

# Keysight Infiniium Oscilloscopes Software

This software is designed to run on the Keysight Infiniium 9000 Series, S-Series, 90000A Series, 90000 X-Series, V-Series, 90000 Q-Series, and Z-Series oscilloscopes or on personal computers.

Version 5.75.00402

Released Date:	24 February 2017
Operating System:	Windows 7

## Bug Fixes

- Made changes to support new model number sting for 1169B probes that will report themselves as 1169A otherwise.
- Change the trigger out pulse width to 300ns for better detection on S-Series, 90000 X-Series, V-Series, 90000 Q-Series, and Z-Series.
- Fixed a problem with saving and recalling automask files, because of directory specification.
- Fixed problems with UDF using digital channels as a source.
- Fixed a problem with InfiniiSim crashing in some cases.
- Fixed problems with the N8838A software not handling the detection of a mixer correctly and not listing them correctly in the GUI.
- Added license support for the PCIe Gen 4.0 compliance application.

## Version 5.75.00303

Released Date:	20 January 2017
Operating System:	Windows 7

### Bug Fixes

- Fixed a problem with Multi-Scope Hosted not calibrating correctly in some cases.
- Fixed an Undo/Redo issue that would cause a crash.
- Fixed a bug with setting a Hex value for the Generic Serial Search String.
- Fixed a mask test placement problem with Real-Time Eyes.
- Fixed a bug with bandwidth upgrades not working on Z-Series in some cases.
- Fixed problems with the N8838A software:
  - o Fixed a performance problem.
  - o It now sets the LO to 10dBm by default.
  - o It preserves the LO address across a default setup.
- Fixed a trigger time error for Storm 10-bit mode (10GSa/s and 20GSa/s). The error starts to occur when waiting for a trigger that is longer than 1.374s.

## Version 5.75.00214

Released Date:	9 December 2016
Operating System:	Windows 7

### Enhancements

- Added the ability to load and save .mat files.
- Added a macro recorder that will allow a user to recorder their interaction with the oscilloscope and then play it back.
- Added the ability to undo/redo the last few actions that were taken on a scope.
- Added a new 3<sup>rd</sup> order CTLE option along with some improvements to the CTLE GUI.
- Added J4 and J5 Jitter support and improved the algorithms for J2 and J9.
- Added support for HDR-TSL and HDR-TSP to the I3C protocol decode and trigger.

- Added some new data rates for the Hardware Serial option card.

## Bug Fixes

- Fixed a problem with two thresholds being displayed in the Protocol Manual Setup dialog when they should not be.
- Fixed a bug with reading files that had capitalized MSK extension.
- Fixed a problem with the display of a function disappearing when zooming in on a signal in some cases.

## Version 5.70.00901

Released Date:	9 November 2016
Operating System:	Windows 7

## Enhancements

- Added dynamic range graphic for the N7004A probe.

## Bug Fixes

- Removed the PCIe Gen1 and Gen2 from the clock recovery presets lists.
- Fixed a problem with the Signal Type dialog when only N8838A was licensed.
- Fixed a GPIB command issue when controlling an MXG signal generator that did not have a modulation license.
- Improved N7004A extinction ratio measurement tolerance, when deviating from the dark calibration settings.
- When removing an N7004A from a scope the scale will be defaulted to 1V/div to help prevent possible frontend damage.
- Fixed a problem with Real-Time Eye diagrams resetting when running a DDR4 compliance application.
- Limited the number of cores that will be used on a PC to 24 to work around a MATLAB issue.
- Fixed a Sync port issue with Multi-Scope.

- Fixed a 90000A Series issue when trying to run a calibration without administrative privileges on the oscilloscope.
- Fixed an eye contour issue when the main waveform display is turned off.
- Improved the location and size of the remote operation lock message to allow the main waveform area to be seen while running compliance applications.
- Fixed a V-Series touch screen issue when enabling it for the first time on startup.

## Version 5.70.00802

<b>Released Date:</b>	<b>14 October 2016</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Enhancements

- Added HDR-DDR support for I3C protocol decode and trigger.

### Bug Fixes

- Fixed a problem with a CD-ROM drive not being displayed correctly in the file explorer.
- Fixed a problem with draw mask not working with some Real Time Eye cases.
- Crosstalk application will now display the Time, Error for power supplies.
- Fixed a problem with Autoscale not setting the trigger level corrected when hardware invert was on.
- Fixed a problem where mask test waveform count would increment when histograms were turned on/off in some cases.
- Fixed a calibration probe skew issue in our 90000A Series oscilloscopes.
- Eye Contour improvements and bug fixes.

## Version 5.70.00715

<b>Released Date:</b>	<b>26 September 2016</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Fixed a compatibility issue with some of our compliance applications.

- Fixed an issue with some mask files not loading when using the CSV format.
- Fixed a problem with eye measurements not working on some optical signals.
- Change Optical Power measurement to Optical Average Power measurement to be in line with what our sampling oscilloscopes call this measurement.

## Version 5.70.00714

Released Date:	20 September 2016
Operating System:	Windows 7

### Enhancements

- FFT enhancements:
  - o Channel Power Measurement
  - o Occupied Bandwidth Measurement
  - o Power Spectral Density Measurement
  - o Vertical Units: dBmV, dbuV, Watt
  - o RF Detectors
  - o Limit Lines
- An analog channel can now be inverted in the hardware.
- Support for the N7004A 33 GHz Optical-to-Electrical Converter. Including some new capabilities associated with the probe:
  - o OMA measurement
  - o Optical power
  - o Eye measurements (one/zero level, extinction ratio)
  - o Dark calibration.
  - o New vertical reference for Watts signal.
- Added a 4th order Bessel filter for all channels.
- Add the ability to do mask test using mask margins.
- Added automatic mask scaling.

- Added a number of optical standard mask files.
- ARINC 429 protocol decode and trigger support.
- MIL-STD-1553 protocol decode and trigger support.
- Enhanced Ethernet 100BaseT hardware trigger support on S-Series scopes.
- Partial I3C protocol decode and trigger, including I2C, SDR.
- Multi-lane MIPI LLI decode support.
- Added an Analysis Diagram view which shows the flow of the input signal through all our analysis paths.
- InfiniiSim support for Infiniium Offline.
- Added the ability to load segmented data back into a waveform memory. It will not work if you load them into a channel in offline only a memory.
- Mask tests can be run on acquired segmented data.
- Crosstalk application improvements.
- Added the ability to change the segmented play rate via SCPI.
- Added more SCPI commands for FFT functionality.
- Added a trigger scope indicator in the GUI.

## Bug Fixes

- Fixed an issue with the pilot tone being lost with some signals on Z-Series.
- When sending a remote query, it will not cause a disable of the scope as much as it used to.
- When changing vertical scale between linear and log, the optimal vertical scaling will be used.
- Fixed a screen image saving having the save dialog in them.
- Added the ability to display non equalized waveform with a Real-Time Eye.
- Added back the ability to get screenshots from the oscilloscopes webpage.
- Fixed a limit test display issue in Platinum display mode.

- Fixed a problem with bandwidth limit was being set inappropriately in some InfiniSim modes.
- Fixed a correlation issue between EZJIT+ and EZJIT when measuring period jitter.
- After a power cycle the probe head information will be restored correctly.
- Improved the vertical scale when switching between vertical FFT units.
- The probe details box will show up less often and will go away when it needs no matter where the mouse is.
- Documentation updates.

## Version 5.60.00904

<b>Released Date:</b>	<b>30 August 2016</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Added a warning message and disabled bad N7010A probes.
- Added support for new N7010A probes.
- Added an updated flatness test to the Quick Calibration to test for damage caused by old N7010A probes.

## Version 5.60.00902

<b>Released Date:</b>	<b>12 August 2016</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Fixed a firmware crash when doing an eye measurement with bad data coming in.

## Version 5.60.00901

Released Date:	3 August 2016
Operating System:	Windows 7

### Bug Fixes

- Added a warning message for an issue cause by our current N7010A probe.

## Version 5.60.00804

Released Date:	27 July 2016
Operating System:	Windows 7

### Bug Fixes

- Fixed a problem with Real Time Eyes not being displayed after the recall of a setup.
- Fixed a problem with the Eye Height measurement not computing in some cases.
- Fixed an issue with three source UDFs.

## Version 5.60.00802

Released Date:	19 July 2016
Operating System:	Windows 7

### Bug Fixes

- Fixed a problem with eye mask test results not being reported correctly.
- Fixed a problem with PAM-4 BER/SER cumulative count results.
- Made a change to eSPI decode to match the delay in the triggering.



## Version 5.60.00603

Released Date:	25 May 2016
Operating System:	Windows 7

### Bug Fixes

- Fixed an issue when setting Explicit Clock Recovery with some protocol settings.
- Clamped the Connect Dots option to off if in Equivalent Time sampling mode. If it is allowed to be on it may cause waveform drawing problems.
- Fixed a histogram drawing issues when in Equivalent Time sampling mode.
- Fixed a problem with Real-Time Eyes not being displayed in some cases.
- Fixed a problem with V-Series scopes crashing on a factory default when using the touchscreen.
- Fixed some Multi-Scope issues.
- Updated help content.

## Version 5.60.00602

Released Date:	11 May 2016
Operating System:	Windows 7

### Bug Fixes

- Fixed an issue with the application failing to startup on previous versions of firmware.
- For dialogs that have tabs in them, the active tab will be remembered when closing the dialog so that it can be recalled when opening it again.
- For the N7010A probe, a message will tell the users how to configure the probe correctly and that the VTerm value is being set to zero for front end protection.
- Disabled InfiniiSim in Offline mode.
- Fixed some Multi-Scope issues.
- Fixed a problem with the Reset block display when using Sequence trigger.

## Version 5.60.00505

<b>Released Date:</b>	<b>4 May 2016</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Enhancements

- Added channel information in marker readouts.

### Bug Fixes

- The :DISK:LOAD command will now work on channels 5-40 when running Infiniium Offline.
- Allow Eye Contour to be used without a DDR compliance application license.
- Updated help and user guide content.
- Fixed an issue with some of our demoes loading correctly.
- Fixed a problem with some front panels not working on S, V, and Z-Series scopes.
- When running Infiniium Offline channels 5-40 will appear when not hosting an oscilloscope.

## Version 5.60.00503

<b>Released Date:</b>	<b>11 April 2016</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Fixes a problem with specific inputs cases for Crosstalk.
- A number of fixes for Multi-Scope.
- Added a correction factor fix for new M1971E mixers.
- Fixed an installer issue with Microsoft .NET.

## Version 5.60.00501

Released Date:	5 April 2016
Operating System:	Windows 7

### Enhancements

- Added PAM-4 BER rate measurements.
- Added the ability to draw masks for Mask Test.
- Multi-Scope supported in the oscilloscope.
- Crosstalk analysis application.
- Added Eye Contours for DDR analysis.
- Added 3 port support to InfiniiSim.
- Added N8838A external mixer support for the M1971E smart mixer reference solution.
- Added CAN-FD protocol decode and trigger support.
- Upgraded to RFFE 2.0 protocol support.
- Added support for the N2839A InfiniiMax II Differential Browser.
- Added Quick Jitter and Quick Eye Diagram selections.
- Increased the Clock Multiplier max value to 1200 for SDA.
- Protocol decode and Mask test can be on at the same time.
- Added F/2 (Even/Odd) jitter result value.
- Added Peak-to-Peak Contrast measurement.
- Added some new data rates for the Hardware Serial option card.
- Added a probe dynamic range indication and removed the probe clipping message.
- Increased the maximum time/div setting in roll mode to 1000s/div.
- Increased the maximum time/div setting in real time and segmented modes to 200s/div.

## Bug Fixes

- Fixes to our bandwidth limit readout.
- Fixed a problem with explicit clock recovery not working with PAM-4 signal type.
- Fixed an issue with navigation of protocol decode when in zoom mode.
- Display the correct unit for measurement histograms.
- Added TIE filter setting into the new GUI like it was in the old GUI.
- Added the ability to change the colors of derived waveforms.
- Fixed masks files that had loading errors.
- After sending a SYST:LOCK command you can break the lock by minimizing the application.
- Fixed a problem with screen invert getting stuck when saving images on trigger.
- Fixes to using the hislip connection.
- Fixed a problem with file save locations not being recalled correctly.
- Fixed some interpolation issues when saving composite file in Infiniium Offline.
- Fixed an issue with zooming in on a channel when the Timebase Reference was not set to 50%.
- Changed the PCIe Gen3 CDR preset bandwidth to 10MHz.
- Fixed a number of screen saving issues.
- Fixed a problem with the Blackman-Harris FFT window.
- Some UDF control fixes.
- Fixes for BechVue support.
- Fixed a problem with saving digital data on a 90000 X-Series
- Fixes to the Precision Cable Wizard.
- Fixed an issue with the automatic scaling of function in some cases.
- Fixed a timeout error that happened when multiple trials of a SATA compliance application.
- Remote command enhancements and fixes.

- Help documentation updates.

## Version 5.52.0011

<b>Released Date:</b>	<b>11 March 2016</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Added a data rate of 2.97GHz to the Hardware Serial Trigger option card.
- Increased the CTLE max frequency to accommodate greater bandwidth on Q and Z Series scopes.
- Added MTEST:FOLDING:COUNT? legacy support so that you do not have to specify a source.

## Version 5.52.0008

<b>Released Date:</b>	<b>16 February 2016</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Fixed a problem with decoding PCIe Gen1,2 with the Gen 3 license.
- Fixed a problem with sequence triggering not working with some protocols.
- Fixed a calibration problem with the N2820A probe.
- Fixed an issue with memory upgrade on the S-Series.
- Fixed a problem with saving images and composite files on trigger.
- Fixed an issue with measuring date on some imported waveform memories.
- Fixed a problem with Mask Test causing a crash in some cases.

## Version 5.52.0004

Released Date:	8 January 2016
Operating System:	Windows 7

### Bug Fixes

- Fixed a LAN connection issue when trying to do remote control.
- Fixed a problem with Long READ Response packets in D-PHY decoder.
- Fixed a problem with 1UI value being different between the RTEye and the actual waveform.

## Version 5.52.0003

Released Date:	15 December 2015
Operating System:	Windows 7

### Bug Fixes

- Fixed a problem with protocol decode not working in segmented memory mode.
- Fixed a problem where some probe offsets are not set correctly based on the attenuation of the probe.
- Fixed a crash of the Infiniium application when using the Enter Value dialog for some protocols.
- Fixed a problem with the Infiniium application crashing when running through the Equalization Wizard in some cases.
- Fixed an issue with installed bandwidth licenses not working on 90000 Q-Series with greater than 33GHz bandwidth.

## Version 5.52.0001

Released Date:	30 November 2015
Operating System:	Windows 7

### Enhancements

- Added legacy color grade mode under persistence.

## Bug Fixes

- An N5444A probe head will report a bandwidth of 30GHz.
- Fixed a problem with high speed digital data not being saved corrected when in half channel mode, 20GSa/s.
- Fixed some issues with the new SYST:MENU? query.
- Fixed an issue with bandwidth upgrades of some 90000 Q-Series and Z-Series.

## Version 5.51.0002

Released Date:	6 November 2015
Operating System:	Windows 7

## Enhancements

- Added USB PD protocol decode and trigger.
- Added USB 3.1 protocol decode and search.

## Bug Fixes

- Fixed a problem with the Global Bandwidth Limit not working on a 9000.
- Fixed a problem with digital and analog memory depths not collating correctly.
- Fixed a problem with probe overload happening on an S-Series and the hardware and the software get out of sync.
- The N7010A probe will now use Precision Cable instead of Precision Probe.
- Fixed an issue with our Second Order PLL setting changes when using SCIP1 and the front panel.
- Fixed an issue with clock recovery not working intermittently in some cases.
- Fixed a problem with calibration not working on some heterogeneous Multi-Scope Hosted configurations.

## Version 5.50.0035

Released Date:	21 October 2015
Operating System:	Windows 7

### Bug Fixes

- Fixed a problem with bandwidth upgrade license for V-Series scopes.

## Version 5.50.0033

Released Date:	9 October 2015
Operating System:	Windows 7

### Enhancements

- Added a SYST:MENU? remote command, to allow a user to query contents of any menu.

### Bug Fixes

- Fixed global bandwidth setting and display.
- Fixed jitter issue for real edge channels on Q and Z Series.
- Fixed banding issue in real-time eye for differential channels with N7010A probes connected.
- Made fixes to the N7010A skew calibration.
- Made some improvements for Quick Environmental calibration along with reducing calibration failures in some cases.
- Fixed a LIN and USB2 triggering issue on S-Series.
- The calibration for the InfiniiMax III with N5444A 2.92mm head will now ask the user to added a shorting cap.
- On Multi-Scope Hosted the code will allow Aux-In as a trigger.
- On Multi-Scope Hosted fixed a problem with clock synchronization.
- On a 90000 X-Series SPI trigger will now work on the digital channels.
- Fixed a problem with the PDER remote sometimes giving false positive.



- Allow some measurements to work on a smooth function.
- Fixed a problem with eye measurements when using explicit clock recovery.
- Fixed a licensing problem with the N5459B DDR bundle.
- Fixed a problem with PCI Express 2.0 licensing on a Raptor.
- Added :BUS:B1:Type command support for eSPI and Ethernet 10/100Base T.
- Fixed it so that a user can go from 13GHz to a lower bandwidth when stepping.

## Version 5.50.0031

Released Date:	1 September 2015
Operating System:	Windows 7

### Bug Fixes

- Fixed a licensing problem on 90000 X-Series

## Version 5.50.0030

Released Date:	26 August 2015
Operating System:	Windows 7

### Enhancements

- Added support for the N7010A on a 90000 X-Series.
- Added the displaying of the “Size (in Bits)” column before the payload so the number of SKPs will be known.

### Bug Fixes

- Fixed a problem with some front panels on S-Series, V-Series and Z-Series.
- Fixed a problem with probe skew calibrations failures in some cases.
- Fixed a problem when you use the right click “Copy Image Screen” option in a Waveform Window that is not window 1.
- Fixed some problems with reporting more than five measurements in the setup information printout.

- Made a fix so that the entire screen is copied if you choose “Copy Screen” from the main menu.
- Fixed a problem with a Zone moving/going away when a user changes the source after creating the zone.
- Fixed a problem with skew calibration on a N2820A when using an S-Series.
- Fixed a problem with the EZJIT wizard not working correctly with only an EZJIT plus license.
- Fixed a licensing problem for SVID.
- Fixed a problem with the vterm for a N7010A getting cleared out when you connect or disconnect another probe.
- Added some DC calibration improvements for the N7010A.
- Fixed a problem with the eye diagram mask not indicating violations correctly.
- Fixed a problem with saving an image when in tabbed mode.

## Version 5.50.0027

<b>Released Date:</b>	<b>31 July 2015</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Enhancements

- Added Jitter Free capability for the Hardware Serial Trigger option card.
- Added  $\Delta Y/\Delta X$  readout for your marker results.
- Added the ability to determine if a calibration is in progress for the N8834A option.
- Increased the Clock Recovery Clock Multiplier to 120.

### Bug Fixes

- Fixed a problem with saving transfer function sometimes failing in InfiniiSim.
- Fixed a problem with opening some h5 files.
- Fixed problems with screen captures not getting all of the data on the screen with the Display Port compliance applications.

- Fixed problems with the icons disappear from the saving screen image dialog in some cases.
- Updated the image for the N5443A deskew calibration fixture to highlight the 50 Ohm termination needed.
- Fixed a problem with the histogram box not displaying correctly in some cases.
- When a user prints a screen the image will no longer contain the print dialog.
- Fixed a problem with Real-Time Eye folding in some cases on a Z-Series oscilloscope.
- Fixed a problem with the edge then edge measurement with a single pulse.
- Now the segmented time tag and X origin is saved in h5 files.
- Fixed a problem in histograms where the Max Bins was not updating the results.
- The scale factors for the N2800A have been corrected.
- Fixed a problem with the :MTES:FOLD:TPOS command not setting the units correctly.
- Improved the resolution of the FFT peak annotation to show more accurate results.
- Fixed a problem with :WAVEform:COMPLete not returning the correct value.

## Version 5.50.0021

Released Date:	9 July 2015
Operating System:	Windows 7

### Bug Fixes

- Fixed an issue that could potentially cause incorrect channel and function display data on the S-Series to be produced when using Individual Channel Bandwidth Limit filters at sample rates less than or equal to 5 GSa/s.
- Fixed an issue that could cause Precision Cable calibrations to incorrectly deskew signals.
- Fixed an issue the prevented the front panel from being detected when certain USB devices where attached to the instrument.

## Version 5.50.0015

Released Date:	25 June 2015
Operating System:	Windows 7

### Enhancements

- The Jitter results are now included as part of the Setup Information.

### Bug Fixes

- Added the right click zoom to min/zoom to max back in for measurements.
- Made changes to remote commands for some of the N8834A calibration capability.
- Fix a problem with serial decode not working when you drag digital channels around.
- Fixed a problem with bandwidth limit not being turned on when using the :CHANnel<N>:ISIM:BWLimit command on a S-Series.

## Version 5.50.0014

Released Date:	19 June 2015
Operating System:	Windows 7

### Enhancements

- Added remote commands for some of the N8834A calibration capability.

### Bug Fixes

- Fixed problems with screen shots when the GUI off remote command was used.
- Made changes to the ACVrms measurement to work on the full sampled data.
- Fixed a text entry problem when increasing the number of bytes within the numeric entry pad.
- Fixed a problem with some oscilloscopes losing their licenses.
- Fixed a problem with crossing measurement not working in some cases.

## Version 5.50.0013

<b>Released Date:</b>	<b>5 June 2015</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Fixed a problem in the Bookmark list view to only show the first line if you have a multiline bookmark.
- Fix a problem with measurements sometimes not updating correctly when in a stopped mode.
- Added back in the Multi-Scope control license.
- The term voltage on a N5444A probe head will recall correctly.

## Version 5.50.0012

<b>Released Date:</b>	<b>1 June 2015</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Added the support of 2-port S-parameter files when in set to a 4 Port type
- Fixed a problem with Digital Memories widget incorrectly tied to digital channels.
- Waveforms will now recall into the same grid that they were saved in.
- Fixed a memory upgrade problem on Z-Series

## Version 5.50.0011

<b>Released Date:</b>	<b>28 May 2015</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Updated the Power Rail probe demo.
- Added a new legacy mode to the :DISK:SAVE:MEASurements command to return the data in columns instead in rows.

- Fixes to Precision Probe causing overloads in some cases.
- The correct Precision Probe diagram and instructions will be display on a V-Series oscilloscope.
- Some additional fixes when saving an inverted image.
- Fixed a problem with digital memories not saving/loading correctly in Infiniium Offline.
- Auto Sin(x)/x will not work correctly in Infiniium Offline.
- Added back the ability to set the Jitter BER Levels to E6, E7, E8.
- The Hardware Serial Trigger eye diagram will now open up again once a good signal is connected.

## Version 5.50.0010

<b>Released Date:</b>	<b>18 May 2015</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Fixed a problem with Jitter Tailfit Bathtub graph not displaying data.
- The number of USB connected to a oscilloscope no longer causes a problem in the File Management dialog.
- Put the RF measurement demoes in.
- Fixed a problem with the Composite Histogram not displaying any data if some parts are not reporting values.

## Version 5.50.0009

<b>Released Date:</b>	<b>11 May 2015</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- The QuickWaveform Multipurpose action will now display all needed save options like you have in the main save dialog.
- Sequence trigger reset time will display the correct value in all cases.

- Properly display the bandwidth information in the bandwidth dialog when RealEdge is enabled.

## Version 5.50.0008

<b>Released Date:</b>	<b>5 May 2015</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Removed support for the 1153A probe for S-Series, V-Series, 90000 Q-Series, and Z-Series.
- Updated the Bandwidth Limit dialog to only show the bandwidth readout for a given channel if it is enabled.
- Fixed a problem where triggering would not work in some cases after a Mask Test run.
- Fixed a problem with triggering locking up when doing a QuickSave action on trigger.
- Auto incrementing will now work in all QuickSave cases.
- After saving file with setup information, histograms will now update correctly afterwards.
- Fixed a crash when doing the average of an FFT.
- Fixed a bug with the horizontal scaling of average FFTs.
- Did a better job of inverting the background when doing an image save.
- Fixed a crash when running a probe skew calibration.

## Version 5.50.0007

<b>Released Date:</b>	<b>24 April 2015</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Fixed a problem with UFS search not worked corrected when Any Host to Target and Any Target to Host was selected.
- Bandwidth upgrade problem fixed for Q-Series and Z-Series.
- A problem with the Protocol Lister trigger line indication was fixed.

- Fixed a problem with Sequence trigger Reset-By-Event not triggering properly.
- When running in offline we will not try to load an FIR filter since they will not work.
- Hardware Serial Trigger is limited to 16 symbols for Generic 8b/10b in the GUI.
- Fixed a problem with CAN debug trigger in some cases.
- Fixed a problem with the Bandwidth Limit dialog not always updating the oscilloscope behavior correctly.
- When connecting a N2800/1/2/3A to a 90000X-Series the DC baseline will not shift on probes connected to other channels.
- Probe offset is not working properly for the 1169A.

## Version 5.50.0006

<b>Released Date:</b>	<b>16 April 2015</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Bug Fixes

- Made updates to the “Quick Environmental” cal for the 90000 (Q, X, V and Z) series.
- Made the default memory to 50 Mpt. for V-Series.
- Turned interpolation control off for analog channels in Infiniium offline and on for waveform memories for both on the oscilloscope and offline.
- Fixed PAM TIE measurements at high symbol rates.
- Added support for :CHAN:PROBe:HEAD:VTERm command on N7010A probe.
- Fixed the problem with the Ethernet 100BASE-TX Protocol menu check box not displaying the correct state.

## Version 5.50.0005

<b>Released Date:</b>	<b>13 April 2015</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Enhancements

- Multi-lane Unipro/UFS will merge data even without MK0, MK1 alignment characters.



## Bug Fixes

- Fixes to Multi-Scope hosted.
- Fixes to PAM-4.
- Made updates to the “Quick Environmental” cal for the 90000 (Q, X, V and Z) series.
- Fixed problem with the ExecuteGPIBScript.exe not running correctly.
- The protocol Lister will display all captured data correctly for all numbers of lines of data.

## Version 5.50.0004

Released Date:	10 April 2015
Operating System:	Windows 7

## Enhancements

- Added a “Quick Environmental” cal for the 90000 (Q, X, V and Z) series to reduce phase drift.

## Bug Fixes

- Fixed a potential phase error issue on the real edge channels of the 90000 Q and Z series. Loading this software update on the Q and Z series will display a “Quick Environmental” cal required message after the oscilloscope starts up
- Fixed a problem with 63G license on Z-Series scopes.
- Improvements to the S-Series calibrations including probe skew calibration.
- Improvements on the accuracy in a few trigger calibrations.

## Version 5.50.0001

Released Date:	26 March 2015
Operating System:	Windows 7

## Enhancements

- V-Series oscilloscope support.
- PAM-4 analysis support.

- Multi-Scope Hosted support.
- Hardware Serial Trigger option card support.
- Added support for the N7000A – N7003A probes.
- Added N7020A S-parameter support.
- Added the ability to save each channel in a different CSV file and an image all with one button press.
- Added a remote command to turn off GUI updates.
- Can save waveform data and an image with on button press.
- New bandwidth filter menu that consolidates all bandwidth filters into one dialog.
- Multi-lane Unipro/UFS will merge data even without MK0, MK1 alignment characters.

## Bug Fixes

- When saving a file it will remember the previous file name.
- When saving setup information as part of a save screen image, the measurement results will be included.
- Fixed a problem with printing setup information with  $\geq 14$  characters in the label.
- Fixed compliance application upgrade problem going from an Agilent branded application to a Keysight one.
- Improvements to Ethernet serial decode.
- The :DISPlay:CGRad and :MTEST:FOLDing commands were changes to keep some of the legacy behavior will still allowing new capability.
- Better indication of what is being controlled when using the Quick Control capability.
- Fixed the :DISK:SAVE:MEAS command to make sure it saves all of the data.
- The Real Time Eye horizontal controls now work correctly based on the icon on the button.
- Updated the descriptions for the N2832A skew calibration.
- Fixed an overload problem with probing on S-Series.
- The number of UIs for Real-Time Eye is now displayed as a floating point number because it could report negative numbers before.

- Fixes to Jitter graph rendering.
- Fixed a problem with gating box show when Real-Time Eye is displayed.
- Fixes to the EZJIT Complete Wizard.
- A number of precision probe calibration GUI fixes.
- Fixed units for Slew Rate results to be a more traditional expression.

## Version 5.30.0004

Released Date:	31 March 2015
Operating System:	Windows 7

### Bug Fixes

- Fixed a problem with 63G license on Z-Series scopes.

## Version 5.30.0003

Released Date:	18 March 2015
Operating System:	Windows 7

### Bug Fixes

- Fixed a problem with updating the 90000 X-Series front panel FPGA.

## Version 5.30.0001

Released Date:	26 February 2015
Operating System:	Windows 7

### Bug Fixes

- Fixes a crash when Buses are displayed and you zoom in and out in some cases.
- The CAN demo will now work with the N8803 license.

## Version 5.30.0000

Released Date:	23 February 2015
Operating System:	Windows 7

### Enhancements

- Added support for the N7010A probe.
- Added probe head support for N2851A.
- In Roll Mode you can set the sample rate and function horizontal getting work while running.
- Added 1M $\Omega$  500MHz DSP correction filter to the S-Series
- Ethernet 10/100BaseT decodes and trigger on 10BaseT. Both IPv4 and IPv6 support.
- Added support back in for Measure All Data and Measure All Edges.

### Bug Fixes

- Fixes to the decimation algorithm of the color grade database.
- For the S-Series, the Bits of Resolution display the correct value.
- Better documentation on how to configure VNC Viewer was added.
- Added correction for probe offset linearity on 90000 X-Series.

## Version 5.21.0001

Released Date:	18 March 2015
Operating System:	Windows 7

### Enhancements

- Fix a problem with downgrading your 90000 X-Series to a pre-5.30 baseline.

## Version 5.21.0000

Released Date:	23 February 2015
Operating System:	Windows 7

### Enhancements

- This version allows you to downgrade your 90000 X-Series to a pre-5.30 baseline.

## Version 5.20.0021

Released Date:	6 February 2015
Operating System:	Windows 7

### Bug Fixes

- Fixed a problem with mask being scaled correctly.
- Fixed a problem with bandwidth upgrades on a DSA.

## Version 5.20.0018

Released Date:	22 January 2015
Operating System:	Windows 7

### Bug Fixes

- Fixed a problem with Resolution Bandwidth only driving acquisition setting in one direction.

## Version 5.20.0017

Released Date:	16 January 2015
Operating System:	Windows 7

### Enhancements

- Added multi-line support for bookmarks.

## Bug Fixes

- Fixed a problem with the remote self-test command and made it so that the self-test dialog will be torn down when done.
- Navigation with Limit Test now works.
- Fixed a Mask recall problem.
- The FFT Resolution Bandwidth can drive acquisition settings even when the sample rate is fixed.

## Version 5.20.0016

Released Date:	9 January 2015
Operating System:	Windows 7

## Enhancements

- Added support to the :CHANNEL<N>:PROBE:EADAPTER command/query to support E2697A and N5449A.

## Version 5.20.0015

Released Date:	7 January 2015
Operating System:	Windows 7

## Bug Fixes

- Fixed a problem with Mask testing off screen data.

## Version 5.20.0014

Released Date:	18 December 2014
Operating System:	Windows 7

## Bug Fixes

- Fixed a problem with IO Libraries Suite 17.0 connecting to our oscilloscopes.
- Allowed QuickExecute to process double quoted filenames among other changes.

## Version 5.20.0013

Released Date:	4 December 2014
Operating System:	Windows 7

### Bug Fixes

- Fixed a license environment variable issue causing the Offline application to start up very slowly. The fix was to ignore the default LM\_LICENSE\_FILE environment variable when checking for server based licenses.
- Fixed an issue where the edge-edge measurement was always using the middle threshold regardless of the threshold setting.
- Fixed an issue which was causing an incorrect measurement count for some configurations.

## Version 5.20.0010

Released Date:	21 November 2014
Operating System:	Windows 7

### Bug Fixes

- Fixed PCIe 3.0 Tx protocol decode of compliance preset number and lane number (mod 8).
- Fixed VTerm not always being applied correctly for the N280xA probes.
- The cable delay will now be included in Precision Probe calibration.
- Fixed problem with MISO always reporting FF in 4 wire SPI decoding.
- Fixed mask test query failure in the Display Port compliance application.
- Allow the user to select the polarity when doing an SMA calibration using Precision Probe.

## Version 5.20.0008

Released Date:	11 November 2014
Operating System:	Windows 7

### Bug Fixes

- Fix to measurement threshold setting when using Custom level +/- hysteresis.

- Fixed a problem with editing an existing transfer function.
- Normalize DC gain checkbox was fixed.
- Added back in Qualifying Thresholds when doing a Versus (XYZ Qualified) function.
- Fixed the ability to do GPIB measurement query.

## Version 5.20.0006

<b>Released Date:</b>	<b>30 October 2014</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Enhancements

- Improved the performance of ASCII file save.

### Bug Fixes

- Fixed the SELFtest:SCOPetest command to run a self-test, display the GUI and respond to queries.
- Offset range and other small fixes for the N7020A Probe.

## Version 5.20.0005

<b>Released Date:</b>	<b>17 October 2014</b>
<b>Operating System:</b>	<b>Windows 7</b>

### Enhancements

- Added source 3 and 4 to the function GUI for UDFs that support this number of sources.

### Bug Fixes

- Fixed a bug in UDF calculation that was happening in a few oscilloscope configurations.
- Increased the efficiency in loading InfiniiSim transfer file.
- Fixed a problem with the “-nohpib” command turning off all remote connections.



## Version 5.20.0004

Released Date:	7 October 2014
Operating System:	Windows 7

### Enhancements

- The user can interpolate channel data when loading a file into Infiniium Offline.

### Bug Fixes

- Fixed probe head selection slowness on the S-Series.
- Fixed decoding PACP\_CAP\_EXT1\_ind in Unipro 1.60.
- Fixed histogram X axis windowing to plot small number of bin histograms correctly.
- Fixed a problem with MATLAB errors with InfiniiSim and no UDF license.

## Version 5.20.0003

Released Date:	30 September 2014
Operating System:	Windows 7

### Enhancements

- Keysight rebranding.
- Clock recovery per channel.
- Resizing the waveform does not cause statistics to reset.
- Resizing waveform area does not reset the color grade.
- Mask test does not depend on the size on the screen. It will always test as if full screen.
- Move the waveform to different areas using right click.
- Right click allows you to select 3 grids.
- HDMI 1.0 and 2.0 Clock Recovery preset will default using rising edge.
- Added remote commands for LIN and FlexRay.
- Can change the max number of bins for measurement and waveform histograms.
- Support for N7020A Probe

## Bug Fixes

- General performance improvements.
- Able to save all segment data.
- Improved the performance of :DIG.
- Right click context menu comes up more easily.
- Ability to save images via the oscilloscope's webpage.
- Added keyboard shortcuts for items in the Control menu.
- Removed VNC support from the oscilloscope webpage. You will have to use UltraVNC.

## Version 5.10.0005

<b>Released Date:</b>	<b>1 August 2014</b>
<b>Operating System:</b>	<b>Windows 7</b>

## Bug Fixes

- Fixed a problem with importing multi-channel waveform data .h5 files from InfiniiVision products into InfiniiView.

## Version 5.10.0003

<b>Released Date:</b>	<b>8 July 2014</b>
<b>Operating System:</b>	<b>Windows 7</b>

## Bug Fixes

- Fixed a crash when using EZJIT

## Version 5.10.0001

<b>Released Date:</b>	<b>4 July 2014</b>
<b>Operating System:</b>	<b>Windows 7</b>

## Enhancements

- Changed the highlight color in list boxes and tabs to make it more clear what is selected.

- Enhanced the calibration procedure for the N2820A probe to allow for more accurate measurements.

## Bug Fixes

- Fixed issues with the S-series memory options.
- Fixed an issue where the incorrect amount of available standard memory was incorrect on the S-series.
- Fixed several user interface defects.

## Version 5.02.0009

<b>Released Date:</b>	<b>25 June 2014</b>
<b>Operating System:</b>	<b>Windows 7</b>

## Bug Fixes

- Fixed an issue where there is a dramatic slowdown for all DSA model scopes.
- Fixed an issue where the S-series scopes did not have the right memory depth
- Fixed an issue with the 90000 X-Series where sometimes during a user calibration the oscilloscope application crashes.
- UFS decode now decodes the 1st packet data even if there is no previous packet with the EOM bit set.