**Agilent Technologies**

# Agilent Medalist i3070 08.40p Software Release

## Release Notes

Dear customer,

Agilent Technologies is pleased to introduce the Medalist i3070 08.40p software release for existing Medalist i3070 series of in-circuit testers.

This release can be installed on testheads and test development stations with Windows 7 (32-bit and 64-bit) and Windows XP operating systems. Please note that this is the last software release that will run on Windows XP, as Microsoft is ending its extended support for Windows XP in April 2014.

Along with a slew of enhancements and improvements in this release, we have bundled in a utility known as DataLog Converter (DLC) at no cost, in appreciation of your continual support on software update subscriptions. This tool has the flexibility to parse Medalist i3070 log files to more meaningful text based formats (for example CSV, XML, and HTML), providing an integration path to your Manufacturing Execution Systems (MES) or similar services commonly found in the shop floor environment.

Additional features are described in the following pages. For more news and up-to-date information, please visit www.agilent.com/see/i3070patches.

Sincerely yours,

Tian Chiok, LIAN
Product Marketing Manager
Agilent Technologies

# What's New in Agilent Medalist i3070 08.40p Software Release

The Medalist i3070 08.40p software release provides the following features:
- DataLog Converter
- Testplan Security Enhancement
- Support for Medalist i3070 Inline ICT System
- Transfer Pin Enhancement
- Support for ControlXTPA Card
- 64-bit Windows 7 Support
- New Power Supply Support
- Installation Changes (Windows 7)

### DataLog Converter (Windows XP/Windows 7)

This utility parses desired information from Medalist i3070 log files and exports text files in customizable formats.

### Testplan Security Enhancement

When the baseline feature is used, the testplan can only be modified by authorized users once the baseline is created.

The `baseline create` command has been enhanced with the capability to exclude user-defined folders (such as the Log file folder) from being baselined.

This is done by creating a string array and passing that string array with the `baseline create` command. The following example creates a baseline and excludes folders named `fixture` and `ca_data`.

```
First, the string array must be dimensioned:
  dim D$(1:2)[20]    ! dimension D$ to have 2 strings with
                     ! 20 characters each
```

Place the folders in the array:

```
  D$(1) = "fixture" | D$(2) = "ca_data"
```

Then create the baseline database:

```
load board | baseline create on all; exclude D$(*)
```

### Support for Medalist i3070 Inline ICT Tester

Built-in functionality to support the latest Medalist i3070 Inline In-Circuit Test System.

### Transfer Pin Enhancement

Transfer pins smaller than 100 mils can now be used in the fixture.

A new fixture component file `FixtureTransferData` can be found in the folder `$AGILENTICT_ROOT/standard/fixture/components`. It contains the parameter `PhysicalTransferPinClearance` which accepts two values, 1500 (default) and 1000. Changing the value to 1000 enables up to six transfer pins to be placed in the fixture, in the space normally occupied by a single pin.

### ControlXTPA Card Support

This software release supports the ControlXTPA card.

### 64-bit Windows 7 Support

This software release will run on 64-bit Windows 7 operating system.

### New Power Supply Support

Support for selected DC power modules of the N67xx series has been integrated to meet future needs.

### Installation Changes (Windows 7)

- Support for Medalist i3070 Inline system licenses
- ScanWorks software is not included
- Silent XVision installation

### Others

- This software release includes all previous 08.30p HotFix and patches.
- Over 30 customer change requests are addressed.
- Last software release that includes PPU support for Windows XP and 32-bit Windows 7.
- No PPU support for 64-bit Windows 7.
- Last software release that runs on Windows XP.
- Online help is now part of the main software installation.

# System Requirements

The minimum hardware and software requirements for the installation of the Medalist i3070 08.40p software release are as follows:

**Table 1** Minimum Requirements

| | |
|---|---|
| **Platform** | Windows 7 Professional with Service Pack 1, or Windows XP Professional with Service Pack 3. |
| **Hardware** | Processor – Intel Pentium® 4 or better (minimum 1.8 GHz) Memory – recommended 4 GB RAM (minimum 2 GB RAM) Disk space – minimum 10 GB |
| **Other** | Minimum screen resolution – 1280 x 1024, 16-bit Anti-virus and firewall software are recommended to be installed |

> **NOTE** If you are upgrading a controller to Windows 7, ensure that it meets Windows 7 system requirements and there are no compatibility issues.

# Software Licenses

The Medalist i3070 08.40p software release requires a 08.00 software update license. Users can still access the same features with their existing basic testhead and feature licenses.

# Compatibility Statement

Existing board test programs that run on Medalist 3070 or Medalist i3070 systems with earlier software releases (08.xx, 07.xx, and 05.4x) will continue to run on systems that have been upgraded to the 08.40p software release running on Windows 7 or Windows XP.

Board test programs developed on Windows-based software revisions prior to 05.40p should be converted to run on release 05.40p at the minimum, before running them on systems with Medalist i3070 08.00p or later.

# Notes on ControlXTPA Card

The Module Control Card (ControlXTP) for the Medalist i3070 test system has been replaced with a RoHS-compliant version, known as the ControlXTPA Card. The primary functionality and performance remain, with some key differences.

## Key Differences

- Thin-LAN connectivity has been replaced by shielded RJ45 jacks and Ethernet cables with improved protection from electromagnetic interference.
- Data is now routed via a managed switch with advanced features to maximize transmission efficiency.

## Hardware Requirements

The essential parts are as follows; the quantity required may vary depending on the tester configuration.

| Part No. | Description | Remarks |
| --- | --- | --- |
| N1807-66801 | ControlXTPA Card | Replacement for Control XTP card. |
| 0960-3091 | Gigabit 8-port managed switch | Required when using ControlXTPA cards. |
| N1807-31600 | Shielded Ethernet cable | |

The new ControlXTPA cards do not have a second row of MINT pins.

## Software Requirements

The ControlXTPA card is designed for compatibility with previously developed testplans. However, note that the following changes are needed:

- Config File

  Update the config file to include the line `control xtpa`.

- Firmware

  The ControlXTPA card requires new FPGA firmware (`xtpa.xsvf`) located in `C:\Agilent_ICT\Lib\`.

  The file format is `yymmddhh_2`, with `_2` denoting ControlXTPA.

- Software Release

  Medalist i3070 software release 08.30pb or above must be installed for the system to correctly identify the new ControlXTPA card.

### Other Requirements

- The controller NIC should be in **100Mb/half duplex** while the managed switch should be in **Auto** mode.

### Routing of Ethernet Cables

The managed switch is installed on the side of the cradle. Ethernet cables (A and B in Figure 1) are routed from the cradle into the testhead behind the i-System card. The cables run along the bottom of the i-System card before being routed to the control cards in the card cage.

**Figure 1**  Routing of Ethernet Cables
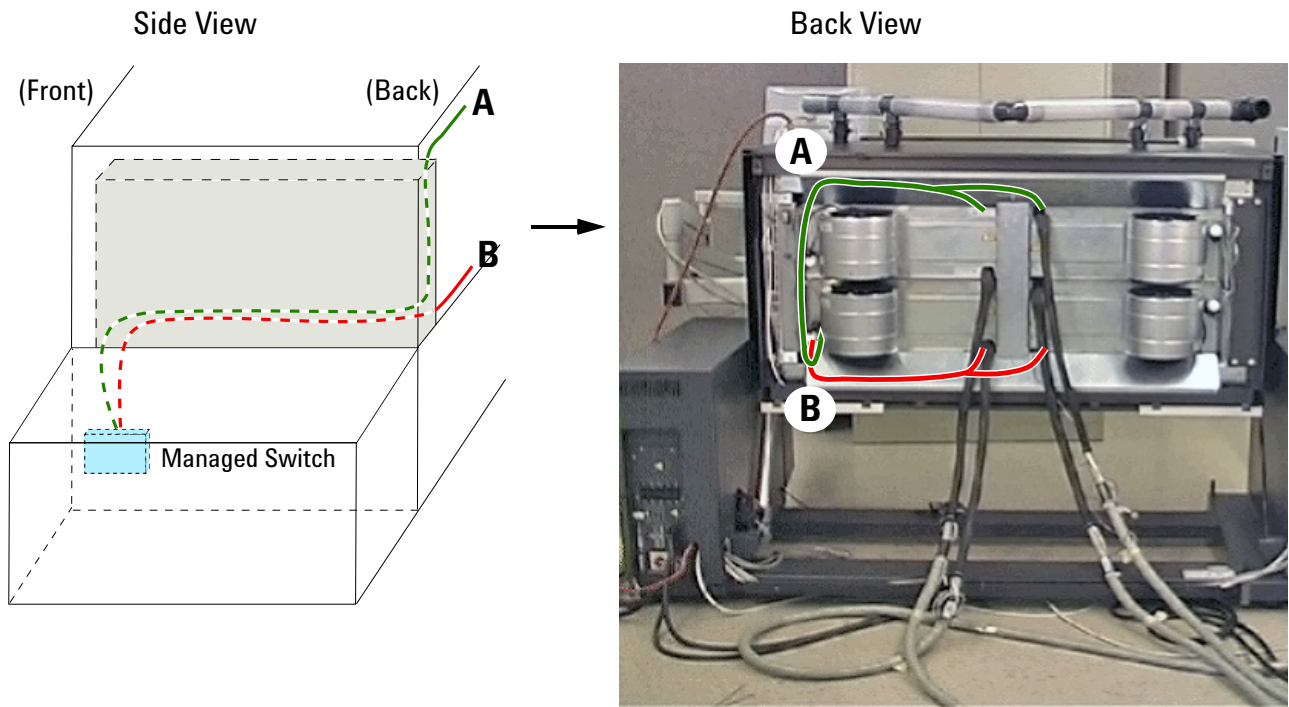
# Appendix A: Improvements

Improvements and enhancements in the Medalist i3070 08.40p software based on customer requests are listed in Table 2.

**Table 2**

| Change Request Identification | Description |
| --- | --- |
| 178289 | 08.30p: Enhanced support for Actel PLD programming. |
| 182018 | 08.30p: Allow operator to have access to locator functionality in ICT Browser. |
| 191037 | 08.30p: Fixed segmentation violation error while compiling BSDL. |
| 191488 | 08.30p: Fixed error code R1315 in NPM connector test. |
| 191490 | 08.30pb: Fixed system flagging "Power Monitoring Failure" message when ASRU C is used. |
| 191492 | 08.30p: Fixed switching of ASRU ground relays during CET powered tests. |
| 195726 | 08.30p: Fixed possibility of missing Boundary Scan GUI due to instruction overflow. |
| 197883 | 08.30p: Fixed illegal threshold value in shorts test. |
| 198617 | 08.30pb: Fixed Internal -11 error in Fixture Consultant's probe select feature. |
| 201827 | 08.30pb: Fixed missing scrollbar in the Preferences menu when there are more than 10 board versions. |
| 203276 | 08.30p: Fixed compilation error due to missing analog information required for mixed tests. |
| 212010 | 08.30p: Enhanced to allow transfer pins of less than 100 mils to be used. |
| 212019 | 08.30p: Enhanced baselining to prevent unauthorized changes in the testplan. |
| CR33262 | 08.00p: Updated 1149.4 semantic checks to compile BSDL with the package STD_1149_4_2010. |
| CR34114 | 08.00p: Fixed Placed/Not Placed information in board versions. |
| CR34118 | 08.00p: Enhanced Engineer Test Interface to show both Version and BASE test time. |
| CR34171 | 08.00p: Fixed Operator Interface not displaying board graphics when there are unconnected pins. |
| CR34210 | 08.20p: Fixed IPG generation for high voltage zener test and test sequence when ARSU C is used. |
| CR34211 | 07.00pc: Added warning message when a test sequence in Full Diagnostics fails. |
| CR34245 | 08.30pa: Speed up loading of Engineer Test Interface across a network. |
| CR34256 | 08.20p: Fixed cases where a fixture file cannot be loaded in Engineer Test Interface and ICT Browser. |

**Table 2**

| Change Request Identification | Description |
| --- | --- |
| CR34365 / CR34392 | 08.30: Fixed PPU credit deduction when Operator toolbar STOP button fails. |
| CR34372 / CR34371 | 08.30: Fixed ability of Pushbutton Q-STATS to display multiple failure reports. |
| CR34388 | 07.20pc: Fixed board or fixture graphics in BT-Basic showing xtgrabkeyboard warnings and intermittent freeze. |
| CR34391 | 08.30: Fixed DGN Test 8 appearing on ASRU Cards for Mux systems. |
| CR34400 | 08.20p: Fixed Pushbutton Debug error during auto-debugging of TestJet tests on panelized boards. |
| CR34401 | 08.20p: Fixed software output content for testplans with nested function calls. |
| CR34402 | 08.20p: Fixed compiler to flag incorrect <cell number> in 1149.6. |
| CR34406 | 08.20p: Fixed compiler to detect illegal bidirectional pin with merged input/output2 cells. |
| CR34407 | 08.30p: Fixed compiler for 1149.6 differential pins. |
| CR34408 | 08.20p: Fixed inductor impedance data in IPG .discharge file. |
| CR34409 | 08.20p: Fixed calculation of harmful voltage for capacitors with V < 1 in IPG .discharge file. |
| CR34410 | 08.30pa: Fixed unresponsive BT-Basic whenever a fixture lock command is issued on a PPU system. |
| CR34415 | 08.20p: Allow message statements in the Boundary Scan ITL disable blocks. |
| CR34424 | 08.30pb: Generate node signatures for positive and negative legs of 1149.6 differential signals. |
| CR34429 | 08.20p: Fixed BSDL compilation error when there are more than 5000 characters in a line. |

# Appendix B: Compatibility Matrix

**Table 3**  Compatibility matrix

| | Agilent 3070 (UNIX®) | Agilent Medalist 3070 (Windows) | Agilent Medalist i5000 | Agilent Medalist i3070 UnMux | Agilent Medalist i3070 Mux | Remarks |
|---|---|---|---|---|---|---|
| Software Revision | 05.30 & below | 05.42 & below | 06.02 & below | 08.40p & below | 08.40p & below | Only 08.21p or later can support Windows 7 |
| Operating System | UNIX | Windows 2000/ Windows XP | Windows XP | Windows 7/ Windows XP | Windows 7/ Windows XP | Only rp5700 or newer models can support Windows 7 |
| Controller Hardware | HP B20000/ C36000 and below | HP X2100*/IPC (Advantech)/ HP xw4300 | HP xw4200/ HP xw4300 | HP xw4400/ HP xw4600/ HP rp5700/ HP rp5800 | HP xw4400/ HP xw4600/ HP rp5700/ HP rp5800 | * 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 | √ | √ | √ | √ | √ | |
| InterconnectPlus Boundary-Scan | √ | √ | √ | √ | √ | |
| PanelTest | √ | √ | √ | √ | √ | |
| Throughput Multiplier | √ | √ | √ | √ | √ | |
| TestJet | √ | √ | √ | √ | √ | |
| VTEP v2.0 *Powered!* (VTEP, iVTEP, NPM and Cover-Extend) | × | √ (1) | √ (1) | √ (2) | √ (2) | (1) VTEP and iVTEP only (2) NPM works on 07.10p or later CET works on 07.20p or later |
| Cover-Extend Technology | × | × | × | √ | √ | CET works on 07.20p or later |
| Polarity Check | √ | √ | √ | √ | √ | |
| Connect Check | √ | √ | × | × | √ | |
| Powered Testing | √ | √ | √ | √ | √ | |
| Software Revision B | √ | √ | × | × | √ | |
| All High Accuracy Resources | √ | √ | × | × | √ | |
| Fault Detective | √ | √ | √ | √ | √ | |

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|---|---|---|---|---|---|---|
| DriveThru | √ | √ | √ | √ | √ | |
| Flash70 | √ | √ | √ | √ | √ | |
| Awaretest xi | √ | √ | √ | × | × | Not supported |
| MagicTest | √ | √ | × | × | √ | |
| Control XT Override | √ | √ | × | × | √ | |
| Advanced Fixturing | √ | √ | √ | √ | √ | |
| Silicon Nails | √ | √ | √ | √ | √ | |
| Flash ISP | √ | √ | √ | √ | √ | Needs Control XTP |
| PLD ISP | √ | √ | √ | √ | √ | Needs Control XTP |
| Diagnose Relays | √ | √ | √ | √ | √ | |
| System Calibration | √ | √ | √ | √ | √ | |
| Medalist Interactive Pin Locator | × | × | × | √ | √ | |
| Automatic Analog Debug (AutoDebug) | × | × | √ | √ | √ | |
| Medalist AutoOptimizer | × | × | × | √ | √ | Needs Control XTP |
| Agilent Medalist Operator Interface | × | × | √ | √ | √ | |
| Agilent Medalist Debug Interface | × | × | √ | √ | √ | |
| ICT Browser | × | × | √ | √ | √ | |
| Coverage Analyst | √ | √ | √ | √ | √ | |
| 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 |
| Medalist TTM Development Software | × * | × * | √ | √ | × * | * 3070/i3070 Mux uses Board Consultant, Fixture Consultant and Test Consultant |
| Pushbutton Debug | √ | √ | √ | √ | √ | |
| Access Consultant | √ | √ | √ | √ | √ | |

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| | Agilent 3070 (UNIX®) | Agilent Medalist 3070 (Windows) | Agilent Medalist i5000 | Agilent Medalist i3070 UnMux | Agilent Medalist i3070 Mux | Remarks |
|---|---|---|---|---|---|---|
| Part Description Editor | √ | √ | √ | √ | √ | |
| 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 | √ | √ | √ | √ | √ | |
| DataLog Converter | × | × | × | √ | √ | Available on 08.40p and above |
| Pushbutton Q-STATS | √ | √ | √ | √ | √ | |
| CAMCAD | | | | | | No longer supported. |
| Advanced Probe Spacing | × * | √ | √ | √ | √ | * Available only on 05.30 (UNIX) |
| Automatic 6 Wire Analog ICT Tests | √ | √ | √ | √ | √ | |
| Automatic Digital Test Generation | √ | √ | √ | √ | √ | |
| Safeguard ICT Analysis | √ | √ | √ | √ | √ | |
| Quick Report | √ | √ | √ | √ | √ | |
| ScanWorks | × | √ | √ | √ | √ | Works on 05.21 to 08.30p (Windows XP only) |
| System Configuration and Hardware Diagnostics | √ | √ | √ | √ | √ | |
| RS232 Control | √ | √ | √ | √ | √ | |
| IEEE 488 Instrumentation | √ | √ | √ * | √ * | √ * | * Not tested |

**Table 3** Compatibility matrix

| | 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 04.00 (UNIX) and below |
| ASRU Rev B | √ * | × | × | × | × | * Supported only on 05.30 (UNIX) and below |
| ASRU Rev C | √ | √ | √ | √ | √ | |
| ASRU Rev D | × | × | √ | √ | √ | |
| ASRU Rev N | × | × | × | √ * | √ * | * Works only with Control XTP and 08.00p or later |
| Serial Test Card | √ * | × | × | × | × | * Supported only on 05.21 (UNIX) and below |
| Serial Test Plus card | √ * | × | × | × | × | * Supported only on 05.21 (UNIX) and below |
| Serial Test Pay Per use | √ * | × | × | × | × | * Supported only on 05.21 (UNIX) and below |
| ChannelPlus | √ | × | × | × | × | |
| ChannelPlus Pay Per Use | √ | × | × | × | × | |
| Control Card | √ * | × | × | × | × | * Supported only on 05.21 (UNIX) and below |
| ControlPlus Card | √ * | × | × | × | × | * Supported only on 05.21 (UNIX) and below |
| ControlXT | √ | √ | × | × | √ * | * ASRU Rev N not supported |
| ControlXTP | √ | √ | √ | √ | √ | |
| ControlXTPA | × | × | × | √ * | √ * | * Supported on 08.30pb and above |
| HybridPlus SD/DD Pay Per Use | √ | √ | × | × | √ * | * Supported only on HybridPlus DD Pay Per Use |
| HybridPlus SD 6/12/20 MP/s | √ * | √ | × | × | × | * Supported only on 05.30 (UNIX) and below |
| HybridPlus DD 6/12/20 MP/s | √ | √ | × | × | √ | |
| HybridPlus 32 6/12/20MP/s | √ | √ | × | × | × | End of support |

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|---|---|---|---|---|---|---|
| HybridPlus 32 Pay Per Use | √ | √ | × | × | × | End of support |
| HybridPlus 32 Value Series | × | √ | × | × | × | End of support |
| HybridPlus 144 unmux | × | × | √ | √ | × | |
| AnalogPlus (SD) | √ | √ | × | × | √ | |
| AnalogPlus (DD) | √ | √ | × | × | √ | |
| AccessPlus (SD) | √ | √ | × | × | √ | |
| Utility Card | × | × | × | √ * | √ * | Works with 08.00p or later |
| Guided Probe and Footswitch | √ | √ | √ | √ | √ | |
| Bar Code Scanner (E3786A) | √ | √ | √ | √ | √ | |
| Strip Printer | √ | √ | √ | √ | √ | |
| Debug Ports (3) | √ | √ | √ | √ | √ | |
| Functional Test Access Ports | √ | √ | √ | √ | √ | |
| Performance Port | √ | √ | √ | √ | √ | |
| DUT Power Supplies | | | | | | |
|    6621A, 6624A, 6634B, 6642A | √ | √ | √ | √ | √ | |
|    N5747A | × | × | × | √ | √ | 08.20p and above |
|    N6751A | × | × | × | √ | √ | Supports Medalist i3070 Inline tester, requires 08.40p and above |
| Vacuum | √ | √ | √ | √ | √ | |
| Compressed Air Quick Connect Tap | √ | √ | √ | √ | √ | |
| Power Supply Support Bay | √ | √ | √ | √ | √ | |
| Inline Board Handler | × | × | × | √ | √ | Requires 08.40p and above |

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