test boards.
user	user	AgilentICTUsers	For general users or sustaining engineers.
engineer	engineer	AgilentICTUsers	For test developers or sustaining engineers.
calibrate	calibrate	AgilentICTUsers, Administrators	User for system calibration and system maintenance that require administrator permission.

System Requirements

The minimum hardware and software requirements to install Agilent Medalist i3070 software release 07.00p on your desktop or notebook PC are as follows:

Table 2 Minimum requirements

Platform	Windows XP Professional SP2
Hardware	Recommended RAM – 512 MB Minimum disk space – 1 GB
Other	Minimum screen resolution - 1024x768 Anti-virus and Firewall software are recommended to be installed

Compatibility

The Medalist i3070 software is compatible with the Medalist 3070 and i5000 software versions.

Please refer to the compatibility matrix in Appendix B for more details.

Availability

- The Agilent Medalist i3070 software release 07.00p will be shipped to customers who are on the Agilent software update services contract.
- New Agilent Medalist i3070 systems will be shipped with software release 07.00p.

Appendix A Improvements

Improvements in Medalist i3070 Software Release 07.00p based on customer requests are listed in Table 3.

Table 3 Improvements based on customer requests

Change Request Identification	Description
CR14114	Customer can uncomment the effected pins and manually add the tied pins by searching the original file. Now, ADB can account for tied pins and produces coverage report accordingly.
CR14930	Board grader does not work well on a panel board. Manual workarounds do not address this problem. Board grader now works with panelized board.
CR16359	Coverage for parallel child devices not being reported in Coverage Analyst Report due to error in parsing the "report" statements in the individual tests.
CR18563	In ISP digital test, "eod last" is not accepted by the digital syntax checker, however, in the user manual, "last" is a valid option for "eod" statement. Language parser amended to support "eod last".
CR18697	eod options are frequently overridden by the compiler. This can prevent successful FLASH programming with block-oriented memory, when the final FF data must be within the same memory block as the data.
CR18698 /CR20659	Syntax checker allows "no fill" as an eod statement option, but that option is not supported. Coverage Analyst does not include Board Test Grader quality information for panelized boards. The online documentation says that this capability is supported.
CR20663 /CR20653	Test execution time using the Engineer user interface to run is too long. Coverage Analyst does not include Board Test Grader quality information for panelized boards.
CR21365	There is a fault reported on Agilent 05.32pb software version when both VTEP and throughput multiplier are used. The failure occurs when running VTEP tests: the board passes VTEP on the first run, but the next board tested will fail.
CR22137	No information available on parts and personality pins in ICT browser window.
CR22154	Coverage Analyst: Very slow when running big board.
CR22210	Security issue with Service3070 account on PC. This account can open and modify test programs.
CR22212	Wrong testjet_mux Report For VTEP + REF Cards
CR22215	When using board handlers, the testplan created for panels will error out.
CR22217	Missing info on the "attenuated ranges" in the Test Methods and Specifications manual.
CR22219	Conversion of board directories should not be restricted to files on local systems only. Users should be able to perform conversion reliably on files existing on remote systems.
CR22222	New static arm has keyboard tray that is not properly designed such that the screws can be easily detached, which may present a safety hazard to operators.
CR22227	ERROR PDF140 when compiling board_xy for panel.

Table 3 Improvements based on customer requests

Change Request Identification	Description
CR22285	Customer would want to see the following syntax reference: unpowered, dps and faoff, for correction/amendment in the user documentation.
CR22318	Board graphic highlight active not working
CR22323	The calibration report together with calibration certificate are shipped with each new system
CR22335	From the PBDB GUI, select Macros > Test Grader Macros > Generate Test Coverage Report. The "testplan.con" file is generated and executed. The testcoverage.rpt will be generated and data captured.
CR22385	Request a customized button in the "User Defined Controls" field in the Operator interface. To perform: a) Copy the probe_report.txt file as another file, b) At same time clear the WPR (Worst Probe Report) display on the screen.
CR22394	i5000(UnMux): Parse Error when trying to add new version based on current version.
CR22608	Currently Qstat histograms cannot be saved to a file or printed out directly through a printer. Customer wants more than 6 histograms to appear on one window at a time and also have the facility to save the histograms to a file that can be printed out.
CR22789 / CR20660	User cannot move a block of nodes to desired location in shorts debug as only the first node in the block is moved. Have to either edit using BT-BASIC then reload board in i5000, or individually move the nodes in shorts debug interface. / Multiple-row marking and pasting of shorts lines in Shorts is now supported.
CR22790	Pass/Fail message for all other nodes disappears when user clicks on the commented box twice for a node. User may lose track of what other nodes are failing/passing previously, and needs to rerun pins/shorts again.
CR22792	Implementation of Recall button in Browser can save user much time in typing and searching for device attributes such as Net and Probe during the debug of board.
CR22814	Enhancement to ask for confirmation when archiving fixture files. The software now prompts the developer if it is OK to overwrite the old archive.
CR22825	Request to have more than only 26 BSCAN connectmax files available. Software enhanced to pick only the 'testable' connectmax pins at a time for test generation. The maximum number of connect test files that can be generated for a device remains 26 (a-z). However, the maximum number of nodes that can be tested per file is expected to increase, which would reduce the number of connect test files required for a device.
CR22861	No information in the i5000 (i3070 UnMux) manuals for "verify grounds" syntax. "Verify Grounds (Bt-Basic)" has been added to the Syntax Reference.
CR22868	The Overview window is useful for viewing large complex boards because it lets users know which section of the board they are viewing when in zoomed mode. This feature is available in 3070's Board Consultant and Board Graphics but is not found in i5000. An overview window is available in the i3070 UnMux Browser application.
CR22871	The board graphics highlight active board commands in the i3070 UnMux works according to documentation in the online help manual.

Table 3 Improvements based on customer requests

Change Request Identification	Description
CR22897	"Board graphics highlight device" and "board graphics highlight nodes" commands to highlight device/node in i5000 browser.
CR22901	When accessing the UnMux system Operator mode with the -d switch, loading and running a testplan that has the "option bit 32" statement will generate Error R782 and lock up the GUI.
CR22967 /CR23717	UnMux 06.00p Multiple entries in an "autofile" file do not result in an operator prompt to select which board type to test as it would on a 3070 test system. / In the Mux system OIL login the TCM test program selection function does not work.
CR23010	Customer would like to have the option of both DEVICES and CONNECTIONS listing in the Board file. Currently only DEVICES listing is included.
CR23044	UnMux 06.00pa The migration tool, A3070toI5000.pl, incorrectly modifies a VCL "warning" statement containing the string "vector cycle" resulting in a library source file that is syntactically incorrect.
CR23102	Patch 06.01p affects board graphics and Browser in a serious manner: Boards are placed outside fixture outline, crosshair is off-focus, MINT pins shown outside fixture and sometimes does not even get shown.
CR23135	Using 05.32pb WN, Coverage Analyst does not proceed past the step Reading analog directory test data.... with the progress window displaying Generating Report Reading Analog files.
CR23146	When extra resources (e.g. ground) are created manually using the i5000 development interface, the software does not assign these resources to already drilled and socketed locations such that wiring can be performed immediately between probe and P-pin.
CR23314	Clicking the mouse on different locations in the board graphic window, but the crosshair panel coordinate does not update from 0, 0 location.
CR23315 /CR23931	Ticking the "Create Rectangle" checkbox under "Create Keepout", then left-click, hold and drag to the right and downwards to create a rectangle (to create a keepout area) does not work. /Cannot create keepout in Fixture Keepouts task during Fixture Generation.
CR23371	UnMux 06.00pa Using a migrated 3070 board directory, the "Update Board Placement" step fails due to the "PROTECTED UNIT" section of the fixture file being incorrectly parsed by the i5000 software.
CR23410	UnMux 06.01p Tendency for probe select to place probes outside board outline even if board outline coordinates are the same for board_xy and fixture object.
CR23466	UnMux 06.01p The error message "R32 Software internal error 1104." is generated when the statement "gpconnect 21860 to 21861" is executed in a BT-BASIC window.
CR23583	Wrong information given for the relation between pin card relay and X-bus number in service documentation may lead to incorrect troubleshooting steps.
CR23706	UnMux 06.00pa Using the migration tool, A3070toI5000.pl, to migrate a 3070 board test directory to the i5000, the user receives the following error message: "Unable to open library source file: The system cannot find the file specified".

Table 3 Improvements based on customer requests

Change Request Identification	Description
CR23726	UnMux 06.00pa. In order to get board and board_xy to load in GUI, need to modify the "board" file information from { to _ and } to _ . In other words "left bracket" to "underscore" and "right bracket" to "underscore".
CR23824 /CR23825	Mux 05.32pb WN / UnMux 06.01p Boundary-scan interconnect tests may not generate the appropriate test patterns for the configuration of an output3 cell - series resistor - bidir cell.
CR23894	UnMux 06.00pa When loading board information into the Graphical User interface, the user receives the following error message: ERROR in File Type: config File: <path>/config, Line Number: <line number> Line: <syntax> ! <comment string> null
CR23902 / CR26511	Coverage Analyst: Does not fully Support Multiple Board Version feature
CR24296	Board placement does not work with Graphical User Interface.
CR24658	inputs formatted (VCL) command is now documented in Syntax Reference.
CR24659	inputs formatted clock (VCL) command is now documented in Syntax Reference
CR24660	inputs formatted clock (VCL) command is now documented in Syntax Reference
CR24661	outputs (VCL) is missing some information in the Syntax Reference
CR24678	Incorrect information in the UnMux 06.02p On-Line Help for the "dut clock period" syntax.
CR24716	UnMux 06.01p The functionality of the digital compiler does not identify situations where the digital test assignments of a "dut clock period" and corresponding fixture wiring define a testing situation that can not be successfully implemented.
CR25041	Board directory causes the BT-Basic window controlling the testhead to close when running a production testplan and/or running a board grading testplan. Investigation data showed that it is affecting only this particular test system.
CR25186	The rinit, rcall, and rexit commands are added to the syntax reference.
CR25267	Silicon Nails Test will not compile.
CR25271	Currently user must manually edit the vtep autodebug constants for each new board program.
CR25357	Mux 05.41p Coverage Analyst stops with Runtime Exception in SingleWorkerThread. An error message will pop up to inform user if there are invalid characters in board xml file.
CR25413	PPU systems will not begin 540p installation.
CR25675	UnMux 06.02p Existing GP (general purpose) relay assignments in a migrated 3070 board directory are reassigned by the i5000 software.
CR25802	ext1 and ext2 ports cannot be connected
CR25858	Probe Selection (fixture component) algorithm is corrected in Test Consultant to handlecases where two probes are located very closely.
CR25896	Mux 05.41 Project that is working perfectly in BT-Basic window, when OIL is used, it stopped at line 3435 and the error message is "T358 Testhead real result type not received at line 3435".

Table 3 Improvements based on customer requests

Change Request Identification	Description
CR25993	05.40p When user tries to run check board in the shell window, there is an error message; "The environment variable \$AGILENTICT_ROOT was not set"
CR26016	05.41p The .discharge file was not generated correctly when using multiple board versions.
CR26409	05.42p System calibration - there are 20 DC voltage points executed.
CR26441	05.41p T313 Control Card timeout (psync) occurs on first run of TestJet testing.
CR26668	Engineer debug panel, Guard window is not re-sizable
CR26729	In UnMux on-line manual-->Service Manual--> Parts--> Pin Cards, the part number for the (New) Hybrid -144 Non-multiplexed Pin Card is N1140-63500. This is not correct, it should be N1140-66500.
CR26748	05.41p 0606 WN Running IPG Test Consultant in Batch Development mode, the user is not presented with clear information that the development process had failed and did not complete all of the steps.
CR26881	None of the Rpacks (rp15004, rp17001,etc) are listed as Not Tested components in the "Components Without Test" section of report.
CR27085	06.01p When debugging a versioned analog test - you get a question box appear to tell you that you are debugging the base version, and asks if you want to create a version test - this appears EVERY change you make.
CR27330	05.42pa The IPG Test Consultant Copy / Move Board Directory action returns an error and Copy / Move directory action not successful.

Appendix B Compatibility Matrix

Table 4 Compatibility matrix

	Agilent 3070 (Unix)	Agilent Medalist 3070 (Windows)	Agilent Medalist i5000	Agilent Medalist i3070 UnMux	Agilent Medalist i3070 Mux	Remarks
Development Software	3070 Unix	3070 Windows	i5000	i3070	i3070	
Development Software Revision	05.30 & below	05.42 & below	06.02 & below	07.00p	07.00p	
Operating System	Unix	Windows 2000/ Windows XP	Windows XP	Windows XP	Windows XP	
Controller Hardware	HP B20000/ C36000 and below	HP X2100*/IPC (Advantech)/ HP XW4300	HP XW4200/ HP XW4300	HP XW4400	HP XW4400	* HP X2100 is not supported on 05.40p and above
Software Features						
Agilent Simplate Express Fixturing	×	√	√	√	√	
Analog In-circuit Test	√	√	√	√	√	
Analog Functional Test	√	√	√	√	√	
Timing Sets	√	√	×	×	√	
In-circuit Boundary-Scan	√	√	√	√	√	
Agilent InterconnectPlus Boundary-Scan	√	√	√	√	√	
Agilent PanelTest	√	√	√	√	√	
Agilent Throughput Multiplier	√	√	√	√	√	
Agilent TestJet	√	√	√	√	√	
Agilent VTEP V2.0 (VTEP, iVTEP & NPM)	×	√*	√*	√	√	* VTEP and iVTEP only
Agilent Polarity Check	√	√	√	√	√	
Agilent Connect Check	√	√	×	×	√	
Powered Testing	√	√	√	√	√	
Software Revision B	√	√	×	×	√	
All High Accuracy Resources	√	√	×	×	√	
Agilent Fault Detective	√	√	√	√	√	
Agilent DriveThru	√	√	√	√	√	
Agilent Flash70	√	√	√	√	√	

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	Agilent 3070 (Unix)	Agilent Medalist 3070 (Windows)	Agilent Medalist i5000	Agilent Medalist i3070 UnMux	Agilent Medalist i3070 Mux	Remarks
Agilent Awaretest xi	√	√	√	√	√	
Agilent MagicTest	√	√	×	×	√	
Agilent Control XT Override	√	√	√	√	√	
Agilent Advanced Fixturing	√	√	√	√	√	
Agilent Silicon Nails	√	√	√	√	√	
Agilent Flash ISP	√	√	√	√	√	Needs Control XTP
Agilent PLD ISP	√	√	√	√	√	Needs Control XTP
Agilent Diagnose Relays	√	√	√	√	√	
Agilent System Calibration	√	√	√	√	√	
Agilent Medalist Interactive Pin Locator	×	×	×	√	√	
Automatic Analog Debug (AutoDebug)	×	×	√	√	√	
Agilent Medalist AutoOptimizer	×	×	×	√	√	Needs Control XTP
Agilent Medalist Operator Interface	×	×	√	√	√	
Agilent Medalist Debug Interface	×	×	√	√	√	
ICT Browser	×	×	√	√	√	
Coverage Analyst	√	√	√	√*	√*	* Includes Multiple Board Versions
Fixture Consultant	√	√	×	×	√	* i5000/i3070 UnMux uses ICT Browser
Board Consultant	√	√	×	×	√	* i5000/i3070 UnMux uses TTM Development Software
Test Consultant	√	√	×	×	√	* i5000/i3070 UnMux uses TTM Development Software
Agilent Medalist TTM Development Software	×	×	√	√	×	* 3070/i3070 Mux uses Board Consultant, Fixture Consultant and Test Consultant
Pushbutton Debug	√	√	√	√	√	
Access Consultant	√	√	√	√	√	
Part Description Editor	√	√	√	√	√	

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	Agilent 3070 (Unix)	Agilent Medalist 3070 (Windows)	Agilent Medalist i5000	Agilent Medalist i3070 UnMux	Agilent Medalist i3070 Mux	Remarks
Device Test Library	√	√	√	√	√	
BT-Basic Test Language	√	√	√	√	√	
Setup Test Editor	√	√	√	√	√	
Analog Test Language	√	√	√	√	√	
Vector Control Language	√	√	√	√	√	
Pattern Capture Format	√	√	√	√	√	
Digital In-circuit Test	√	√	√	√	√	
Integrated Digital In-circuit and Analog Functional Test Language	√	√	√	√	√	
IPG-II Program Generator	√	√	√	√	√	
Multiple Board Versions	√	√	√	√	√	
Dual-Well Shared Wiring	√	√	√	√	√	
Short-wire Fixture Technology	√	√	√	√	√	
Board Test Grader	√	√	√	√	√	
Datalogging	√	√	√	√	√	
Pushbutton Q-STATS	√	√	√	√	√	
CAMCAD	×	√	√	√	√	
Advance Probe Spacing	× *	√	√	√	√	* Available only on Unix 05.30
Automatic 6 Wire Analog ICT Tests	√	√	√	√	√	
Automatic Digital Test Generation	√	√	√	√	√	
Safeguard ICT Analysis	√	√	√	√	√	
Quick Report	√	√	√	√	√	
ScanWorks	×	√	√	√	√	
System Configuration and Hardware Diagnostics	√	√	√	√	√	
Medalist Repair Tool	√	√	√	√	√	
RS232 Control	√	√	√	√	√	
IEEE 488 Instrumentation	√	√	√ *	√ *	√ *	* Not tested

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	Agilent 3070 (Unix)	Agilent Medalist 3070 (Windows)	Agilent Medalist i5000	Agilent Medalist i3070 UnMux	Agilent Medalist i3070 Mux	Remarks
Hardware Features						
ASRU Rev A	√ *	×	×	×	×	* Supported only on Unix 04.00 and below
ASRU Rev B	√ *	×	×	×	×	* Supported only on Unix 05.30 and below
ASRU Rev C	√	√	√	√	√	
Serial Test Card	√ *	×	×	×	×	* Supported only on Unix 05.21 and below
Serial Test Plus card	√ *	×	×	×	×	* Supported only on Unix 05.21 and below
Serial Test Pay Per use	√ *	×	×	×	×	* Supported only on Unix 05.21 and below
ChannelPlus	√	×	×	×	×	
ChannelPlus Pay Per Use	√	×	×	×	×	
Control Card	√ *	×	×	×	×	* Supported only on Unix 05.21 and below
ControlPlus Card	√ *	×	×	×	×	* Supported only on Unix 05.21 and below
ControlXT	√	√	×	√	√	
ControlXTP	√	√	√	√	√	
HybridPlus SD/DD Pay Per Use	√	√	×	×	×	
HybridPlus SD 6/12/20 MP/s	√ *	√	×	×	×	* Supported only on Unix 05.30 and below
HybridPlus DD 6/12/20 MP/s	√	√	×	×	√	
HybridPlus 32 6/12/20MP/s	√	√	×	×	√	
HybridPlus 32 Pay Per Use	√	√	×	×	×	
HybridPlus 32 Value Series	×	√	×	×	√	
HybridPlus 144 unmux	×	×	√	√	×	
AnalogPlus (SD)	√	√	×	×	√	
AnalogPlus (DD)	√	√	×	×	√	
AccessPlus (SD)	√	√	×	×	√	

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Guided Probe & Footswitch	√	√	√	√	√	
Bar Code Scanner (E3786A)	√	√	√	√	√	
Strip Printer	√	√	√	√	√	
Debug Ports (3)	√	√	√	√	√	
Functional Test Access Ports	√	√	×	×	×	
Performance Port	√	√	√	√	√	
DUT Power Supplies	√	√	√	√	√	
Vacuum	√	√	√	√	√	
Compressed Air Quick Connect Tap	√	√	√	√	√	
Power Supply Support Bay	√	√	√	√	√	
JOT Handler	√	√	√	√	√	

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