The Agilent Medalist X6000 1.14 Software Patch Release Notes

The Agilent x6000 1.14 software patch has been created to correct several issues within the Agilent x6000 1.13 and previous software releases. This patch also provides a set of enhancements which will change how applications are developed providing the ability to generate a more reliable application while also improving the overall user experience. It is strongly recommended that users of the previous 1.x software releases install the 1.14 patch.

If you have any questions or concerns, please feel free to contact either your local Agilent Medalist x6000 support representative or send an email to emt-hstd-support_americas@agilent.com

Enhancements Introduced & Issues Addressed in the 1.14 Software Release

Agilent Medalist X6000 Help Documentation

The new Agilent Medalist X6000 Help document is available for download on-line. The new help document further describes each of the new features below with more detail to ensure that you get the most out of 1.14. As in the previous versions of the help documents, you can either navigate your way through the various topics or you can search for specific topics, such as the new features below.

QFN out of focus issue

QFN package focuses vary some from run to run. With 1.14, QFN focus has been enhanced to ensure a more reliable focus height for inspecting QFN's from run to run.

QFN Algorithm Enhancements

Measurement Additional – Solder Thickness Location & Open – Minimum Solder Thickness At Location
Added a new threshold to measure and test the solder at a fixed position.

Thickness Test Fails. & Open Additional – Maximum Center to Toe Thickness Percent
Open Additional – Enable Toe Test if Center to Heel
If the center to heel thickness test fails, a Toe test can be run.

Enhanced data logging per test

Z height measurements can now be recorded for each test run in the **projectName.measurements.xml** file located in the results\ inspectionRun# directory.

This feature is not automatically setup and must be turned on by the user. By going to c:\Program Files\Agilent\X6000\1.1\config open up the software.config file. Located the line: **generateMeasurementsXMLfile** and set it to **TRUE**.

Improved Java Memory Management

Prior to 1.14, the management of Java memory was allowing a significant increase in memory usage to occur. 1.14 now ensures that the memory usage never exceeds an 800M, which allows the x6000 software to run without any system slowing or Java asserts.

Package Library

A Package Library utility is now available. The library allows users to store package and threshold settings from an existing application and port them into new applications. For details on the use of the Package Library, please refer to the On-line documentation.

Variable Height BGA Connector Algorithm Enhancement

A second pad slice has been added. The new threshold name is: **Slice Setup – Lower Pad Slice Offset**. This slice is set at -5 be default. If your original pad slice was set to -5 you will want to set it back to 0 for maximum testing capabilities.

The new slice will use all the pad slice measurements. In other words, all pad slice thresholds will be compared to the pad slice measurements as well as the lower pad slice measurements to detect defects.

Alignment Issues Addressed

Manual Alignment: It was discovered in 1.13 that not all of the verification imaged would be displayed during manual alignment. Starting in 1.14, all alignment images will be displayed.

When rotating a long panel, the alignment points will correctly rotate with the panel. This eliminates the need to reset the alignment points and perform manual alignment.

PTH Algorithm Locator

The PTH algorithm now locates the barrel and the pin using a template match routine similar to Press Fit. This allows for more repeatable location of the PTH barrel and pin position.

Clear Cap/Resistor Algorithm Enhancement

Users can now test the body of a clear cap or res package using the **Open Additional setting – Minimum Body Thickness – Clear** to identify potential missing packages.

Camera Firmware Update

The camera firmware update has been added as part of the 1.14 installation. This will ensure that your cameras are running the latest revision of the firmware. If it is determined that your firmware is out of date a window will prompt you to upgrade your firmware. For further details on the Camera Firmware update, please see the on-line documentation.

PCAP alphanumeric pin numbering

PCAP packages have the correct logic to ensure alphanumeric pin numbering is correct.

Exposed Pad algorithm enhancement

A new gap analysis threshold has been added to check the average thickness of the solder within the gap search region. If the solder thickness is greater than the threshold, the gap is considered good and all the other gap analysis steps are skipped. The new thresholds are **Open Additional – Filled Gap Thickness Across & Filled Gap Thickness Along.**

BGA Algorithm Enhancement

Shorts can now be inspect at all slice heights on a BGA. A new threshold is available: **Short – Check All Slices For Shorts**.

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Interference Compensation Settings Enhancement

The software will now automatically determine the allowed interference compensation limits and display them to the user. When possible all 4 levels will be available, but in some instances depending on the part location, the choices may be limited to show the most ideal settings.

Pre-inspection Scripts Enhancement

Pre-inspection scripts will now run when an automatic barcode reader is installed.